

**DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR
AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH
AFRICA**

By

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DECLARATION

I hereby declare that the work submitted here is the result of my own independent investigation. Where help was sought, it was acknowledged. I further declare that this work is submitted for the first time at this university/faculty towards a Philosophiae Doctor degree in Health Professions Education and that it has never been submitted to any other university/faculty for the purpose of obtaining a degree.

EN Nell

Date

I hereby cede copyright of this product in favour of the University of the Free State.

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Date

DEDICATION

This PhD thesis is dedicated to my parents:

My late father, Mr Deon Nico Nell, my late mother Mrs Mary Brenda Nell and Sus.

Thank you for all the support, love, and trust in my potential throughout my life.

"In everything he did he had great success, because the LORD was with him" 1 Samuel

18:14

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LIST OF ACRONYMS

AEA:	Ambulance Emergency care Assistant
APS:	Admission Point Score
BAA:	Basic Ambulance Assistant
BHSEMC:	Bachelor of Health Sciences in Emergency Medical Care
BLS:	Basic Life Support
BTech EMC:	Bachelor of Technology in Emergency Medical Care
CCA:	Critical Care Assistant
CE:	Continuing Education
CHE:	Council on Higher Education
CPD:	Continuous Professional Development
CPUT:	Cape Peninsula University of Technology
CQI:	Continuous Quality Improvement
CUT:	Central University of Technology
DHET:	Department of Higher Education and Training
Dip EMC:	Diploma in Emergency Medical Care
DoE:	Department of Education
DUT:	Durban University of Technology
ECA:	Emergency Care Assistant
ECP:	Emergency Care Practitioner
ECQF:	Emergency Care Qualification Framework
ELO:	Exit Level Outcome
EMC:	Emergency Medical Care
EMPP:	Emergency Medical Preparatory Programme
EMS:	Emergency Medical Services
EQA:	External Quality Assurance
ETQA:	Education and Training Quality Assurance
FSCoEC:	Free State College of Emergency Care
FSDoH:	Free State Department of Health
HCert:	Higher Certificate
HEI:	Higher Education Institution
HEQC:	Higher Education Quality Committee
HEQF:	Higher Education Qualifications Framework
HEQSF:	Higher Education Qualifications Sub-Framework
HPCSA:	Health Professions Council of South Africa

HPE:	Health Professions Education
HSREC:	Health Sciences Research Ethics Committee
ILS:	Intermediate Life Support
INQAAHE:	International Network for Quality Assurance Agencies in Higher Education
IQA:	Internal Quality Assurance
IQMS:	Internal Quality Management System
IQS:	Internal Quality System
NCHE:	National Commission on Higher Education
NDip EMC:	National Diploma in Emergency Medical Care
NDip:	National Diploma
NECET:	National Emergency Care Education and Training
NMU:	Nelson Mandela University of Technology
NSB:	National Standards Bodies
NQF:	National Qualifications Framework
OECCO:	Operational Emergency Care Orderlies
OSCE:	Objective Skills Competency Evaluation
PBEC:	Professional Board of Emergency Care
QA:	Quality Assurance
QCTO:	Quality Council for Trades and Occupations
QM:	Quality Management
QMS:	Quality Management System
SA:	South Africa
SAQA:	South African Qualifications Authority
SGB:	Standards Generating Bodies
SLP:	Short Learning Programme
TVET:	Technical and Vocational Education and Training
UFS:	University of the Free State
UJ:	University of Johannesburg
UMALUSI:	Council for Quality Assurance in General and Further Education and Training
UNESCO:	United Nations Educational, Scientific and Cultural Organization
WSP:	Workplace Skills Plan

DEFINITION OF TERMS

Access: Refers to a student's eligibility for admission to, or enrolment in, a certain educational programme (CHE 2016:10).

Adult: For the purpose of this study, an adult will be defined with two fundamental and critical distinctions: a social context and a psychological context, " ... a person is an adult to the extent that that individual is performing social roles typically assigned by our culture to those it considers to be adult-spouse, parent, responsible citizen, soldier and the like" (Knowles 1980:24).

Mature age: A mature student is a person who begins their studies at university or college a number of years after leaving school, so that they are older than most of the people they are studying with (collinsdictionary.com/dictionary/english/mature-student).

Alternative access programme: A programme which extends or augments an undergraduate diploma or degree programme in higher education and training in South Africa, and that provides alternative access for non-traditional students (CHE 2013:70,73).

Emergency Care Qualification Framework: A framework for education and training of emergency care personnel in South Africa, consist of an entry- level qualification, a mid-level qualification and a professional degree allowing access to further postgraduate qualifications, consisting of the Emergency Medical Care Assistant (ECA), Diploma in Emergency Medical Care and the (BHSEMC) Bachelor of Health Sciences in Emergency Medical Care/ BTech EMC: Bachelor of Technology in Emergency Medical Care (NECET 2017:1).

Emergency care: The evaluation, treatment, and care of an ill or injured person in a situation in which such emergency evaluation, treatment and care is required, and the continuation of treatment and care during the transportation of such person to or between health establishments (NECET 2017:1).

Emergency Medical Services: An organisation or body that is dedicated, staffed, and equipped to operate an ambulance, medical rescue vehicle or medical response vehicle in order to offer emergency care (NECET 2017:1).

Emergency Medical Preparatory Programme: Programme to prepare EMC in-service candidates for the new NQF aligned EMC HE programmes that has been introduced for the upgrade in the qualification of current Emergency Care personnel in South Africa (EMPP short-learning programme approval document 2019:3).

Quality assurance: Refers to the processes of ensuring that specified standards or minimum requirements of quality assurance are met (CHE 2016:10).

Short courses: Short-term learning opportunities given by higher education institutions in addition to their organised undergraduate and postgraduate programmes; they do not, therefore, lead to qualifications on the Higher Education Qualifications Sub-Framework (HEQSF) (CHE 2016:11).

Higher Education: Denotes all programmes of study leading to a degree or certificate that satisfies the standards of the Higher Education Qualification Framework (RSA 1997).

Higher Education Institution: Denotes any institution that offers full-time, part-time, or remote education (RSA 1997).

Guidelines: General recommendations of how to perform a task, or advice on how to proceed in a situation (vocabulary.com/dictionary/guideline).

SUMMARY

Key terms: quality assurance, educational guidelines, preparation programmes, learning outcomes, exit level outcomes, level descriptors, assessment, module, physical preparedness, admission requirements, generic skills and competencies, emergency medical care education

An in-depth investigation was conducted to develop quality assurance and educational guidelines for an Emergency Medical Preparatory Programme in South Africa. With the recent shift from vocational-based training to higher education in paramedic education, a dire need exists to assist in-service Emergency Medical Care personnel with career progression and prepare them for the rigour of higher education, and ultimately be successful with their studies. It is critical for Emergency Medical Care personnel to maintain a high standard of education and training in furthering their paramedic careers. Most, in-service Emergency Medical Care personnel do not meet the admission requirements for higher education. To support the further development of Emergency Medical Care personnel, access to the National Qualifications Framework-aligned formal Emergency Medical Care qualifications is required. Consequently, the Emergency Medical Preparatory Programme was developed to adequately prepare Emergency Medical Care in-service personnel for the rigour of higher education Emergency Medical Care programmes by focusing on Academic Communication and Literacy, Basic Computer Literacy, Life Sciences, Physical Sciences, Mathematics and Numeracy, and Physical Preparedness. This study sought to bridge the gap created by the absence of quality assurance and educational guidelines for curriculum for an Emergency Medical Preparatory Programme in South Africa.

The following research question was thus formulated:

Which quality assurance and educational guidelines can be used to enhance quality in an Emergency Medical Preparatory Programme in South Africa?

The study's overall goal was to conduct an in-depth investigation that could provide quality assurance and educational guidelines for an Emergency Medical Preparatory Programme to enhance quality training of Emergency Medical Care personnel and possibly Emergency Medical Care education and training programmes and short learning programmes. Subsequently, this investigation expanded the limited literature on the Emergency Medical Preparatory Programme and contributed to quality assurance in Emergency Medical Care education in South Africa.

This study aimed to develop quality assurance and educational guidelines for an Emergency Medical Preparatory Programme in South Africa.

A qualitative case study design was used in this study. To achieve the aim of this study, four objectives were pursued by employing a **literature review, document analysis, Delphi survey, and an expert panel discussion**. The literature review provided context to the research problem and justified the research position in the existing body of knowledge. Furthermore, the document analysis of the Emergency Medical Preparatory Programme documentation determined alignment with the guidelines and criteria set out by the literature review and assisted in identifying themes that were, together with the literature review, the basis for the Delphi survey questionnaire. Data were collected employing a Delphi survey with lecturers involved with training at higher education institutions presenting Emergency Medical Care educational programmes. The reason for utilising the Delphi method in this study was to achieve general agreement or convergence of opinion around a particular content statement generated in the literature review and document analysis on the topic of the research study. An expert panel discussion was conducted with heads of departments at higher education institutions presenting Emergency Medical Care educational programmes, an expert involved with quality assurance in higher education, and a Professional Board of Emergency Care member. The expert panel discussion finalised the quality assurance and educational guidelines for an Emergency Medical Preparatory Programme. Moreover, the thorough research approach and methodology ensured credibility, transferability, dependability, and confirmability of the study. The completed research can form the basis for further research undertaking.

A valuable contribution was made to the body of knowledge by providing quality assurance and educational guidelines for an Emergency Medical Preparatory Programme in South Africa. Additionally, the study assisted in increasing the limited literature currently available on Emergency Medical Care-specific preparation programmes and Emergency Medical Care education quality assurance programmes in South Africa. Hopefully, these guidelines can aid the Emergency Medical Preparatory Programme in aligning with Emergency Medical Care education and providing quality education to personnel.

DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

In this research project, an in-depth study was done by the researcher to provide Quality Assurance (QA) and educational guidelines for an Emergency Medical Care Preparatory Programme (EMPP) to enhance quality training of Emergency Medical Care (EMC) personnel and possibly contribute towards QA of EMC education in South Africa (SA).

With the revision of the Higher Education Qualifications Sub-Framework (HEQSF) by the Council on Higher Education (CHE), the Health Professions Council of South Africa (HPCSA), as the governing body of pre-hospital education, suggested the alignment of the new National Emergency Care Education and Training (NECET) policy qualifications with the HEQSF. Consequently, the alignment has implications in terms of entry criteria and learning outcomes. Therefore, an EMPP was specifically designed as a short-learning programme (SLP) to possibly assist EMC personnel who do not meet higher education (HE) admission requirements. At present, there is no formal QA and educational guidelines for the EMPP, as this is the first preparation programme explicitly developed for EMC personnel in 2017/2018 who do not meet HE entry criteria in SA. Additionally, limited literature exists on EMC-specific preparation programmes and pre-hospital education QA programmes to evaluate EMC education in SA.

The objective of Chapter 1 is to provide the background and perspective to this study. Furthermore, the background on QA and educational guidelines for an EMPP will be provided. These are followed by the problem statement, overall goal and aim of the study, the research question, and the study's objectives. The demarcation of the study and the significance and value of the study are also discussed. Furthermore, the research design and methods of investigation will be discussed. The implementation of the findings and arrangement of the report will be followed by an outline of the subsequent chapters, and a summary will conclude the chapter.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

EMC education and training in SA have recently been aligned to conform to the regulations of the South African Qualifications Authority (SAQA) and the National Qualifications Framework (NQF). According to the NECET policy (2017:5), the majority EMC personnel registered with the HPCSA do not have recognised qualifications. Consequently, an obstacle to access HE was created, as many EMC personnel do not meet, HE entry requirements. To support the further development of EMC personnel, access to NQF-aligned formal qualifications are required. Consequently, the EMPP was developed to assist candidates in obtaining access to HE programmes, focusing on Academic Communication and Literacy, Basic Computer Literacy, Life Sciences, Physical Sciences, Mathematics and Numeracy, and Physical Preparedness.

1.2.1 Educational guidelines and criteria for National Qualifications Framework Level 5 programmes, short-learning programmes, and Emergency Medical Care in South African higher education

According to SAQA (2012:8), generic-level descriptors for the NQF Level 5 qualifications, such as the EMPP or Emergency Care Assistant (ECA), are seen as entry-level HE qualifications. These qualifications are mainly vocational, or industry orientated. NQF Level 5 qualifications consist of "basic introductory knowledge, cognitive and conceptual tools, and practical techniques required for further higher education studies in the chosen field of study" (SAQA 2012:8).

In education, the curriculum of a learning programme is understood to be more than syllabus documentation. The term refers to all the teaching and learning opportunities that take place in learning institutions. It therefore includes the purpose and values of learning; the needs and nature of the students; the learning outcomes; the content that will support achieving the outcomes; the activities, methods and media for teaching and learning; how assessment will be done; and how the overall effectiveness of the delivery of the curriculum will be assessed (SAQA 2000:6).

Additionally, the curriculum must be detailed in terms of how information is arranged within a module or subject, how lecturers facilitate or assist students in learning, how students should learn, and how the overall process should be assessed (CHE 2012:13). The significance of this is supported by the Higher Education Quality Committee (HEQC) (CHE

2014:30) that describes curriculum alignment as ensuring that the intention of a programme (or module) is supported by the content selection, learning outcomes, teaching-learning methods, and assessment practices to deliver it.

1.2.2 Higher Education Qualifications Sub-Framework Level 5 programmes

According to SAQA (2012:8), a student pursuing an NQF Level 5 qualification should be able to articulate a thorough understanding of the fundamental areas of one or more fields, disciplines, or practices, as well as possess a knowledgeable understanding of the main terms, concepts, facts, general principles, rules, and theories associated with that field, discipline, or practice. Furthermore, the student should understand “how knowledge, or a knowledge system, develops and evolves within the area of study or operation”.

As defined by the CHE (2012:13), a qualification descriptor stipulates the exit level of the qualification type, its minimum credit rating, and its objective and attributes. Moreover, a qualification type must fulfil the generic competencies identified in the relevant level descriptor. Level descriptors and qualification descriptors are articulated in terms of learning outcomes. Moreover, a programme design makes assumptions about the amount of learning likely needed to attain the envisioned outcomes (CHE 2016:8). Furthermore, level descriptors define the learning outcome at a specific level of the NQF, providing a comprehensive indication of the learning outcomes suitable to qualifications at an NQF Level 5 (SAQA 2012:8-9).

1.2.3 Emergency Medical Care guidelines

In SA, EMC education and training were constructed on a short-course training model. In 1985, a three-tiered training model was implemented in the form of a Basic Ambulance Assistant (BAA) course consisting of three weeks of training, an Ambulance Emergency Assistant (AEA) course, and a Critical Care Assistant (CCA) course (NECET 2017:3). Furthermore, the EMC short courses could not be aligned with the new HEQSF as required by SAQA. Consequently, the short courses could not articulate with the HE qualifications due to the following reasons:

- i. the academic design of EMC short courses not aligning to the NQF;
- ii. the EMC short courses not meeting SAQA requirements; and
- iii. the knowledge gap between non-credit bearing EMC short courses and the HE EMC

programmes increasing (HPCSA 2005:1-2).

Most EMC practitioners have followed the short course route of training. Although the HPCSA accredited these courses, they were never registered with the NQF. Certificates obtained through EMC short courses were not credit-bearing, so they cannot be used to articulate into HE (Stein, Wang & Louw 2012:3).

Between 2004 and 2006, the HPCSA as the Education and Training Quality Assurance (ETQA) and Standards Generating Body (SGB) recognised the need to align EMC education and training with HE. The HPCSA, as a legislative body instituted by the Health Professions Act (No. 56 of 1974) (RSA, 1999), is responsible for upholding the standards of health professions education, upholding reasonable standards of practice, awarding professional status as a requirement to practice, keeping a register of practitioners, establishing standards for acknowledging overseas qualifications, and providing ongoing education for practitioners. The HPCSA's Professional Board (PBEC) thus guides EMC education and training for emergency care regarding "programme design, student recruitment, staff requirements, teaching and learning strategies, student assessment, infrastructure and venues, programme administration services, and programme coordination" (HPCSA: PBEC, 2011).

In conjunction with the PBEC, the Department of Health suggested a three-tier Emergency Care Qualification Framework (ECQF), aligned to the NQF and which conforms to the conditions of the NQF Act of 2008. The ECQF comprises entry-level, mid-level, and professional-level qualifications (NECET 2017:12). In a letter to the University of Johannesburg (UJ) dated July 2017, Mr K.D. Rowe-Rowe, Principal of the Free State College of Emergency Care (FSCoEC), mentioned that according to an analysis conducted regarding the Grade 12 school-leaving achievements of all in-service personnel, the majority did not meet the minimum admission requirements for enrolment in HE programmes. Moreover, personnel who lack a senior certificate or the correct subject combinations felt negative towards HE. Personnel either had the correct subjects but not the correct performance levels or did not have the required subjects.

The NECET policy was developed to assist with the alignment of EMC education and training with current HE legislation, national training needs, and requirements. Furthermore, the objective of the NECET policy is to establish a national framework for EMC education; to provide access to and mobility and progression within EMC education and occupational

paths; to rationalise, enhance, and maintain the quality of EMC education and training programmes; and to rectify the past inequalities of the educational system, thus contributing to the personal development of EMC personnel and the delivery of EMC to the public; and to enable EMC workers to provide valuable and professional patient care (NECET 2017:5). EMC programmes will be discussed in Chapter 2 (cf. 2.2.6).

1.2.4 Short-learning programme guidelines

According to SAQA (2004:15), short-learning programmes are designed to improve or refresh knowledge and skills in a specific field and for personal, social, or professional development. SAQA (2004:15) further mentions that Criteria and Guidelines for Short Courses and Skills Programmes characterises a short-learning programme as “a type of learning programme (<120 credits) through which a student may or may not be awarded credits, depending on the purpose of the programme”. A credit-bearing short-learning programme is a type of short-learning programme for which credits are awarded for the programme’s contribution to a particular programme, unit standard or (part) qualifications. Therefore, a credit-bearing short course comprises less than 120 credits. Furthermore, a non-credit-bearing short-learning programme is a type of short-learning programme for which no credits are given relating to unit standards or (part) qualifications depending on the purpose or assessment of the programme (CHE 2004:44).

1.2.5 Emergency Medical Preparation Programme

The Central University of Technology (CUT) developed the EMPP to assist in-service EMC personnel with access to the NECET qualifications. The duration of the EMPP is seven to eight months, 560 hours and includes the following subjects: Academic Communication and Literacy, Basic Computer Literacy, Life Sciences, Physical Sciences, and Mathematics and Numeracy. Physical Fitness, which includes a learning-to-swim programme, also forms part of the programme (cf. 2.2.6.6).

The EMPP’s overall intent is to create eligible candidates for selection into the Higher Certificate in EMC (H Cert EMC) and the Diploma in EMC (Dip EMC) as they are considered adult students who proved the ability to engage in HE programmes. Using this short programme creates a platform to prepare candidates for the academic rigour associated with tertiary studies, especially in the emergency medical field (EMPP short-learning programme approval document 2019:6).

1.3 QUALITY ASSURANCE GUIDELINES TO ENHANCE THE QUALITY OF PROGRAMMES

As with the concept of quality, the literature suggests that many stakeholders define QA in various ways (Redder 2010:20). Although the numerous definitions of QA incorporate a wide variety of diverse perspectives and meanings, these definitions are all closely related. In education, QA refers to all planned and systematic actions that contribute to preserving and developing educational quality. As such, QA encompasses all actions, processes, standards of behaviour, formal systems, and organisational structures to ensure quality (Redder 2010:27). The CHE (2013:13) defines QA as procedures for establishing compliance with defined criteria or requirements.

1.3.1 Higher education guidelines

The HEQC must work within the parameters of SAQA, a legislative body tasked with the responsibility of supervising the development and implementation of the NQF. Moreover, the NQF is a framework of principles and guidelines for developing a qualifications system that takes all education and training nationally and aligns it into an integrated qualifications system. The functions of the HEQC are to promote QA in Higher Education Institutions (HEIs), audit the institution's quality mechanisms, and accredit programmes at the institution. The audit of the HEI's will focus, and to date have focused, on the "policies, systems, procedures, strategies and resources for quality management of the core functions of teaching and learning, research and community engagement, including all relevant academic support services" (CHE 2004:4). The HEQC's quality system focused on and utilised four QA components: programme accreditation, national reviews, institutional audit, and quality promotion (CHE 2004:1).

SAQA-registered HE EMC qualifications fall under the HEQSF and thus under the Department of Higher Education and Training (DHET). Responsibility for QA in HE in SA has been assigned to the CHE (RSA DoE 1997:10). Furthermore, the HEQC is a permanent subcommittee of the CHE and is responsible for the QA of HE programmes. As an ETQA body, the CHE has the responsibility to uphold the quality of qualifications in HE and are improved by evaluating and observing HEIs' ability to provide qualifications effectively and efficiently. Moreover, the CHE is responsible for evaluating the QA systems and processes and arrangements for assessment and moderation and the responsiveness, relevance, and coherence of their qualifications with specified institutional mandates and missions (CHE 2004:29).

The SAQA Act (No. 58 of 1995) stipulates a mutual opinion of quality in education and training and the implementation of a holistic quality management system (QMS) to enhance the quality of education and training in SA (CHE 2016:13). In the field of QA, the HE Act (No. 101 of 1997) provides for the formation of a statutory body known as the CHE, which has the responsibility of establishing the HEQC, which performs the quality promotion and QA functions for the CHE.

The HE Act further specifies that the CHE and the HEQC need to conform to the policies and criteria articulated by SAQA in terms of the SAQA Act of 1995 (CHE 2016:11). The rationale of audits is strongly associated with producing evidence-based information to be used by the institution for “planning, implementing, and monitoring quality development and improvement”. Moreover, the information will be used by the HEQC to evaluate the efficacy of the Internal Quality Assurance (IQA) systems for teaching and learning, research and service-learning programmes and make recommendations for improvement (CHE 2016:26).

1.3.2 Emergency Medical Care guidelines

The EMC profession is regulated by the PBEC, which includes education in the profession and registration of qualified practitioners. The following statements set out the mandate of the PBEC concerning education:

- a) To control and to exercise authority in respect of all matters affecting the training of persons in, and the manner of the exercise of the practices pursued in connection with, any profession falling within the ambit of the professional board
- b) To encourage liaison in the field of the training both in SA and elsewhere; and
- c) To uphold the standards of such training in SA (RSA DoE 1999:1.13).

Moreover, the PBEC serves as the ETQA for short-course programmes and in conjunction with the HEQC for HE-level registered EMC programmes in SA. Furthermore, the PBEC serves as the SGB for both short-course and HE programmes. Some of the delegations of the PBEC regarding EMC education and training include conditions and standards for EMC education and training programmes as determined by the PBEC; practices associated with education and training; and standards and practices leading to accreditation of education and training providers.

1.3.3 Short-learning programme guidelines

According to SAQA (2004:33), the term "SLP" defines all short-learning programmes, whether credits are awarded or not, and includes skills programmes, credit-bearing short courses, and non-credit-bearing short courses (SAQA 2004:14). A clear distinction is evident between EMC short-course qualifications and SAQA-registered HE EMC qualifications. The following EMC short courses feed into the EMPP, namely BAA, AEA, Operational Emergency Care Orderlies (OECO), and CCA (cf. 2.2.6).

The above-mentioned EMC short courses were phased out. Personnel on the specific registers at the date of closure will retain their registration status and be able to practise under the scope of practice linked to the specific qualification, but no new registrations will be added to the specific register (HPCSA 2019:online).

According to the CHE (2016:7), a needs analysis precedes the design and development of short courses to ensure that each short course's need is clearly defined. A market analysis complements the needs analysis to identify the potential target groups for each short course. Another important characteristic of the design and development of short courses is the degree of flexibility thereof to ensure that the client's needs are met; for example, individual clients may require in-house courses.

Newly developed short courses should be benchmarked against similar ones already on offer at other local or international HEIs. The governance and coordination department of short courses in an institution should ensure that standardised course design templates are developed and that these templates are used consistently across the institution (CHE 2016:8-9).

1.4 PROBLEM STATEMENT AND RESEARCH QUESTION

It is evident from the literature review that there is a paucity of literature on QA and educational guidelines for an EMPP, particularly in the South African context. This research addressed the problem of an absence of formal, scientifically researched QA and relevant educational guidelines for an EMPP in SA. Furthermore, this study attempted to possibly increase the limited literature available on EMPPs and expand the QA guidelines and criteria, specifically for EMC educational programmes in SA. The goal of the EMPP is to provide EMC personnel with a means to further their paramedic careers, and it is vital that high-quality

education and training are maintained. The development of QA and educational guidelines could assist in maintaining the QA of an EMPP. Furthermore, providing facilitators with educational guidelines to assist with the facilitation processes.

To address the problem stated, the following research question was considered:

Which QA and educational guidelines can be used to enhance quality in an EMPP in SA?

1.5 OVERALL GOAL, AIM, AND OBJECTIVES OF THE STUDY

To address the problem, the following aspects of the study are described: aim, overall goal, and objectives of the study.

1.5.1 Overall goal of the study

The overall goal of the study was to conduct an in-depth investigation that could possibly provide QA and educational guidelines for an EMPP to enhance quality training of EMC personnel and possibly EMC education and training programmes and short-learning programmes. Subsequently, this investigation expanded the limited literature on the EMPP and contributed to QA in EMC education in SA.

1.5.2 Aim of the study

The aim of this study was to develop QA and educational guidelines for an EMPP in SA.

1.5.3 Objectives of the study

To achieve the aim of the study and answer the research questions set for the investigation, the following objectives were pursued:

- i. To analyse literature and existing documentation on (i) QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) NQF Level 5 programmes, (b) short-learning programmes, and (c) EMC education and training programmes (**Literature review and document analysis**).
- ii. To analyse EMPP documentation to determine alignment with the guidelines and criteria set out in Objective 1 (**Document analysis**).

- iii. To develop and refine draft QA and educational guidelines for the EMPP (**integrating Objective One and Objective Two; Delphi survey**).
- iv. To finalise the QA and educational guidelines for the EMPP (**Expert panel discussion and input**).

1.6 DEMARCATION OF THE FIELD AND THE SCOPE OF THE STUDY

The findings of this study may be applied in the field of Health Professions Education and lies in the domain of pre-hospital EMC Education with the aim to develop QA and educational guidelines for an EMPP in SA. Moreover, expert opinions assisted in the design and refinement of QA and educational guidelines for an EMPP.

1.7 SIGNIFICANCE AND VALUE OF THE STUDY

Currently, there is no formal QA and educational guidelines for the EMPP, as this preparation programme was explicitly developed for EMC personnel in 2017/2018 that does not meet HE entry criteria in SA. The value of this research study will be to enhance the quality assurance and educational practices of an EMPP. In addition, to provide educational support to EMC lecturers in preparing EMC in-service personnel not meeting the HE admission criteria. Furthermore, limited literature exists on EMC-specific preparation programmes and pre-hospital education QA programmes to evaluate EMC education in SA. The study may provide EMC educational institutions with information on access pathways and possible solutions for EMC in-service personnel to access HE.

The QA and educational guidelines may enhance the QA and educational processes of an EMPP. Moreover, quality assurance and efficient educational processes are necessary if the EMPP is to state with confidence that students who complete the programme are competent to be allowed access to EMC HE programmes and that students who fail need additional preparation. Efficient quality assurance and educational processes will increase the credibility of the EMPP.

There is currently no evidence of studies explicitly conducted on EMC QA and educational guidelines, especially for EMPPs. The value of this research will be the provision of QA and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC-specific preparation programmes

and EMC education QA programmes in SA.

1.8 RESEARCH DESIGN OF THE STUDY AND METHODS OF INVESTIGATION

Generally, researchers must describe their view, philosophical orientation, and beliefs about their studies, often referred to as the paradigm of the study. Researchers also must describe the process of identifying the research problem, data collection, and data analysis logically, often referred to as the research design. The following sections describe the paradigm, design and methodology used in this study.

1.8.1 Design of the study

The research design that was implemented comprised a qualitative case study design using mainly qualitative methodology with some quantitative elements, and the Delphi survey achieved the latter. This study followed a qualitative case study design, which is defined as a strategy of enquiry in which the case takes centre stage, and the researcher explores a programme, event, activity, process, or one or more individuals in depth (Botma *et al.* 2015:191). In this study, a case study design was suitable because a detailed examination of a specific phenomenon, the EMPP QA and educational guidelines, was involved, and multiple sources of evidence with data needed to be triangulated (McMillan & Schumacher 2014:42). The research design will be discussed fully in Chapter 3.

1.8.2 Paradigm

According to Creswell (2018:46), with a constructivist world view, individuals seek to understand the world in which they live and work. This study was based on a constructivist research paradigm as the purpose of the study was to obtain the views and perspectives of the research participants involved with lecturing and managing, HE EMC programmes, to uncover and investigate knowledge on QA and educational guidelines and criteria in higher education (HE) in general, in EMC and the EMPP in particular.

Epistemology entails the elements of knowledge and how this knowledge is justified and affects how researchers uncover knowledge in a social context that is investigated (Kivunja & Kuyini 2017:27; Rashid *et al.* 2019:4). The study assumed a subjective epistemology, as the knowledge gathered from the participants in the research field of EMC education, were obtained by an interactive process between participants and researcher and was

subsequently interpreted through the researcher's engagement with and own understanding of the data (Kivunja & Kuyini, 2017). In addition, a relativist ontology, which according to Guba and Lincoln, (1994), in Rashid, Rashid, Warraich, Sabir and Wasseem (2019:3), excludes the possibility of a "true" construction. My ontology links with the idea that there is no objective world or truth and that everything is uniquely related and socially constructed. The paradigm will be discussed in Chapter 3.

1.8.3 Methods of investigation

The methods used in this research study comprised an extensive literature review, document analysis, Delphi survey, and an expert panel discussion and are briefly discussed in the following sections. The research methods are fully discussed in Chapter 3. A schematic overview of the study is presented in Figure 1.1 on the next page:

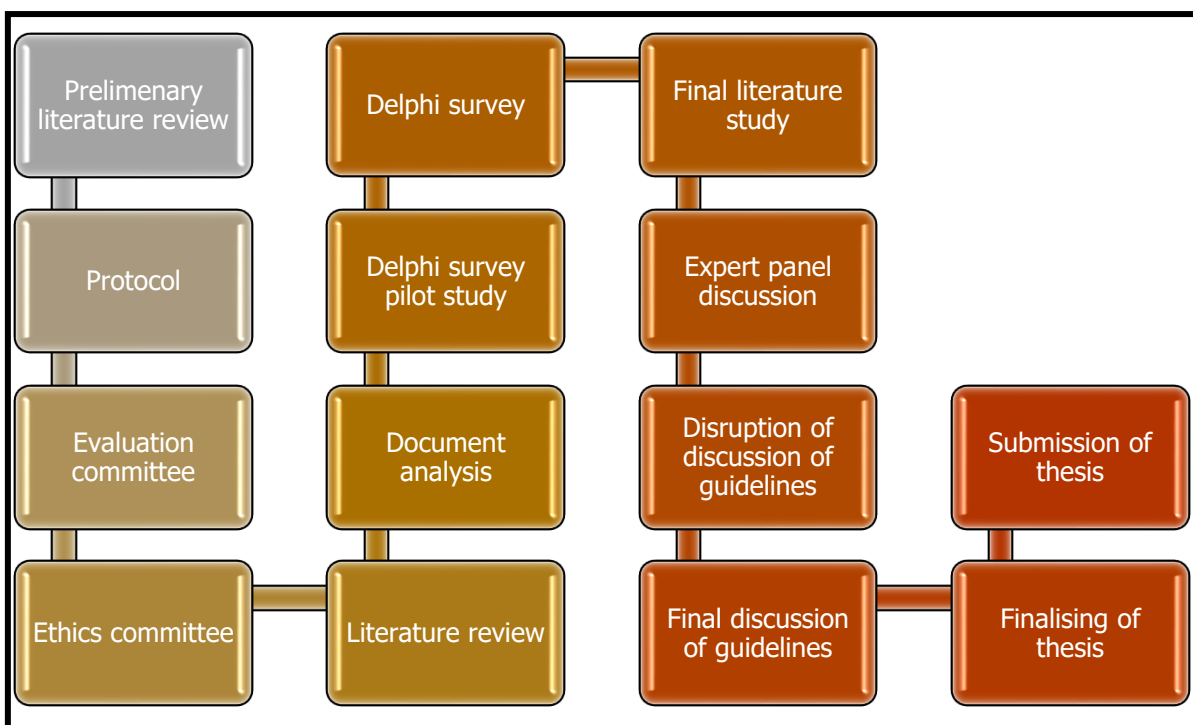


Figure 1.1: Schematic overview of the study

1.8.3.1 Phase 1

In Phase 1 of the study, a literature review and document analysis were conducted to analyse (i) the QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) NQF Level 5 programmes, (b) SLPs, and (c) EMC education and training programmes. Literature was also scrutinised for QA guidelines specific to SLPs and EMC education and training, as governed by a professional body.

1.8.3.2 Phase 2

Phase 2 of the study included the analysis of the EMPP course design regarding level descriptors, exit-level outcomes, notional or unit hours, module or unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme, and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1. Information from this document analysis was used to generate statements for the Delphi survey.

1.8.3.3 Phase 3

Phase 3 involved developing and refining the draft QA and educational guidelines for an EMPP, guided by the integration of Phases 1 and 2's data and refined using a Delphi survey.

The purpose of using the Delphi survey in this study was to achieve consensus from experts and to refine the drafted QA and educational guidelines and criteria for an EMPP in SA.

1.8.3.4 Phase 4

In Phase 4 of the study, the QA and educational guidelines for an EMPP were finalised using inputs from an expert panel discussion.

A thorough description of the survey population, sampling methods, data collection and analysis, and reporting and ethical considerations will be given in Chapter 3.

1.9 IMPLEMENTATION OF THE FINDINGS

The findings of this study will be made public to the Division Health Sciences Education University of the Free State (UFS), the Department of Health Sciences CUT, Free State Department of Health, and other educationists in HE in SA and beyond its borders.

The findings of this research will also be presented through oral, paper, or poster presentations at conferences and seminars and will be submitted for publication through articles in relevant journals.

1.10 ARRANGEMENT OF THE STUDY

This section of the study provides a summary and an outline of the thesis.

Chapter 1, **Orientation to the study**, provides an introduction and background to the study and the problem stated while also specifying the research question. As an overview, the goal, aim, and objectives were stated, and the paradigm, research design and methods employed were briefly discussed. The value of this research is in the provision of QA and educational guidelines for an EMPP and assisting other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study increased the limited literature currently available on EMC-specific preparation programmes and EMC education QA programmes in SA.

Chapter 2, **Quality assurance and education guidelines in Emergency Medical Care education**, provides a review of national and international journal articles, books, and theses. This chapter serves as a theoretical guideline for the study.

Chapter 3, **Research design and methodology**, provides a thorough description of the paradigm, design of the study, and an explanation of the data collection methods, i.e., the document analysis, Delphi survey, and expert panel discussion. The questions answered are: what the purpose of each method was, how the techniques were implemented, who was included in the sample population, and its size.

Chapter 4, **Results and discussion of the findings of the document analysis**, presents the results of the document analysis and discusses and explains the interpretations and findings.

Chapter 5, **Results and discussion of the findings of the Delphi survey**, reports the results of the Delphi survey and presents and explains the interpretations and findings.

Chapter 6, **Results and discussion of the findings of the expert panel discussion**, reports the results of the expert panel discussion and discusses and explains the interpretations and findings.

Chapter 7, **Quality assurance and educational guidelines for an Emergency Medical Preparation Programme**, provides the finalised QA and educational guidelines for an EMPP.

Chapter 8, **Conclusion, recommendations, and limitations of the study**, states the conclusion of the dissertation and makes recommendations for future studies.

1.11 CONCLUSION

This first chapter provided an orientation to the study entitled: Quality assurance and educational guidelines for an Emergency Medical Care Preparation Programme in SA. It briefly addressed the background to the problem, problem statement, and research question. Furthermore, it stated the goal, aim, and objectives of the study. The chapter also introduced the research design and research methods, the value and implementation of the findings. In conclusion, it provided an outline of the thesis and chapters in this study. Chapter 2, entitled **Quality assurance and education guidelines in Emergency Medical Care education**, presents a study and discussion of various literature sources and documents related to QA and education guidelines in Emergency Medical Care education.

CHAPTER 2

QUALITY ASSURANCE AND EDUCATION GUIDELINES IN EMERGENCY MEDICAL CARE EDUCATION

2.1 INTRODUCTION

The transformation of pre-hospital EMC education plays a vital part in the professionalisation of the practitioner and the profession (De Vries 2017:online). Between 2004 and 2006, the Health Professions Council of South Africa (HPCSA) as the Education and Training Quality Assurance (ETQA) and Standards Generating Body (SGB) recognised the need to align EMC education and higher education (HE). The HPCSA, as a statutory body instituted by the Health Professions Act (No. 56 of 1974) (RSA 1999), is responsible for promoting the standards of professional health education, the maintenance of ethical standards of practice, the conferral of professional status as a prerequisite for practice, the maintenance of a practitioner registry, the establishment of standards for the recognition of foreign qualifications, and the provision of continuing education for practitioners. The HPCSA's Professional Board (PBEC) guides EMC education and training concerning programme design, student recruitment, staff requirements, teaching and learning strategies, student assessment, infrastructure and venues, programme administration services, and programme coordination (HPCSA: PBEC, 2011).

In this chapter, literature regarding (i) access to higher education (ii) QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) National Qualifications Framework (NQF) level 5 programmes, (b) EMC education and training programmes and (c) short-learning programmes (SLPs), are discussed. Furthermore, literature was scrutinised for QA guidelines specific to SLPs and EMC education and training governed by a professional body.

This chapter provides the theoretical perspectives of the study. It deals with educational guidelines and criteria for NQF level 5 programmes, SLPs and EMC in SA HE, QA guidelines to enhance the quality of programmes, and QA of SLPs. A study of various literature has been discussed.

2.1.1 Literature review search strategy

A literature search was conducted to determine existing quality assurance and educational guidelines research for EMC preparatory programmes and areas where knowledge may have been lacking. The primary search method used to identify appropriate sources was the Pubmed, Science direct, Ebsco host electronic databases. Terms that were searched included 'preparatory programmes' 'access programmes' 'emergency medical care preparatory programmes' 'emergency medical care access programmes' 'access programmes' 'quality assurance guidelines for emergency medical care preparatory programmes' 'educational guidelines for access programmes' 'paramedic programme quality tools' 'pre-hospital programme quality assurance' 'educational programme quality assurance' 'quality assurance tools' 'paramedic education' 'quality assurance guidelines' 'higher education quality assurance' and 'short-learning programme quality assurance guidelines and criteria' as well as variations of these that included the words 'access' 'preparatory' 'quality assurance' ' guidelines. The terms used were generic to the point where adding terms related to the variables did not produce additional papers and were not outlined here. The titles of identified articles were read to determine appropriateness and, if deemed appropriate, the abstract was accessed and read. If the abstract appeared to have relevance to the research study, the entire article was accessed where possible.

The UFS library online search engine was used to identify sources. The UFS library online search engine uses combined search technology, which allows for simultaneous searching of multiple library sources and databases. These databases include, but were not limited to, the University of the Free State (UFS) Theses and Dissertations, Elsevier e-Library, EBSCO Host, ProQuest, McGraw Hill, SpringerLink, Sage Journals Online, LexisNexis, ScienceDirect, Sabinet, the National Research Foundation and SA Information theses/dissertations. Available articles were then downloaded, read, and categorised according to applicability into the following categories: access, preparatory, assessment, higher education, quality assurance, curriculum and emergency medical care. Where articles were not available via the UFS domain, the University of the Free State librarian was asked to attempt access. Despite this, some sources remained unavailable.

For this enquiry, the inclusion criteria for available sources were that they need to be available in a published book, peer-reviewed journal or conference proceeding and be published in English. There was no limit placed on the publication date of sources. Exclusion criteria included the source not being available in English, the source not being of sufficient

relevance, the full-text version being unavailable, and the source being of questionable nature.

Extended curriculum programmes appeared well-researched and described. However, quality assurance and educational guidelines for emergency medical care preparatory programmes yielded limited information. Article titles were read and classified for relevance. Where relevance was perceived to be high, abstracts were reviewed. Despite the initial hit rate, no South African studies were found that directly explored prehospital emergency medical care preparatory programmes. As far as could be determined, no studies have been conducted specifically on EMPP and EMC education programme QA and educational guidelines in SA. Furthermore, limited literature is currently available concerning the above as far as could be ascertained. Hence, this study's importance will contribute to knowledge in this field.

2.2 ACCESS TO HIGHER EDUCATION

The Education White Paper 3 (RSA DoE 1997:4) states that the identified shortcomings must be addressed by Higher Education Institutions (HEIs) and not by the basic education system to address the problem in the short term. HE should use multi-faceted approaches, such as extended foundation, bridging and introductory programmes, better known under the umbrella term "alternative access programmes" (CHE 2013:35). Systemic changes in HE programmes are required. Therefore, changes must be made to undergraduate programmes' pedagogy, curriculum, and curriculum structures to promote students' academic success (RSA DoE 1997:1.14). Tinto (2008:9) emphasises that without guidance, access is not possible. As a result, institutions that recruit students must develop a plan for assisting students and ensuring their success. However, the effectiveness of alternative access programmes in their current form as used by HEIs has been constrained by their marginal status in the sector, negatively affecting their design, staffing, and influence (Tinto 2008:35).

Sutherland (2009:38), similar to Tinto (2008:9), suggests that HE should develop a generic introductory undergraduate programme based on generic outcomes aligned with SAQA and NQF requirements to address students' lack of competence and skill entering HE studies. The author further mentions that an alternative method to widen students' access to HE is to allow prospective students not meeting the necessary or minimum admission requirements to enter HE mainstream programmes to enrol in alternative access

programmes. Currently, very few in-service EMC personnel in the Free State meet the requirements for admission to HE, for example, the Diploma in EMC (Dip EMC) (Van Eden 2021). The Dip EMC is presented under the University of Johannesburg's (UJ) accreditation at the Free State College of Emergency Care (FSCoEC).

2.2.1 Alternative access to higher education

Alternative access programmes provide more options for people from various backgrounds to obtain entry to and benefit from HE (DHET 2012:1). Slabbert and Friedrich-Nel (2015:46) agree that the purpose of foundation provision is to establish academic pathways for potential students entering HE for the first time. An example of this is the EMPP, one of the Central University of Technology's (CUT) approaches implemented in 2018 to assist EMC personnel not meeting the required HE admission requirements in the Free State.

Initially, the Department of Higher Education focused on promoting access with success for those wanting to pursue HE studies (RSA DoE 1997:14). However, it appeared that an increase in access is not always accompanied by success, as the failure rate of undergraduates increased and is attributed to the under-preparedness of students upon leaving the basic education system (CHE 2013:15). Andrews and Osman (2015:263), report on an intervention programme that develops literacy skills and cognitive strategies. Although the study focussed on the secondary school level, explicit links are drawn to the tertiary context. The authors present empirical evidence of the programme's efficacy among secondary school students and argue for its potential for underprepared university students. Moreover, the authors note the significance of developing higher-order and critical thinking skills, which are crucial for success at university.

McKay, Pitman, Devlin, Trinidad, Harvey and Brett (2018:51) conducted a study in Australia, indicating that equity-group students articulating from access programmes experience some barriers to success, for example, that students may have greater resilience due to the access programme, but still lack preparation and academic support. The same situation exists in SA, where students may gain access but is not adequately prepared for higher education, as seen in a study by Botsis *et al.* (2013) expounding that it is evident that while financial support might provide students access to university programmes, it is insufficient to secure success. Supporting this view, Mcghie and du Preez (2016:2), in their comprehensive action research pilot project, notes that providing academic support alone is not enough for the at-risk student. Moreover, students also

need moral support, encouragement from staff, a personal development plan, and effective planning and time management skills to enable them to cope with the HE workload. Delinking access from success in the logic chain that guides many subsidies and scholarship programmes is, therefore, critically important.

In a study done by Nair (2014:98), qualitative interviews, document analysis and questionnaires were used to question if students who passed grade 12 was well prepared for, HE. Evident from a mock assessment conducted with students who failed and students with university exemption. Both groups scored very low, indicating under-preparedness for HE. The above indicates the need for adequate preparation of students and not only providing an access pathway. This position is also accentuated in the McKenna chapter in Dhunpath and Vithal's collected volume 'Alternative Access to Higher Education' (2014: 51), mentioning that students are better equipped for mainstream academics once they have gained the requisite foundation abilities. Adding a similar position, Walton, Bowman and Osman (2015:263) argue that access programmes should focus on gaining access and providing the candidate with the best opportunity to be successful. The authors mention that epistemological access is currently the dominant or hegemonic theorisation for teaching and learning on foundation programmes. The views of Mackay *et al.* (2018:51), Botsis *et al.* (2013) and Nair (2014:98) appear to be closely linked to a previous view of Morrow (2007:2), who initially stated that the term epistemological access was used to highlight the need for students to gain physical access to university and access to their fields of study.

One of the main motivations in HE to achieve equality for students from previously disadvantaged backgrounds is teaching for epistemological access i.e., access to the ways of doing and thinking at the university in their particular fields, as opposed to simply physical access to enable students to be independent and confident. In research conducted by Shay, Wolff and Clarence's (2016:30), epistemological access is the theoretical underpinning of foundation undergraduate teaching and, by default, foundation teaching and learning.

Conversely, Jackson, Kirkwood, and Padayachee (2008:11) found that underprepared students on these access programmes had not demonstrated performance at levels similar to 'regular' entrants after a year. Hlalele and Alexander (2012) analysed and critiqued contemporary practices and debates concerning inclusion and university access programmes. The authors express reservations regarding university access programmes

that entail 'taking out' students unprepared for postsecondary study and training them in homogenous classes. While this technique may have educational benefits, the authors argue that it undermines diversity, reinforces labelling, and stigmatise students. After obtaining admission to a university, students may be confronted by foundation courses for underprepared university students, extended degree programmes, and financial, social, and psychological assistance, all of which are intended to amend the effects of unfair schooling and socioeconomic hardship. These initiatives have not always been as effective as predicted, and their execution may (inadvertently) perpetuate discrimination and elitism. This view is supported by Lubbe (2017:60), who writes that a significant cause of this under-preparedness is poor schooling, which unfavourable family and socio-economic conditions exacerbate. Even though diversity and inequalities make the articulation gap complex, it does not mean a lack of intellectual capacity, and being underprepared for the traditional forms of higher education does not preclude the potential to be successful (Scott, 2010; Scott & Yeld, 2007).

DHET (2012a:42) explains that students from the basic education, FET and vocational education and training systems who enter HE underprepared are the main reason for high failure and low success rates. Taking the above in mind, access alone will not, in many cases, ensure student success. Various measures, however, have been utilised to assist underprepared students in compensating for the articulation gap. Unfortunately, as seen from the literature, limited evidence is available of the most effective strategy for increasing success rates. An important fact to remember is that some candidates who completed high school more than 20 years ago may find the transition into HE much more difficult. As a result, universities are urged to continue assisting underprepared students in transitioning to a successful university experience.

Employing foundational provision and enrolling students in more extended programmes may be critical in bridging the articulation gap in the medium to long term. However, the many alternative access programmes should satisfy students' educational requirements and other needs, meaning that social, intellectual, and cultural needs should be included in the design of extended programme curricula. Even if the topic is introductory, fundamental provisions should ensure that students' academic expectations are addressed. Current extended curriculum programmes at HEIs are primarily designed to aid university students' academic growth where educational or socioeconomic inequities have hampered past learning.

Alternative access programmes can be presented utilising various models, depending on the institution's preferences (DHET, 2012a:7-11). In contrast to DHET (2012), Pym and Kapp (2013), argues that increasing access to higher education institutions is not without criticism and challenges. Bourdieu (as cited in Pym & Kapp, 2013) was concerned about whether students have the necessary capabilities to succeed at higher education institutions. Bourdieu's concern raised the question of whether higher education institutions can manage challenges that arise from a more diverse and disadvantaged group of students. This view is supported by Tinto (2008:9) emphasises that without guidance, access is not possible. As a result, institutions that recruit students must develop a plan for assisting students and ensuring their success. However, the effectiveness of alternative access programmes in their current form as used by HEIs has been constrained by their marginal status in the sector, negatively affecting their design, staffing, and influence (Tinto 2008:35). In a mixed-methods study through a critical pragmatist lens, done by Naidoo and Matthews (2021:59), it is inferred that educational approaches must be identified to lessen the negative impact of the under-preparedness of students. Essentially, to meet the human resource and knowledge needs of SA, HE needs to increase the number of students and produce graduates with the necessary academic, social and cultural skills and competencies to succeed. Such skills would enable them to contribute to meeting SA's socio-economic challenges (CHE 2013:26).

2.2.2 Alternative access programmes in higher education

In England, widening access is defined as "assisting more people from under-represented groups, particularly low socio-economic groups, to participate successfully in higher education" and is defined as "helping more people from under-represented groups, particularly low socio-economic groups, to participate successfully in higher education" (Thomas 2009:53). Various courses are available in Scotland for students who require non-traditional educational access, and six institutions provide Summer Schools. Summer school is a short period of rigorous university-style study, and students who successfully finish it obtain university admission (Watt & Paterson 2010:109). The summer school approach for expanding access to higher education and ensuring that more students have access have similar attributes as the EMPP, where students attend the course for seven months. The guidelines do not include any academic content or QA guidelines (Summer school guidance 2021:online). Although student guidelines are available for the summer school approach, these only contain information about the programme's aim, benefit of the programme, eligibility, funding of the programme.

In Scotland, similar to SA, widening access mainly attracts students from low-income families (Watt & Paterson 2010:109). According to Mullen (2011:2), the following are some of the significant barriers to higher education in Scotland: barriers that affect young people's initial decisions to enter higher education while in compulsory education, such as the prospective student's parents' occupation, income, and social backgrounds; barriers faced by individuals who may wish to return to higher education at a later stage in life, or who wish to enter higher education via an alternative learning route; where the student resides and the importance to be able to make the transition easily from one learning route to another. As seen above, these barriers also apply to South Africa. The view of Sobuwa and McKenna (2019:14), is similar to that of Watt and Paterson (2010:109), mentioning that students find the transition from primary school to higher education difficult, especially if under-prepared. Furthermore, in their study, it is mentioned that when students are not well prepared for HE and without the necessary knowledge base, the transition is even more complex and may lead to underperformance.

The aim to preserve academic standards on the one hand while broadening access on the other is an issue shared by United Kingdom (UK) higher education institutions and South African higher education institutions. "In making institutions accountable for monitoring and reporting on requirements of non-traditional students...suggestions to reduce attitudinal barriers among students themselves included short induction programmes to demystify HE, student placement schemes, and mentoring..." was one of the recommendations they made to address this concern (Watt & Paterson 2010:113).

The Top-up programme (SCQF 2021:online) aims to mitigate the effects of disadvantages by providing academic preparation. During an evaluation of the Top-up programme's performance, students voiced that the programme offered relevant preparation and facilitated the transfer from high school to higher education. The Top-up program is presented by post-graduate tutors who work with a maximum of 15 students (SCQF 2021:online). This curriculum aims to instil qualities in students, including critical thinking, deep and active learning, conceptual thinking, and a well-developed writing style. All these abilities are needed for success in higher education. A research study on the Top-up program, which focuses on preparing skills and attitudes that are relevant and vital to a student's higher education experiences, indicated that the programme could assist in counteracting educational underachievement and student non-completion (SCQF 2021:online). Although this programme has many good attributes, it is not explicitly targeting adult students. The required structure for the South African context, however, is

found in the Top-up initiative (Top-up programme 2021:online). Again, as in the case of the Summer school project, no clear QA and academic guidelines could be found. Like the Summer school project, the Top up programme guidelines are concerned with the reason for the programme, eligibility and how to apply. QA and academic guidelines are not available for the Top-up programme

The Ghana's University of Cape Coast uses distance education to increase access to high-quality higher education. Conversely, Sobuwa and Christopher (2019:4) mention that in SA, currently, there is no distance or part-time options available for EMC personnel in rural areas. Although distance education provides an alternative way for students to engage in higher education if they cannot attend physical classrooms, the context of broadening access and redressing previous disparities, delivering a degree through e-learning alone is insufficient (Koomson 2014:1). This view is supported by Baticulun, Sy, Alberto, Baron, Mabulay, Rizada, Tiu, Clarion and Reyes (2021), in a nationwide cross-sectional study among medical students in the Philippines, where out of students, only 41% indicated that they are capable of adapting to online learning. Interestingly, the study showed that negative responses were more common among those reporting a lower academic standing. However, a limiting factor in this study may be that the mean age of the participants were 23.8 +/- 2.4, we cannot disregard the effect that a blended learning platform will have on the older adult student not being involved with HE for a certain period and then engage HE studies. This view is supported by Thompson & Porto (2014), arguing that adult students' self-efficacy with computers and the internet is critical for successful online learning processes, a view shared by Johnson, Morwane, Dada, Pretorius, & Lotriet (2018). Similarly, Appana (2008) mentions that a poor perceived level of ability in these areas and older adult learners may encounter difficulties during this process, which may result in dropout (Appana, 2008). Additionally, adults assume several roles such as husband, parent, colleague, and student, which entails additional duties and effort (Kara, Erdogdu, Kokoc and Cagniltay 2019:6-7). The distance education programme at Cape Coast University, Ghana, do not have specific QA and educational guidelines.

The need to adjust to learning style compounded by having to perform responsibilities at home and the lack of proper communication from facilitators are experienced as barriers to adapt. Importantly to note, as discovered by Baticulun *et al.* (2021:623), several important factors related to institutional barriers influencing the success of distance education, namely, administrative issues and lack of organisation, poor communication between students and facilitators, the lack of skills of the facilitators, poor quality learning

materials, knowledge gap regarding current teaching methods, excessive cognitive load, limited opportunities to interact with peers and policies and practices that neglect student welfare. SA needs a mode of teaching and learning that will progressively introduce students to all the changes and blend the more traditional with the technological modes of teaching and learning. Although a blended learning scenario could be beneficial, students should be enabled to manage the digital platform. Furthermore, issues such as access to digital devices, such as smartphones, tablets, and computers, should also be considered, as seen in a study done by, Mahembe (2021:14), mentioning that despite the pervasive nature of technology in today's world, access to devices is still a major limiting factor for most students. The before mentioned may hamper the students' ability to learn in a blended environment. Therefore, it is imperative to ensure that students understand the technology and are sufficiently upskilled concerning digital literacy to benefit from e-learning and blended learning.

In Australia, 17 universities offer paramedic entry-to-practice degrees and graduate diplomas (for nurses wishing to enter paramedicine). These courses are extremely popular, with approximately 7,000 students currently enrolled (O`Meara 2021). The academic scores to enter these programmes is often very high, with some approaching medical degree levels and much higher than most nursing courses. The New South Wales Ambulance Service continues to run an in-house vocational Diploma course, which according to (O`Meara 2021), is likely to be phased out over the next couple of years. O`Meara (2021) further mentions that the success rate in attracting high-performing students causes a problem for agencies looking to recruit a diverse range of personnel who reflect the populations they serve, as is mainly the case when examining indigenous and migrant communities in Australia (O`Meara 2021).

The strategies for access in Australia are two-pronged: firstly, many universities have access programmes for students who do not meet the standard entry requirements; secondly, some ambulance services are working with universities to target adult and disadvantaged students through customised programmes (O`Meara 2021). One example of an access programme is at the La Trobe University, offering a Diploma in Health as a pathway into a wide range of health science courses such as paramedicine. O`Meara (2021) further mentions that the paramedicine course had several adult students graduating through this programme. It is a one-year full-time or two-year part-time course that combines academic skills development, basic health sciences, and social sciences. Its distinguishing characteristics are small class sizes and intensive individual support. On completion,

students transition into the mainstream degrees and carry forward credits into year 2 of their selected degrees. As noted by O`Meara (2021), about 50% of these 'high-risk' students graduate. In some cases, admission is guaranteed (nursing and health science), while there is a competitive quota system in other cases like paramedicine. In some cases, these types of programmes are combined with scholarships. As mentioned by Campbell (2021), most of the foundational subjects are included in EMC programmes.

The Victoria University in Melbourne offers another approach, whereby a proportion of the entry cohort is reserved for non-traditional applicants. Admission to this programme, candidates need to undertake a literacy and numeracy assessment to determine suitability for admission. Students wanting to access these programmes will need a minimum score of 5.5 on an IETLS course. Another approach whereby employers and universities promote access and support for targeted groups is a best-known indigenous programme run by the Queensland Ambulance Service, a partnership with Central Queensland University (O`Meara 2021). The Indigenous Paramedic Programmes (IPP) provides a structured and supportive educational pathway with the added benefits of full-time employment within the pre-hospital emergency response sector. The IPP offers on-the-job expert mentoring and additional learning support. Moreover, the IPP education pathway accommodates learning needs and capabilities and provides a stepped programme with accreditation milestones. The IPP applicant information kit (2018) does not provide any QA or academic guidelines. The kit provides information on how to obtain employment and includes information about the programme.

Programmes with the same aim as the IPP presented by the Queensland ambulance service are also offered in New South Wales and Victoria. In the case of Victoria, this involves some paid work outside of university study times. As mentioned by O`Meara (2021), the Northern Territory is in the process of setting up a programme as a partnership between St John NT and Charles Darwin University that is likely to make a connection between vocational training as an ambulance attendant and a degree programme that is being specifically designed to address their population needs (50% plus Indigenous population). Another programme type is designed to recruit and retain registered paramedics in rural and remote areas and encourages volunteer ambulance attendants to upgrade their vocational certificate qualifications into degree qualifications that will enable them to become registered paramedics. With the before mentioned, the hope is that these personnel will work in their local communities. Flinders University offers this programme in conjunction with the South Australian Ambulance Service and Ambulance Victoria. In a study by Ivanov

and Cameron (2011:2), it is mentioned that Ambulance Victoria is now making use of a pre-employment degree programme. The programme is making use of a blended learning approach to elucidate travelling issues. The entry requirements for this programme are a minimum of a certificate in emergency medical service first response.

Moreover, candidates can use opportunities such as RPL to obtain access to the next level 2 certificate. As shown in Figure 2.1, this approach is similar to the processes used in SA and seen in Table. In stark contrast in SA, the majority of in-service personnel do not have the correct subject combination and an incorrect APS. Compounded by the fact that mostly, as in the FSDOH EMS, the age group of staff is between 30 and 60 years of age (Van Eden 2021). Specific QA and educational guidelines for the programme by Flinders university are not available.

A university foundation programme is offered in nations such as Qatar. Interestingly, according to a study conducted by Al-Hendawi, Manasreh, Scotland, and Rogers (2018:129), concerns about equity, inclusion, and participation in higher education are comparable to those in SA. The authors mention that one alternative available to students interested in pursuing higher education is Education City, a development in Qatar that includes branches of foreign institutions. Some local stakeholders voiced their concerns about the university's entry requirements and the Foundation Programme's structure and rules. For example, students admitted to the Foundation Programme were expected to complete all the programme's courses within four semesters (i.e., two years), or to exit the programme, a student needed to meet the proficiency requirements (e.g., IELTS 5.5 overall score or equivalent) for admission to their chosen undergraduate programme at the university. In other words, even if a student met departmental admission requirements, they were still obliged to complete the mandatory foundation English courses. Students who did not achieve a good IELTS score within two years of enrolling in the institution were obliged to withdraw. As may be deduced, both the IELTS requirement and the Foundation Program became perceived as barriers to departmental enrolment over time. Similar to the SA context, the language barrier is due to students required to use English as a medium of education, and as seen in SA English for most students are a 2nd language. In my opinion, and as seen in the revision of the Foundation programme, more focus should be placed on upskilling the basic English proficiency of the students. In contrast to the Foundation programme at the Education City, mostly the facilitation language in SA at HEI`s are English.

In 2012 a revision shortened the programme from a two-year to a one-year programme. Additionally, the IELTS exam was eliminated as a prerequisite for students enrolling in English-stream undergraduate programmes. In other words, regulations formerly presented as obstacles to admission have been eliminated to make the university more accessible. Additionally, I recognised that alternative pathways for students to enrol in undergraduate courses at Qatar University were required. At the moment, students can enter undergraduate programmes taught in English via one of two routes: an English proficiency exam or successful completion of the Foundation Programme. Students enrolled in an English-stream major must confirm their English competence. Individuals who fulfil the admission standards of their selected college (i.e., an IELTS score of 5.5 or higher) are admitted straight to their chosen study programmes. Those who do not meet the required level or cannot demonstrate their English proficiency are required to take a standardised placement exam upon enrolment. The results of this test are then used to place students in the appropriate level of the Foundation Programme or, if their scores are sufficiently high, to exclude them entirely from Foundation courses. Alternatively, students may begin their undergraduate education by completing the Foundation Programme in its entirety (Al-Hendawi, Manasreh, Scotland & Rogers 2018:130).

Mainly in the EMC educational environment in Qatar, EMC staff that are employed already have an EMC qualification. Moreover, the Canadian College requirements are used for first-time candidates wanting to pursue an EMC programme (Steyn 2021). In contrast to the current situation in EMC in SA, and as seen in a study by Sobuwa and Christopher (2019:4), many EMC personnel do not meet the HE admission criteria. The view of Sobuwa and Christopher is also evident in the Free State, as seen in the FSCoEC report (2021), indicating that out of 878 personnel only 261 meet HE admission criteria.

According to Williamson (2021), a similar situation experienced in SA is seen at Kingston University in London, where students access HE without the proper science and biology modules. Furthermore, these candidates tend to come from in-service students. Similarly, as in the SA situation, these candidates are qualified BAA or ILS equivalent and are chosen by the London Ambulance service trust to HE. In the same vein, Sobuwa and Christopher (2019:4), in their study of the past, present, and future of EMC education in SA, mention that a significant challenge is the migration of existing EMC personnel without the necessary HE admission criteria, for example not having the necessary school leaving subjects or grades.

Furthermore, at the Kingston University of London and the St. Georges University of London, the in-service candidates struggle with academic writing and integration in HE as they are usually older and don't necessarily have the foundation levels we require (Williamson 2021). An attempt to remedy the situation by providing first-year modules plus some additional content to those students selected by the trust before they arrive at the university, however, is not always successful. Williamson (2021) further mentions that the London Ambulance Service trust NHC, selection process remains the barrier for students already in active work, as they will have to be selected and be at the appropriate academic level. According to the London Ambulance Service Trust NHC (2021:online), candidates need to apply directly to one of their universities partners and should meet the admission criteria of the university they are applying at (Williamson 2021), mentions that the university can only support those students already accepted and by then it might be too late for those students to do a lot of real preparatory work. In addition, the RPL process was tightened up to not award students blanket RPL because of their previous professional qualification but to look at each student individually (Williamson 2021). This view is supported by Mothokoa and Maritz (2018:2), who writes that adults enter education events with a large quantity of experience that varies from individual to individual. It is also important to note that adult learning is unique, and that each individual learns at their own pace and in their way. RPL should be an individual application, taking the individual needs of the candidate into account. Specific QA and educational guidelines for the Kingston University of London programme are also not available.

Employing foundational provisions and enrolling students in extended programmes could assist in addressing the articulation gap in the medium to long term. However, the various alternative access programmes should address the educational needs of students and their other needs, as mentioned previously. This implies that social, intellectual, and cultural needs should also be considered in alternative access programmes (DHET 2012:7).

Given all that has been mentioned so far, one may suppose that limited and, in some cases, no specific QA and educational guidelines exist for EMC preparatory or alternative access programmes. The reality is recognised that first world countries, such as Qatar, UK may not in a certain sense experience the unique situation as experienced in African countries and specifically SA, dealing with the effects of previous unfair schooling practices and socio-economic factors. This view is supported by Sawe, Akomeah, Mfinanga, Runyon and Noste (2019:2), in a cross-sectional survey conducted in 12 different African countries, mentioning that midlevel training in emergency medicine is provided to general practitioners, nurses

and paramedics, but emphasised that little data are available on the sustainability and impact of these training programmes.

2.2.2.1 *Extended curriculum programmes and foundational programmes*

ECP is a transitional programme designed to assist students in their transition to HE; as such, the programme has 'credit-bearing status with the university (Ogude, Meyer, Mwambakana & Mthethwa 2019; DHET 2012:75). Department of Higher Education (DHET) requires that these programmes be approved by the DHET, accredited by the Council on Higher Education (CHE), and registered with SAQA (DHET 2012:75). After completing the ECP, students are enrolled in their desired degree programme. By their very nature, extended curriculum programmes aim to bridge students' access to university-level programmes by including an additional year of study. Additionally, Ogude *et al.* (2019) argued that additional types of programmes exist, such as augmented and foundation programmes, university-access programmes designed to transition students into HE. Foundation programmes are one-year non-credit programmes that include modules that differ from standard academic modules, whereas augmented programmes are modified academic programmes that allow students to complete them sooner than standard programmes (Rollnick, 2010, Ogude *et al.* 2019). Regardless of the name, each ECP is an "access programme" to the university that also aims for "academic development" toward inclusive education in SA (Hlalele & Alexander 2012).

In the extended programme, foundation provision serves as additional content and coursework for the curriculum of the formal programme. Thus, the duration of the three-year diploma or degree, or four-year degree, is extended by an additional year. The extended year consists of 60-120 credits added to the formal mainstream programme credits. Extended programmes are official certifications in higher education (degrees and certificates). These programmes must be authorised by the Department of Higher Education, accredited by the CHE, and registered with the South African Qualifications Authority (SAQA), according to DHET (2012a:10) (DHET 2012b:75).

In extended programmes, substantial foundational provision is incorporated via different models introduced by DHET (DHET 2012b:11). The components of the foundational provision form part of extended curriculum models in higher education (CHE 2013:39, 70-89). The four models commonly implemented at HEIs are:

<ul style="list-style-type: none"> • Model 1: Fully foundational: the first year consists of foundation modules only (DHET, 2012a:8);
<ul style="list-style-type: none"> • Model 2: Extended course: a combination of foundation and mainstream modules (DHET, 2012a:8-9);
<ul style="list-style-type: none"> • Model 3 "Longer first year": The regular first year is taken over two years with foundation provision integrated into the formal programme (DHET, 2012a:9); and
<ul style="list-style-type: none"> • Model 4: Augmenting courses: this model is similar to Models 2 and 3, where the content of the regular first year is taken over two years, but it has a combination of augmenting and regular courses (DHET, 2012a:9-10).

ECPs are currently offered at most universities in SA. These programmes are intended primarily for students who meet the requirements for entrance but need some academic support to ensure success. The Stellenbosch university offered the Hope@Maties programmes from 2012 until 2016. The Hope@Maties programme was replaced with the National Talent Development Programme (SUN 2021:online). The Talent Development Programme (TDP) is a component of the Science Engagement portfolio of the Department of Science and Innovations. The programme was founded in 2005 to increase youth access to science by identifying and nurturing students with potential and talent. The program is designed to assist school-aged youth in improving their grades by encouraging them to pursue gateway subjects such as Mathematics and Physical Science, participate in extracurricular mathematics and science activities, and ultimately pursue science-related studies and careers. Additionally, the TDP aims to develop a cohort of high school graduates prepared for life in higher education and guide careers in Science, Technology, Engineering, and Mathematics (STEM). The TDP has completed two phases of implementation (2005 to 2009 and 2011 to 2016). It is currently in Phase III, which began in 2017 and will conclude in 2022. This report summarises Phase 3 findings, emphasising the 2020 cohort of TDP students (Arends & Reddy 2021:1). The TDP`s main aim is to develop students' talent and assist them with access to HE. It should be noted that this type of programme would not necessarily address the EMC in-service adults need with regard to access and success in HE.

At the DUT, the focus is on overcoming barriers which could be psycho-social, academic or cultural. The DUT uses the standardised Assessment Test for Access and Placement (SATAP) to identify possible students. The SATAP are divided into four tests; Language, Mathematics, Numeracy and Science (DUT 2021:online). Interestingly, the DUT is also busy developing National Benchmark Tests (NBTs), a HESA initiative managed by the University

of Cape Town (UCT). There are two tests available under the NBTs; an Academic Literacy Test that includes quantitative literacy and a Mathematics Test.

The UFS present the University Preparation Programme (UPP). Masemola (2010) highlighted the lack of structured career guidance impacting preparing students for success while at school that is constantly being questioned by the Higher Education sector, the public, politicians and prospective students. The UPP admits students with an Admission Point (AP) score lower than needed for the required admission to a university. The admission requirements include four subjects with a minimum achievement level of 3 (40%-49%). These students are then given access to go through the programme for one academic year. The programme uses resource-based learning, including small group facilitation elements and materials designed to engage students. In addition, those students take developmental modules including academic literacy and lifelong learning skills. They invest in shared responsibilities to better equip the student during that academic year. With the intentional engaging approach, the "fundamental" mental modules remain the core focus in small group facilitation.

In the case of EMC in-service personnel, the UPP type approach could add significant value. However, many EMC in-service personnel do not have the necessary subject combination. In addition, most staff do not have mathematics, chemistry, physics and life sciences as these subjects are needed for EMC, HE. As ECP's focus is on students, with the correct subject combination for a specific mainstream programme, some students might be excluded as they do not meet this requirement. These programmes all have one goal in mind: to assist under-prepared students in their first year of study. Moreover, these programmes also have in common that they do not cater to the adult student not meeting the minimum admission criteria, such as not having the correct subject combination.

A similar course is presented at the CPUT, where extensive teaching is provided for the mainstream subjects. The programme focuses on assisting socially and educationally disadvantaged students in their first year of study. Similarly, to the programme at the UFS, students need to meet the minimum admission criteria for mainstream programmes. Students from this group are then selected according to their NSC grades in keystone subjects, interviews, portfolios, and other academic ability tests (CPUT 2021:online). The Extended Curriculum Programme currently used in the Faculty of Health Sciences at CUT comprises five Extended Curriculum Programme instructional offerings, namely "Biomedical

Technology, Clinical Technology, Environmental Health, Radiography and Somatology” (Slabbert & Friedrich-Nel 2015:48).

Slabbert and Friedrich-Nel (2015:46) agree that the purpose of foundation provision is to establish academic pathways for potential students entering HE for the first time. An example of this is the EMPP, one of the Central University of Technology’s (CUT) approaches implemented in 2018 to assist EMC personnel not meeting the required HE admission requirements in the Free State (Slabbert & Friedrich-Nel 2016). The EMC ECP was presented at the CUT, but due to students not meeting the admission requirements mentioned above, the EMPP was developed to assist these students specifically. Also evident from the FSCoEC report is the fact that primarily, EMC personnel in the Free State do not meet the minimum admission criteria for HE (Rowe-Rowe 2017).

2.2.2.2 *Recognition of prior learning for access*

Phipps, Prieto and Ndinguri (2013:13) acknowledged that ability, age, and self-efficacy are all factors that contribute to an individual’s perception of how easy or difficult learning would be for them, thus affecting their learning intentions. Brod, Werkle-Bergner and Shing (2013:10) warn that the availability of knowledge on the one hand and control processes allowing access to this knowledge on the other follow significantly different lifetime courses. Therefore, one might ‘know’ the subject content but may have difficulty accessing the information or may need more time or prompts to access the information.

RPL for access is used to describe circumstances in which individuals do not meet the admission requirements for HE or the admission requirements for a particular educational programme (SAQA 2018). Some individuals are deemed to have acquired skills and knowledge through life or work experiences. However, they lack certificates for their skills and knowledge. RPL provides an alternative pathway for such individuals to engage in a learning programme and demonstrate their aptitude in these instances. Individuals must apply to have their acquired knowledge and abilities recognised and assessed against the admission requirements for the qualification.

Access to high-quality educational opportunities is a priority for all South Africans, including the unemployed (SAQA 2018). Roy and Marsafawy (2021:9) conducted a descriptive study using data obtained via online questionnaires of academics, industry professionals, and members of the community. The authors state that RPL is a technique of assisting

candidates in gaining entrance to higher education. Anderson, Fejes, and Sandberg (2016) concur, stating that RPL should serve as a support system for persons seeking to discover prior knowledge and skills acquired through informal or non-formal schooling. Lima and Guimaraes (2016:29) agree that the ultimate goal of RPL is to recognise experiential learning in informal and non-formal settings while also acquiring knowledge and skills reflective of constructivist learning and enabling people without traditional formal qualifications to access higher education or vocational training. O'Flaherty and Liddy (2017:1031) make a significant contribution to the RPL process by stating that it explores opportunities for professional development and career advancement and enables non – traditional student, such as adult workers and community members, to enjoy the benefits of learning. However, effective application of the RPL process requires a supportive environment, particularly in terms of institutional policies and procedures that promote the broader population's learning experience.

In a study by Cermack (2016:91), an RPL policy was implemented in 2012 in the Western Cape. In this qualitative study, the author mentions that the poor preparedness of RPL candidates could be deepened by a lack of informal training in academic skills and interestingly reported that older students find learning very challenging. Based on the current policy (SAQA 2019:8), RPL can be utilised in SA in two ways: i) RPL for access: to provide an alternative access route into a higher education qualification for those who do not meet the formal entry requirements for admission. Ii) RPL for credits: to provide for the awarding of credits for, or towards, a qualification or part-qualification registered on the NQF.

Even though these options are available, as seen in the literature, many challenges are noted with the RPL process. In a qualitative exploratory study conducted by Mothokoa and Maritz (2018:7), it is evident that issues relating to underprepared students or students being unaware of the requirements of programmes are not unique in the South African context. This sentiment is echoed in research findings worldwide (Glessner 2015:33; Wilson & Lowry 2016:268). In a study conducted by Cantwell and Scevak (2004:143), RPL candidates perceived the theoretical structure of their courses to be much simpler because of their acquired work experience. The authors, however, raised a concern regarding the students' perception and underestimation of the course content and the relationship between this belief and less functional learning dispositions and poorer academic outcomes.

Cermack (2016:113) further mention that due to the lack of “social capital” presented by some of the EMC short course personnel, and the findings of his study, suggest that if these candidates cannot be provided with adequate writing skills, academic and English literacy, that assessors should instead use other forms of assessment such as interviews. Only using interviews may provide a false sense of academic preparedness and set the candidate up for failure. As Van Rooy (2002:80) argued in Cermak (2016), English proficiency is a significant barrier to higher education access. As previously discussed, these students must be sufficiently prepared with writing skills, academic and English literacy, as this could hinder their success in the 1st year of study. The author further states that by using interviews, lesser literacy skills are needed and that this process is less intimidating to the candidate. RPL, in the case of EMC personnel, should have access as a focal point, but processes should also be in place to assist the candidate to be successful in HE studies.

2.2.2.3 *Emergency medical care programmes in South Africa*

Although no formal guidelines are available for the preparation of EMC SA, some provincial EMC colleges use a Continuous Education Programme (CEP) combined with the RPL process to assist in-service personnel with access to HE programmes (Moodley 2021; cf. 2.2.2). In the Western Cape candidates apply for RPL to gain access to HE programmes. In the Northern Cape (NC), a similar approach to the EMPP at the CUT is used where the CUT EMPP was redesigned (Van Tonder 2021). Details of the NC programme was not available with the approval of this study. The programme at the NC commenced in 2020.

According to Human (2021), the Department of Basic education and training (DBET) could assist in providing a solution for upskilling EMC in with regard to NQF level 4 subjects. Again, as mentioned previously, a clear distinction between access and success is vital. As shown in Figure 2.1, four possible pathways are available to access EMC HE (Human 2021). As part of Pathway 3 and 4, the NSC amended may assist some candidates to amend senior certificate results. The NSC amended is a year programme (Education 2021:online). A Senior Certificate will be achieved by an adult candidate who satisfies the following requirements in these examinations:

1. Pass three subjects at 40%, one of which must be an official language at the Home Language level.
2. Pass two subjects at 30%, one of which must be an official language at the First Additional or Home Language level.

3. Obtain a subminimum of 20% in the sixth subject

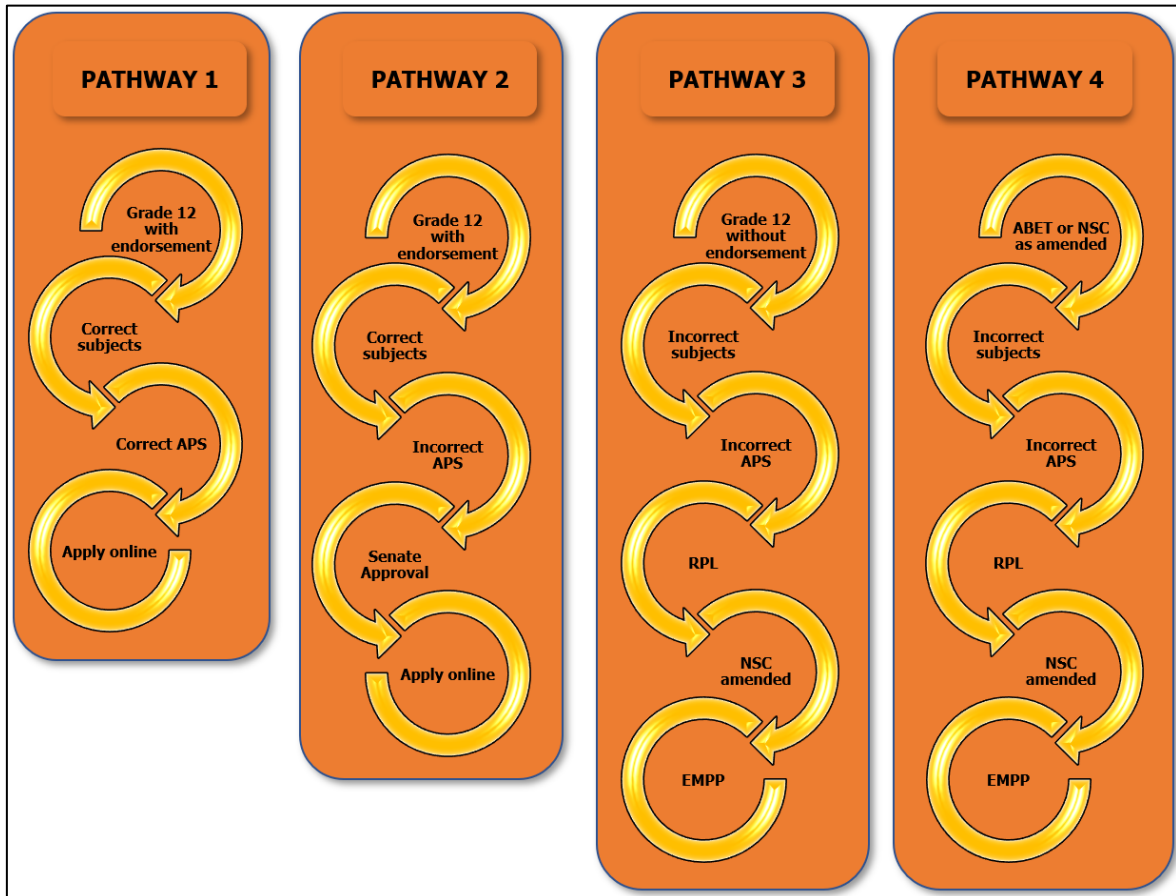


Figure 2.1: Possible higher education pathways (Adapted by the researcher, Human 2021)

From the literature discussed above, there is a lack of formal educational guidelines directed especially at EMC education and preparatory programmes is lacking nationally and internationally, hence the value of this study.

2.3 CURRICULUM

There is no singular, accepted definition for a curriculum. According to Botha (2009:159), the curriculum is a complicated, multi-faceted concept and can only be considered within a specific context. This context may be a single module, a programme, an institution or a post-school curriculum. Ross (2005:8) maintains that curricula may contain prescribed activities that have been created and accepted by the people in a society, selected from the culture of that society, that result in the transformation of individuals. Jansen (2009) recaps this opinion when he maintains that the curriculum does not merely comprise the course content for a particular qualification, but also an understanding of the knowledge “encoded in the dominant beliefs, values and behaviours that are deeply embedded in institutional

life" (Jansen 2009:126).

The curriculum is a structure that specifies what is taught, who is taught, who teaches, how it is taught, and how learning is measured. As a result, the curriculum is politically, socially, and culturally created (CHE 2021:18). Moreover, curriculum design is when a new curriculum is created or a current curriculum is revised following an evaluation phase (Carl 2017:41). A further definition is given by Pillai (2011:2), who mentions that curriculum design can be viewed as an inclusive plan for an educational programme, providing a new outlook to fulfil the changing needs of a dynamic global society. SAQA provides an extensive interpretation of the term 'curriculum', describing it as being more than "just a syllabus refers to learning and teaching opportunities taking place in learning institutions", including:

- a) the values and rationale of learning;
- b) learning outcomes;
- c) methods, activities, content, and media;
- d) learning and teaching strategies;
- e) methods of assessment; and
- f) evaluations of delivery, moderation (SAQA 2014:online).

A summary of the above interpretation of curriculum deals with the following aspects:

- a) Developing of learning programmes; and
- b) Delivery of and including of assessments; and
- c) Focusing on the QA and delivery of the assessment process.

Additionally, a curriculum includes the following aspects:

- a) Information, such as the subjects, topics, and resources covered during a learning programme;
- b) How knowledge, abilities, values, and practices are constructed;
- c) Teaching practices; and
- d) Assessment practices (CHE 2021:21).

According to Du Toit (2011:59) and Latucca and Stark (2009:2-3), a shared understanding of what the concept 'curriculum' entails is elusive. Academics at post-school institutions see, understand and implement curricula in different ways. Du Toit (2011:59) affirms that

despite the vast number of views on what the concept of the curriculum involves, there is little difference between the various definitions. However, Latucca and Stark (2009:3) believe that it is essential to use a common framework or understanding of the term to ensure a meaningful exchange of ideas among staff members when discussing the aspects of curricula.

Posner (2004:6-12) recognises the problems involved in providing a clear and precise definition for a curriculum but mentions seven meaningful aspects of a curriculum. The concept of 'curriculum' in this author's view can be explained as the:

- Scope and arrangement of intended outcomes, indicating the purpose of education, and managing instruction and assessment.
- Syllabus, that is, the plan for a course, including the purpose and way it is to be done.
- Content summary, namely that which is applicable in a context where the purpose of teaching and learning is to support the construction of knowledge based on information.
- Standards, which refer to the expected learning outcomes, and methods towards attaining learning outcomes at the expected levels.
- Textbooks and diverse materials guide the purpose and the methods used to achieve it.
- The sequence of study, that is, the courses (modules) that the students must complete.
- Planned learning experiences are the activities that students have to do or go through, both within the curriculum and extra-curricular.

Scott (2008:19), in concurrence with other curriculum experts, points out four aspects of a curriculum, namely the aims or objectives, content or subject matter, methods and procedures, and evaluation and assessment. The before mentioned indicates that a curriculum should be a clear and comprehensive explanation of the '(race) course' the student must complete successfully. Latucca and Stark (2009:4-5) support this opinion. They believe that the curriculum must be viewed as an academic plan or blueprint, weighing or considering the significant elements required to guide the students through their studies, rather than merely attending to only elements such as specific content or teaching strategies. In their view, the following elements should be considered:

- *Purposes:* the knowledge, skills, and attitudes to be mastered.
- *Content:* the discipline-specific and generic matter chosen to convey the knowledge, skills, and attitudes.

- *Sequence*: the arrangement of the subject matter and experiences that must guide students in achieving specific outcomes.
- *Students*: how the plan should be used to satisfy the needs of specific students.
- *Instructional resources*: the materials and environment to be used for teaching and learning.
- *Evaluation and assessment of learning*: ways to determine whether the different aspects of the plan are successful.
- *Adjustments*: changes to improve the plan, based on experience and evaluation

In the literature, six types of curricula often are discussed, namely:

- The *official* curriculum (planned part of the formal curriculum), which is a written document and comprises the scope and sequence, syllabi, guidelines, standards and objectives or outcomes (Carl 2012:37; Glatthorn, Boschee & Whitehead 2009:186; Posner 2004:12).
- The *operational* curriculum (part of the formal curriculum), comprising what should be taught, how it should be presented and the outcomes. The operational curriculum entails that which is taught and assessed, regardless of whether it is consistent with the official curriculum (Kelly 2009:12; Glatthorn *et al.*, 2009:186; Posner 2004:13).
- The *experiential* (received curriculum) is that which the students experience in reality (Kelly 2009:11).
- The *hidden (implicit)* curriculum refers to that which is purposefully or inadvertently passed on during teaching and learning, but has not been made explicit (e.g. beliefs, norms, perceptions, meanings and feelings) (Doll 1996:15; Lovat & Smith 2003:34-36; Posner 2004:13; Ross 2005:8).
- The *null* curriculum - that which is not taught, which has two major dimensions, namely the "intellectual process that is included or neglected", and "content or subject areas" that are present (or absent) in curricula (Eisner 2002:97-98).
- The *extra-curricular (informal curriculum)*, namely *planned but voluntary activities outside modules*, contribute to learning (Kelly 2009:12; Posner 2004:13-14).

In summary, a curriculum contains several aspects or components which are equally important to consider when compiling or redesigning a curriculum. In the light of the context of the study (Development of quality assurance and educational guidelines for an Emergency Medical Care preparatory programme in South Africa), it is deemed necessary to understand what curriculum inquiry entails.

2.3.1 Curriculum development

Curriculum development is an umbrella term for an ongoing process of systematic planning and designing a teaching and learning process from situation analysis to evaluation. Creating a curriculum comprises a variety of stages, namely curriculum design, curriculum dissemination, curriculum implementation and curriculum evaluation. Curriculum development is implicitly integrated (Carl 2012:38). This study emphasises curriculum implementation and the components of an effective curriculum to guide the EMPP in effectively implementing the curriculum and all its components. QA and educational guidelines are the crux of providing QA and educational guidelines for an EMPP.

As Dent and Harden (2017:35) explain, the following five steps clarify the development of an effective curriculum in medical curriculum design:

- a) Identify the need: A range of approaches can recognise the curriculum need (Dunn, Hamilton & Harden 1985:15). Approaches in medical curriculum design vary from the “wise men” approach to consultation with stakeholders, making a study of errors in practice to identify problem areas, task analysis, a study of star performers, and critical incident studies. All these approaches, alone or in combination, has been used successfully;
- b) Determine the learning outcomes;
- c) Decide on the content of a curriculum;
- d) Organise the content: Harden and Stamper (1999:141) state that the contents should be organised, so topics are revisited throughout the course, at different levels of difficulty, and that new learning should also be related to previous learning, so the competence of the student increases with each revisit of the topic; and
- e) Decide the educational strategy: The SPICES model offers a guide to planning and evaluating a curriculum (Harden, Sowden & Dunn 1984:284). According to Dent and Harden (2017:3), the SPICES model comprises the following key sections: Student-centred learning, Problem-based learning, Integrated or Inter-professional teaching, Community-based education, Elective studies, and systematic or planned approach.

Similarly, Sweet and Palazzi (2020:138) identify a “six-step” approach to curriculum development to provide a practical, theoretically sound approach to developing, implementing, evaluating and continually improving educational experiences in medicine. The “six steps” are (i) “problem identification and general needs assessment, (ii) targeted

needs assessment, (iii) goals and objectives, (iv) educational strategies, (v) implementation and (vi) feedback and evaluation.”

Ornstein and Hunkins (2016:157) suggested similar guidelines as Sweet and Palazzi (2020:138), for an effective curriculum design plan, namely:

- a) consider personal preconceptions, such as philosophical, educational, and curriculum-related, about the purposes and objectives of a particular HEI;
- b) take into account the educational requirements and ambitions of the students for whom the curriculum is developed;
- c) when designing a curriculum, take into account the components and their organisation;
- d) align the components of curriculum design with the institution's mission and goals; and
- e) assess the quality of the curriculum design by sharing it with a colleague for constructive criticism (Ornstein & Hunkins 2016:157).

When developing learning programmes for adult students, it is critical to use the appropriate "tools" (O'Toole & Essex, 2012). According to O'Toole & Essex (2012), a schoolteacher is typically required to have a formal education qualification before teaching children, in EMC education it is not required that EMC lecturers have a formal teaching qualification. The view of O`Toole and Essex is shared with Human (2021), indicating that in education you need to have a basic teaching qualification to be able to teach, for example a post graduate certificate in education. This disparity in qualifications and preparation for the role prevents EMC education from being recognised as a legitimate vocation (O'Toole & Essex, 2012), as it appears that anyone willing to teach EMC can be employed.

I agree with the views of Human (2021) and O`Toole & Essex (2012), that for EMC education to progress it may be valuable to provide paramedic educators with formal educational training, for example health science education or a post graduate diploma in HE. Effective learning and facilitation should aim to ensure that students apply what they've learned in the workplace. If anyone can participate in adult education, this raises questions about effective learning and facilitation. "Anyone" will be unable to plan and facilitate adult learning effectively. This can have an effect on the adult student's ability to transfer learning to the workplace. As previously stated, facilitators for adult students should also possess the necessary credentials and experience to teach adults effectively. A minimum entry level requirement for teaching adults should be a qualification in education-specific training and development.

Adult learning theory is predicated on the premise that adults are motivated to learn as a result of unsatisfied needs and interests (Wang 2009). Moreover, adult learning activities should be organised around life situations rather than subjects, as adults' orientation to learning is life-centered (Wang 2009). Adult education's most valuable resource is experience (Wang 2009). In addition, adults have a strong desire to be self-directed, and the facilitator's role is to engage them in a process of mutual inquiry rather than to transmit his/her knowledge to them and then evaluate their compliance with it (Wang 2009). Individual differences between people increase with age, and adult education must account for these differences in learning style, time, place, and pace (Wang 2009).

2.3.2 Curriculum design

Curriculum design is a component of curriculum development and can be defined as the dynamic interaction among the principles of design, that is, situation analysis, formulation of aims, goals and objectives/outcomes, selection of teaching-learning content, designing learning experiences, teaching opportunities and strategies, developing assessment (of student learning), and evaluation (of the curriculum). In addition, curriculum design may refer to creating a new curriculum or amending (re-planning, re-designing) an existing curriculum after careful analysis (Carl 2012:66-67; Krüger 1989; Zaki 2008:486, cited in Geyser 2004:148). Beauchamp in Green (2010:136) have a similar view and cites various definitions for the term, none of which appear to have narrowed over the intervening decades. He does, however, distinguish between curriculum and instruction and divides curriculum theory's work into curriculum design and curriculum engineering:

“The area of curriculum design involves all of the potential choices for selecting culture content to be incorporated in the curriculum, alternative ways of organizing that culture content, and other supporting information such as alternatives in goal statements and use statements. The process dimension may be classed as the area of curriculum engineering. The area of curriculum engineering involves the processes of curriculum planning, implementing, and evaluating and including the problems of leadership and role behaviours” (Beauchamp 1982:25). The aforementioned is a strikingly comprehensive definition that appears to include every component ever included. Hubball and Gold (2007) provide a more succinct definition, stating that

"a coherent program of study... that is responsive to the needs and circumstances of the pedagogical context and is carefully designed to develop students' knowledge, abilities, and skills through multiple integrated and progressively challenging course learning experiences."

Carl (2017:69) explains the necessity of curriculum design considering the students' developmental stage. The author appraises various curriculum models grounded on the Tyler Rationale, including SA models, e.g., the Krüger model and Walters model (Carl 2017:76). Considering these models, Carl concludes that certain aspects of the reviewed models are problematic; for example, models are not sufficiently inclusive, or are not applicable at all curriculum levels and are not relevant to a particular educational system or community.

Therefore, Carl (2017:77) identified common characteristics among the models he studied and used them as a starting point for developing his model. Carl's model of curriculum design comprises of nine associated elements, namely:

- a) situation analysis to determine the needs of students, HE lecturers, environment, and society;
- b) proposed goals and critical outcomes;
- c) fundamental content and learning areas;
- d) learning content;
- e) learning outcomes based on teaching and learning objectives;
- f) methodologies and instructional media;
- g) organisation and educational and instructional design;
- h) implementation; and
- i) assessment that is student-centred, curriculum-orientated, and specifies techniques and strategies (Carl 2017:77).

Carl's model can be applied at any curriculum level; however, not all parts may be appropriate at all levels. Moreover, the outcomes of Carl's model have a similar focus to the models he employed as the basis for his model (Carl 2017:75). The model's casual method allows curriculum designers to enter at different points, skip components, reverse the order, and work on two or more components simultaneously (Carl 2017:77).

The design of a learning programme should continue successively through three key stages

of analysis, namely:

- a) analysing the qualification;
- b) analysing the Exit Level Outcomes (ELOs) or unit standard; and
- c) analysing the outcome collectively with its assessment criteria and associated information (Carl 2017:77).

The curriculum design of the EMPP should be carefully planned with regard to adult students, as seen in the study by Carl (2017:69). O'Toole and Essex (2012) conducted a study on the transfer of learning to the workplace and concluded that curriculum design for adult students should adequately address the needs of adult students. The key to improving the adult learning experience is to recognise that adults have significantly different needs, expectations, and constraints in terms of what they want and need to know and how they are prepared to experience it (O'Toole and Essex, 2012). Additionally, O'Toole and Essex (2012) assert that situating learning in or near the workplace enables the learning experience to be linked to the students' job role, increasing the likelihood of the learning being transferred into practice and the motivation and meaning associated with it (O'Toole and Essex, 2012). This means that the curriculum should be designed in such a way that it incorporates classroom and workplace learning to maximise the transfer of learning to the workplace (O'Toole & Essex, 2012). The primary distinguishing feature of an adult learning curriculum is that it must incorporate both theory and practice in order for the student to apply the knowledge in the workplace (O'Toole & Essex 2012).

2.3.2.1 "Design Down, Deliver Up" programme design approach

The "Design Down, Deliver Up" approach shifts attention from an examination of the qualification to unit standards and eventually to a close inspection of the outcomes, the assessment benchmarks, and other relevant information (SAQA 2014:online). As a unit standard generally comprises more than one outcome, the point is to thoroughly examine every outcome and then combine unit standards and outcomes. It is vital to consider that the student achieves the outcomes as set by the objectives of unit standards and accomplishes unit standards that outline the objectives of the qualification.

The "Design Down" approach can be represented by addressing the following aspects:

- a) Determining the objective of the qualification;
- b) Determining whether the objective can be accomplished;

- c) Determining the values presented in the objective;
- d) Considering the above-mentioned points and writing them as outcomes;
- e) Asking how one knows whether the students have accomplished the outcomes and the evidence to take into consideration; and
- f) Inquiring as to how students would be prepared for assessments (SAQA 2014:online).

On completion of the "Design Down" process, the "Deliver Up" approach should be followed. The latter will allow the facilitator to monitor if the learning activities adequately prepared the students for the assessment activities. Subsequently, these will indicate that the outcomes have been met; thereby, the objective of the qualification has been attained (SAQA 2013:6).

When the "Design Down" process is completed, one can then "Deliver Up" by conducting learning activities that can prepare students for assessment activities (cf. 2.2.5, 2.2.1.1 & 2.2.1.3). These assessment activities confirm that the students accomplished the outcomes and have achieved the qualification's objectives.

2.3.3 Curriculum delivery/implementation

Curriculum implementation refers to the curriculum being applied in practice (Carl 2012:42). Curriculum implementation refers to the way facilitators deliver instruction and assessment using the resources specified in a curriculum. Generally, curriculum designs include instructional suggestions, scripts, lesson plans, and assessment options for a set of objectives. These designs emphasise consistency to assist facilitators in successfully implementing and maintaining the curricular structure to accomplish various objectives (Wiles & Bondi 2014). To ensure that curricular innovations are implemented consistently, instructional practices should be aligned with the curriculum's specific learning objectives (MacDonald, Barton, Baguley, & Hartwig, 2016; Phillips, Ingrole, Burris, & Tabulda, 2017). Implementing the curriculum entails various components, including the delivery of the curriculum via resources and instructional practices. To implement curricula faithfully, instructional practices must be consistent with the curriculum while also meeting the unique needs of students (Causarano, 2015).

Additionally, facilitator readiness for curriculum implementation is critical (McNeill, Katsh-Singer, Howard & Loper 2016). Causarano (2015) demonstrated this specifically by examining the quality of math instruction in an urban school and its effect on student-

facilitator relationships. Their study's findings substantiated the importance of facilitators having a thorough understanding of the curriculum to strengthen instructional practices.

Lecturing/facilitating staff is responsible for ensuring that the curriculum is implemented with integrity and satisfies the needs of all students. The curriculum must be implemented in such a manner that sufficient learning opportunities are created for students. It is essential that lecturing/teaching/training/facilitating staff understand the curriculum they are required to implement and the outcomes to be attained to reflect student learning. Nevenglosky, Cale and Aguilar (2017:24), conducting an instrumental case study approach, have a similar view, mentioning that a curriculum should be piloted before actual implementation occurs, as this could assist in identifying possible issues and obtaining buy-in from the lecturers responsible for implementing the curriculum.

2.3.4 Instructional design

Gustafson and Branch (2002:17) in Kurt (2017) define instructional design as a creative, iterative, and active process used to develop education and training materials consistently and reliably. Instructional design, however, refers to the systematic process by which instructional materials are designed, developed, and delivered. The process thus entails establishing specifications for an effective, efficient, and appropriate student environment, developing all student and management materials, and, finally, evaluating the results.

The terms instructional design, instructional technology, educational technology, and instructional systems design are often used interchangeably (Kurt, 2017). However, for this study, it suffices to say that instructional design forms part of the more extensive curriculum development process (Gustafson & Branch 2002:17) and refers to designing and developing material such as learning guides and instructional media, teaching and learning methods and techniques to be used. The ordering or sequencing of topics to be discussed.

2.3.5 Curriculum design and technology

Keeping the current educational climate in mind, the exploration of curriculum design would be incomplete without considering the embedding and possible value of e-learning technology in the student learning experience. Lecturers/instructors in general and students must learn to use technology effectively to equip students to live, learn and work in the current increasingly complex, information-driven and knowledge-based society (UNESCO

2008:1).

According to Hannum (2008:222), the research suggests that 'how' technology is used to deliver instruction (a systematic design process) matters much more than 'what' technology is used. Reeves and Reeves (2013:113) argue that the fundamentals and principles for effective teaching and learning remain paramount, regardless of how a subject is delivered. Curriculum design practices and orientations consequently become imperative as these comprise the entire process of analysing learning needs and outcomes and objectives, as well as the decisions made concerning delivery methods to attain those outcomes and objectives. Technology should be used effectively by all staff members involved in developing, designing, and implementing curricula.

Hannum (2008:220-223) states that although there are multiple benefits of using technology, such as enhanced learning, increased engagement, increased access, greater job relevance, and the promotion of deep processing and understanding, there is also the danger of using misapplying technology. Misapplication, for example, may take the form of placing content online or on learning management systems and expecting it to replace traditional classroom instruction or changing the mode of delivery but not revising the content. Hannum further explains that quality instructors do more than dispense content; they motivate, modify instruction to meet the student's needs and design the entire learning experience.

Reeves and Reeves (2013:127) deduce that it is essential to examine the alignment of all components in the blended learning environment, including content, objectives, instructional design, student tasks, facilitator roles, technology, and assessment. Posner (2004:95-96) states that technology can change how content is covered by creating new disciplinary areas (e.g., computer sciences), reconfiguring disciplinary course content (e.g. computer-aided mechanical drawing), new ways of processing information (e.g. word processing & spreadsheets), and tools to share information (e.g. the internet & learning management systems).

As curriculum design is heavily dependent on and influenced by context, it is vital to consider the curriculum challenges in the South African context and the implication thereof for developing and embedding a relevant QA system in EMC HE. Jaffer *et al.* (2007:142) argue that the challenges are situated in identifying and conceptualising ways educational technology can contribute meaningfully to student learning experiences, curriculum design,

and pedagogical design. The role of educational technology has to be reconsidered within the broader educational scope that is driven by educational needs rather than being technologically driven.

2.3.6 Constructive alignment

In a mixed-method study by Dames (2012:37), utilising action research, constructive alignment is defined as “the fact that the learning activity in the intended outcomes, expressed as a verb, to be activated in the teaching of the outcome is to be achieved and in the assessment task to verify that the outcome is achieved” The author further emphasises the importance of postmodern students to be able to reflect on their own cognitive, attitudinal, affective, behavioural experiences and practical knowledge. In the Constructive Alignment (CA)-model, teaching and learning activities are aligned with intended learning outcomes that need to be adequately assessed. If assessment addresses lower cognitive level activities than those objectives stipulated in the curriculum, the result would be achieved at a lower level, and the system is not adequately synchronised (Biggs 1996). As mentioned above, it highlights the essential need to efficiently link teaching, learning, and evaluation on the EMPP. Additionally, the objective of constructive alignment should be to achieve a common purpose. In other words, students should be enabled to apply learning activities that foster the construction of their knowledge, behaviour, and skills and assess its outcomes. In agreement, as seen in a quantitative survey done by Robnagelld, Badio and Fitzallen (2021:2), it is mentioned that constructive alignment is intended to enhance the quality of teaching and learning and hinges on defining the outcomes students are intended to achieve.

Moreover, these *intended learning outcomes* (ILO) nominate specific actions students are supposed to perform. They may be expected, for instance, to learn to “critically discuss the effects of prehospital tracheal intubation” in an emergency medical care programme. The author mentions that constructive alignment is meant to encourage a deep approach and discourage a surface approach, building on the assumption that learning approaches reflect a personal preference rather than a trait (2). According to Biggs (2014:2), students need to construct learning for themselves, and it should not be imparted to them. One of the most influential ideas in higher education is constructive alignment (Biggs, 1999), as it underpins the requirement for programme specifications, marking criteria, criterion-referenced assessment (i.e., marking against predefined criteria) and learning outcomes. Constructive alignment is the idea that student learning is a hidden and individual process

for which students are responsible. Facilitator responsibility, therefore, lies in creating an environment that encourages and supports students to engage with learning. As a result, the choice of an assessment task can serve to support or undermine the achievement of these learning outcomes.

In a critical appraisal by Loughlin, Baker & Linberg-Sand (2021:130), criticism by those from the humanities infer that fixed outcome cannot represent the unanticipated consequences of teaching; is echoed by those in the natural sciences. However, some in the scientific community appear to be sterner in their opposition to both CA and constructivism. There are two recurrent themes in literature critical of CA which emanate, particularly, from the science teaching community. One is the student-centeredness of the approach, which means that any interpretation of learning constructed by the student is acceptable, irrespective of any objective reality (Loughlin, Baker & Linberg-Sand 2021:130). Wang *et al.* (2013), in an ongoing project implementing CA, compared units that had been using CA for at least a year with units that had just started using CA and found that in the high CA units' students were significantly more likely to adopt deep approaches to learning and less likely to use surface approaches compared to students in low CA units, and that this effect was strongest in the most effectively aligned units.

2.3.7 Level descriptors

As defined by the CHE, a qualification description describes the qualification type's exit level, the minimum credit rating required, as well as its purpose and features (CHE 2013:7). Moreover, a qualification must meet the generic competencies associated with the level descriptor for the level concerned (SAQA 2012:8). Level descriptors and qualification descriptors are articulated in terms of learning outcomes. Additionally, level descriptors define the learning outcome at a specific level of the NQF, providing a comprehensive indication of the learning outcomes suitable to a qualification at NQF Level 5 (SAQA 2012:9). Unit standards, level descriptors, and qualifications are registered at specific levels of the NQF. Considering the above, level descriptors are comprehensive and generic but indicate what is demanded of a student at a particular level of qualification (SAQA 2014:online).

The NQF level and its description serve as the outer and most generic layer in terms of the information and abilities that students must learn, incorporate, and show (applied competence) at each cognitive complexity level on the Higher Education Qualifications Sub-Framework (HEQSF). SAQA is responsible for developing the content of the NQF level

descriptors in collaboration with the three quality councils, namely the CHE, the Council for Quality Assurance in General and Further Education and Training (The UMALUSI Council), and the Quality Council for Trades and Occupations (QCTO). The level descriptors provide standardised criteria for credentials on the HEQSF regarding the predictability of knowledge and skill complexity at each NQF level (SAQA 2012:5). Also, they do not provide a foundation for categorising the various objectives of credentials according to their orientation toward conceptual and contextual knowledge. The HEQSF incorporates three main qualification pathways, namely vocational, professional, and general (HEQSF 2013:5).

A qualification descriptor describes the exit level, the minimum credit rating, the objective, and the qualification's features regarding the types of knowledge and skills it is meant to develop (CHE 2013:9). A qualification type must be compatible with the general skills specified in the relevant level descriptor and must consider the characteristics of the three qualification pathways. The three fundamental qualification categories, namely certificates, diplomas, and degrees, serve as a framework for developing specialised credentials and the programmes that offer them (CHE 2013:27).

SAQA (2012:3) defines applied competence as having three critical components:

- a) Fundamental capability, encompassing intellectual/academic knowledge as well as analysis, synthesis, and evaluation skills, including information processing and problem-solving abilities;
- b) Practical competence, which includes the concept of operational context; and
- c) Reflexive competence, which integrates student autonomy.

The following categories or competencies are applied to any NQF level, including NQF Level 5:

- a) "Scope of knowledge";
- b) "Knowledge literacy";
- c) "Method and procedure";
- d) "Problem-solving";
- e) "Ethics and professional practice";
- f) "Accessing, processing, and managing information";
- g) "Producing and communicating information";
- h) "Context and systems"; and

- i) "Management of learning" (SAQA 2012:8-9).

The following principles govern the use of level descriptors across the NQF's three sub-frameworks:

- a) The NQF has a single set of level descriptors used in a variety of situations;
- b) Ten competencies are included in the level descriptions;
- c) The level descriptors are intended to accommodate both academic and occupational qualifications;
- d) In the workplace, there must be a link between qualification levels and occupational levels;
- e) The level descriptors incorporate the critical cross-field outcomes of SAQA;
- f) Level descriptors are cumulative, i.e., there is a progression in the competencies from one level to the next;
- g) Level descriptors apply to the Recognition of Prior Learning (RPL);
- h) Level descriptors are descriptive and not prescriptive; and
- i) The classification of qualifications is dealt with in the sub-frameworks of the NQF (SAQA 2012:04).

Level descriptors do not incorporate all the critical outcomes, although it is expected that students accomplish all the critical outcomes by the time they have finished the programme content and are awarded the full qualification. Below are prescribed critical outcomes that students should master. They must be able to:

- a) "Solve problems;
- b) Work well in a team;
- c) Organise themselves;
- d) Gather, examine, organise, and evaluate information;
- e) Communicate effectively in writing or speech;
- f) Become entrepreneurial;
- g) Explore education and career options;
- h) Be culturally and aesthetically sensitive;
- i) Participate as responsible citizens in community life;
- j) Explore learning approaches;
- k) Appreciate that the world is a collection of interconnected systems; and
- l) Use science and technology responsibly" (SAQA 2014:online).

Therefore, critical outcomes of the stratified competency-based learning programme are guided and grounded on the above descriptors.

2.3.8 Exit level outcomes

Exit-level outcomes indicate what the student will be able to do and will know on successful completion of a specific programme ensuing in obtaining a qualification (SAQA 2005:8). Exit-level outcomes, which correlate with the intended programme-level outcomes as described by Biggs and Tang (2011), refer to outcomes that must be attained for a programme to be exited and qualification to be awarded.

ELOs represent the outcomes students need to obtain when leaving the programme and are awarded a qualification, meaning that the student attained all the outcomes in a learning programme (Directorate of Quality Assurance & Development 2013:online). Learning and assessment activities are derived from the outcomes that make up the qualification. SAQA suggests a "Design Down, Deliver Up" approach allowing progression from the rationale of the qualification to the outcomes, its assessment criteria, and the learning activities (SAQA 2013:5) (cf. 2.2.5). The ELOs should specify what the qualified student would be able to do and understand to attain the qualification or part qualification. The ELOs are outlined against the level descriptors. Criteria specify the nature and assessment level must be derived from the level descriptors (SAQA 2013:6).

McMahon (2005:37) states that a 'clear understanding' refers to making the "intended learning process and the intended learning results" clear to students. This is accomplished by means of well-defined learning outcomes and all-inclusive learning materials. Learning outcomes contain "domains of 'knowledge and understanding', 'key skills', cognitive skills and subject-specific skills" (McMahon 2005:38). In this regard, a taxonomy such as Bloom's is recommended to achieve higher-order learning outcomes and promote deep learning. McMahon (2005:39) emphasises assessment as an essential aspect guiding a student's decision to embrace a deep or surface approach to learning. He regards aligning the learning outcomes with the assessment as important. The author further states that the assessment should test and reward higher-order learning to urge deep learning (McMahon 2005:39).

This step includes asking questions such as:

- a) What do the outcomes indicate that the student should be able to do and know?
- b) What would need to be examined in accordance with the assessment criteria for an outcome?
- c) What content will the student require?
- d) Which activities will assist students in achieving their objectives and meeting the evaluation criteria? What teaching approaches will guide students to the point where they can produce evidence of the required learning? (SAQA 2014:online).

The EMPP short-learning programme approval document (2019:6) indicates that the EMPP is based on SAQA's NQF Levels 4 and 5. The following, as indicated by SAQA (2012:7-8), are the NQF Level 4 and 5 level descriptors as shown in Table 2.1:

Table 2.1: NQF level descriptors for Level 4 and 5 (SAQA 2012:8)

NQF LEVEL 4	NQF LEVEL 5
<p>a) Scope of knowledge, in respect of which a student will be able to demonstrate a fundamental knowledge base of the most important areas of one or more fields or disciplines, in addition to the fundamental areas of study, and a fundamental understanding of the key terms, rules, concepts, established principles, and theories in one or more fields or disciplines;</p> <p>b) Knowledge literacy, in respect of which a student will be able to demonstrate an understanding that knowledge in one field can be applied to related fields;</p> <p>c) Method and procedure, in respect of which a student will be able to demonstrate the ability to apply essential methods, procedures and techniques of the field or discipline to a given familiar context, and the ability to motivate a change using relevant evidence;</p> <p>d) Problem-solving, in respect of which a student will be able to demonstrate the ability to use own knowledge to solve common problems within a familiar context, and the ability to adjust an application of a common solution within relevant parameters to meet the needs of small changes in the problem or operating context with an understanding of the consequences of related actions;</p> <p>e) Ethics and professional practice, in respect of which a student will be able to demonstrate the ability to adhere to organisational ethics and a code of conduct, and the ability to understand societal values and ethics;</p> <p>f) Accessing, processing, and managing information, in respect of which a student will be able to demonstrate a basic ability in gathering relevant information, analysis and evaluation skills, and the ability to apply and carry out actions by interpreting information from text and operational symbols or representations; and</p> <p>g) Producing and communicating information, in respect of which a student will be able to demonstrate the ability to communicate and present information reliably and accurately in written and oral or signed form.</p>	<p>a) Scope of knowledge, in respect of which a student will be able to demonstrate an informed understanding of the core areas of one or more fields, disciplines or practices, and an informed understanding of the key terms, concepts, facts, general principles, rules, and theories of that field, discipline or practice;</p> <p>b) Knowledge literacy, in respect of which a student will be able to demonstrate the awareness of how knowledge or a knowledge system develops and evolves within the area of study or operation;</p> <p>c) Method and procedure, in respect of which a student can demonstrate the ability to select and apply standard methods, procedures or techniques within the field, discipline or practice, and plan and manage an implementation process within a well-defined, familiar, and supported environment;</p> <p>d) Problem-solving, in respect of which a student will be able to demonstrate the ability to identify, evaluate and solve defined, routine, and new problems within a familiar context, and to apply solutions based on relevant evidence and procedures or other forms of explanation appropriate to the field, discipline or practice, demonstrating an understanding of the consequences;</p> <p>e) Ethics and professional practice, in respect of which a student will be able to demonstrate the ability to take account of and act in accordance with prescribed organisational and professional ethical codes of conduct, values and practices, and to seek guidance on ethical and professional issues where necessary;</p> <p>f) Accessing, processing, and managing information, in respect of which a student will be able to demonstrate the ability to gather information from a range of sources, including oral, written, or symbolic texts, to select information appropriate to the task, and to apply basic processes of analysis, synthesis and evaluation on that information;</p> <p>g) Producing and communicating information, in respect of which a student will be able to demonstrate the ability to communicate information reliably, accurately, and coherently, using conventions appropriate to the context, in written and oral or signed form or in practical demonstration,</p>

NQF LEVEL 4	NQF LEVEL 5
	<p>including an understanding of and respect for conventions around intellectual property, copyright and plagiarism, including the associated legal implications;</p> <p>h) Context and systems, in respect of which a student will be able to demonstrate the ability to operate in a range of familiar and new contexts, demonstrating an understanding of different kinds of systems, their constituent parts and the relationships between these parts, and to understand how actions in one area impact on other areas within the same system; and</p> <p>i) Management of learning, in respect of which a student will be able to demonstrate the ability to evaluate their performance or the performance of others, take appropriate action where necessary, take responsibility for their learning within a structured learning process, and promote the learning of others.</p>

2.3.9 Notional learning hours and credits

It is essential to understand what credits are and how they work. In this section, a detailed understanding of credits is discussed concerning the stratified competency-based learning programme. Credits are described as a measure of the learning time and notional hours that it would take a typical student to achieve the programme's prescribed outcomes. Credits comprise structured learning, contact time, workplace learning, and self-study, for example, ten notional hours = one credit (SAQA 2014:online).

In terms of credits dictating **learning time**, the number of credits allocated to a unit qualification or standard can guide the average learning time. Students learn in different ways, some faster than others. Knowledgeable facilitators can then adjust the learning programme to accommodate specific groups of students. It could mean that the educator prepares, in advance, additional material that the faster students can be challenged by or sets up peer groups to help students who learn at a slower pace (SAQA 2014:online).

The term 'notional learning hours' refers to the anticipated amount of time required for a typical student to accomplish the course unit or programme's defined learning goals. These are not accurate measures, but they give students an idea of the required amount of study and effort. Notional learning time includes time spent in contact with facilitators, for example, lectures, seminars, tutorials, laboratory practicals, workshops, and fieldwork, time spent preparing for and administering formative and summative assessments, for example, written coursework, oral presentations, and exams, and time spent on private study, whether during the academic year or the summer vacations.

According to the CHE (2016:13), SLPs such as the EMPP should not assign attributes and other unique properties of the HEQSF, such as NQF levels and credits, to learning programmes offered outside the framework of the HEQSF. The CHE further states that even though students attending a SLP such as the EMPP do not receive credits, information regarding the EMPP may assist with an RPL application process for access into HE programmes.

2.3.10 Module and specific learning outcomes

According to Biggs and Tang (2011:113-120), the term 'intended learning outcomes' refers to statements about what and how students should learn. The intended learning outcomes

are descriptions of what students must know and do on successful completion of a programme, course, or module, or even a class session. Usually, intended learning outcomes are formulated at three levels: institutional, programme, and module level.

Institutional outcomes, also known as graduate attributes or graduate outcomes, should be considered in programme and module outcomes. The different levels of outcomes must be aligned.

Biggs and Tang (2011:113-120) explain that graduate attributes or outcomes are statements of what graduates of the university are required to know and do on graduation. In contrast, at programme level, the intended outcomes refer to what students who have completed the particular programme successfully are expected to know and can do. Likewise, at the module level, that is, course outcomes, indicate what students should know and be able to do on completion of a particular module.

Learning outcomes are quantifiable accomplishments that students may comprehend once the learning activity is complete. Moreover, they assist students in comprehending the significance of the knowledge and what they will receive from their participation in the learning activity. Gravett and Geysler (2004:94) further mention that outcomes are the demonstrable and observable end products of a learning process, and they go beyond the specification of subject content. Aspects of learning outcomes that are important to consider are the following:

- a) The students' specific goals must be important;
- b) The students' specific goals must be measurable; and
- c) The output should meet the program's quality standards (Gravett & Geysler 2004:94).

Creating clear, actionable learning outcomes is an important part of the creation of training programmes in organisations. When developing these programmes, both management and instructors need to be clear about what students should understand after completing their learning path. A well-written learning outcome will focus on how the student will be able to apply their new knowledge in a real-world context, rather than on a student to recite information (Valamis 2019:online).

According to the CHE (2016:10), a well-written set of learning outcomes includes the

following components:

- a) Action verb;
- b) Subject content;
- c) Level of achievement; and
- d) Condition of performance (if applicable) (CHE 2016:10).

The CHE (2016:7) further mentions that statements of intended learning outcomes should clearly describe the knowledge, skills, and competencies that participants should acquire from a SLP. Such statements should provide the focal points for instruction and learning. The learning outcomes should also be arranged in a recognisable and logical sequence from entry levels to exit levels, so students would be able to gauge their progress towards achieving them in the process of learning. Learning outcomes and impacts should be the cornerstones on which sound SLPs are premised. Adequate physical resources, consistent with the intended learning outcomes of the respective short courses, are made available to run the short courses (CHE 2016:8).

Critical cross-field outcomes are the overarching objectives that all learning programmes aim to achieve. Moreover, these outcomes are about the needs of society and the individual and are crucial for establishing lifelong learning. Learning programmes have to offer students opportunities to obtain critical outcomes. The ETQA must consider how the critical outcomes have been assessed and learned in the programme delivery (SAQA 2014:online).

2.3.11 Learning taxonomies

In the following sections, the learning taxonomies of Bloom and Fink will be discussed. To facilitate effective learning, the facilitator must possess certain competencies that support the way adult students learn (O'Toole & Essex, 2012). To facilitate adult learning effectively, the facilitator must have facilitation experience and subject knowledge. Education is about having a genuine interest in assisting adults in learning and being present when "light bulb moments" occur (Schmidt, 2013). Educators must be more adaptable and responsive to adult students' needs (Schmidt, 2013).

2.3.11.1 Bloom's Taxonomy

According to Dwyer, Hogan, and Stewart (2014:43), Bloom's taxonomy's critical idea is for the facilitator to establish the required knowledge of the student and be included in the educational outcomes. Bloom's taxonomy to a preparatory programme, such as the EMPP, can help stimulate a change in the students' status from being detached observers to being involved participants of their learning (Forehand 2005:43).

Bloom's taxonomy refers to categorising the many learning objectives established for students (Bloom, Engelhart, Furst, Hill & Krathwohl 1956:4). These educational objectives are divided into three domains, namely **cognitive**, **affective**, and **psychomotor**. Within each of these domains, learning at a higher level is reliant on mastery of the prerequisite knowledge at the lower levels. There are six levels, moving from the lowest to the highest level in the **cognitive** domain as revised by Anderson and Krathwohl (2014:114):

- a) Knowledge – remember and recall facts;
- b) Comprehension – understanding, translating, interpreting, and extrapolating facts;
- c) Application – applying facts to solve new problems;
- d) Analysis – analysing the relationships, elements, and principles and identifying causes or motivation;
- e) Synthesis – combining elements in a new pattern or structure; and
- f) Evaluation – making judgements about information (Anderson & Krathwohl 2014:114).

Anderson and Krathwohl (2014:212) further revised the five levels in the **affective** domain. The skills in the **affective** domain address the emotional responses and attitudes of students. From the lowest to the highest, they are:

- a) Receiving – passively paying attention;
- b) Responding – actively participating in the learning process;
- c) Valuing – associates' value to acquired knowledge;
- d) Organising – putting together different information and ideas; and
- e) Characterising – the value or belief held by the student becoming part of their behaviour (Anderson & Krathwohl 2014:212).

Although Bloom did not create sub-categories for the **psychomotor** domain, Simpson (1966:110) and later Harrow (1972:12) suggests the following seven levels from the lowest

to the highest order for the **psychomotor** domain:

- a) Perception – sensory signs guiding motor activity;
- b) Set – readiness to act;
- c) Guided response – beginning of learning a complex skill through imitation, trial, and error;
- d) Mechanism – intermediate stage of learning a complex skill. Habitual learned responses;
- e) Complex overt response – intricate movement patterns performed skilfully;
- f) Adaptation – well-developed skill modified to fit unique requirements; and
- g) Origination- creating new movement patterns to a specific problem or situation.

Bloom's taxonomy serves as the backbone for explicitly teaching philosophies concerned with teaching skills rather than contents (Krathwohl 2002:212).

2.3.11.2 Fink's taxonomy

Fink's taxonomy of significant learning is likely beneficial to tertiary institutions and lecturers seeking to engage students in deep and meaningful learning through a learner-centred approach. He refers to his taxonomy as a "road map to a variety of significant types of learning that go beyond comprehension and retention and even beyond application learning" (Fink 2009).

Fink (2009:55) asserts that his taxonomy represents a change in how we think about teaching and learning. He defines education as a process of change. In other words, if there is no change in the student following the teaching process, there has been no learning. Additionally, sustained change in a student's life demonstrates that significant learning occurred (Fink 2009:30). Fink (2009:8) was compelled by this perspective on learning to pose two critical questions:

What impact do I want this course to have on students two to three years after it is completed?

What would make students who have taken this course distinct from those who have not?

Not all students involved in a learning process approach learning differently (Biggs and

Tang 2007:20). Certain students skim the surface, memorizing facts and ensuring that they can reproduce the required content during an assessment. The term "surface learning" refers to this type of learning. Other students engage in an active search for a personal understanding of the material they are required to learn, focusing on the underlying meaning of the material to facilitate the integration of disparate components. The latter group is devoted to in-depth education (Biggs and Tang 2007:22-24; Fink 2009:18). Lecturers, in my opinion, must be aware of the surface and deep approaches to learning and exert effort to create meaningful learning experiences throughout their courses.

Fink (2009:6) asserts that learning should result in something significant in the students' lives. Fink (2009:1) suggests that lecturers begin by asking the following questions:

What do we mean when we refer to a "significant learning experience"?

How can we teach in such a way that students have this type of experience more frequently?

To define a meaningful learning experience, lecturers must recognise that a proper definition incorporates both a process and an outcome (product) dimension (Fink 2009:6). Students must be engaged throughout the programme, whether through pre-class homework assignments or class activities. However, this process must culminate in a product after the programme. Students must acquire knowledge that will endure and will add value to their lives. Significant learning should enrich their individual lives, prepare them to contribute to their communities and the environment, and prepare them for the world of work (Fink 2009:6).

In summary, a significant learning experience consists of three components: students are engaged, their efforts result in significant and lasting learning, and the learning adds value to their lives (Fink 2009:1-2). Two pervasive issues at tertiary institutions can, however, obstruct significant learning (Fink 2009). The first refers to lecturers who engage in "information dumping" – in other words, they gather content on a given subject solely to dump it onto and (hopefully) into the heads of their students. This issue should be addressed by revisiting the learning objectives and ensuring that they go beyond a simple understand-and-remember approach (Fink 2009:8). The second issue is the difficulty some lecturers face when deciding on alternative teaching activities to lecturing and leading discussions. They must be able to incorporate a variety of modes of learning into their

instruction.

Fink created the taxonomy of significant learning in the hope of resolving these issues and enhancing students' learning experiences. The following paragraph discusses this taxonomy. This taxonomy is comprised of six complementary components: Fundamental Knowledge, Application, Integration, Human Dimension, Caring, and Learning. How to Learn – divided into several subcategories. A distinguishing feature of this taxonomy is that its components and categories are not hierarchical but rather relational (even interactive), and thus add significant value to the students' learning process (Fink 2009:31-32). This property of the taxonomy implies that "facilitators are not required to forego one type of learning to achieve another. Rather than that, when a facilitator discovers a way to assist students in achieving one type of learning, this can enhance, rather than diminish, student achievement in other types of learning" (Fink 2009:32).

2.3.12 Blended learning

Researchers from all over the world (Thorne 2003, Boettcher & Conrad 2004, Khan 2005) are investigating more effective ways of teaching and learning in an increasingly diverse and technologically advanced environment. In the past, research studies have concentrated on either the contact mode or the online mode (Broad 1999, Brockbank & McGill 1998, Pallof & Pratt 2001, Knight 2002), not taking into account the blending of delivery modes which has the potential to offer the better of two worlds. Today although a relatively new term, the most general combination is the blended learning mode (Xie & Tsai 2021:2), which, in its simplest form, is a combination of face-to-face and computer supported. Kenney and Newcombe (2011:12) compared the different learning modes to establish effectiveness because of grades and found that blended learning had higher average score values than the non-blended learning environment. In Snyman and Kasirye`s (2021:279) study, blended learning is defined as " the organic integration of thoughtfully selected and complementary face-to-face and online approaches and technologies." In a qualitative study conducted by Kintu, Zhu and Kagambe (2017:20), in contrast to the study find participated in a face-to-face and online lecture session. Interestingly, a t-test revealed that there is not a significant difference in the students' performance ($t = 1.569$). The author further mentions that computer skills and confidence are an important factor in the success of blended learning

It should be a priority to ensure that all EMC personnel are comfortable with utilising a computer and be able to manage online learning effectively. A lack of digital skills causes e-learning and blended learning failure, as noted by Shraim and Khlaif (2010:159). Similarly, a quasi-experimental study (Alsahli, Al-Qatawnah, Eltahir & Aqel 2021:14) indicated that blended learning demonstrated more significant success in a mathematics course. It should be noted that the participants in this study were undergraduate students enrolled on a mathematics course. In comparison, the findings of this study were not consistent with the findings of a study conducted by Yusoff, Yusoff, and Md Noh, (2017:8) about the impact of blended learning on academic achievement of students on mathematics and science courses. The results of this study indicated that the post-test scores did not indicate a significant difference between the experimental and control groups. In addition, the findings of Kwak, Menezes, and Sherwood revealed that blended learning does not affect student achievement if learning is non-cumulative and only affects student performance on assessments associated with the blended learning materials.

A mixed-method study conducted by Kurt and Yildirim (2018:434) indicated that 30 out of 31 students indicated that they were satisfied with the blended learning approach. The student does, however, have concerns about their role and the role of the facilitator in the blended learning approach. For the blended learning approach to be successful, the roles should be clearly outlined and the role of the facilitator to organise the process. In the literature, similar studies indicate the importance of the facilitator (Thornton & Yoong 2011; Kintu, Zhu & Kagambe 2017; Poon 2013) and the role of the student (Geçer 2013; Lim & Morris 2009; Lu 2021).

One factor that poses a challenge to blended learning is how effectively students can use the technology. In a qualitative study conducted by Kintu, Zhu and Kagambe (2017:3), it is emphasised that the lack of knowledge on using the digital platforms may hinder the comment of the students. Considering as discussed in section 2.2 and evident from the report by the FSCoEC, many EMS personnel would need to be upskilled regarding digital literacy before implementing blended learning. Hofmann and Ramirez (2018) concur that students may give up learning when experiencing difficulties with technological applications. The authors further mentioned that in their study conducted in Southern California, using a Likert Scale, one indicating not confident to 4 extremely confident. Ninety-four, comma five present (94.5%) of students reported being confident. This is in stark contrast to the situation in SA, as shown in a study by (Kilfoil 2015:4), mentioning that although students'

access to digital devices is becoming increasingly diverse, a small but consistent group of first-year students arrives at university with insufficient access to ICTs and basic computer literacy skills (Nash 2009). In South Africa, the 'insufficient access to ICTs' is a general challenge rooted in the fact that only very few homes have computers and Internet access. Most students from such homes could encounter a computer for the first time when they reach high school or even university.

On the other hand, most students entering higher education are competent users of mobile phones and have excellent social networking skills acquired through experiential learning. The irony is that students' skills and capacities are often not validated or in sync with institutional practices and policies, thus resulting in lost opportunities for engagement with students in learning with their own devices. In a qualitative exploratory study Tshabalala, Ndeya-Ndereya and Van der Merwe (2014:132), all the participants indicated that they realised the potential benefits of blended learning, ranging from flexibility to accessibility of learning. However, the perception that blended learning required effort raised fear of failure in some participants, while others admitted that they had technophobia.

Academic engagement entails identifying and managing both student and staff expectations in the formal face-to-face (classroom) environment and outside of it (Pittaway & Moss, 2014). Students must take control of their studies through planning, monitoring, and evaluating their learning. In this process of evaluating and monitoring their progress, students will develop qualities such as computer literacy skills, academic writing skills, and referencing and note-taking skills (Baker & Pittaway, 2012).

2.3.13 Assessment

SAQA defines assessment as a process for identifying, gathering, and interpreting information in relation to necessary skills to make a judgment about a student's achievement (SAQA 2012:6). UFS' assessment policy describes assessment as "the process of determining the value, significance, or extent of what students know, understand and can do with their knowledge due to their educational experience" (UFS 2020:online). Assessment can also be defined as the act or result of judging the value or worth of something or someone (UFS 2020:online). In this study, assessment is used to refer to students rather than just a process (Bath, Smith, Stein & Swann 2007:313). As a result, assessment is a comprehensive procedure that incorporates a variety of performance

measurements. The assessment process includes the content and standard of assessment, the types of assessment, and the assessment principles. According to Gravett and Geysler (2004:87), assessment should not be seen as an add-on but rather as an integral part of the learning process. Geysler (2004:95-99) concur that to address the increasing number of students pursuing higher education qualifications, and to maintain accountability, facilitators need to plan comprehensively for assessment to ensure the clarity, validity, and relevance of assessment procedures. Vandeyar and Killen (2010:102) agreed with this viewpoint, stating that before facilitators can assess students, the purpose of the assessment must be clear and unambiguous since well-planned assessment will contribute to fair and appropriate assessment practices.

Moreover, assessment should be stated explicitly, and in advance, together with specified conditions for mastery (Wang, 2009). The assessment of a student's competency uses performance as the primary source of evidence while, at the same time, taking into account evidence of a student's knowledge (Wang, 2009). Student progress is determined by demonstrated competency rather than in time periods or through course completion (Wang, 2009). Finally, the individual's learning experience is guided by feedback (Wang, 2009). I agree with Wang in this respect and believes that assessment for the transfer of learning should also be planned during the development of the curriculum. I propose that the assessment criteria for the transfer of learning should also be stated to the students.

Dreyer (2008:3) suggested that clear guidelines as to why assessment takes place will enable students to control their learning and provide valid information regarding their progress and achievements. Assessment can provide the necessary information on:

- a) The effectiveness of instruction; and
- b) If necessary, ways to modify and improve approaches towards assessment.

From the above, it seems that assessment has a dual function in providing facilitators with information on whether or not their approaches were successful and providing students with information regarding their progress and performance. For assessment to be effective and promote learning, planning is necessary to identify the most appropriate assessment methods.

Kulm and Li (2009:7) and Geysler (2004:92-99) agreed that the curriculum is the impetus

that determines what should be assessed, and suggested that in order to determine the outcome of the assessment process, the following questions can serve as guidelines:

- a) Do I want to assess the student's ability?
- b) Do I want to assess the student's knowledge?
- c) Do I want to assess the student's values?
- d) Do I want to assess the student's skills?

Answers to these questions can serve as the baseline to determine a student's competence in skills, attitudes and values. Consequently, appropriate assessment instruments should be employed to promote the development of skills. It can be assumed that if students can demonstrate various competencies and are skilled to become lifelong students, they should complete their education successfully even beyond schooling. Dreyer (2008:32) stated that most countries hold the same view on what is regarded as imperatives when developing effective assessment instruments. Quality assessment can therefore contribute to the development of such skills so as to empower students emerging from an education system to function more effectively in the "real world".

Facilitators are required to collect evidence throughout the learning unit over a period. Therefore, it is crucial to plan the assessments and design them while developing a curriculum (Cumming 2009:90).

2.3.13.1 *Principles of assessment*

According to Western and Northern Canadian Protocol (WNCP 2011:3), assessment is a complex procedure that requires a facilitator's specialised judgement. This implies that facilitators are responsible for making decisions on:

- a) How to assess;
- b) What to assess; and
- c) When to assess.

SAQA (2014:7) expressed strong support of these underlying principles, indicating that assessment is an integral part of teaching and learning and vital to acknowledging students' achievements. Quality assessment practices are therefore crucial in granting credible

certifications. SAQA (2014:19) confirmed that “quality assessment is assured through assessment procedures and practices being governed by the principles: fairness, validity, reliability and practicability”. In a study conducted by Brits, Bezuidenhout, and van der Merwe (2020:6), focus group interviews were used to identify the following principles from UFS’s general rules and assessment policies, which are consistent with the HE Act and the NQF act:

- a) Assessment should be a key component of curriculum development and must be linked to learning objectives. Assessment must be outcome-driven and incorporated into curriculum development;
- b) The assessment is carried out as part of a system and must be organised accordingly;
- c) Assessments should be designed to cover all assessment areas;
- d) Because the assessment takes place within a system, it must be properly designed;
- e) Each of these assessments should meet the requirements for validity, reliability, transparency, fairness, and practicability to be deemed a quality assessment;
- f) In both overall and individual evaluations, moderation should be emphasised; and
- g) There should be accountability for each assessment, with evidence that the assessment was moderated (Brits *et al.* 2020:6).

Credible assessments satisfy fairness, validity, dependability, and practicability (Brits *et al.* 2020:6). Similarly, to Brits *et al.*, Dent and Harden (2017:254), draw attention to the following criteria for good assessments:

- a) Validity or coherence – There should be coherent evidence that supports the use of the results of an assessment for a particular purpose;
- b) Reproducibility or consistency – The assessment’s results would be the same if conducted twice in similar circumstances;
- c) Equivalence – When conducted across institutions the same evaluation produces comparable results or judgments;
- d) Feasibility – The assessment is reasonable, feasible, and practical considering the given circumstances. Educational impact – The assessment encourages those who take it to prepare in an educationally beneficial manner;
- e) Catalytic effect – The assessment process generates, enriches, and promotes education; and
- f) Acceptability – The assessment method and findings are deemed credible by stakeholders

As inferred from the criteria mentioned by Dent and Hardon and agreed upon by Brits *et al.* (2020:6), credible assessments satisfy the requirements for fairness, validity, dependability, and practicability. Furthermore, WNCP (2011:4) agree that it is important to keep the four basic principles of assessment in mind when preparing for the classroom, namely reliability, validity, fairness and practicability.

According to Hopfenbeck (2019:538), fair assessment entails a test, activity or examination that is reliable. No student should be obliged to do anything unreasonable or to do anything under unreasonable conditions. Fairness is achieved when assessment creates equal opportunities without barriers, regardless of the student's abilities, and promotes opportunities for all students to succeed. McMillan (2011:80) have a similar view as Dreyer and mentions that fairness is a process where all students are given an equal opportunity to demonstrate achievement during an assessment. In contrast, an unfair assessment occurs when certain students have an advantage over others due to ethnicity, gender, age, disability, social class and race. Killen (2010:360-364), add to the above criteria by mentioning that fairness is based on two principles, namely equality and equity.

- a) Equality, especially in assessment, means that all students must be assessed in a standardised way. This can be achieved when facilitators employ the same assessment methods and activities for all students, thus contributing to consistent results.
- b) On the other hand, Equity is achieved when assessment is based on the needs of the students. This implies that various learning styles must be accommodated in a multicultural classroom.

SAQA (2014:4) concur with Killen, emphasising that "an assessment activity or opportunity should not in any way hinder or advantage a student". During the assessment process, it is crucial to ensure that:

- a) All students receive equal opportunities, resources and instruction;
- b) No students are judged or assessed according to ethnicity, gender, age, disability, social class, values, life experiences or race; and
- c) Communication during the assessment process is clear, transparent, and accessible to all students.

SAQA (2014:8) defines validity during the assessment process as measuring what is to be measured in terms of knowledge, understanding subject content, proficiency, information, behaviours. Therefore, assessment procedures, methods and instruments are obliged to assess that which has been identified for assessment. Cook and Hatala (2016:2) added to the definition of SAQA by stating that a facilitator's professional judgement determines the validity of an assessment since the same test or measuring instrument may be valid for one exercise but invalid for another. To ensure validity, it is imperative to take into account both the intended and unintended outcomes. Haynes and McDowell (2008:17-28) referred to validation as the process that establishes the kind of inferences that are warranted on the basis of assessment outcomes and those that are not. This urges us to seek solutions in order to ensure quality assessment. Therefore, facilitators should take cognisance of their important role as assessors to ensure that the assessment process is valid (McMillan, 2011:68). SAQA (2014:8) agree and emphasise the need to implement clear and appropriate methods, instruments, and techniques to ensure valid data during an assessment. It can be deduced from the viewpoints mentioned that valid assessment methods should aim to produce consistent evidence of the students' performance. Dreyer (2008:14) confirmed that valid assessment could be achieved if:

- a) A wide variety of methods are employed; and
- b) Assessment procedures are aligned with the teaching and learning outcomes, and the activities that support the content conveyed during instruction.

Reliability as an assessment principle is related to validity and reflects the consistency, stability and dependability of results gathered from the assessment. Reliable results are, therefore, those that "demonstrate similar performance at different times or under different conditions" (McMillan, 2011:73-75). According to Killen (2010:351-354), the execution of reliability during assessment can be affected by the number of items involved, such as tests and examinations, the level of difficulty, the environment, the interpretation of students' responses, and the formulation of the memoranda. SAQA (2014:8) expressed strong support for the view of McMillan (2011:73-75), confirming that reliability in assessment is about consistency. Unreliable and inconsistent results have little value and meaning and do not provide a good foundation for further assessment. SAQA (2014:8) argued that to ensure reliability and consistency, facilitators as assessors must be qualified, competent experts in their subjects and be able to provide clear, consistent and unambiguous instructions. Only

then will these facilitators as assessors produce reliable assessment items that are mostly free of errors and inconsistencies, thus delivering consistent and reliable results. Interestingly, the WNCP (2006:9), suggested that to ensure reliability, facilitators must use a variety of assessment tasks. Moreover, facilitators must allow students to demonstrate their competency that suits their strengths and work in partnership with other facilitators to review and discuss their performance.

Practicability, according to SAQA (2014:13), also confirmed by McMillan (2011:91), refers to the execution of assessment methods, instruments and tasks that include:

- Available financial resources; and
- Facilities, equipment, and the time factor.

Assessment practices that do not meet these requirements will therefore hinder the success of the system. McMillan (2011:91) agree by stating that high-quality assessment should be practicable and efficient. The statement by McMillan (2011:91) implies that a lack of resources and not well qualified facilitators can affect the quality of assessment that is implemented.

Moderation is a critical, yet problematic, component of effective teaching and learning. The purpose of moderation is to ensure that assessment aligns with established criteria, learning outcomes and standards; its processes are equitable, fair and valid; and judgements are consistent, reliable, and based on evidence within the task response (Adie, Lloyd & Beutel 2011). Effective moderation processes involve discussion of assessment tasks, criteria, standards and judgement decisions to ensure the validity and reliability of assessments, with the aim of improving the quality of the teaching/learning experience.

From the literature review, the conclusion can be drawn that a delicate balance must be maintained between the four principles of assessment to ensure the success of the assessment process and contribute towards the validity, reliability, fairness and practicability thereof.

2.3.13.2 *Continuous assessment*

Gravette and Geysers (2004) and McMillan (2011:61) agreed with the proposal made by

SAQA (2005:7) that assessment is the process of gathering evidence on an individual's performance, which will, in turn, provide information on the level of competence against assessment criteria. To gather such evidence, various assessment methods can be taken by the assessor in determining specific competencies. Assessment should be planned in cohesion with the purpose of the curriculum to be assessed (cf. 2.3). In achieving the assessment aims, appropriate assessment methods must be used to develop activities that form a coherent, integrated process as proposed by SAQA (2005:7, cf. 2.3.13). An integrated assessment provides the means to present evidence of an individual's applied competence in terms of that individual's knowledge, which should reflect practical, reflexive and fundamental competencies. Integrated assessment, therefore, materialises in the classroom during the teaching and learning situation when (SAQA, 2005:7):

- a) Assessing a number of outcomes together;
- b) Assessing a number of assessment criteria together;
- c) Assessing a number of unit standards together;
- d) Using a combination of assessment methods and instruments for an outcome/outcomes;
- e) Collecting naturally occurring evidence (such as in the workplace setting); and
- f) Acquiring evidence from other sources such as supervisors' reports, testimonials and portfolios of work previously done.

The DHET (2013:6) expressed strong support of this view and referred to integrated assessment as the implementation of different assessment methods for continuous assessment.

Geyser (2004:101) refers to CASS as the "regular manner" that assessment takes place and integrates teaching, learning and assessment. CASS refers to a cyclic process that includes various assessment methods and instruments that display a holistic picture of the student's competence. A major feature of CASS is the feedback from each assessment that informs the facilitator how to adapt his/her teaching strategy to provide quality and effective assessments to students. CASS is a classroom strategy implemented by facilitators to determine the knowledge, understanding and skills of students. The advantages of CA (Geyser 2004:101;) are as follows:

- a) It is a powerful diagnostic tool that enables students to understand the areas in which

they are having difficulty and to concentrate their efforts in those areas.

- b) Frequent interaction between students and facilitators means that facilitators get to know the strengths and weaknesses of their students.
- c) Facilitators assess the curriculum as implemented in the classroom and are able to evaluate the effectiveness of their teaching strategies relative to the curriculum, thus allowing them to change those strategies as dictated by the needs of their students.
- d) Students can monitor their achievement of learning goals and visualise their progress towards those goals while it is still possible to do so.

Van Zyl and le Roux (2021:3) highlight that CA may also assist in mitigating anxiety associated with only conducting final summative examinations. Additionally, Cook, Butler, and Jordan (2013) argue that when final assessments are predominantly summative, students are prone to cram their studies prior to the assessment (Lovatt, Finlayson, and James 2007), culminating in superficial learning.

In conclusion, CA is an assessment strategy that involves using a variety of assessment instruments used to assess various components of learning, not only the thinking processes but also behaviours, personality traits and manual dexterity.

2.4 EDUCATIONAL GUIDELINES AND CRITERIA

In the following sections, educational guidelines and criteria for higher education sub-framework level 5 programmes in South African higher education, emergency medical care programmes and short learning programmes will be discussed.

2.4.1 Higher education sub-framework level 5 programmes in South African Higher education

According to SAQA (2012:8), a student pursuing an NQF Level 5 qualification should be able to grasp the fundamental areas of one or more subjects, disciplines, or practises, and an educated understanding of the relevant essential terminology, ideas, facts, basic principles, laws, and theories. Furthermore, the student should understand how knowledge,

or a knowledge system, develops and evolves within the area of study or operation (SAQA 2012:8 & cf. Table 2.1).

NQF Level 5 qualifications deal with fundamental introductory information, cognitive and conceptual skills, and practical procedures necessary for continuing HE studies in the selected subject of study (SAQA 2012:9). In education, the curriculum of a learning programme is understood to be more than syllabus documentation (cf. 2.2.1). This phrase encompasses all teaching and learning activities done in HEI's. It, therefore, includes the purpose and values of learning; the needs and characteristics of students; the learning outcomes; the content that will support achieving the outcomes; the activities, methods, and media for teaching and learning; the assessment process; and the overall effectiveness of the curriculum's delivery (SAQA 2000:6).

Additionally, a curriculum should be specific about the arrangement of information within a module or subject, how lecturers teach or assist learning, how students study, and how the entire process should be assessed (CHE 2014:46). Biggs (2014:5) confirms the importance of this, describing constructive curriculum alignment as ensuring that the purpose of a programme or module is supported by the content selection, learning outcomes, teaching-learning methods, and assessment practices to deliver it. Shakespeare and Hutchinson ([s.a.]:4) reiterate that unless the curriculum for a specific profession reflects the steppingstones to achieve the required competencies for the profession, it is not serving its purpose. In other words, the learning outcomes and theoretical knowledge content in the curriculum must demonstrate practical outcomes or competencies and equip the student with the intellectual tools to interrogate and question a specific set of standards.

2.4.2 Emergency medical care

The National Emergency Care and Training (NECET) policy was created to ensure that EMC education and training are consistent with current HE legislation, national training needs, and regulations. Additionally, the NECET policy seeks to build a national framework for EMC education and training. The latter enables access to and progression within EMC education, training, and career opportunities. Additionally, the NECET policy seeks to rationalise, improve, and sustain the quality of EMC education and training programmes. Moreover, the NECET policy aids in resolving educational system inefficiencies, contributing to the overall personal development of EMC professionals, and delivering EMC care to the general public.

Finally, the NECET policy highlights the necessity of effective and efficient patient care and the development of trained EMC employees (NECET 2017:3).

SA is not alone in its efforts to improve the quality of pre-hospital emergency medical care. The UK Department of Health has taken a similar approach, outsourcing emergency care education to university-based institutions (First *et al.*, 2012). Brooks, Sayre, Spencer and Archer (2021) reviewed the literature on the evolution of paramedic education in the United Kingdom in depth. As in the United States (US), an increase in the frequency of traffic accidents and changes in health services caused the ministry of health to assess the ambulance personnel's function and training needs (Millar Report, 1966). The 'Millar Report' recommended developing a training curriculum for ambulance personnel regarding advances in cardiac arrest and trauma care. The 'Ambulance Services Proficiency Certificate' was an initial eight-week training for prospective recruits. A year of mandatory operational activities was required following the conclusion of the training session. Following that, a four-week advanced course covering advanced First Aid and para-medical treatments can be completed.

Sobuwa and Christopher (2019:2) performed research showing that the EMC short course qualifications was phased out in 2018. Additionally, the authors emphasise the need of understanding the impacts of phasing out of these short courses. Notably, the survey discovered that 79% of pre-hospital care clinicians are BAA practitioners registered with the HPCSA, PBEC. This demonstrates a substantial difficulty in integrating these workers into HE. Additionally, the authors state that the new structure, as outlined in the NECET policy, is intended to create a career path in emergency medical care.

Numerous pre-hospital care providers merely hold a short course certificate unrelated to the NQF, leaving personnel with no official method for short courses qualified personnel, such as BAAs, AEAs, and CCAs, to articulate into a qualification associated with the NQF. Individuals who have finished a short course would need to apply to a higher education school and begin their studies in the first year, presuming they met the entrance requirements. The admission requirements for EMC's advanced certificate, diploma, and degree programmes are aligned with the Department of Education's minimum admission requirements (DoE, 2005). Additionally, the HPCSA PBEC has developed curricula for the Higher Certificate and Diploma in EMC. These curriculum documents provide minimal entrance requirements for English, mathematics, physical sciences, and biological sciences,

in addition to rating codes for each subject (HPCSA 2016a; HPCSA 2016b).

Many short-course qualified emergency care practitioners do not meet the entry requirements for higher education programmes in emergency medical care (EMC). Applicants for the BAA qualification were not needed to hold a matric certificate before to 2012. In 2012, the HPCSA amended this criterion, requiring all applicants to the BAA program to hold a matric certificate. There were no necessary topics or scores (HPCSA, 2012). Many short course graduates have been unable to continue their studies due to set entrance standards for matric themes and results for Higher Education EMC programmes. With the HPCSA discontinuing the three registrations and training institutions no longer able to provide the three short courses, there are no clear pathways to higher education certificates and limited job progression opportunities for those who complete the three short courses.

In conjunction with the PBEC, the Department of Health has proposed a three-tier Emergency Care Qualification Framework (ECQF), which is aligned to the NQF and complies with the requirements of the NQF Act of 2008. The ECQF consists of entry-level, mid-level, and professional-level qualifications (NECET 2017:3). In a letter to UJ dated July 2017, the principal of FSCoEC referred to an analysis conducted regarding the Grade 12 school-leaving achievements of all in-service personnel. This letter mentioned that most in-service personnel did not meet the minimum entry requirements for enrolment in HE programmes. Additionally, personnel who lack a senior certificate or the correct subject combinations show a negative attitude towards HE. Personnel either had the correct subjects but not the correct performance levels or did not have the required subjects. The purpose of the NECET policy is to facilitate access, mobility, and progression within EMC education, allow for career progression and amend the past's unfair discrimination (NECET 2017:4).

Most EMC practitioners have followed the short course training route, but despite these courses being accredited by the HPCSA, they were never registered with the NQF. As a result, the certificate achieved through the short-course training is non-credit-bearing, and thus, academic articulation to HE is difficult (Stein, Wang & Louw 2012:59). Consequently, the three-tier ECQF was proposed. The new NQF EMC qualifications are shown in Table 2.2.

Table 2.2: New NQF EMC qualifications (NECET 2017:5)

DESCRIPTION OF QUALIFICATION	NAME OF QUALIFICATION	NQF LEVEL AND CREDITS	HPCSA REGISTRATION
1. Entry-level qualification	Higher Certificate in EMC (H Cert EMC)	NQF 5 120 credits	Emergency Care Assistant (ECA)
2. Mid-level qualification	National Diploma in EMC (Dip EMC)	NQF 6 240 credits	Paramedic
3. Professional-level qualification	Professional Bachelor's Degree in EMC	NQF 8 480 credits	Emergency Care Practitioner (ECP)

2.4.2.1 *Emergency Medical Care admission requirements*

EMC education and training in SA have recently been aligned to conform to the stipulations of the South African Qualifications Authority (SAQA) and the NQF. According to the NECET (2017:5), most short course-trained EMC personnel registered with the HPCSA do not have NQF-recognised qualifications, creating an obstacle to accessing HE. EMC students currently need to meet specific admission criteria regarding EMC educational courses, such as swimming and being physically fit. Considering meeting the requirements, further development of EMC personnel and access to NQF-aligned formal qualifications are required. The specific admission requirements for EMC HE programmes are annexed (Appendix FF).

Part of the training of emergency medical personnel includes rescue service at an operational level. Medical rescue work is physically taxing, and places demands on the rescuer in terms of strength and endurance. For emergency care providers to perform effectively and safely in emergency medical and rescue environments, they must possess set minimum physical strength and endurance levels. Emergency care workers who are unfit cannot perform as they should, which has a negative effect on the rescue operation and patient care (Vincent-Lambert, Coopoo & Van Nugteren 2017:6). Muhlbauer, Vincent-Lambert and Coopoo conducted a scoping review (non-systematic, narrative review, indicating that physical fitness assessment tools were not scientifically validated and that a specific tool is needed. Physical preparedness and swimming are part of most of the paramedic programmes provided by HE institutions. This is a crucial aspect and needs attention to provide clear guidelines on what should be included in physical preparedness programmes.

Although there is a lack of scientifically validated assessment tools, the study further

indicates the importance of being physically fit and being active and healthy. It should be noted that the study focuses on students enrolled on an EMC programme with rescue modules. A considerable debate in EMC is that some programmes, for example, the HCert (cf. 2.4.2.2), does not include any rescue modules, and with the lack of specific guidelines and criteria on physical fitness, students may be subject to unnecessary strict fitness regimes. Moreover, and equally important is the requirement of swimming as part of the physical fitness modules at some universities. It could be questioned why students on programmes without rescue modules are subjected to the same fitness requirements. For example, should the student not be enrolled on a learn to swim programme. The benefits of being physically fit are in no way disregarded. In a comprehensive literature review conducted by Sheridan (2019:1), it is mentioned that paramedics might have a negative attitude when it comes to their health. As indicated by the WHO, physical, mental, and social well-being are all major components of being healthy.

2.4.2.2 Emergency medical care programmes in South Africa

In 2017, the CHE proposed a revised overall Qualifications Authority framework based on what currently exists. This framework reaffirms the principles on which the CHE's QA is based but realigns its current activities to ensure a balanced set of activities in a much more integrated manner that increases their synergies (CHE 2017:12). The main distinction between the old and the revised Qualifications Authority framework pertains to programme accreditations' alignment to the new institutional evaluation process (CHE 2017:12). In Table 2.3, the EMC qualification and their NQF levels are presented.

Table 2.3: EMC qualification types and their NQF levels (adapted from Sobuwa & Lloyd 2019:4)

NQF LEVEL	QUALIFICATION TYPES
	Postgraduate
10	Doctoral Degree EMC
9	Master's Degree EMC
	Undergraduate
8	Bachelor's Degree (Professional) EMC
6	Diploma EMC
5	Higher Certificate EMC

In the following section, a summary of the HE EMC educational programmes will be discussed. For this study only the undergraduate EMC programmes will be discussed.

Higher Certificate in Emergency Medical Care

The H Cert EMC is an NQF Level 5 qualification implemented in 2018 and is defined by SAQA as an entry-level qualification to provide the practitioner with the necessary foundational knowledge, skills, and insights to form the platform for further study field of EMC (SAQA 2020:online). The H Cert EMC is a 120-credit programme offered over one year and is registered at NQF Level 5 with SAQA. Vertical progression is allowed into relevant cognate qualifications at Level 6 (SAQA 2019b:online). According to SAQA (2020:online), the rationale for the H Cert EMC is to develop an entry-level individual capable of providing EMC within SA in settings ranging from rural, underprivileged communities to sophisticated, technologically urban areas. The training of this category of health care worker will assist in increasing access to health care.

The H Cert EMC defines the competencies needed by the ECA. Thus, the qualification is intended to facilitate students' personal and professional growth and to encourage lifelong learning. This qualification provides an entry point to an Emergency Medical Services' (EMS) career path while providing opportunities for employment and mobility for the individual to move between different areas within EMC (SAQA 2020:online).

Diploma in Emergency Medical Care

The Dip EMC vertically integrates with the Professional Bachelor in EMC (Level 8, previously Level 7), and after that, graduates will be able to progress directly to a master's and subsequently to a related doctoral programme (SAQA 2019b:online). Consequently, the Dip EMC, an NQF Level 6 qualification, will allow registration with the HPCSA as independent practitioner. The Dip EMC is a 240-credit course offered over two years. The National Diploma in EMC (Level 6) will allow vertical articulation with the Professional Bachelor's Degree in EMC (Level 8) (SAQA 2019b:online). The rationale of the Dip EMC is to allow qualifying students to practice independently and provide specialised emergency medical and rescue services to the community and be capable of supervising such services in the public or private sector, therefore contributing to the EMC and rescue requirements of rural and urban areas. The qualified person will be able to register with the HPCSA (SAQA 2020:online).

Bachelor of Health Sciences in Emergency Medical Care

The Professional Bachelor's Degree (NQF Level 8) in EMC is intended to produce independent EMC practitioners and allow registration with the HPCSA. The Bachelor of Health Sciences in Emergency Medical Care (BHSEMC) is registered at the ECP level with the HPCSA. Additionally, this qualification originated from the review of the old tertiary qualifications, Ndip EMC and Btech EMC, merged to form this NQF Level 8 bachelor's degree offered over four years at universities (Vincent-Lambert 2011:31).

2.4.3 Short-learning programmes (SLP)

According to SAQA (2004:5), a SLP is defined as a course with a credit value of fewer than 120 credits, which is considered equivalent to a year of full-time study and is, therefore, not considered as a whole qualification. The definition of a non-credit-bearing SLP is a type of SLP for which no credits are awarded relating to unit standards or part qualifications depending on the programme's purpose and assessment (SAQA 2004:15). The EMPP is considered a non-credit-bearing preparatory programme with the specific goal to assist EMC personnel gain access to HE EMC programmes. SLPs are associated with continuing professional development and assist with the upgrade of specific skills and knowledge. Coetzee (2014:17) agrees that SLPs consist of structured learning activities to support a particular occupational demand.

SAQA describes a SLP as successive learning activities connected with curriculum implementation, resulting in the achievement of specific qualifications (SAQA 2014:online). Therefore, a learning programme is a plan for students to achieve specified outcomes set out in the curriculum. A SLP comprises assessment activities and learning based on the qualification; the assessment activities and learning outcomes are designed by the provider, based on sound educational principles (SAQA 2014:online). These SLPs differ based on the following:

- a) The SLP is too short in terms of notional hours to meet the requirements for a one-unit standard, such as a one-day seminar with attendance certificates;
- b) The SLP comprises less than one credit toward a unit standard or qualification and focuses on a single specific outcome rather than on all of the individual outcomes specified in a unit standard or sub-set of learning in non-unit standard-based qualifications (SAQA 2004:20).

SLPs may have a dual purpose, for example, “refresher courses”, “continuing professional development” courses, and “community-based” courses (SAQA 2004:21). Additionally, the purpose of SLPs could include any or a combination of the following:

- a) To offer students with adequate opportunities for practical (hands-on) learning;
- b) To enhance employability, self-employment opportunities, and workplace mobility;
- c) To offer access to opportunities for learning that lead to nationally recognised unit standards and certifications;
- d) To provide occupationally oriented education; and
- e) To contribute towards closing the skills gap as identified in the Workplace Skills Plan (WSP), the Sector Skills Plan (SSP), and National Skills Plan (NSP) (SAQA 2004:21).

The purpose of SLPs is to update students on new developments and insights into their professions, to upgrade foundational knowledge for successful completion of a chosen field of learning, and to earn credits towards formal programmes should students wish to build on the learning achieved through SLPs intended for personal enrichment (SAQA 2004:22). As the CHE (2016:7) mentions, the highest academic decision-making body in an institution should govern and approve short courses using a written institutional policy. The CHE (2016:5) further mentions that SLP should be (i), planned and designed in accordance with the requirements and expectations of participants, employers, sponsors, and, where relevant, professional associations (ii) adhere to an institution’s vision, purpose, goals, core competencies, and resources, and have a clearly stated teaching and learning philosophy that informs the design and development of SLP, (iii) The intended learning outcomes and potential effect of the SLP should be explicitly stated in writing during the design and development phases.

As the CHE (2016:7) explains, a needs analysis is used to inform the design and development of short courses to ensure that each short course’s need is clearly defined. This implies that preparatory programmes, such as the EMPP, should specifically address the student’s needs seeking access to EMC HE programmes. Another critical aspect of the design and development of short courses is the degree of flexibility thereof to ensure that the specific institution’s needs are met. For example, individual institutions may require the courses to be in-house (CHE 2016:9). Therefore, newly developed short courses should be compared to similar ones already on offer at other local or international HEIs. Another essential point institutions need to ensure is the standardisation of course design templates and their consistent use across the institution (CHE 2016:9).

Furthermore, institutions offering SLP's must ensure that the following requirements are met:

- a) Institutional policy framework;
- b) Effective SLP coordination and governance structures;
- c) Processes and procedures for programme design and development;
- d) Systems for programme approval and registration;
- e) Rules and regulations about programme marketing, recruitment, and registration of participants;
- f) Adequate teaching and learning resources and appropriate processes;
- g) Assessment strategy and procedures;
- h) Certification arrangements;
- i) A system of managing records; and
- j) A system for monitoring and review as a basis for continuous improvement (CHE 2016:5).

A clear distinction is evident between EMC short course qualifications and SAQA-registered HE EMC qualifications. The following EMC short courses feed into the EMPP, namely Basic Ambulance Assistant (BAA), Ambulance Emergency Assistant (AEA), Operational Emergency Care Orderlies (OECO), and Critical Care Assistant (CCA) (HPCSA: PBEC 2013:3). The abovementioned EMC short courses are phased out. Personnel on the specific registers at the closure date retained their registration status and practise under the scope of practice linked to the specific qualification, but no new registrations will be added to the specific register (HPCSA 2019:online).

2.4.4 Emergency Medical Preparatory Programme

On 4th of June 2018, CUT started the EMPP, which assists in-service EMC personnel with access to the NECET qualifications. The duration of the EMPP is seven to eight months, 560 hours, and includes the following subjects: Academic Communication and Literacy, Basic Computer Literacy, Life Sciences, Physical Sciences, and Mathematics and Numeracy. Physical Fitness, which includes a learning-to-swim programme, also forms part of the programme. The EMPP is, however, not credit-bearing and is presented as a SLP at NQF Level 5. The programme followed the approval route for SLPs at both CUT and UJ and is approved by both institutions' senates. Successful EMPP students will be able to access the Dip EMC programme at UJ. Therefore, the approval of the UJ senate was also needed.

The rationale of the EMPP is to provide the student with the necessary foundational knowledge, skills, and attributes necessary to provide access to qualifications within the HEQSF (EMPP short-learning programme approval document 2019:5). Furthermore, the EMPP intends to assist applicants for the new NQF-aligned EMC programmes and, therefore qualifications, that has been introduced for the upgrade in the qualification of current EMC personnel in SA, namely:

- a) Those who hold one of the three EMC short-course qualifications and are currently registered with the HPCSA;
- b) Those who do not comply with the necessary entry requirements for the new NQF qualification but who hold a matric certificate or equivalent thereof; and
- c) Those with the correct modules or subjects but not with the required grade (EMPP short-learning programme approval document 2019:5).

Several questions logically result in designing a precise assessment task and assist in identifying areas where more refinement is needed concerning each learning task (CHE 2009:online). The following questions should be answered and noted when designing the various assessments for programmes such as the EMPP:

- a) What are the outcomes being evaluated?
- b) What are the competencies or skills of the outcomes?
- c) Are the chosen methods of assessment in agreement with the skills and outcomes?
- d) Is the approach reasonably effective in terms of student and staff time?
- e) What are the alternatives? What would the advantages and disadvantages be?
- f) Are the precise assessment tasks counterparts of the outcome skills?
- g) Are the criteria or marking schemes appropriate? (CHE 2009:online).

The EMPP addresses the following ELOs:

- a) To develop the necessary foundational knowledge, skills, and attributes necessary to form the basis for further study in the fields of pre-hospital EMC;
- b) To provide access to qualifications within the HEQSF to enable students to pursue further personal and professional development within the EMC environment; and
- c) To promote lifelong learning (EMPP short-learning programme approval document 2019:8).

The following are specific outcomes of the EMPP:

- a) Demonstrate insight into concepts and their appropriate application in each relevant module; and
- b) Demonstrate comprehensive knowledge of the content of each module (EMPP 2019:7).

The EMPP is aimed at EMC certificate holders and school-leavers with an NSS (Matric) certificate (EMPP short-learning programme approval document 2019:4). The selection criteria used for acceptance onto the EMPP are:

- a) Candidates holding a valid NSS certificate (post-2011) or with the correct subjects; and
- b) Candidates currently employed as Intermediate Life Support (ILS) or Basic Life Support (BLS) with current registration at the HPCSA.

According to the EMPP short-learning programme approval document (2019:5), initially, as part of the selection criteria of the EMPP, the request was made that the Department of Health furnishes CUT with a staff breakdown summary to shortlist candidates. The shortlisting process entailed it follows a process of interviewing students, a basic medical assessment, and a physical fitness assessment. The EMPP is discussed in detail in Chapter 4.

2.5 QUALITY ASSURANCE GUIDELINES TO ENHANCE THE QUALITY OF PROGRAMMES

The Department of Education (DoE) gazetted the Education White Paper 3: A Programme for the Transformation of Higher Education (RSA DoE, 1997) in 1997, following the report of the National Commission on Higher Education (NCHE) (1996). This report emphasised quality as a non-compromising critical principle for applying and maintaining standards in HEIs in terms of specific requirements to reach a state of excellence (RSA DoE 1997:8). In an institutional context, these expectations and ideals may differ. The latter is also dependent on the specific purposes and implementation of the principle of quality, which means that products and services are evaluated against international standards to improve, renew, and progress (RSA DoE 1997). Additionally, the White Paper proposes that QA is primarily the responsibility of HEIs and that the role of the HEQC is to assess, among other aspects, quality in institutions. It is not a body that focuses on punitive measures for erring

institutions (RSA DoE, 1997).

The quality of healthcare is strongly associated with health professions education. Thus, quality and quality improvement in health professions education are vitally important (Da Dalt, Callegaro, Mazzi, Scipioni, Lago, Chiozza, Zacchello & Perilongo 2010:2). Furthermore, QA involves a continuous process of collecting, recording, assembling, and interpreting information. However, integrating QA into HE is a challenge because most of the established internal quality assurance (IQA) traditions are no longer adequate to meet the challenges of a more dynamic society (Da Dalt *et al.* 2010:3). Moreover, IQA relates to diverse understandings of quality, which are contextually determined and reflect different national, institutional, and disciplinary traditions and cultures (Njui 2018:335). Hazelkorn, Coates and McCormick (2018:275) places quality, performance, and accountability as the three most important aspects of higher education. After the shift from quality assurance to quality management in SA between 2004 and 2011, the CHE expanded the focus of quality-to-Quality Enhancement Project (QEP). Interestingly, the QEP aligns with conceptualisations of quality enhancement and the sectoral move from widening participation to a stronger focus on the amalgamation of access and success.

In a study by Mkhize and Cassimjee (2013:1267), employing a concept analysis by evaluating written and unwritten sources, the primary distinction between quality assurance and quality enhancement is that the former involves evaluation, whilst the latter involves capacity creation. The main priority of higher education is teaching, learning, and research. Quality assurance is a procedure for ensuring that higher education institutions have systems and processes in place to track and quantify their effectiveness in delivering the outcomes they have set for themselves in harmony with their main business, by ensuring that procedures are built on a continuous quality improvement cycle.

2.5.1 Defining quality and quality assurance

The United Nations Educational, Scientific, and Cultural Organization (UNESCO 2020:online) defines quality assurance as “the systematic examination of educational programmes to guarantee they continue to meet recognized standards of education, scholarship, and infrastructure.” A definition given by the United Kingdom’s Higher Education Quality Assurance Agency defines QA as “the collection of processes, resources, and information committed to sustaining and increasing the quality and standards of teaching, scholarship, and research, as well as the student experience.” Schindler Puls-Elvidge, Welzant, and

Crawford (2015:6) have a similar definition and mention that quality is a “purposeful, transformative, exceptional, and accountable” with “a set of quality indicators,” such as a stated mission or vision, positive change, compliance with high standards, and accountability to stakeholders, that are used to evaluate each of these broad conceptualisations. Additionally, the authors assert that rules, processes, and activities are the primary components that define quality. Cardoso *et al.* (2016:952), agree that accountability and continuous improvement are secondary components that help refine the sense of quality.

Experts in quality assurance hold widely divergent views on the notion of quality (Krathwohl 2002:163; Elassy 2015:258). However, in the context of higher education, quality refers to procedures that combine several interdependent components, including students, educators, administrators, educational programmes, teaching-learning methodologies, and assessment systems (Prisacariu & Shah 2016:152). Thus, to contextualise the term ‘quality’ in higher education, it is necessary to understand the learning process as a whole (Cardoso, Rosa & Stensaker 2016:950).

Moodley (2019:1) have a similar take on QA as Cardo *et al.* “a process of demonstrating excellence, accountability and value for money”, stressing the responsibility of institutions to prove that they are accountable and provide the funded services. In a paper by Harvey and Green (1993:9), as cited by Moodley (2019:1), emphasis is placed on five key aspects, namely:

- a) Exception: Quality is defined in terms of excellence and compliance with a minimal set of criteria;
- b) Perfection: Concentrating on quality and aiming for zero defects;
- c) Fitness for purpose: Links quality to a provider-defined objective;
- d) Value for money: Focusing quality on efficiency and effectiveness by measuring outputs against inputs; and
- e) Quality as transformation: Conveys the concept of a qualitative change that benefits and empowers students as they learn.

Quality is a relative concept, where different stakeholders in HE have diverse perspectives and their focus of attention might be different (Mavil 2013; Newton 2010; Prisacariu & Shah 2016). In other words, this concept (quality) is not easy to define, because quality has

different meanings when used in different contexts (Cardoso, Rosa & Stensaker 2016). To ensure that the aims of HE is met, literature agrees that the purpose of quality assurance in HE are improvement and accountability (Lockett 2006, Selesho 2010 & CHE 2013). The term quality “was originally derived from industries and businesses...” (Elassy 2015:258), while in HE it refers to processes that incorporate numerous components (e.g., students, educators, administrators, educational programmes, teaching-learning, and assessment strategies) which are integrated and interdependent in a complex way (Prisacariu & Shah 2016). Thus, when dissecting the concept of quality to understand it better contextually in terms of the HE paradigm, one should first become knowledgeable with the learning process itself (Cardoso *et al.* 2016; Elassy 2015; Mavil 2013).

2.5.2 Management of quality

Quality management (QM) in higher education requires an institution to operate efficiently and effectively, with capable leadership pursuing goals and objectives through methodologies that promote the advancement, while motivating academic personnel to perform at an exceptional level through employee empowerment. A Quality Management System (QMS) refers to the institutional arrangements for ensuring, supporting, developing, and increasing the quality of learning and teaching, assessment, research, community involvement, and monitoring the quality of these activities (CHE 2021:24). To ensure the efficacy of QA the implementation of various activities, notably creative ones in teaching and research that serve the requirements of stakeholders, the ongoing development of institutional procedures, and the establishment of a system of periodic academic evaluations to rectify deficiencies are needed (Tambi, Ghazali & Yahya 2008). O’Mahony & Garavan (2012:184), have a similar view and mention that QM in HE requires an institution to efficiently and effectively pursue its goals and objectives by empowering and motivating academic personnel.

As identified by Zubair (2013:24), QM in HE can be explained employing four components of institutional planning and actions:

- a) QA – The approaches, frameworks, methodologies, and resources the institution uses to meet its quality needs and act decisively;
- b) Quality support – The arrangements, frameworks, techniques, and the institution’s resources to support and manage existing quality levels;
- c) Quality improvement and enhancement – The approaches, frameworks, procedures,

- and the institution's resources to develop and improve quality; and
- d) Quality monitoring – The strategies, frameworks, and the institution's systems and resources to evaluate and monitor quality issues (Zubair 2013:24).

2.5.3 Quality assurance in higher education

In an exploratory study done by Bilal and Manning (2020:5), the importance of quality assurance to promote outcomes and graduate competence are emphasised. The authors further mention that in HPE the use of internal quality assurance is important for the social accountability of the institution. The United Kingdom Higher Education Quality Assurance Agency includes students in their definition, stating that QA is 'the totality of systems, resources and information devoted to maintaining and improving the quality and standards of teaching, scholarship and research, and of student experience'. Whilst agreeing that it will constitute acceptable quality if the provision of an institution is 'fit for purpose', making effective use of resources and offering stakeholders value for money, most of these definitions focus singly on achievement of quality. Vroeijenstijn (2021:11) emphasises that continuous attention to quality by the spread of quality awareness among faculty, staff and students is the best way to ensure quality. Quality assurance is not a single event, dependent on measurements and instruments, but rather an ongoing, embedded institutional culture. Moloï and Motaung (2014:137), also argue that it is equally important to promote improvement, rather than mere maintenance of quality, placing a responsibility on higher education institutions to create an ongoing culture of QA that recognises the need for continuous quality improvement across all sectors.

2.5.3.1 *Higher Education Quality Committee framework for accreditation and reaccreditation*

In 2018, the HEQC published a draft Framework for the Accreditation and Reaccreditation of Programmes for perusal by HEIs. This framework reaffirms the responsibility of the HEQC to accredit university academic programmes and confirm the continued accreditation of programmes referred to as reaccreditation by the CHE (CHE 2009:10). The CHE considers the accreditation and reaccreditation functions to be an integral part of its mandate for external QA processes. The framework also reaffirms that the fundamental responsibility for assuring programme quality lies with the HEI itself through robust mechanisms for IQA and an effective Integrated Quality Management System (IQMS) that allows HEIs to conduct their own institutional and programme reviews as part of a regular internal quality

review cycle (CHE 2009:10). The framework also states that regular, systematic programme review cycles must include analysis of results, reporting to the CHE, planning, implementation, and monitoring improvements as part of ongoing QA initiatives (CHE 2009:13).

One of the few specific purposes of the accreditation and reaccreditation of the HEIs and their programme offerings is to identify and manage improvement measures that lead to the improvement of the quality of the programmes through the CHE's external QA processes, thus opening opportunities to design quality programmes from the outset (CHE 2009:14). These aspects of programme accreditation and reaccreditation represent a cyclical process from initial accreditation to verification after the first student cohort has been produced. This is followed by regular reports on internal institutional programme reviews that establish accountability via a Continuous Quality Improvement (CQI) practice for programmes designed and managed by HEIs (CHE 2018:14). The revised functions of the HEQC Accreditation Committee include analysing improvement plans of HEIs, drawing up progress reports, and ensuring that all recommendations included in the review were attended to (CHE 2009:15).

The rigour and authenticity of the institution's review process concerning its existing programmes, improvement plans, and progress reports are exhibited in demonstrating its capacity to quality assure its programmes at a high level of integrity and provide credible results and reports to the HEQC (CHE 2009:15).

The HEQC is committed to using QA as a steering mechanism to support institutions in the realisation of the four purposes of HE identified in the White Paper on Higher Education (1997):

- a) To meet the learning needs and aspirations of individuals through the development of their intellectual abilities and aptitudes throughout their lives. Higher education equips individuals to make the best use of their talents and of the opportunities offered by society for self-fulfilment.
- b) To meet society's developmental needs and to equip the labour market with the ever-changing high-level competencies and expertise required for the growth and prosperity of a modern economy in a knowledge-driven and knowledge-dependent society. Higher education prepares students to perform specialized social functions, enter learned professions, or pursue careers in administration, commerce, industry, science and

- technology, and the arts;
- c) Contribute to the development of enlightened, responsible, and constructively critical citizens through socialisation. Higher education fosters the development of a reflective capacity and a willingness to review and renew established ideas, policies, and practices in the public interest ; and
 - d) Contribute to the creation, dissemination, and assessment of knowledge. Through research, learning, and teaching, higher education pursues academic scholarship and intellectual inquiry in all fields of human understanding (White Paper 3 1997:1.3 & CHE 2012:13).

According to Calvo-Porrall, Levy-Mangin and Novo-Corti (2013:603), the maintenance and development of policies, processes, and actions define QA in HE. The authors further mention that the focus in HE should be on the students' perceptions of educational quality, as the educational quality is assessed through the students' perspectives. SAQA-registered HE EMC qualifications fall under the HEQSF and thus under the DHET. Responsibility for QA in HE in SA has been assigned to the CHE (RSA DoE 1997:10), of which the HEQC is a permanent sub-committee responsible for the QA of HE programmes. The directive of the HEQC includes programme accreditation, institutional audits, and quality promotion (CHE 2004:1). As an ETQA authority, the CHE is responsible for ensuring the continued improvement of the quality of HE credentials by reviewing and monitoring HEIs' capacity to offer qualifications successfully and efficiently.

The SAQA Act (No. 58 of 1995) provides a common understanding of quality in education and training and the implementation of a holistic QMS to enhance the quality of education and training in SA (CHE 2016:13). As outlined in Education White Paper 3, the critical functions of the HEQC involve:

- a) Promoting QA in HE;
- b) Auditing the QA mechanisms of HEIs; and
- c) Accrediting HE programmes (CHE 2016:11).

The HEQC was established to develop and implement an integrated national QA system through institutional audits, program accreditation, and quality promotion in order to ensure both accountability and reform of the HE system (Lockett 2010:72). Additionally, SAQA refers to critical aspects of a QMS, namely:

- a) The quality management policies, which specify the desired level of quality.;
- b) The quality management processes that ensure that the organization's practices are consistent with its policies; and
- c) The review processes which guarantee that the stated quality management policies and procedures are implemented and continue to be effective (CHE 2016:11).

In the educational setting, the HEQC (CHE 2013:12) describes the approach to quality as:

- a) Fitness for purpose: This phrase refers to an institution's ability to fulfil its obligations in line with its missions;
- b) Value for money: The efficiency and efficacy with which institutions carry out their functions within the context of their individual missions is an indicator of the return on investment obtained by society, the state, and families;
- c) Transformation: Individual and social transformations are not mutually exclusive in the HEQC's quality conceptualisation, nor are they distinct stages of a developing process; and
- d) Fitness of purpose: Internationally, one of the primary goals of higher education reform has been to gain a balanced between societal needs, goals and the work of HEIs while maintaining academic freedom and institutional autonomy (CHE 2013:12).

In a qualitative study, implementing a rapid review, Brits *et al.* (2020:6), mention that as seen in literature, quality assurance are structured around three components, namely accreditation, assessment and quality assurance (audit). Accreditation is a form of certification that verifies that a programme or training facility are capable of meeting certain requirements for a specified length of time. For example, SAQA accredits providers who deliver outcomes-based learning programmes compatible with the National Qualifications Framework's approved unit standards and qualifications (NQF). SAQA describes assessment as 'a process for identifying, gathering, and interpreting data and evidence to decide about a student's achievement'. As defined by the University of the Free State (UFS), assessment is 'the process of assessing the worth, relevance, or extent of what students know, comprehend, and can accomplish with their knowledge as a consequence of their educational experience.' Thus, assessment is a thorough procedure that incorporates several performance metrics. This notion encompasses assessment content and standards, assessment kinds, assessment methodologies, and assessment concepts.

The HE Act specifies that the CHE and the HEQC need to conform to the policies and criteria

articulated by SAQA in terms of the SAQA Act of 1995 (CHE 2016:11). The purpose of audits is strongly linked to producing evidence-based information to be used by the institution for planning, implementing, and monitoring quality development and improvement. Moreover, the HEQC will also use the information to evaluate the effectiveness of the Internal Quality Assurance (IQS) systems for teaching and learning, research, and service-learning programmes and make recommendations for improvement (CHE 2004:6).

Johannes, Batyi, Goldstone, Olsen, and Champion (2019:146) conducted a study indicating that those various studies propose frameworks to guide the efficiency and the evaluation of programmes. Participants' emotions, organisational support, participants' application of new information, conceptual and behavioural change, and the influence on student learning are just a few examples of emphasis areas. Guskey (2002:382) in Johannes *et al.* (2019:146) presents a five-level model that provides a valuable decision-making framework. This model incorporates participant reactions to the programme, conceptual improvements in participants' thinking, changes in institutional culture, behavioural changes, and changes in student learning.

In a study by Chalmers and Gardiner (2015:63), four types of quality indicators of the impact and effectiveness of academic development programmes, commonly used as input, output, process, and outcome indicators, are identified. According to Haji, Morin and Parker (2013:343), who conducted a qualitative study, identified four outcome levels (participation, attitudes, knowledge and skills, behaviour change, and systems-level impacts, such as improved patient outcomes) are used to evaluate health sciences programmes. The effectiveness of a programme is linked to the outcomes of our educational interventions. In other words, a programme needs to achieve all outcomes to be considered. Evaluating the effectiveness of an academic development programme can be done using a theory-informed evaluation research approach (Johannes *et al.* 2019:147).

Additionally, (Chalmers & Gardiner 2015:64), implemented an institutional effectiveness framework as a "matrix of indicators related to the intended outcomes" As mentioned by the authors, the exploration, analysis, and description of programme evaluation is the first step for an effective QA process. The QA process includes the nature or characteristics, structure, and components of the programme to be evaluated. Furthermore, quality content and a well-structured process are needed to link professional development activities and student learning. In agreement, Johannes *et al.* 2019:147) mention that the content and

design should be effective and valid, hence providing professional and organisational development.

Various evaluation frameworks indicate the importance of evaluating programme design and continuous monitoring as two vital factors in the evaluation process. A fundamental flaw in some evaluation frameworks is the inclusion of participants' evaluation feedback and self-reporting evaluations, and subjective observation methods without questioning or analysing the programme attributes. It is generally neglected to link programme attributes, such as the structure, components, features, and characteristics that describe the programme's nature and to map them to the desired programme objectives (Johannes *et al.* 2019:148). As seen in the White Paper in Higher Education 1997), the HEQC is committed to using QA as a steering mechanism to support institutions in the realisation of the four purposes of HE, namely:

- e) To meet the learning needs and aspirations of individuals through the development of their intellectual abilities and aptitudes throughout their lives. Higher education equips individuals to make the best use of their talents and of the opportunities offered by society for self-fulfilment;
- f) To meet society's developmental needs and to equip the labour market with the ever-changing high-level competencies and expertise required for the growth and prosperity of a modern economy in a knowledge-driven and knowledge-dependent society. Higher education prepares students to perform specialized social functions, enter learned professions, or pursue careers in administration, commerce, industry, science and technology, and the arts;
- g) Contribute to the development of enlightened, responsible, and constructively critical citizens through socialisation. Higher education fosters the development of a reflective capacity and a willingness to review and renew established ideas, policies, and practices in the public interest.

2.5.3.2 National Qualifications Framework (NQF)

The NQF is a comprehensive system approved by the Minister of Higher Education and Training to classify, register, publish, and articulate quality-assured national qualifications and part qualifications. Moreover, the NQF was established under the SAQA Act (Act 58 of 1995) and continues under the NQF Act (Act 67 of 2008), which came into effect on 1 June

2009 (SAQA 2013:1). The NQF was designed to initiate a single, integrated national framework for learning achievements, to facilitate access and progression in education, training, and career paths, to improve the quality of education and training, and to accelerate the redress of historical discrimination in education, training, and employment (SAQA 2013:1). The objectives of the NQF are:

- a) Facilitating the registration of qualifications and part qualifications on the NQF that have been recommended to SAQA by Quality Councils and fulfil the policy's requirements.;
- b) Ensuring the relevance of registered qualifications and part qualifications, advocating responsible citizenship, and expanding knowledge and innovation for a successful SA;
- c) Establishing coherence among the three sub-frameworks in order to clarify and strengthen articulation between qualifications within each sub-framework and between sub-frameworks;
- d) Increasing public understanding and trust in the NQF by registering high-quality, nationally relevant, and internationally comparable qualifications and part-qualifications.;
- e) Supporting the coherence of purpose between education, training, and development nationally and creating a basis for and promoting lifelong learning; and
- f) Supporting the development of a national career development system (SAQA 2013:5-6).

The National Qualifications Framework Act No. 67 of 2008 provides for the National Qualifications Framework (NQF). The NQF has been approved by the Minister of Higher Education and Training and is a system against which quality assured national qualifications are classified, registered, published and articulated (NQF Act 67 of 2008). SAQA is responsible for developing and implementing the objectives of the NQF. This includes ensuring that South African qualifications meet appropriate criteria, are of an appropriate standard and internationally comparable (NQF Act No 67 of 2008). In conjunction with professional bodies, SAQA is responsible for the registration of HE qualifications on the NQF (NQF Act No 67 of 2008). Health Professions Council of South Africa The HPCSA is the regulatory body in South Africa that coordinates activities pertaining to the professional boards and serves as an advisory and communications entity for the various professional boards (Health Professions Act 56 of 1974). The HPCSA is further mandated to control and exercise authority regarding education and training and uphold training and education standards.

The NQF is essentially a QA system, with the development and registration of standards and qualifications serving as a critical first step toward establishing a high-quality education and training system in SA. The bodies responsible for generating and recommending qualifications and standards are SGBs and National Standards Bodies (NSBs) (RSA DoE 2009:6). The objectives of the NQF are to guide and enhance the quality of education and training in SA by (RSA DoE 2009:6):

- a) Creating a single, integrated, national education and training framework for the whole nation;
- b) Making it easier for students to enter the education and training system and move and progress within it, improve the quality of education and training in SA;
- c) Enabling students to develop to their full potential and thereby supporting the social and economic development of the country as a whole;
- d) Enhancing the quality of education and training;
- e) Accelerating the redress of past unfair discrimination in education, training, and employment opportunities;
- f) Developing, fostering, and maintaining an integrated and transparent national framework for the recognition of learning achievements; and
- g) Ensuring that SA qualifications meet appropriate criteria, determined by the Minister as contemplated in section 8, and are internationally comparable; and ensuring that SA qualifications are of an acceptable quality (RSA DoE 2009:6).

2.5.4 Emergency Medical Care regulations for educational programmes

The evaluation of EMS/Paramedic education is an essential component in the quality control of EMTs and paramedics. Brooks *et al.* (2021) reviewed the EMS education system in the US and observed inconsistency in EMT-Paramedic registration between individual states, which acted as a barrier to attempts by education providers to implement national EMS education standards. The same authors contrasted the situation in Australia where ambulance services determine paramedics' scope of practice in their respective jurisdictions, and tertiary qualification provides employers with comparable levels of skill and knowledge, thereby enabling portability of qualifications across states. Based on such findings, the EMS education environment, education agenda and standards, and the scope of ambulance services' practice are interrelated and influence the quality of EMS education.

Any higher education institution wishing to present the higher certificate, diploma or degree

in EMC needs to have its qualifications approved by the Council on Higher Education (CHE), the Department of Higher Education and Training (DHET) and the HPCSA PBEC. The HPCSA PBEC is the quality assurance of these qualifications and has a set application process that HEIs need to follow to be accredited to present these qualifications. Institutions need to submit a letter of intent to offer the qualification/s to the PBEC which needs to be acknowledged and supported by the PBEC. Thereafter, institutions need to prepare portfolios for accreditation which need to be submitted to the CHE, PBEC and DHET for evaluation and approval (HPCSA Form 332, 2017). The PBEC appoints an evaluation panel consisting of academic peers. This panel will review the submitted portfolio and perform a site visit, after which they report their recommendations for or against accreditation of qualification to the Education Committee of the PBEC. Once an institution has satisfactorily met all requirements, the PBEC send their recommendation to the CHE and DHET and awards the candidacy phase to the institution. The institution will remain in the candidacy phase until the first intake of students has graduated, and favourable reports are received from the PBEC appointed moderator (HPCSA Form 332, 2017). Accredited institutions need to submit annual reports to the PBEC for quality assurance measures and statistical reporting purposes.

The EMC profession is regulated by the PBEC, which includes education in the profession and registration of qualified practitioners. The following statements set out the mandate of the PBEC concerning education: (a) To establish control and authority over all things pertaining to the education of individuals in, and how practices are conducted in connection with, any profession falling within the scope of the PBEC; (b) To promote liaison in the field of the training both in SA and elsewhere, (c) and to uphold the standards of such training in SA (RSA 1999:1.13).

Moreover, the PBEC serves as the ETQA for both short-course programmes and in conjunction with the HEQC for HE-level registered EMC programmes in SA. The PBEC also serves as the SGB for both short course and HE programmes. Some of the delegations of the PBEC concerning EMC education and training include conditions and standards for EMC education and training programmes as determined by the PBEC; practices associated with education and training; and standards and practices leading to accreditation of education and training providers.

2.6 QUALITY ASSURANCE OF SHORT-LEARNING PROGRAMMES

As seen in the short learning policy at the NMU, the guidelines as required from SAQA are implemented to ensure quality *“To delegate the quality assurance for these areas to the institutions and to examine the quality arrangements during HEQC audits”*. (Council for Higher Education, 2013). Moreover, the relevant academic unit is responsible for the quality assurance of SLPs, which should entail at least the following aspects:

- Reviewing the relevance, contents and academic standards of the SLP every three years as part of the SLP renewal process that will be initiated by the UCE.
- Validating the qualifications of course presenters who are not academic staff of the NMMU (external facilitators).
- Obtaining feedback/evidence from students by means of a programme evaluation form.
- Involving professional bodies and external specialists in regular reviews where career or profession-specific SLPs are offered.
- Including the evaluation of SLPs during the formal programme self-evaluation process.

The CHE regulatory requirements are followed at the SUN to ensure the quality of short learning programmes (SUN 2021:online). Moreover, the short learning programme should also comply with the relevant requirements set out by the DHET and SAQA. Maintaining the quality of the short learning programme is vested in the Senate at the SUN, delegating the responsibility to the deans. Moreover, the short learning policy articulates with the university learning and teaching policy. Similarly, at the UFS, the directives of the short learning programme policy framework and the Framework for quality enhancement are used to ensure the quality of short learning programmes.

In 2000, SAQA implemented SLP recording to enable SLP providers full access to education and training systems' standards-setting and QA processes (SAQA 2004:7). The HEQC clearly states in their criteria document for delegation of the quality management of SLPs that *“an integrated institutional strategic planning framework and process for the provision of both whole qualifications and short courses”* is required from providers (CHE 2008:13). Institutions should plan with the factors discovered during their quality assurance operations in mind. There should be an integration of information gathered during quality assurance procedures, which feeds into institutional planning at all levels. Among the information that constitutes important quality management information is the availability of personnel capability to create and deliver the programmes; *“the impact of offering short*

courses and the quality of the services provided to students as well as the administrative capacity at all levels” (CHE 2008:13).

The QA of SLPs should be well documented according to institutional policies and mechanisms (CHE 2016:13). These mechanisms should include the development, implementation, monitoring, and refinement of SLP policies and procedures. The HEQC (CHE 2008:13) requires institutions to have precise arrangements to approve the offering of a SLP. The approval processes should be comparable to those used to approve academic programs at institutions. This should be the responsibility of a suitable governance structure inside the organisation, such as the Senate (CHE 2016:13).

As of 2012, SLPs form part of institutional audits conducted by the Higher Education Quality Committee (HEQC). Therefore, each HEI should establish an effective QA system to manage the quality of SLPs and include measures for QA, quality improvement, and quality monitoring and evaluation (CHE 2012:14). The HEQC requires institutions offering SLPs to keep a register in place, outlining the purpose, nature, and status of SLPs. Such a register shall include course title and code, statement of purpose; outcomes; credit-bearing status; admission requirements; assessment criteria and methods; teaching and learning strategies; coordination and delivery, including the venue, fees, and other financial information as well as certification rules and procedures which clearly distinguish between certificates of competence and certificates of attendance (CHE 2012:14). The integrity of student records and certification processes and the accountability for monitoring these arrangements should be delegated and implemented (CHE 2012:14).

The HEQC delegates the authority to accredit a SLP to a specific academic facility. In this case, CUT expects an internal quality management system (QMS) to be in place. SLPs may include a range of non-credit-bearing short courses for which no credits are awarded.

Furthermore, institutions offering SLP’s must ensure that the following requirements are met:

- k) Institutional policy framework;
- l) Effective SLP coordination and governance structures;
- m) Processes and procedures for programme design and development;
- n) Systems for programme approval and registration;

- o) Rules and regulations about programme marketing, recruitment, and registration of participants;
- p) Adequate teaching and learning resources and appropriate processes;
- q) Assessment strategy and procedures;
- r) Certification arrangements;
- s) A system for managing records; and
- t) A system for monitoring and review as a basis for continuous improvement (CHE 2016:5).

2.7 SUMMARY

As seen in the literature, information about HE access programmes is available. Mainly, these programmes focus on students meeting the admission criteria, such as having the correct subject combination but without the correct APS, ECP. Other means of access are CEP and RPL to assist students with access. As mentioned previously, access and success should be seen as vital components for the HE journeys of the student. Limited information is available for EMC preparatory programmes. In conjunction with other access pathways, as mentioned in this Chapter, EMPP`s could assist in preparing in-service personnel with the rigour of HE.

As seen from the literature, the process of QA and developing educational guidelines consists of various dimensions: access routes, success, curriculum design, assessment, and quality assurance. Although many access programmes are available, the specific situation in SA is not necessarily addressed, nor are specific guidelines available to guide access and success for the adult EMC student.

Constructive alignment of the curriculum of any programme is shown to be vitally important. Moreover, many EMC lecturers do not have formal educational qualifications, and the guidelines might provide a benefit in facilitating learning, implementing the curriculum, and setting learning outcomes. Moreover, the guidelines might assist with improving how QA processes are managed for an EMPP. The guidelines could also set a baseline for other EMC programmes of institutions wishing to use an EMPP. The role of continuous assessment was also evident, and the need for assessment to integrate teaching, learning and assessment. Subsequently, giving a holistic picture of the students' progress.

The main goal of NQF level 5 qualifications should be for students to grasp the fundamental areas of one or more subjects, disciplines, or practices and an educated understanding of the relevant essential terminology, ideas, facts, basic principles, laws, and theories. Furthermore, the student should understand how knowledge, or a knowledge system, develops and evolves within the area of study or operation. EMC short courses were phased out in 2018. As seen in the literature, understanding the impacts of phasing out of these short courses is important. Moreover, a substantial difficulty in integrating these workers into HE was recognised. Therefore, the new HE EMC educational structure outlined in the NECET policy is intended to create a career path in emergency medical care.

Limited literature could also be found on QA and educational guidelines for an EMPP. The need for QA and educational guidelines is evident due to the lack of literature and specifically EMS preparatory programmes directed at the unique situation in SA. Various aspects were recognised as the impetus of an EMC preparatory programme within the South African context that guides such a programme's QA and educational process. The programmes and guidelines of not only national but also international importance on the topic was discussed.

Regardless of the educational situation, the quality of assessment will always be influenced by fairness, validity, reliability and practicability. When these principles are implemented correctly, they provide the framework/criteria for high-quality assessment. When designing any assessment activity, task or assignment, these principles must not be ignored. In addition, the guidelines could also assist in the preparation of in-service EMC personnel for the rigour of HE EMC programmes. Finally, as seen from the literature, QA guidelines are important in managing the programme and ensuring the student's success. Quality assurance of HE EMC programmes is governed by government bodies such as the HEQC, DHET, CHE, SAQA and the HPCSA, PBEC. Based on these policies, principles, and guidelines, specific suggestions were made on how an EMPP may assist students by gaining access and being successful.

In SA, many universities present short learning programmes. As seen from the literature, all the HEI's follow a similar approach to ensure the quality of short learning programmes. All the universities follow the guidelines set by SAQA, CHE, and DHET to ensure the quality of short learning programmes and other programmes in general. Quality assurance mechanism, development, implementation, monitor and refinement of SLP policies and

procedures should be in place.

2.8 CONCLUSION

In this chapter, the theoretical perspectives of the study were provided. This chapter focused on the literature review to provide an in-depth background about the history of EMS and EMC education and training in SA. It further discussed the QA guidelines for HE qualifications in SA and the educational guidelines and criteria for (a) NQF Level 5 programmes, (b) SLPs and (c) EMC education and training programmes. Literature was also scrutinised for QA guidelines specific for SLPs and EMC education and training, as governed by a professional body.

In Chapter 3, titled **Research design and methods**, a thorough description of the design and methods used for the study will be discussed. An explanation of how validity, reliability, trustworthiness, and rigour of the study was ensured will also be provided.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

As indicated in Chapter 1, the overall goal of this study was to conduct an in-depth investigation to provide QA and educational guidelines for an Emergency Medical Care Preparatory Programme (EMPP). In Chapter 2, various literature sources and documents related to QA and educational guidelines in EMC education were presented and provided context for the research and illustrated where this study's research fits in with the existing body of knowledge (cf. Chapter 2).

In this chapter, the study's research design and research methodology will be discussed as presented in Figure 3.1. The research paradigm is provided first, followed by the research design, strategy of inquiry, and then the methods used to collect data for this study, namely, the document analysis, the Delphi survey, and expert panel discussion, will be explained. The survey population, sample selection, data collection, and analysis of both empirical methods are then described. The final part of the chapter will discuss the quality of the study and applicable ethical considerations.

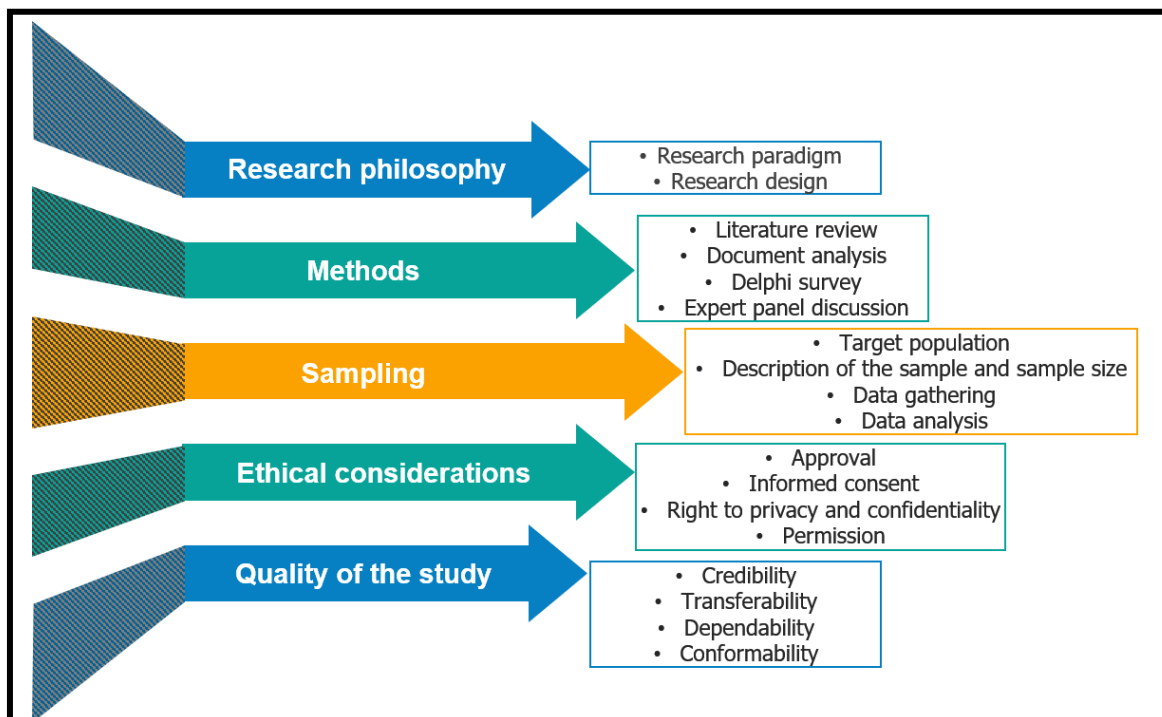


Figure 3.1: Overview of research design and methodology

The following section will describe the research paradigm, design, and methodology that formed the basis of this study.

3.2 RESEARCH PARADIGM

Research paradigms are unified practices that incorporate thought systems and explain the nature of an inquiry (De Vos, Strydom, Fouché & Delport 2011:309). Importantly, paradigms provide beliefs and guides for researchers in particular fields and influence what should be studied, how it should be studied, and how the results can be interpreted (Kivunja & Kuyini 2017:26). In this study, the EMPP was investigated to provide QA and educational guidelines, as I believe a need exists to provide access and success to in-service EMC personnel wishing to further their careers in, HE, but due to not meeting the admission criteria, are left behind. Only providing in-service personnel with access and not ensuring that they are also successful, influenced my motivation for this study. Moreover, as an EMC lecturer myself, I recognised some facilitation shortcomings, maybe due to not having a formal teaching qualification. Moreover, the lack of clear guidelines for EMC lectures to effectively assist in-service EMC personnel with their studies and ensure QA on the EMPP, also motivated my interest in the EMPP and to develop QA and educational guidelines.

According to Creswell (2018:46), with a constructivist world view, individuals seek to understand the world in which they live and work. Moreover, individuals construct subjective meanings for their experiences—meanings that are directed toward particular objects or things. The purpose of the research is to elicit as much information as possible about the participants' perceptions of the situation under investigation, in this case, the EMPP. I followed a constructivist approach for this study, as the purpose of my study was to obtain the views and perspectives of the research participants involved with lecturing and managing, HE EMC programmes, to uncover and investigate knowledge on QA and educational guidelines and criteria in higher education (HE) in general, in EMC and the EMPP in particular. To accomplish this purpose, I used the research methods that I regarded as most suitable for conducting this research by employing a document analysis (cf. 1.8.3), Delhi survey and expert panel discussion, which will be discussed later in this Chapter.

Furthermore, paradigms include interrelated practices and thinking processes, such as epistemology, ontology, and methodology, which direct the researcher's activities (Botma, Greef, Mulaudzi & Wright 2010:287). Epistemology entails the elements of knowledge and how this knowledge is justified and affects how researchers uncover knowledge in a social context that is investigated (Kivunja & Kuyini 2017:27; Rashid *et al.* 2019:4). The study assumed a subjective epistemology, as the knowledge gathered from the participants in the research field of EMC education, were obtained by an interactive process between participants and researcher and was subsequently interpreted through the researcher's engagement with and own understanding of the data (Kivunja & Kuyini, 2017). As a constructivist researcher in EMC (with the focus of my study on the EMPP), I, therefore, attempted, through this research, to explain the meanings and subjective reasons for the social actions – in this case, the EMPP. The epistemology between what is being researched and myself as the researcher is that I have been involved in EMC and EMC education for more than 25 years, and therefore I am subjectively involved in this study. With more than 25 years of experience in the EMC environment, I have valuable insight into the context of this study, and so do the research participants, who have been carefully selected based on their knowledge of EMC HE education. Lever (2013:3) adds to Kivunja and Kuyini (2017) view by stating that a subjective epistemology recognises knowledge as a value and that unaffected and universal knowledge is not possible if individual reflections and interpretations are not present. Interpretivist does not see the world in an objective light. Instead, individuals construct the world, each perceiving their reality. An interpretive view suggests that human beings construct their own meanings.

In assuming a relativist ontology, Guba and Lincoln, (1994), in Rashid, Rashid, Warraich, Sabir and Wasseem (2019:3), mention that a relativist ontology excludes the possibility of a "true" construction, and that "there are only more or less informed or sophisticated constructions" (Guba & Lincoln, 1994). Moreover, there is no objective world or truth; everything is uniquely related and socially constructed. How we observe and analyse the world results from a combination of what is interpreted and the interpreting system (Rashid *et al.* 2019:3). My ontology links with the concept that there is no objective world or truth and that everything is uniquely related and socially constructed. As a researcher working in EMC, I am aware of the reality of the environment which is subjective in nature and how everything is related. During the research the reality was that the meanings provided exclude the possibility of "true" constructions. As is the case in qualitative research, I acknowledge my own subjectivity in especially interpreting the results of the study. This ontology provides the basis for a constructivist epistemology. I, therefore, allowed the concepts of importance related to EMPP to surface as the research participants formulated them. The results of the document analysis, Delphi survey and expert panel discussion are presented in Chapters 4, 5 and 6.

3.3 DESIGN OF THE STUDY

A research design is a blueprint and process of identifying a research problem to inform research questions, data collection, data analysis, clarification of data, drawing conclusions, and writing the research report logically (Creswell & Poth 2018:66; De Vos *et al.* 2011:309). This study employed a qualitative case study design using mainly qualitative methodology with some quantitative elements, and the Delphi survey achieved the latter. A case study is a comprehensive analysis of current events or circumstances and is often conducted for three different purposes: descriptive, interpretative, or evaluative (Yin, 2009). According to Creswell and Poth (2018:66), in case study research designs, the researcher describes a research problem that can best be understood by exploring a concept or phenomenon. The author further mentions that a case study design can be undertaken in many situations, for example, evaluation, where the researcher requires an in-depth analysis of a case, programme, process, activity, or event. Furthermore, a case study is a plan of inquiry that allows the researcher to comprehensively investigate a programme, event, or activity of an individual or group. In this study, a comprehensive investigation of a programme, namely EMPP, was done.

Most cases are bound by time, activity, and location, and the researcher uses various data collection methods over a certain period (Creswell & Creswell 2018:79). The EMPP was conducted from 2018 until 2019, at the CUT in Bloemfontein, specifically for in-service EMC personal in the Free State. Due to the nature of the investigation, I used a case study approach since the focus of the inquiry is on the 'how' and 'why' questions relating to the QA and education guidelines for an EMPP. Lastly, the research design enabled the research to "cover" the contextual factors affecting the EMPP under examination (Baxter & Jack 2008:545). These reasons are summarised in Merriam and Tisdell (2015:37) criteria for a case study, which are particularistic (case studies concentrate on a single phenomenon, in this case, the EMPP), descriptive (the result of a case study is a detailed description of the phenomenon), and heuristic (case studies enlighten the reader's understanding of the phenomenon). Babbie (2016:161) states that case studies consider various perspectives to comprehend the impact on participants' perspectives and behaviours. The following research question served as the starting point for developing a design:

Which QA and educational guidelines can be used to enhance quality in an EMPP in SA?

My intention in selecting a case study design was suitable because a detailed examination of a specific phenomenon, the EMPP QA and educational guidelines, was involved, and multiple sources of evidence with data needed to be triangulated (McMillan & Schumacher 2014:42). The qualitative case study approach was made to provide a rich, detailed description of the expert participants' experiences, perceptions, and perspectives (Creswell & Poth 2018:46, cf. 3.5.3.3 & 3.5.4.3). Moreover, I intended to obtain an in-depth understanding of the EMPP's QA and educational processes. As Creswell and Poth (2018:155) mention, a good qualitative case study's hallmark is that it presents an in-depth understanding of the case. To accomplish this, I collected and integrated many forms of qualitative data by conducting a document analysis, employing a Delphi survey containing free-text comments from the participants, and an expert panel discussion gathering the opinion and experience of the expert panellists.

According to Creswell (2018:157), three types of qualitative case studies are distinguished in terms of the intent of the case analysis, namely, a single instrumental case study, a collective or multiple case study and an intrinsic case study. In this study, an intrinsic case study was more appropriate to investigate the QA and educational practices used by the EMPP. The EMPP was the first formal programme to be presented at an HEI, so the case cannot be seen as a multiple case study because although other institutions are either

presenting other types of programmes, for example the ECP or are using RPL as a means of access to HE, no other HEI are formally presenting EMC preparatory programmes. Moreover, specific QA and educational guidelines for EMC access or preparatory programmes are not available in the literature, as seen in Chapter 2 of this study. Although two provinces in SA do have a process, either a redesigned EMPP or CEP with RPL to assist personnel not meeting the HE admission criteria, as discussed in Chapter 2 (cf. 2.2.2), formal QA and educational guidelines could not be located in the literature. As mentioned by Creswell (2018:157), intrinsic case studies are done when the focus is on the case itself, in this case, the EMPP due to the unique nature and possible role of this programme in assisting adult in-service EMC personnel not meeting HE admission requirements with access and preparation for the rigour of HE. I did consider the single instrumental case study but realised that in the case of the EMPP, the CUT was the only HEI formally presenting such a programme in SA.

Furthermore, some of the objectives of this case study are to see if the EMPP is aligned with guidelines from HE, for example, educational guidelines and criteria for NQF level 5 programmes, short learning programmes and EMC education programmes. In addition, to also investigate how other institutions nationally and internationally are dealing with the problem of access and preparation of the adult candidate, especially in the EMC environment (cf. 2.2).

The details of each data collection method are discussed later in this chapter.

3.4 STRATEGY OF INQUIRY AND RESEARCH APPROACH

Creswell and Poth (2018:150) explains that qualitative research is exploratory in nature and that researchers utilise it to investigate a theme when the factors and theoretical foundation are unclear. Additionally, the features of a qualitative research problem are: (a) due to the evident lack of theory and previous research, the notion is "immature." (b) a notion that the currently known theory may be erroneous, insufficient, incorrect, or prejudiced; (c) There is a need to investigate and characterise occurrences and to build theories., or (d) The nature of the phenomenon may not be suited to quantitative methods (Creswell & Poth 2018:152). In this study, an in-depth analysis of the EMPP as currently offered at CUT was done after considering the research question, the study's objectives, and data collection methods (cf. 1.8). I realised that a qualitative research approach would be more suitable to obtain the lived experience of the individuals as mentioned in 3.2. Although this was a

qualitative study, semi-quantitative elements were employed in the Delphi survey. According to Babbie (2016:26), qualitative research is suitable when studying the stances and actions of people and processes in their normal surroundings. Additionally, the authors state that a qualitative research paradigm refers to the general approach to social research in which research begins with an insider view on social action (Babbie 2016:27).

The selection of a qualitative research design is substantiated by the researcher's beliefs and motivated by how information was collected (Nieuwenhuis 2016:72). With this design, the researcher's objective with this approach is to explain the phenomena as accurately as possible, eliminating any pre-existing framework and accurately reporting the facts (De Vos *et al.* 2011:316). Qualitative research concentrates on practical problems (also referred to as a phenomenon) experienced by the participants to obtain practical clarifications to the problems (Nieuwenhuis 2016:74). Emphasis is placed on understanding the problem and developing a solution in association with the individuals involved (Nieuwenhuis 2016:74). In this study, the researcher aimed to develop QA and educational guidelines for an EMPP.

According to Vaismoradi, Turunen, and Bondas (2013:398), qualitative research has the following characteristics:

- a) The researcher is obligated to the participants to obtain a thorough grasp of their experiences and the interpretation thereof;
- b) The researcher should consider the fact that each participant's views of reality generate numerous realities that alter in response to their perceptions changing; and
- c) Because data are subjective to the participant's reality, they must be presented in a rich and authentic manner.

As Choy (2014:102) mentions, a qualitative research design can be a time-consuming process and might be seen as a limitation. Atieno (2009:17) further states that one of the leading disadvantages of qualitative research design is that it cannot be extended to the broader community as can be done with quantitative research findings. Qualitative research is a true-to-life, informative method that focuses on the connotations, beliefs, values, attitudes, and interpretations that individuals make about social occurrences (Ritchie & Lewis 2003:3). In this study, I aimed to obtain the expert opinions and experiences of the participants regarding QA and EMC education to develop guidelines for an EMPP.

Qualitative methods are associated with non-numerical data collection. Instead of

statistical analysis of data, this method draws on a subjective or inductive process of inquiry. When using the qualitative method, the researcher becomes part of the phenomenon being studied, and the analysis of data is interpretive, as it is based on words, feelings, perceptions, and experiences.

3.5 METHODS OF INVESTIGATION

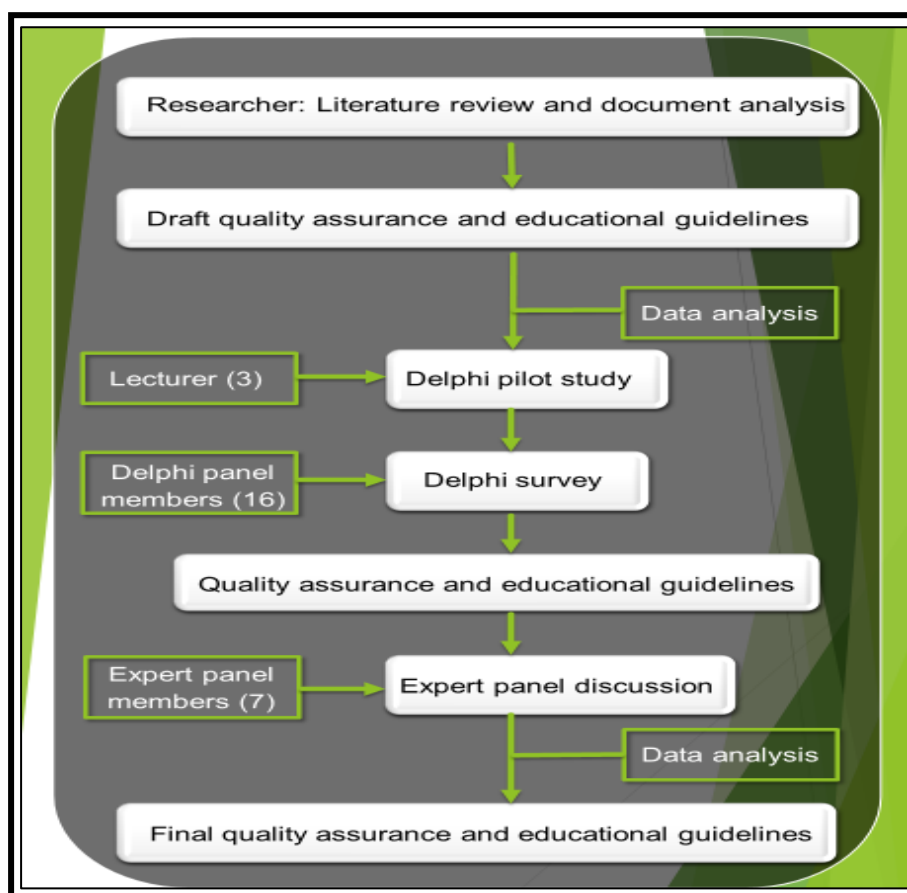
Generally, researchers must logically describe the process of identifying the research problem, data collection, and data analysis often referred to as the research design, which in this study was a case study (cf. 3.3). Kabir (2016:202) states that data gathering is the process of obtaining and quantifying information about relevant variables in a systematic manner that enables one to answer specified research questions. The qualitative methods employed in this study included a literature review, document analysis, a Delphi survey, and an expert panel discussion.

As depicted in Table 3.1, a literature review was conducted in Phase 1 of the study. Phase 2 of the study included the analysis of the EMPP documentation to determine the alignment with the guidelines and criteria as set out in Phase 1. Phase 3 involved developing and refining draft QA and educational guidelines for an EMPP, guided by integrating data from Phases 1 and 2 and refined using a Delphi survey. In Phase 4, the QA and educational guidelines for an EMPP were confirmed using input from an expert panel discussion.

Table 3.1: Alignment of the aim, objectives, and methods of the study

THIS STUDY AIMED TO DEVELOP QA AND EDUCATIONAL GUIDELINES FOR AN EMPP IN SA		
Phase 1:	Analyse literature and existing documentation on (i) QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) NQF Level 5 programmes, (b) SLPs, and (c) EMC education and training programmes.	Literature review and document analysis
Phase 2:	Analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in Objective 1.	Document analysis
Phase 3:	Develop and refine draft QA and educational guidelines for the EMPP.	Delphi survey Integrating Objectives 1 and 2
Phase 4:	Finalise the QA and educational guidelines for the EMPP.	Expert panel discussion and input Integrating Objective 3

A schematic outline of the sequence of the research methods is presented in Figure 3.2.

**Figure 3.2: Schematic outline of the sequence of the research methods**

3.5.1 Phase 1: The literature review

Generally, a literature review aims to provide the rationale for the research problem and positions the study within current literature about the topic and can include summarised journal articles, books, conference papers, and government documents to evaluate past and current relations to the study (Creswell & Creswell 2018:197). According to Mouton (2001:87), literature is the “body of accumulated scholarship” and thus refers to the literature review as a “scholarship review”. The focus of reviewing the literature is to explore “the most recent, credible, and relevant scholarship in your area of interest” (Mouton 2001:87). Mouton (2001:87) and Creswell and Creswell (2018:62) suggest the following reasons for such a review:

- a) To justify the research by clarifying the gap in the area of study and its relevance (cf. 1.2);
- b) To clarify terminology relevant to the study by determining widely accepted terms and their meanings (cf. Chapter 2);
- c) To identify and understand current and authoritative theories and models that inform the research area and which provide a conceptual framework within which to interpret data from this study (cf. Chapters 1 & 2); and
- d) To explore the methodology and outcomes of studies corresponding with the research being conducted (cf. 2.2).

The literature review in this study aimed to provide context to the research and justify the research’s position in existing knowledge (cf. 2.2). As demonstrated in Chapter 2 (cf. 2.1.1), the literature review familiarised the researcher with the research topic by reading articles pertinent to the study (Botma *et al.* 2010:64). In this study, the literature review was conducted to analyse (i) the QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) NQF Level 5 programmes, (b) SLPs, and (c) EMC education and training programmes. Literature was also scrutinised for QA guidelines specific for SLPs and EMC education and training as governed by a professional body. The literature review also provided direction on improving the research methods used in this study and expanded the researcher’s knowledge (De Vos *et al.* 2011:135). Moreover, the literature review was done to develop the Round 1 statements for the Delphi survey to address the third objective of the study (cf. 1.5.4).

Exploring similar studies that have been conducted and contributed to the theories that

inform the research problem provided a lens through which the participants' opinions and perspectives in this study were analysed (Creswell & Poth 2018:28).

3.5.2 Phase 2: Document analysis

According to Prior (2008:230), documents are communication between a writer and reader, leading to the eventual adoption of some form of content analysis. The author further mentions that documents can be exploited by others. The reading of documents is part of an observational study or an interview-based project (Owen 2014:8). Document analysis provides background information that can direct the design of a research project. According to Bowen (2009:32), a document analysis involves analysing and interpreting documents that combine content analysis and thematic analysis towards the main research questions. A document analysis entails the evaluation and interpretation of data to extract meaning, acquire comprehension, and build empirical knowledge (Corbin & Straus 2015:36). In this study, the document analysis assisted in identifying themes that were, together with the literature review, the basis for the Delphi survey questionnaire.

Document analysis is studying documentation in order to ascertain their content or to elucidate hidden meanings revealed by its style and coverage (Bowen 2009:27). Documents are considered crucial sources of evidence in case study research designs (Yin, 2009). The benefit of document analysis is its modest nature of inquiry and its convenience to the researcher regarding time and place (De Vos *et al.* 2011:382). The purpose of conducting a document analysis in this study was to examine and understand the nature of the implementation of QA and educational processes of the EMPP and to see if the processes are aligned with current QA and educational practices (cf. 2.5). The document analysis aimed to address the second objective of the study (cf. 1.5.3), namely to determine whether the EMPP is aligned with the guidelines and criteria as stated in the literature review (cf. Chapter 2), including the following aspects:

- a) EMPP admission criteria;
- b) EMPP curriculum design;
- c) EMPP level descriptors;
- d) EMPP learning outcomes;
- e) EMPP credits and notional hours;
- f) EMPP learning facilitation;
- g) EMPP assessment;

- h) EMPP physical preparedness;
- i) EMPP general skills and competencies; and
- j) EMPP QA.

The next phase of the study was to submit the criteria developed from the literature review and the document analysis to a panel of experts in the format of a Delphi survey. The following section is a discussion of the Delphi survey.

3.5.2.1 *Sample size and selection criteria*

In this study, the document analysis begins by identifying and selecting documents based on their usefulness and relevance to the study. Documents that were collected for analysis in this study included (cf. Table 4.1):

- Mathematics study guide
- Physics study guide
- Chemistry study guide
- Numeracy study guide
- Basic digital literacy study guide
- Life Sciences study guide
- Academic literacy and communication study guide
- Physical preparedness and learn to swim
- EMPP learn to swim assessment criteria;
- CUT Moderator Report Template for pilot testing (2020);
- CUT Assessment Policy (2018);
- CUT Quality Enhancement Project (QEP) (2019);
- Policy for the Management of Institutional Continuing Education (CE) Courses at CUT (2019);
- CHE programme accreditation guidelines;
- Procedure for the Management of Institutional CE Courses at CUT;
- EMPP short-learning programme (SLP) approval document (2019);

The analysis focused on those documents informing the EMPP curriculum and quality assurance processes. The EMPP course coordinator was requested to provide the EMPP documentation. The document analysis process is further discussed in Chapter 4.

3.5.2.2 *Data collection*

This document analysis process was conducted using a document analysis guide and document analysis matrix to capture essential details for collecting information about the EMPP (cf. Appendix E & EE), based on the CHE's programme accreditation criteria. The CHE accreditation guidelines were used as a benchmark to see if the EMPP is aligned to the guidelines expected from a preparatory programme such as the EMPP (CHE 2012:16). The matrix was designed to capture the type of document, document title, date, author, source, location of the document (cf. Appendix EE).

3.5.2.3 *Data analysis and presentation*

Documents were systematically and comprehensively analysed by skimming (superficial examination), reading (thorough examination), and interpreting the information (Bowen 2009:305). Documents identified for analysis connected to the topic included the programme design and development plans and policies, minutes of programme meetings, learning guides, lesson plans, progress reports, mark sheets, and student feedback reports (cf. 3.5.2.2). The selected documents were further grouped into three categories: namely foundational documents, quality assurance documents and assessment documents (cf. 3.5.2). The foundational documents for this study include all the EMPP study guides. The quality assurance documents include all the documents about the quality assurance of the EMPP and, finally, the operational documents of the EMPP as they pertain to the operational circumstances of the EMPP.

Once the document analysis was completed, I drafted the QA and educational guidelines for the EMPP by integrating the literature review and document analysis information. Permission for access to the relevant documents were obtained from the Acting Director: Institutional Planning and Quality Enhancement at CUT (cf. Appendix D).

Using documents as a data source contributes to triangulation by presenting a theoretical 'lens' through which the relationship between the opinions and perspectives of participants and contribute to the interpretation of the data obtained from participants (Hussein 2009:3).

3.5.3 Phase 3: Delphi survey

The Delphi survey provided both qualitative and quantitative information and was used to meet the objectives of this research study. The information gained from the literature review and the document analysis was used to compile the statements of the Delphi survey. Olaf Helmer and Norman Dalkey at the Rand Corporation pioneered the Delphi survey method. The initial aim was to develop a tool to predict future events and their likely effects on people using questionnaires with controlled-opinion feedback (Dalkey 1969:458). The Delphi survey also provides qualitative information since definitions and solutions to problems (related to the topic under discussion) are offered by the participants. The statement by Critcher and Gladstone (1998:433) captures this situation as follows: "Delphi straddles the divide between qualitative and quantitative methodologies".

Consensus methods, such as the Delphi survey, are especially beneficial when empirical evidence is lacking, limited, or contradictory (Humphrey-Murto, Varpio, Wood, Gonsalves, Ufholz, Mascioli, Wang & Foth 2017:1491). According to McMillan, King, and Tully (2016:655), the objective is to obtain general agreement or convergence of opinion on a given subject and is used in research aimed at problem solving, idea development, or prioritization. Consensus methods provide possible resolutions or answers to a question, which can then be prioritised or agreed upon (McMillan *et al.* 2016:655). The Delphi survey has been useful in educational settings in forming guidelines, standards, and predicting trends (Green 2014:1). Judd (as quoted in Green 2014:2) lists five major uses of Delphi surveys in HE, namely (1) cost-effectiveness, (2) cost-benefit analysis, (3) curriculum and campus planning, (4) university-wide educational goals and objectives, and (5) generalised futuristic educational goals and objectives. The Delphi survey was chosen because it suited the purpose of generating knowledge on a particular area about which little information is available (Nworie 2011:24).

According to Keeney, Hasson & McKenna (2011:141), the Delphi survey is a group facilitation survey that is an iterative multistage process designed to transform opinion into group consensus. McMillan *et al.* (2016:658), state that the Delphi method uses questionnaires to preserve participant anonymity. Even though, as mentioned by the authors, the Delphi method is anonymous, the participant's identity is known to the researcher, but not each other, and although anonymity cannot be guaranteed in a Delphi survey, confidentiality was maintained.

Two important aspects of the Delphi method are utilising several questionnaire rounds and anonymously answering statements (McKenna 1994:1222). The Delphi survey consists of a minimum of two rounds (Thangaratinam & Redman 2005:122). According to Critcher and Gladstone (1998:433), the number of rounds in the Delphi survey may range from two to five. However, only two or three rounds are used in most studies (Thangaratinam & Redman 2005:121). Round 1 of the Delphi process consists of a structured questionnaire based on the literature and is used as a template (Hsu & Sanford 2012:346). In Round 2, the Delphi panel members receive the second questionnaire and are asked to reconsider items summarised on the answers provided in Round 1. The researcher also provides the panel members with their earlier responses (Hsu & Sanford 2012:346).

While there are variations on the Delphi survey, the following characteristics are shared by all versions: Experts are selected, iteration with controlled feedback is conducted, statistical group answers are obtained, and anonymity is secured, without the respondents being required to congregate in one location (Nworie 2011:25). According to Avella (2016:321), the modified Delphi designs typically do not consult the expert panel to generate answers to the Round 1 statements. Instead, the researcher collects the initial statements through some other means and presents them to the expert panel to begin the consensus-seeking process. In this study, the researcher compiled the first-round statements from the results of Phases 1 (literature review) and 2 (EMPP document analysis) of the study, which then was listed under various headings to form the first round of the Delphi survey (cf. Appendix I).

The reason for utilising the Delphi method in this study was to achieve general agreement or convergence of opinion around a particular content statement generated in the literature review and document analysis on the topic of the research study (McMillan *et al.* 2016:655). This study aimed to obtain expert views and opinions regarding QA and educational guidelines for an EMPP (cf. Appendix S). The Delphi method provided quantitative data through the ranking of ideas, with qualitative information provided through statements communicated by participants. The questionnaire enabled the participants to rate the statements using a modified three-point Likert scale, "**Agree**", "**Not Applicable**", and "**Disagree**" (cf. 3.5.3.4) and write free-text comments explaining their rating or expressing disagreement with a statement's relevance (McMillan *et al.* 2016:658).

There are numerous advantages to using the Delphi survey as a tool for reaching consensus. Among these advantages are the following:

- a) There is no engagement between respondents, which means that no single responder was capable of controlling or influencing another (Iqbal & Pison-Young 2009:600);
- b) It may be used throughout a vast geographical area due to widespread internet use, and a larger sample of participants can be used as respondents (Nworie 2011:25);
- c) The anonymity of the consensus gained using the Delphi survey is democratic, ensuring increased creativity and honesty (Iqbal & Pison-Young 2009:600);
- d) Delphi surveys are methodical, which lends the procedure objectivity (Powell 2003:377);
- e) An agreement is reached on issues about which there is insufficient knowledge (Powell 2003:377);
- f) New information can be generated between consensus rounds (Powell 2003:377);
- g) Economic benefits result from the Delphi survey, which is defined as a less expensive method of eliciting information from respondents (Iqbal & Pison-Young 2009:600);
- h) Expert opinions could be gained from many persons (Nworie 2011:24);
- i) Interaction with respondents is not time or geographically restricted (Nworie 2011:24);
- j) The study's anonymity cannot be affected by authoritarian roleplayers since the respondents are strangers and have no connection with one another (Hartman 1981:497);
- k) Rather than meetings in which respondents may express their ideas or not, all participants must agree on the study subject (Hartman 1981:497); and
- l) Consolidation of existing knowledge and identification of areas of agreement and disagreement (Iqbal & Pison-Young 2009:600).

The limitations or disadvantages of the Delphi survey include the following factors:

- a) The judgments are those of a selected group of people and may not be representative;
- b) There may be a tendency to disregard essential viewpoints in favour of a more moderate consensus;
- c) It is more time-consuming than the group process method;
- d) It should not be considered as a complete forecasting solution;
- e) It necessitates proficiency in written communication.; and
- f) It necessitates sufficient time and participant commitment (Clarke-Farr 2005:226-228).

3.5.3.1 Pilot study

A pilot study was done to ensure that the questions were clear and unbiased, the survey was well structured, and determine the time needed for completion. The pilot study was conducted by sending an electronic questionnaire using the UFS' EvaSys survey management system to three qualified EMC academic lecturers who met the criteria to be selected as experts. There were only three questions that required clarification: Question 12.7, "Not sure about the meaning of collected process for the EMPP evaluation", was rephrased to "The EMPP should be reviewed in a clustered process". In Question 12.7, the abbreviation EMPP was included as part of the Delphi survey's instructions. Question 12.12, which one participant stated as "Unclear", was rephrased from "The promotion of student learning should be described by the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments, and promotions" to "Recognition of the importance of the promotion of student learning should be reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments, and promotions." Questions 6.13, 6.14, 6.15, 6.16 & 7.1 from Section C2 were duplicated in section C3, but this was corrected. The time required to complete the questionnaire was determined to be 60 minutes. Final criteria were formulated under the guidance of both the researcher's promoter and co-promoter.

3.5.3.2 Target population

Habibi, Sarafrazi, and Izadyar (2014:12) mention that a group of 12 experts with different specialities is recommended for a Delphi survey, as a smaller sample size encourages diversity of expert opinions. The target population for the Delphi survey was lecturers involved with EMC education and training, EMPP lecturers, experts involved with QA in HE from the following institutions, UJ, Cape Peninsula University of Technology (CPUT), Nelson Mandela University (NMU), Durban University of Technology (DUT), CUT, FSCoEC, EMPP lecturers, an expert involved with QA in HE, and a representative from the HPCSA, a member of the PBEC in SA. The aim of selecting these participants was to ensure that well-informed individuals were included in this study. An information document and request to contact lecturers to participate in the study was sent to the relevant deans at the HEI's presenting EMC education. The dean or HoD of the faculty responded with the contact details of the lecturers. As depicted in Table 3.1, invitations were sent to all lecturers as per the dean's or HOD responses, amounting to a target population of 34. As depicted in Table

3.2, 34 participants contact details were provided to me by the Deans or HoD`s.

Table 3.2: The target population in this study

INSTITUTION	TARGET POPULATION
UJ	8
CPUT	0
NMU	6
DUT	6
CUT	4
FSCOEC	8
HE QA expert	1
PBEC	1
TOTAL	34

3.5.3.3 *Description of sample and sample size*

According to Keeney *et al.* (2011:47), generic criteria that guide researchers when selecting participants for a Delphi survey may include the following, knowledge and practical experience with the issue under investigation, capacity and willingness to contribute, assurance that sufficient time will be dedicated to the Delphi survey, good written communication skills and experts' skills and knowledge. Standard academic qualifications or degrees need not necessarily accompany these skills.

A type of purposive sampling, namely criterion sampling, was used for the Delphi survey in this study. According to Patton (2014:238), criterion sampling comprises the selection of cases that meet predetermined criteria. Criterion sampling may be advantageous for finding and comprehending situations and can contribute significantly to the qualitative component of quantitative data (Cohen & Crabtree 2008:1). By using criterion sampling, the researcher could hand-pick expert participants (Creswell & Poth 2018:1372).

Purposive sampling enabled the selection of appropriate experts to answer the research questions and provide information on their experiences in the area in which the researcher is interested (Keeney *et al.* 2011:48). The Delphi survey was directed at experts in EMC, EMPP education, and HE. For the selection of the sample, the following selection criteria (inclusion criteria) were applied:

- a) Participation in teaching at an HEI institution for at least three to five years;
- b) Willingness to participate in the Delphi survey; and
- c) Knowledge and experience in EMC education and training (compulsory).

Exclusion criteria were determined and applied after the possible panellists had been chosen based on the inclusion criteria, which were:

- a) Not giving consent to participate; and
- b) Lack of availability.

The Delphi survey participants were chosen because of their involvement with EMC education and training, providing useful input concerning the EMPP. Participants for the Delphi panel were invited to participate from the following HEIs that present EMC education and training: UJ, CPUT, DUT, NMU, CUT, FSCoEC, an expert involved with QA in HE, and a representative from the PBEC. As mentioned in section 3.5.3.2, the total target population, whose contact details were provided to me by the deans or HOD`s of the universities presenting EMC education, was invited to participate in the study. I sent 34 invitations to the email addresses received from the deans or HOD`s to request participation in the Delphi survey. From the 34 invitations sent, 16 individuals indicated their willingness to partake in the Delphi survey and completed the consent forms.

As indicated in Table 3.2, the number of respondents who indicated their willingness to participate in the study and submitted a signed consent form was 16. All lecturers meeting the inclusion criteria was invited to partake in the study. Two of the institutions requested that ethics approval should also be obtained from the specific ethics department. The necessary application documents were completed and sent to the Research Ethics Committee of each institution. At the time of approval of this study, only the FSCoEC and the Western Cape College of Emergency care presented EMC HE programmes under an HEI. For this study, it should be noted that the FSCoEC presents EMC educational programmes under an MOU with the UJ and the WCECC under the CPUT. Consequently, this means that approval would need to be obtained from the specific university and the provincial training college.

Unfortunately, after numerous emails to the Head of Department (HoD) (ethics) of one of the universities without response, the researcher was forced to exclude the institution from the study. Approval was successfully obtained from the second institution (cf. Appendix C),

and the HoD provided the lecturing staff's contact details. In total, as seen in Table, 3.2, 34 invitations were sent, and 16 participants accepted the invitation. Therefore, the total number of participants giving full written consent and eventually participated in the study was 16, as depicted in Table 3.3.

Table 3.3: Description of the Delphi survey participants

PARTICIPANTS	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16
Involvement in EMC education as a lecturer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Involved with QA and programme development	✓															
Educational qualifications		✓												✓	✓	
Professional qualifications	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Previous or current membership on the PBEC	✓															
Professional registration with the HPCSA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓

3.5.3.4 Data gathering

An information document (cf. Appendix F) was sent to the HoD to obtain permission to contact the participants and explain the study's purpose. Most institutions replied, giving their permission and the HOD provided the lecturing staff's contact details. I then sent an invitation letter (cf. Appendix G) and an information document (cf. Appendix F), which included a detailed explanation of the questionnaire to the potential participants. Additionally, a consent form (cf. Appendix H) was sent to all the participants who accepted the invitation and was requested to complete, sign, and return it to the researcher via email.

The Delphi survey's first round started on 2nd of February 2021 and concluded on 15th of February 2021. For the first round of the survey, a self-administered questionnaire containing a series of content statements was sent to the participants using the EvaSys survey management system (Keeney *et al.* 2011:5). EvaSys is a web-based program with which surveys can be created and distributed. Participants were linked to a specific code on EvaSys to ensure the confidentiality of the Delphi survey. The researcher contacted the participants to make sure they received the questionnaire. Some of the participants requested that the Delphi questionnaire be emailed to them. During each round, participants were given two weeks to complete the survey and submit it online using EvaSys. The participants who chose to use email then had to return the questionnaire to

the researcher by email. The EvaSys system sent out reminders every week.

From the start, the participants were informed that their identities and disclosed information would remain confidential during all the survey rounds to encourage openness and willingness among participants to express their views freely (Keeney *et al.* 2011:24). The participants were asked to rate the statements on a modified three-point Likert scale, “**Agree**”, “**Not Applicable**”, and “**Disagree**” (cf. 3.5.3.4). Furthermore, the researcher asked the participants to write free-text comments to explain their rating or, for example, disagreement with the relevance of the content statement (McMillan *et al.* 2016:658). The Delphi questionnaire (Round 1) consisted of 11 sections (cf. Appendix I), as seen in Table 3.4.

Table 3.4: Overview of the content of Round 1 of the Delphi survey questionnaire

SECTION	DESCRIPTION
A	Demographic data
B	EMPP admission criteria
C	EMPP curriculum design
C1	EMPP level descriptors
C2	EMPP learning outcomes
C3	EMPP credits and notional hours.
C4	EMPP learning facilitation
D	EMPP assessment
E	EMPP physical preparedness
F	EMPP general skills and competencies

The responses to the first-round questionnaire were organised and used to create the second-round questionnaire. As in Round 1, the participants were asked to indicate the importance of each statement using the modified three-point Likert scale (cf. 3.5.3.4). The modified questionnaire was then forwarded to the Delphi participants for the second round via the EvaSys system with similar instructions to those in Round 1. The second round presented the statements, as before, that did not reach a consensus during the first round. After considering the group consensus and the free-text comments, the participants were requested to rerate the statements by giving the same rating as before or giving an amended rating (McMillan *et al.* 2016:658). Consensus was considered to have been achieved on statements when a predetermined level of consensus of $\geq 75\%$ was achieved. In Round 2, statements were grouped under the following eight sections (cf. Appendix J) as seen in Table 3.5.

Table 3.5: Overview of the content of Round 2 of the Delphi survey questionnaire

SECTION	DESCRIPTION
B	EMPP admission criteria
C	EMPP curriculum design
C1	EMPP level descriptors
C2	EMPP learning outcomes
C3	EMPP credits and notional hours
C4	EMPP learning facilitation
F	EMPP physical preparedness
G	EMPP general skills and competencies

According to McMillan, King, and Tully (2016:658), in most studies, two rounds are primarily used in a Delphi survey, as more than two rounds lead to participant attrition. Ogbeifun, Agwa-Ejon, Mbohwa, and Pretorius (2016:1011) mention that there are no hard and fast rules regarding the number of rounds in a Delphi survey. The authors further state that one or many rounds of information gathering should be adequate, provided that the researcher is satisfied with the level of consensus, the convergence of opinion, or the participants are no longer modifying their earlier decisions (Ogbeifun *et al.* 2016:1011). In agreement, Warner (2017:2) mentions that the total number of rounds varies, with two rounds being the minimum and four rounds commonly considered the appropriate number. However, the author further mentions that two to three rounds are generally considered adequate to achieve consensus. In this study, the Delphi process was repeated for two rounds. Further discussion on the Delphi survey is provided in Chapter 5 (cf. 5.2).

3.5.3.5 *Data analysis*

The quantitative data collected by the EvaSys survey management system (cf. Appendices G & H) was analysed automatically. The quantitative data were analysed for agreement and disagreement, of which a specific statement will need 75% consensus from the number of participants from the given options of **"Agree"**, **"Not Acceptable"**, and **"Disagree"**. There was no need for biostatistician services as the EvaSys system already analyses the data. Assessment criteria were developed, as consensus and stability of statements were reached when a predetermined level of at least 75% (12 out of 16 participants) was obtained. The collected data was integrated, summarised, and displayed in tables. Each statement also had a free-text comment section to gather qualitative responses. A thematic approach was used to analyse the data by identifying concepts and categories concerning the free-text comments. Atlas.ti software was used to analyse the qualitative data in the Delphi survey. To ensure authenticity, the supervisors evaluated the groupings and categories. The researcher recorded and analysed each participant's responses per themed statement with

the assistance of the supervisors. The qualitative data obtained through the Delphi survey was analysed by the researcher with the assistance of the supervisors. Data analysis was conducted throughout the study, as previously collected data must be analysed to inform the questionnaires of subsequent rounds (Brady 2015:4).

Figure 3.3 presents a brief overview of how the researcher undertook the Delphi survey in this study.

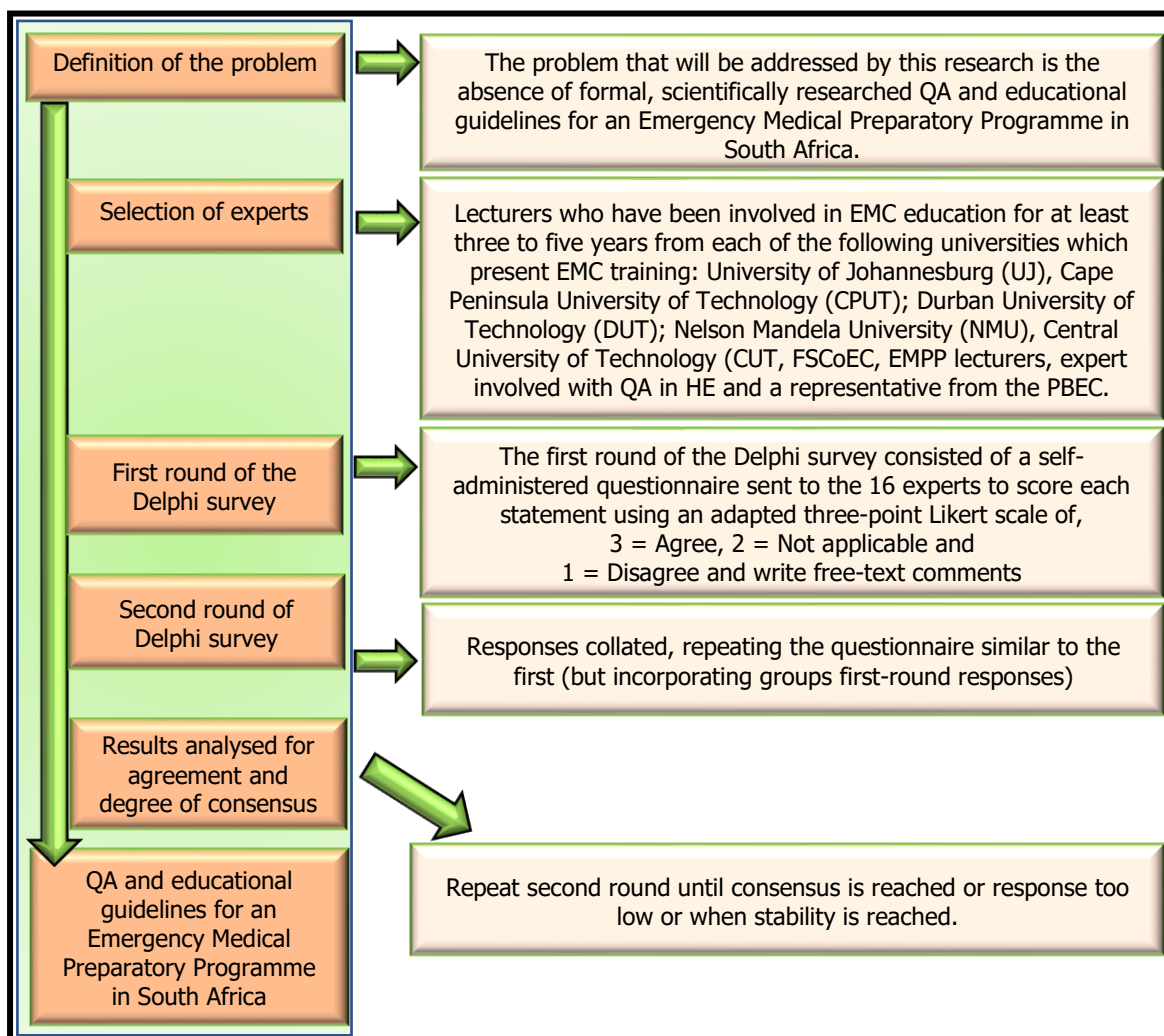


Figure 3.3: Brief overview of the Delphi survey that was used in the research study
Source: Modified from Jones and Hunter (1995:378) and McMillan *et al.* (2016:658)

The next section is a discussion of the expert panel discussion.

3.5.4 Phase 4: Expert panel discussion

As defined for this study, an expert validation review process is a formal review method to objectively look at the proposed guidelines, recommend changes to enhance the preliminary

best practice guidelines, and holistically incorporate viewpoints from a different set of stakeholders (McNiff & Whitehead 2011:134-137).

One of the processes that can be used to validate the QA and educational guidelines and criteria developed after the Delphi survey is using an expert panel discussion. Coulter, Elfenbaum, Jain, and Jonas (2016:1-5) refer to a research expert panel in which the researcher seeks to examine the state of science and identify and prioritise gaps in the scientific evidence collected. This particularly applies in areas where the evidence lacks quality or is insufficient to determine appropriate care using usual consensus or guideline processes to determine specific research recommendations. According to the authors, the expert panel discusses the topic's content and gives recommendations and feedback.

The expert panel discussion addressed Objective 4 of the study. It aimed to refine and finalise the QA and educational guidelines by objectively scrutinising the content, identifying and prioritising gaps in the guidelines proposed during the Delphi survey, providing feedback, and making recommendations to enhance the guidelines further, as stated by Coulter *et al.* (2016).

3.5.4.1 *Pilot study*

Due to the total population being invited to participate in the study, no pilot study was conducted before the expert panel discussion. However, the agenda and interview questions were carefully constructed and reviewed by the researcher and the supervisors before conducting the expert panel discussion. The researcher also provided the facilitator with an opportunity to provide feedback regarding the questions before the panel discussion.

3.5.4.2 *Target population*

The target population of the expert panel discussion consisted of one participant from each of the following EMC education and training institutions: (i) UJ, DUT, CUT, CPUT, NMU, and FSCoEC; (ii) one expert involved with QA in HE; and (iii) one member of the PBEC. The target population for the expert panel was eight.

3.5.4.3 *Description of sample and sample size*

The sampling method used for the expert panel discussion was also implemented for the Delphi survey in this study (cf. 3.5.3.3). The participants in this phase of the study consisted of (i) principals of the following EMC education and training institutions: UJ, NMU, DUT, CUT, and FSCoEC; (ii) an expert involved with QA in HE; and (iii) a member of the PBEC. Six of the institutions provided the researcher with permission to research without obtaining ethical approval. However, two institutions requested that the researcher obtain ethical clearance before conducting the research (cf. Appendices A, B & C). As mentioned in section 3.5.3.3, one institution did not respond to the researcher's request to research the institution, and the institution was excluded from the study. Therefore, the total number of participants giving full written consent for the expert panel discussion was seven, as depicted in Table 3.6.

Table 3.6: Qualifications and positions held by expert panel participants

INVOLVEMENT IN EMC EDUCATION AS SENIOR LECTURER OR PROGRAMME MANAGER OR HOD	QA AND PROGRAMME DEVELOPMENT	QUALIFICATIONS	PREVIOUS OR CURRENT MEMBERSHIP OR REGISTRATION OF THE PBEC
HOD at a university offering EMC education		BTech (EMC) M HPE	Emergency Care Practitioner (ECP)
Principal or deputy principal of a college offering EMC education		BTech (EMC) M (DM)	ECP
Programme manager of EMC HE programmes		BTech (EMC) M (EMC)	ECP
Principal or deputy principal of a college offering EMC education		BTech (EMC) M HPE	ECP Member of the PBEC
Vice-dean or HOD at a university offering EMC education	QA	NHD (PSE) NHD (FST) BTech (EMC) MTech (ED) PhD HPE	ECP Previous member of the PBEC
HOD at a university offering EMC education		BTech (EMC) M (EMC) PhD (HPE)	ECP Member of the PBEC
Senior lecturer at a university offering extended curriculum programmes	Programme development Extended curriculum programme coordinator	MTech (EH)	

In this study, the expert panel discussion participants were selected because they share the same characteristics or experiences in EMC HE education and training as well as HE QA processes. Moreover, the value of the experts selected for this study is that they are all involved in managing EMC HE programmes concerning QA and the educational processes of EMC programmes. The senior lecturer is involved in the development of ECP programmes at university level and was closely involved in the development of the EMC ECP, before it was redeveloped as the EMPP. According to Keeney *et al.* (2011:8), experts' selection depends on the topic being validated and the interest and involvement of the expert with the question being examined. The authors further mention that the participants are selected for a purpose, to apply their knowledge to a certain problem based on criteria, which are developed from the nature of the problem under investigation.

Hence, I selected individuals considered experts in EMC training and education as well as QA specialist in HE in this study. Hassan *et al.* (2000:1011), mention that there is no consensus on the number of experts required to validate an instrument but that more participants should be recruited as some will not respond.

All the experts fulfilled the following criteria:

- a) They possessed adequate knowledge and experience regarding the statements contained in the expert panel agenda;
- b) They were able and willing to participate in the expert panel discussion;
- c) They had sufficient time to participate in the expert panel discussion;
- d) They were efficient with communicative skills at play; and
- e) They are involved in EMC education and training.

3.5.4.4 Data gathering

I identified the panel of experts in collaboration with the promoters, and an information document (cf. Appendix Q) was sent via email. As soon as a Health Sciences Research Ethics Committee (HSREC) number (cf. Appendices A & B) was obtained, the researcher contacted the administration department of each EMC education and training institution: UJ, CPUT, NMU, CUT, FSCoEC, and the secretariat of the chairperson from the PBEC, to obtain the email addresses of the participants. An information letter (cf. Appendix P) was sent to the HoD for permission to obtain the contact details of the participants. Data collection only commenced when permission was granted from the HoD or ethics approval

was obtained from the specific institution from the HSREC (cf. Appendices V-BB). In the letter, the process of compiling QA and educational guidelines for the EMPP was explained to the experts, and their input on reviewing the proposed guidelines was requested. After the experts gave their consent (cf. Appendix R) to participate in the expert panel discussion, the researcher provided them with a document containing the proposed guidelines (cf. Appendix S) derived from the analysed data of the literature review, document analysis, and Delphi survey. Furthermore, an explanation about the purpose of the expert panel discussion was provided to the participants and included:

- a) How the participant was chosen;
- b) The expected duration of the expert panel discussion;
- c) Assurance that information will be kept confidential; and
- d) An explanation as to why the expert panel discussion was audio recorded.

In their study to design a conceptual framework for educational design at the modular level, Botma, Van Rensburg, Coetzee, and Heyns (2014:6) engaged in the process of expert evaluation by critiquing the framework. During the process, the experts discussed whether the framework could be accepted as it was, found acceptable but with recommendations for change or improvement, or found not acceptable. Eventually, Botma *et al.* (2014:7), used the following criteria for expert review, which was also used in this study to refine and finalise the QA and educational guidelines for an EMPP in SA:

- a) "Clarity, simplicity, and consistency;
- b) Appropriateness, relevance, and comprehensiveness;
- c) Applicability, practicality, and usability;
- d) Adaptability and transferability;
- e) Credibility;
- f) Importance for research, practice, and education; and
- g) Trustworthiness or validity" (Botma *et al.* 2015).

Only one participant indicated that 5 April 2021 would not be suitable but indicated his willingness to send feedback regarding the guidelines by email. The expert panel discussion was scheduled using the Microsoft Teams platform from 09h00 and concluded at 11h30. After informing the panel members about the recording of the session, the expert panel discussion was audio recorded using a Samsung Note 8 recording device and the Microsoft Teams programme's audio recording facility to ensure that the participants'

perspective was represented as fully and fairly as possible (King & Horrocks 2010:44). The researcher made sure that the discussion was recorded and downloaded the recording immediately after the session. The recording was also clearly marked and backed up.

The researcher did not facilitate the discussion as it might have caused biased responses but viewed on a computer live streaming the expert panel discussion and listened to the discussion making field notes. Although the researcher was available to provide clarification if participants requested it, the researcher was not involved in any way during the data collection process. By not providing the meeting guide to the participants prior to the meeting and refraining from answering irrelevant questions or presenting personal perspectives during the discussion, a climate free of coercion, bias, or rehearsed responses was created (Creswell, 2012), ensuring data reliability. Making field notes enabled the researcher to develop a feeling for the group atmosphere and participants' emotions during the interviews. According to Phillippi and Lauderdale (2017:382), qualitative field notes are an essential component of rigorous qualitative research. Most qualitative research methods encourage researchers to take field notes to enhance data and provide a rich context for analysis. In this study, field notes were made on the interview day by the researcher watching and listening to the discussion. The discussion was watched again to check the authenticity of the transcripts and field notes. Standard functions of fields notes are described by Phillippi and Lauderdale (2017:382) as follows:

- a) Prompt researcher(s) to closely observe environment and interactions;
- b) Supplement language-focused data;
- c) Document sights, smells, sounds of the physical environment, and the researcher's impressions shortly after they occur;
- d) Encourage researcher reflection and identification of bias;
- e) Facilitate preliminary coding and iterative study design;
- f) Increase rigour and trustworthiness; and
- g) Provide essential context to inform data analysis.

The facilitator was selected based on his prior experience in EMC education and training and his studies in project management. Qualities required of a facilitator include encouraging interaction among participants while engaging them in discussion relevant to the phenomena in question while remaining impartial and respectful of participants' opinions and perspectives (Sim & Snell 1996:191). The researcher presented the facilitator with an expert panel guide (cf. Appendix T), which included a set of ground rules for the

expert panel discussion, questions to ask the group, with associated prompts to stimulate discussion when necessary (Tong, Sainsbury & Craig 2007:356). The facilitator used the guide (cf. Appendix T) to stay focused on the study outcomes but still explored, probed, and asked questions clarifying and explaining a particular subject (Turner 2010:755). Except for providing leading questions and occasionally probing, adding a question, or redirecting the group's conversation, the expert panel facilitator served as a listener and learner. About 15 to 20 minutes were scheduled to discuss each question, and the facilitator guided the interview so positive and negative experiences could be addressed in response to the first question.

3.5.4.5 Data analysis

Three main data types are used in qualitative research analysis, namely: transcribed interviews or conversations, written field notes of the researcher's observations, and reflections recorded by the researcher. Qualitative data analysis is based on an interpretative philosophy on making meaning regarding the specific phenomenon under study. Babbie (2016:49) describes inductive reasoning as a process that moves from the specific to the general, from a collection of specific observations to the finding of a pattern that indicates some degree of order among all the provided occurrences. In this study, the researcher conducted a literature review and a document analysis to gather data relevant to the topic and give the researcher an overview of the EMPP.

An inductive analytical process is advised for an interpretive approach, as it allows for the extraction of research findings from data by analysing participants' perceptions, attitudes, knowledge, beliefs, feelings, and experiences (Nieuwenhuis 2016:99). The researcher employed an inductive approach in the form of in vivo coding throughout the analytical process, identifying and enabling patterns and themes to emerge from the data (Nieuwenhuis 2016:116). As King and Horrocks (2011:142) explain, when considering the types of data analysis available, the distinctive difference between the types is that some focus strongly on language, and others focus on the content of the participants' responses. In this study the focus was on language. In Figure 3.4, the stages in the schematic analysis are shown.

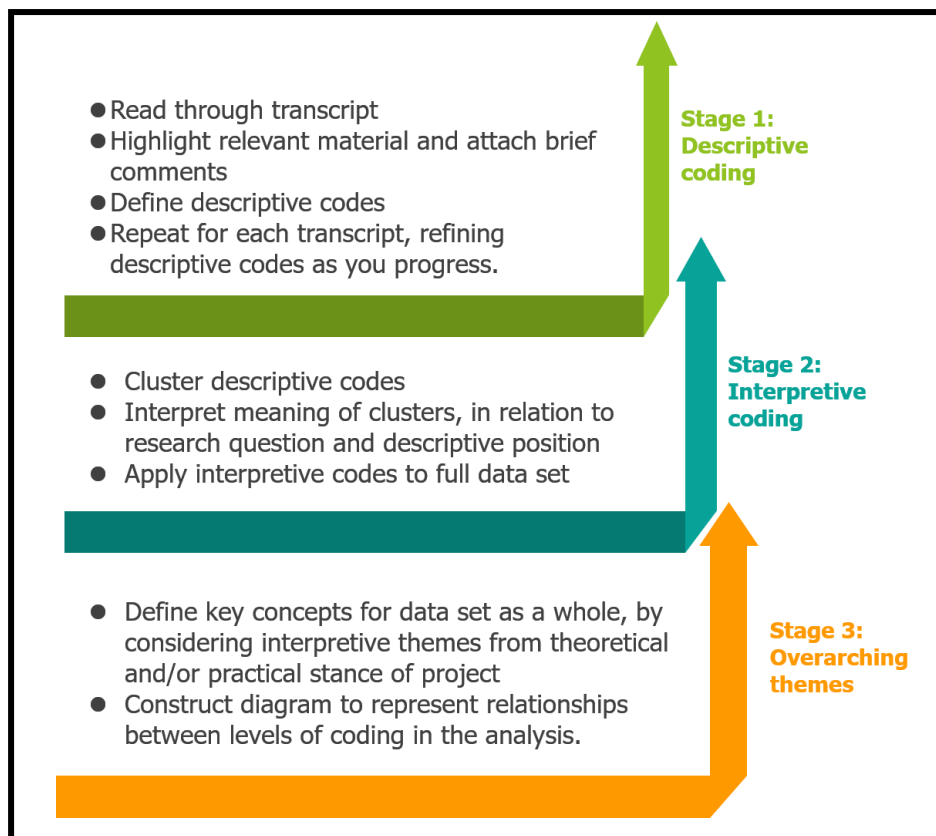


Figure 3.4: Stages in the thematic analysis (King & Horrocks 2010:153)

I reviewed the content and the field notes of the expert panel session while monitoring the session for possible saturation. Saturation is described as gathering sufficient rich data to make sense of the EMPP as a social phenomenon, allowing for the construction of a full and persuasive theory with no gaps, while no new information emerged from the raw data (Goldie, Dowie, Cotton & Morrison 2007:612). A researcher has enough raw data when the raw case data have been accumulated until saturation is achieved.

I downloaded the expert panel discussion recording from the Microsoft Teams platform immediately after the session. I then used Dragon Naturally Speaking 12 transcription software to transcribe the expert panel discussion verbatim from recorded speech to text and saved it on a computer. I listened to the recordings while reading the transcript to increase the trustworthiness of the data, and corrections were made accordingly. Field notes made about the observations during the discussions and group dynamics were analysed with the participants' responses. The transcription was also checked for correctness by the facilitator, promoters of this study, and the participants from the expert panel discussion. The entire transcription was used for analysis and interpretation. A copy of the transcription was printed for record-keeping.

To achieve a “thick description” in reporting the results, I ensured that the “voice” of the participants was sufficiently represented (Ponterotto 2010:588). This was achieved by providing extensive quotes of statements by the participants. Care was taken to avoid changing the meaning of statements and ideas presented by participants. Together with the theories garnered from the literature review, this data was used together with the information from the EMPP document analysis and Delphi survey to develop QA and education guidelines for an EMPP.

Use of software in this study

For the Delphi survey, data analysis was mainly done using the ATLAS.ti qualitative data software. The importance of qualitative data analysis software is its ability in efficiently storing and locating data (Creswell & Creswell 2018:268; Botma et al., 2010:227). Another advantage of the software is that it locates all text that is associated with specific codes. According to ATLAS.ti Windows 9 User Manual (2020:11), the software may also import and exports qualitative data to quantitative programmes such as spreadsheets or data analysis programmes. However, the researcher still needs to go through each line of text to assign codes, similar to hand-coding of transcriptions. Using the software may, however, be faster and more efficient than hand-coding (Creswell & Creswell 2018:268). The data were analysed using ATLAS.ti Windows 9 User Manual (2020:11) four steps of analysis. These were incorporated into the five steps of qualitative data analysis, as described in Creswell and Creswell (2018:268), as shown below.

Organising and preparing the data for analysis

Creswell & Creswell, (2018:268) indicates that the first step involves the transcription of the interviews and optically scanning material, typing up field notes. Accordingly, this is followed by sorting and arranging the data into different types, depending on the sources of information (Botma *et al.* 2010:224). The verbatim transcripts that result from capturing the participants' words allow the researcher to attach meaning to people's perspectives (Grove *et al.* 2015:88).

Read and relook at all the data

This second step involves reading through all data transcripts to make a general sense of the information and to reflect on its overall meaning (Creswell & Creswell 2018:268). I

carefully read the transcripts several times to ensure that the participants' responses had been captured correctly. At this stage, I enacted step one of ATLAS.ti Windows 9 User Manual (2021:11), which states that the user should create a project, an "idea container," meant to enclose data, all the findings, codes, memos, and structures, under a single name (ATLAS.ti Windows 9 User Manual 2020:11). This was followed by step two, which stipulates that documents, text, graphics, audio, and video, or any other files should be added to the created ATLAS.ti project. I then loaded the translated data transcripts into ATLAS.ti, created a project and started writing general thoughts about the data in the margins of the transcripts, as advised by Brink *et al.* (2012:193).

Generating codes

The third stage, generating codes, "involves taking text data gathered during data collection, segmenting sentences into categories, and labelling those categories with a term, often based on the participants' actual language" (Creswell & Creswell 2018:268). These 'codes' or abbreviations used to classify words or phrases (Grove *et al.*, 2015:89) are called in vivo codes (Creswell & Creswell, 2018:268). The third stage is concerned with organising data by bracketing chunks and writing a word representing a category in the margins (Botma *et al.*, 2010:224). This tallies with step three of ATLAS.ti's Windows 9 User Manual (2020:11), which states that the user should organise documents in such a way that codes, themes, and sub-themes develop. When coding the data, I ensured that I had read and familiarised myself with the data. I made sure that I was familiar with what was in the data and what was of interest in the data. I then determined the most descriptive words for the topics and arranged them according to how they are related to each other.

Generating descriptions and themes

The fourth stage in data analysis relates to generating themes (Creswell & Creswell, 2018:268). Themes should display multiple perspectives from individuals and be supported by diverse quotations and specific evidence. This stage tallies with step four of ATLAS.ti's Windows 9 User Manual (2020:11) states that users should read and select text passages or identify segments on the file that is of further interest, assign codes, and write comments and memos.

Generating the descriptions and themes

The fifth and last step in qualitative data analysis is to decide how the data will be presented to convey the findings (Creswell & Creswell 2018:268, Botma *et al.*, 2010:225). This step takes place once the researcher has fully established the themes and is ready to write up the report. There must be a discussion that mentions a chronology of events. These include (1) the detailed discussion of several themes, (2) specific illustrations, (3) multiple perspectives from individuals, or a discussion with interconnecting themes.

3.6 QUALITY OF THE STUDY

The criteria for evaluating the quality of a qualitative inquiry are credibility, transferability, dependability, and confirmability (Schurink, Fouché & De Vos 2011:420), as discussed in the following sections.

3.6.1 Credibility

Tracy (2010:842) describes credibility as the trustworthiness, reliability, and plausibility of research findings. Botma *et al.* (2015:233), state that credibility determines whether the researcher has established confidence in the findings' truth and the context in which the research was conducted.

In this study, credibility was established because the documents used were government policies, regulations, and guidelines. The data generated from the Delphi survey and panel discussion was from a group of experts in HE, EMC, and the EMPP. The Delphi survey participants and expert panel discussion established credibility concerning the study's findings generated from the literature review and document analysis, which was judged and refined until a consensus was reached.

3.6.2 Transferability

As Tracy (2010:845) mentions, transferability is reached when the readers feel that the researcher's story overlaps with their setting, and they intuitively transfer the research to their actions. This means that the ideas created by the study's findings relate to those readers who have experienced them in the same manner or another arena, leading them to a decision to view the findings as transferable or not.

Although this study was conducted at the CUT, with regard to the EMPP, which was the focus of this study, the findings generated by this study can be transferable to other EMC institutions that may want to develop an EMPP programme similar to the CUT's. Transferability was addressed by presenting the findings in a manner that enables other researchers to decide whether the findings are transferable.

3.6.3 Dependability

Botma *et al.* (2015:233), explain that dependability considers whether the findings will be consistent if the enquiry is replicated with the same participants in a similar context. In this study, the researcher used a dependability strategy, implying a dependable audit (an audit trail, which is a detailed description of how the researcher collected data and the kind of data that were collected); traceable variability that can be ascribed to identifiable sources, meaning a stepwise replication of the study; a thick and dense description of the methodology; and triangulation of methods, data sources, theories, and investigations.

According to Petty, Thompson, and Stew (2012:383), dependability is challenging to achieve in qualitative research due to differences among individuals, contexts, and time passage. In this study, dependability was achieved by presenting coherent, well-documented, and audited research processes applied during the research study, as Schurink *et al.* (2011:420), indicate.

3.6.4 Confirmability

According to Botma *et al.* (2015:233), confirmability involves the absence of bias throughout the research process and in the reporting of findings. It refers to the degree to which the findings are grounded in the participant's voice rather than the researcher's motivation, interests, or perspectives (Tavakol & Sanders 2014:844). In this study, confirmability was achieved by clarifying the links between the results and collected data. It also entailed the researcher being sincere, honest, and transparent regarding biases, goals, and shortcomings, and the way these aspects play a role in the methods and mistakes of the research study (Tracy 2010:842). Furthermore, this study's confirmability was established through a piloted Delphi survey. The expert panel discussion could not be piloted since the total population was included in the study (cf. 3.5.4.1). However, the agenda and interview questions were cautiously structured and reviewed by the

researcher and the supervisors before conducting the expert panel discussion.

3.7 ETHICAL CONSIDERATIONS

The study's intention was not to infringe the participants' rights but rather to add to the existing body of knowledge so that future researchers might benefit from the data acquired. No participant was harmed during the research investigation. Participation was optional, and everyone was treated equally. The researcher always adhered to the ethical standards of research and followed the HSREC's instructions. The following subsections discuss the ethical considerations regarding this research study. The researcher also ensured that approval or permission was obtained from the HODs of the individual institutions before data was collected (cf. Appendices V-BB).

3.7.1 Approval and permission

The researcher obtained approval for the research from the HSREC at UFS. Permission to conduct this research study was also obtained from the Dean of the Faculty of Health Sciences at UFS (cf. Appendices A & B) and the Dean of the Faculty of Health Sciences at CUT (cf. Appendix D). The allocated HSREC number was used on all documents and correspondence about the study. This was followed by successfully defending the study in an evaluation committee meeting, obtaining permission from the Faculty Management Committee, and informing the Vice-rector: Academic of the proposed study. A formal application was sent to the HSREC of the Faculty of Health Science UFS with details of the research to be conducted. An HSREC number was allocated (UFS-HSD2019/1095/270801) as final permission to conduct this research aimed at obtaining a Ph.D. (HPE) degree.

3.7.2 Consent

Before any data collection was conducted, an information document (cf. Appendices F & P) and an informed consent form (cf. Appendices H & R) were provided to the participants that explained the purpose of the research. Informed consent was obtained from all participants, and all participants signed the informed consent form, indicating their willingness to participate in the study. A short overview of the study was provided to all participants to explain the purpose of the study. Participation was entirely voluntary, and a written guarantee was included in the informed consent form that all information would remain confidential and private to all but the researcher and his promoters (cf. Appendices

F & Q). The contact details of the researcher and the promoters also appeared on the informed consent form. Participation in the study did not involve any cost to the participants. There was no remuneration whatsoever in cash or kind, nor were there any risks involved by participating in the study. Participants were free to withdraw from the study as and when they wished without explanation and fear of being prejudiced.

3.7.2.1 *Consent in terms of the Delphi survey*

After inviting potential participants by email communication to participate in the Delphi survey, a letter of invitation to participate in the Delphi survey (cf. Appendix G) was attached to an email and sent to each prospective participant. Once an invited potential participant had agreed to participate in the Delphi survey, an information document was sent to the participant by email. At this stage, the consent form was attached to the email and participants were requested to read through the consent form and send the signed consent form back to the researcher by email (cf. Appendix H).

3.7.2.2 *Consent in terms of the expert panel discussion*

An information document (cf. Appendix P) containing detailed information regarding the study's aim and purpose explained that the participants might elect to participate and exercise their right to withdraw from the study. Furthermore, a description of the study and the anticipated duration of the expert panel discussion was provided.

All participants were requested to give written informed consent to participate in the research. The consent document (cf. Appendix R) was available in English, and the participants were informed that participation was voluntary, and that all information supplied would be kept confidential. The researcher's name and contact details were always available to all participants.

During the introduction of the expert panel discussion, the independent facilitator reiterated that participation was voluntary, and if anyone felt the need to withdraw from the discussion, they could do so at any time. None of the participants withdrew from the study.

3.7.3 Right to privacy and confidentiality

The confidentiality of the participants' personal information and their provided information was ensured through various measures detailed below (cf. 3.7.2.1 & 3.7.3.1). All participants had access to the study's final findings and were informed before they participated in the study that the results would be published in peer-reviewed and accredited journals and used for poster or oral presentations at appropriate conferences.

All participants were requested to give written informed consent to participate in the research. The consent form (cf. Appendices H & R) was available in English, and a description of the study and the anticipated duration of the study was also provided to the participants in the information documents (cf. Appendices F & P).

3.7.3.1 *Right to privacy and confidentiality in terms of the Delphi survey*

All research participants were assured that their information would remain completely confidential. There was no mention of the participants' names in any documents except on the permission form. The researcher always maintained confidentiality. Any identifying information was purposefully omitted from the transcriptions. Transcriptions are available upon an approved request, whereby each participant and the HSREC grant approval. The Delphi survey demands that the researcher is aware of who answers the questionnaire. Therefore, anonymity could not be guaranteed. However, the confidentiality of the provided information was guaranteed. The participants' names did not appear on any document. Only a code number, used as a pseudonym, was used to analyse the results, which was not linked to any identities.

Only relevant information about participants' professional status was made known in disseminating research findings and results pertinent to emphasising the findings' relevance and results. Information collected via the Delphi questionnaires and expert panel discussion was kept securely with access only by the researcher. Furthermore, the collected information will be securely stored until deemed appropriate by the researcher to safely destroy the information using acceptable international practices to discard research information.

3.7.3.2 *Right to privacy and confidentiality in terms of the expert panel discussion*

Information collected during the expert panel discussion was strictly confidential. One way of ensuring that a participant remains anonymous during an expert panel discussion is to allocate a code to each participant (cf. 6.5). This code is then used by the facilitator and other participants instead of using the individual's name. In setting the ground rules for the expert panel discussion (cf. Appendix T), the independent facilitator indicated that no names should be used during the discussion. If a participant mentioned another's name, the researcher removed the name from the transcription and replaced it with the code allocated to the participant.

3.8 CONCLUSION

In this chapter, the research design and methodology of the study were discussed. The research paradigm was provided first, followed by the research design, strategy of inquiry, and the description of the methods used in this study, namely, the literature study, document analysis, Delphi survey, and expert panel discussion. The survey population, sample selection, data collection, and analysis of both empirical methods were described. The chapter ended with an explanation of the quality of the study, which included credibility, transferability, dependability, and confirmability of the study.

In Chapter 4, entitled **Emergency medical preparation programme documents: A document analysis**, the results and a discussion of the findings of the EMPP document analysis will be presented. Chapter 4 includes the document analysis of the EMPP course design with a focus on level descriptors, exit-level outcomes, notional or unit hours, model or unit outcomes, learning facilitation, assessment in the programme, physical preparedness, and the development of generic skills and competencies to determine alignment with the guidelines and criteria as set out in Phase 1 of the study (cf. 1.8.3.2; cf. 3.5.1 & Table 3.1). This document analysis also includes EMPP QA documents and processes.

CHAPTER 4

EMERGENCY MEDICAL PREPARATORY PROGRAMME: A DOCUMENT ANALYSIS

4.1 INTRODUCTION

This chapter is dedicated to Phase 2 of the study (cf. 1.8.3.2). It includes the document analysis of the EMPP course design with a focus on admission, level descriptors, Exit Level Outcomes (ELOs), notional or unit hours, module or unit outcomes, learning facilitation, assessment in the programme, physical preparedness, and the development of generic skills and competencies to determine alignment with the guidelines and criteria as set out in Phase 1 (cf. 1.8.3.1). This document analysis also includes EMPP QA documents and processes, as well as documents generated by the HPCSA's PBEC and informing QA practices for EMC programmes were also analysed and discussed concerning the research problem. Bowen (2009:27) states that document analysis involves studying existing documents to understand their content or illuminate deeper meanings, which may be discovered through their style and coverage. As was indicated in Chapter 3, document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning to a specific phenomenon (Bowen, 2009; DHET, 2013b; Ellis & Steyn, 2014; Essack, 2015). Analysing documents entails a qualitative analysis process similar to the analysis of focus group interview transcripts (Bowen 2009).

In the document analysis, the following objective was explored:

To analyse EMPP documentation to determine alignment with the guidelines and criteria set out in Objective 1 (cf. 1.5.3).

Regarding the aim of this chapter, the following should be noted:

- Some of the EMPP lecturers and part-time lecturers are from different faculties and do not necessarily have emergency care backgrounds;
- The modules were also developed by different faculties and could have contributed to the fact that the programme is not properly aligned with EMC education; and
- This chapter is not focused on critique but was an analysis of the EMPP documents as is.

- The aim of the study was not to validate the existence of the EMPP or to discredit it any way. As discussed in Chapter 1 (cf. 1.5.2), the main objective of this enquiry is to provide QA and educational guidelines for an EMPP in SA.

4.2 SUMMARY OF PROCEDURE AND FINDINGS

Before commencing with data collection, permission was obtained from the Acting Director: Institutional Planning and Quality Enhancement at CUT (cf. Appendix D). The head of the faculty of health sciences was contacted to obtain all necessary EMPP documentation. This phase of the study was purely a document review, and there was no discussion with the head of department or course coordinator, except for requesting that they provide documents.

For the sake of clarity, I herewith give an exposition in Table 4.1 of the various documents I analysed and the associated abbreviations I use to refer to the specific documents. The first column indicates the document type, namely foundational documents, quality assurance documents and assessment documents. The second column refers to document codes, and the third column refers to the document title. The documents are coded with a letter (F: Foundational documents; Q: Quality assurance documents and A: Assessment documents) and a number (column 2). For example, the Mathematics study guide will be F1. While foundational documents guide the establishment and operational aspects of the EMPP, quality assurance documents pertain to the EMPP quality assurance processes. Assessment documents pertain to the EMPP assessment processes.

Table 4.1: List of documents

TYPE OF DOCUMENT	DOCUMENT CODE	DOCUMENT TITLE
Foundational documents	F1	Mathematics study guide
Foundational documents	F2	Physics study guide
Foundational documents	F3	Chemistry study guide
Foundational documents	F4	Numeracy study guide
Foundational documents	F5	Basic digital literacy study guide
Foundational documents	F6	Life Sciences study guide

Foundational documents	F7	Academic literacy and communication study guide
Foundational documents	F8	Physical preparedness and learn to swim
Quality assurance document	Q9	Procedure for the Management of Institutional CE Courses at CUT;
Quality assurance document	Q10	EMPP short-learning programme (SLP) approval document (2019);
Quality assurance document	Q11	CUT Moderator Report Template for pilot testing (2020);
Quality assurance document	Q12	CUT Quality Enhancement Project (QEP) (2019);
Quality assurance document	Q13	Policy for the Management of Institutional Continuing Education (CE) Courses at CUT (2019)
Quality assurance document	Q14	A good practice guide for the quality management of short courses offered outside of the higher education qualifications sub-framework
Quality assurance document	Q16	EMPP student feedback forms 2018
Quality assurance document	Q17	EMPP student feedback forms 2019
Quality assurance document	Q18	EMPP course feedback form 2018
Quality assurance document	Q19	EMPP course feedback form 2019
Assessment documents	A20	EMPP learn to swim assessment criteria;
Assessment documents	A21	CUT Assessment Policy (2018);

In this study, I analysed various documents of the EMPP at the CUT to obtain detailed information about the QA and educational process of the EMPP and to see if the implementation of the EMPP is in line with similar programmes. Upon receiving the documents, I organised them in folders on my computer and assigned codes to each document as seen in Table 4.2. The data collection for the document analysis was accomplished by using a matrix form that was designed to capture specific details about the EMPP document as well as a document analysis rubric (cf. point 3.5.2.2; Appendix E; Appendix EE).

Table 4.2: Themes and codes

DOCUMENT	THEME	SUB_THEME	CODES
EMPP short-learning programme (SLP) approval document (2019)	EMPP admission criteria	None	Access criteria Admission criteria Fitness requirements Access pathways

			Physical preparedness Subject requirements Swimming
EMPP learning guides and EMPP short-learning programme (SLP) approval document (2019) EMPP short-learning programme (SLP) approval document (2019) and EMPP learning guides	Emergency medical care preparatory programme curriculum design analysis	The intent, purpose, and educational value of the EMPP learning guides	Learning guide Learning outcomes Module's requirement Alignment Constructive alignment Learning Intent of the learning guide Learning guide content Facilitation Facilitate Instructional design Curriculum design
	Emergency medical care preparatory programme curriculum design analysis	EMPP level descriptors	Programme level Descriptors Course attributes Assessment criteria Credits EMPP exit level outcomes Learning criteria
	Emergency medical care preparatory programme curriculum design analysis	The outcomes and the manner in which they are written.	Learning outcomes Curriculum development Constructive alignment Attributes Abilities Teaching requirements Competencies Programme level requirements Application of outcomes Knowledge Guide Assessment outcomes Comprise Relevant Creative Curriculum demands
	Emergency medical care preparatory programme curriculum design analysis	Credits and notional learning hours	Notional hours Credits Approval Structured Competencies Guidelines Credit allocation
CUT Assessment Policy (2018) and EMPP student result sheets and (SLP) approval document (2019)	EMPP assessment	None	Assessment processes and practices

<p>CUT Assessment Policy (2018) and EMPP student result sheets and (SLP) approval document (2019)</p>	<p>EMPP assessment</p>	<p>Assessment policies and practices at the CUT</p>	<p>Assessment criteria Assessment outcomes Assessment practices Moderation processes Consistent Effective development of assessments Assessment and learning Assessment should test competence Clear assessment guidelines Skills Assessment alignment Development of assessment criteria Assessment planning Principles of assessment</p>
<p>EMPP short-learning programme (SLP) approval document (2019) and EMPP learning guides. EMPP learn to swim assessment criteria and EMPP short-learning programme (SLP) approval document (2019)</p>	<p>EMPP learning facilitation</p>	<p>None</p>	<p>Learning outcomes Learning activities Facilitation should be appropriate Facilitation methods Clear guidelines Student expectations Student support Regular feedback Effective facilitation Teaching qualification Skills Facilitation and adults Effective lesson plans Delivery of facilitation</p>
<p>EMPP short-learning programme (SLP) approval document (2019) and EMPP learning guides</p>	<p>Impact (optimisation) of the learning potential</p>	<p>Development of skills and competencies</p>	<p>Competencies Skills Preparedness for work environment Outcomes Foundational knowledge Professional alignment</p>
<p>EMPP short-learning programme (SLP) approval document (2019) and Physical preparedness documents</p>	<p>Impact (optimisation) of the learning potential</p>	<p>Physical preparedness</p>	<p>Learn to swim Fitness Physical fitness criteria Assessment requirements Physical preparedness structure Expectation from the student Objectives of physical preparedness Health of student</p>

<p>CUT Quality Enhancement Project (QEP) (2019),</p> <p>Policy for the Management of Institutional Continuing Education (CE) Courses at CUT (2019),</p> <p>Procedure for the Management of Institutional CE Courses at CUT and CUT</p> <p>Moderator Report Template for pilot testing (2020)</p>	<p>EMPP quality assurance processes</p>	<p>Programme quality assurance</p>	<p>Quality Moderation Quality assurance process Quality assurance policies Management of quality assurance Analysis of quality assurance processes Programme evaluation Relevance Internal quality assurance External quality assurance Programme accreditation Responsibility Monitoring of quality assurance Quality assurance criteria</p>
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Cross-referencing will be done to sections that refer to literature quoted in previous chapters. Reference will also be made to literature not quoted previously but relevant to the findings. Although I attempted to achieve clarity by isolating concepts and phenomena under discussion, the complex connection of concepts and phenomena are realised, with an overlap of discussion and cross-referencing expected. Doing so serves as a kind of triangulation of results to corroborate the findings and better understand the research issue.

4.3 OVERVIEW OF THE EMERGENCY MEDICAL PREPARATORY PROGRAMME

The overall goal of the EMPP is to empower eligible candidates for selection into the Higher Certificate in EMC (HCert EMC) and the Diploma in EMC (Dip EMC). These students are adult individuals who have already demonstrated to have the ability to engage in HE programmes. The EMPP also aims to establish a platform to prepare candidates for the academic rigour associated with tertiary studies, especially in the medical emergency field. This programme is ultimately designed to enable students to pursue further personal and professional development within the EMC environment and promote lifelong learning (EMPP short-learning programme approval document 2019:5).

However, the EMPP is not credit-bearing and is presented as a SLP at NQF Level 5 (cf. 2.2.5). The EMPP followed the approval route for SLPs at both CUT and UJ and is approved at both institutions' senates. Successful EMPP students can now access the Dip EMC

programme at UJ (cf. 2.2.6). The EMPP is designed to develop the foundational knowledge, skills, and attributes of students to form the basis for further study in the field of pre-hospital EMC and aims to provide access to qualifications within the Higher Education Qualifications Sub-Framework (HEQSF) (EMPP short-learning programme approval document 2019:5 & cf. 2.2.6).

In alignment with the EMC educational programmes, the EMPP short-learning programme approval document (2019:12) considers education vital to ensure that candidates acquire and apply knowledge and skills in meaningful ways to their lives and advance their HE studies (EMPP short-learning programme approval document 2019:8). As indicated in 4.1, the following section will present an analysis of the EMPP admission criteria, programme design, focusing on the level descriptors, ELOs, notional or unit hours, module or unit outcomes, learning facilitation, assessment in the programme, generic skills competencies and physical preparedness in the current EMPP.

4.4 RESULTS AND DISCUSSION

In the following sections, the EMPP document analysis results will be discussed under the themes as presented in Table 4.1. Based on the CHE's programme accreditation criteria, a document analysis guide (cf. Appendix E) was used to analyse the EMPP documentation (CHE 2012:12).

4.4.1 Emergency Medical Preparatory Programme admission

As discussed in Chapter 2 (cf. 1.5.2), the EMPP aims to assist applicants in gaining access to the new NQF-aligned EMC programmes (cf. 2.2.6) that have been introduced for upgrading the qualifications of the current EMC personnel in SA, namely:

- Those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa (HPCSA) (cf. 2.2.6);
- Those who do not comply with the necessary entry requirements for the new NQF qualification but who hold a matric certificate or equivalent thereof (cf. 2.2.6); and
- Those with the correct modules or subjects but not with the required grades, e.g., matric (EMPP short-learning programme approval document 2019:5) (cf. 2.2.6).

In my analysis of the EMPP short-learning programme approval document (2019:5), I did

not encounter any explicit reference to what informed the EMPP of the admission criteria. However, the analysis revealed several references to the EMC HE admission programmes admission criteria (cf. 2.4.2). In other words, it may be deduced that the EMPP admission criteria is benchmarked on the EMC programmes admission criteria. The EMPP short-learning programme approval document (2019:35) also mentioned that the EMPP is currently focused on UJ's entry criteria (cf. 4.3.7) instead of focusing on a more general approach to preparation programmes and general admission criteria for EMC education in SA.

The EMPP should have specific admission criteria, taking the unique situation of the EMC in-service personnel into account. As already discovered in the literature, the barrier to HE admission for in-service staff are not having the correct subjects or not having the correct APS (cf. 2.2). Although, as Slabbert and Friedrich-Nel (2016) mentioned, ECP's are available, these programmes have very specific admission criteria (cf. 2.2.1). In addition, as mentioned in section 2.2.4, the EMC EMPP was initially developed as an ECP for EMC personnel but was later converted to the EMPP as EMC in-service personnel do not meet the minimum admission criteria for ECP's (2.2.2.1). Furthermore, as seen in the literature, other access pathways are available, for example, RPL and CEP (cf. 2.2.1; Figure 2.1).

The EMPP short-learning programme approval document (2019:2) shows that physical fitness is not an entry requirement for the EMPP. However, the student will be required to obtain a flight medical assessment prior to enrolment into the programme. I believe a basic medical examination would provide sufficient information on the medical fitness of the candidate. In addition, a flight medical assessment is more expensive and not always available, as it is very specialised. In my analysis, I found some evidence indicating that the medical assessment should be performed at the completion of the EMPP (Report 2018). In my opinion, the medical assessment should be conducted when the EMPP commence, not as an exclusion criterion, but to obtain as much information about the candidate's medical health as soon as possible. Moreover, to establish as soon as possible how the candidate may be assisted to mitigate some of the barriers, for example, undiagnosed hypertension. In my opinion, this may also mitigate possible injuries and worsening of unknown underlying medical conditions when the students access EMC programmes and are subject to physical fitness and swimming. The value of being healthy and physically fit is in no way disregarded, but as mentioned by Muhlbauer *et al.* (2021), a scientifically validated assessment tool is needed to establish the criteria for EMC personnel. However, in my opinion, physical preparedness should not be an exclusion criterion for a programme such as the EMPP. We

need to validate why physical preparedness and swimming are part of EMC qualifications and then determine how to best assist the candidate. As mentioned in Chapter 2, section 2.4.2, the ECA does not have any rescue related course content. Hence, it could be argued that there is no reason for candidates wishing to pursue the ECA programme to be exposed to intense levels of physical preparedness and swimming.

As for the Dip EMC, a similar situation as with the ECA, in that only basic rescue concepts are taught, not including any water rescue-related content. In my opinion, the importance of being physically healthy is important and being able to swim. With this said, being physically fit and being able to swim as part of a programme such as the EMPP should be based on upskilling personnel with the specific goal to mitigate the issues of being scared of water. The before mentioned will provide students with the opportunity to overcome their fears of water. Moreover, I am also of the opinion that physical preparedness is important, and the value should be instilled with all students, not only EMC students. Furthermore, the EMPP should be a platform to teach students the basics of swimming and being physically fit, which could set the scene for those candidates wishing to pursue more advanced rescue programmes. Moreover, because of the socio-economic disparities, from the apartheid system in SA some candidates having been denied the opportunities to acquire swimming skills, it is unfair to use swimming as an admission criterion. Furthermore, creating a seemingly unfair situation where a student completes all academic subjects but are kept behind due to not being able to complete the swimming assessment in a certain time period. As mentioned in, section 2.4.2.1, a scientifically research tool does not exist to establish the exact criteria for assessing the physical fitness levels of students (Muhlbauer *et al.* 2021). I believe, that as in countries such as Australia, SA EMC training should move in a direction were the student complete the basic EMC programmes and then have the option of completing a rescue programme.

Although mention is made that the EMPP have two levels, namely level one, where the prospective student needs to have a Matric or National Qualifications Framework (NQF) level four qualification with the following subjects:

- Mathematics
- Life Sciences
- Physical Science

Level two, where the candidates would need a Matric or NQF level 4 qualification, the exact

breakdown of the levels is not explicitly explained. For example, what this would mean for the applicant, APS levels, and specifically for level 2, where the candidate is required to have a matric or an NQF level 4 qualification. I believe the breakdown of level one and level two should be clear, as this would provide the applicant and the employer with sufficient information about personnel meeting the specific entry criteria. In my analysis, I could not find any reference to how the EMPP links with other access pathways, such as among others, RPL (cf. 2.2). It seems that RPL could play a vital role in EMC in-service personnel gaining access to HE (cf.2.2.2.3). In addition, RPL should serve as a support system for persons seeking to discover prior knowledge and skills acquired through informal or non-formal schooling RPL (Anderson *et al.* 2016).

As seen in section 2.2.2.3, one EMC college employs a CEP and RPL to assist in-service personnel not meeting HE admission requirements. Moreover, as seen in Figure 2.1, four pathways are explained and could assist candidates wishing to pursue HE. In my opinion, although these pathways exist, we, should be responsible in providing the candidate not only with access but also the ability to be successful. The goal of a programme such as the EMPP should be to provide the student with a solid baseline with regard to foundational knowledge. As seen in the literature, access and success should be part of planning a programme such as the EMPP (2.2.1). As mentioned by the CHE (2013:15), it appeared that an increase in access is not always accompanied by success, as the failure rate of undergraduates increased and is attributed to the under-preparedness of students upon leaving the basic education system. The EMPP should provide the student with moral support, encouragement from staff, a personal development plan, and effective planning and time management skills to cope with the HE workload (Mcghie & du Preez 2016:2). In addition, the EMPP should be focused on the in-service adult student in providing a support system to enable the candidate to gain entry into EMC HE programmes and instil a sense of lifelong learning.

4.4.2 Emergency medical preparatory programme curriculum design analysis

The Council for Higher Education (CHE) describes a curriculum as “the syllabus for a specific learning programme” (CHE 2014:27). In addition, a well-designed programme is essential for students to have significant learning experiences to transfer their learning (Fink 2003:152). Ornstein and Hunkins (2016:78) maintain that curriculum design encompasses how a curriculum is planned, implemented, and evaluated and what people, processes, and procedures are involved.

4.4.2.1 *The intent, purpose and educational value of the Emergency Medical preparatory programme learning guides*

Scott (2008:19), in concurrence with other curriculum experts, points out four aspects of a curriculum, namely the aims or objectives, content or subject matter, methods and procedures, and evaluation and assessment. In other words, the curriculum should be a clear and comprehensive explanation of the '(race) course' the student has to complete successfully. HEI`s must adjust the curriculum to meet the needs of the workplace and ensure that new disciplines and specialisations are incorporated into its content (DHET, 2012; cf. 2.3). To indicate whether the latter was achieved, **the theme the intent, purpose and educational value of the EMPP learning guides** should be clearly mentioned and stipulated. To this regard I found that in the learning guides (F1-F9), the purpose and intent of the subject is communicated, although, generic wording is used in all the learning guides, but that the educational value of the learning guide is not explained to the students. This leaves a gap for understanding the relevance of the learning guide and is evident in mostly all the EMPP learning guides. In general, in my analysis, I found that students were not clear on exactly what the goal of the EMPP was as mentioned by one of the students, "Students need clarification about the course as they do not understand some aspects about it" (Weekly reflections 2019). Providing as much information to the student is crucial, as mentioned by Jansen (2009:6), students need to be informed of what is taught, who will be teaching, how the subject will be taught and how the learning will be assessed. I believe that the importance of well-designed learning guides should not be underestimated, as it should be seen as a road map for the student and how to achieve the outcomes of the module.

The individual EMPP learning guides also indicate specific outcomes for each module (cf. 4.3.4). On the contrary, as the findings show, the alignment of the ELOs and level descriptors of the EMPP is unclear (F2–F9). It is difficult to find the relationship between the ELOs, learning strategies, and the module outcomes of the EMPP modules. The above may be due to the EMPP exit level outcomes and the modules not being appropriately aligned. The document analysis subsequently revealed that key points such as constructive alignment (cf. 2.3.6) and clearly defining facilitation methods (cf. 2.3.4), are subtly present or very vague in the documents. As mentioned by Dames (2012:37), "the fact that the learning activity in the intended outcomes, expressed as a verb, to be activated in the teaching of the outcome is to be achieved and in the assessment task to verify that the outcome is achieved." The constructive alignment of a programme is vitally important. In

my opinion, if the EMPP is not effectively aligned, in other words, efficiently linking teaching, learning, and evaluation on the purpose of the EMPP will be unclear to the student. In addition, students should be enabled to apply learning activities that foster the construction of their knowledge, behaviour, and skills and assess its outcomes (cf. 2.3.6).

My analysis revealed that the EMPP assign generic facilitation methods to most of the EMPP modules. The implication of assigning generic facilitation methods to all modules may cause that the students are not given the most appropriate learning experience with the most appropriate method to achieve learning. In my opinion, facilitation methods should be specific to the module. For example, methods used in the chemistry module (F3), may differ from the approach used in mathematics. Moreover, facilitators should be implementing the module content interestingly and engagingly, and it should not be a generic situation for every module. The process used to develop facilitation methods should be creative, iterative, and active, producing education and training materials that are consistent and reliable (Gustafson & Branch 2002:17) in Kurt (2017); thus facilitating active and deep learning, ultimately understanding of content.

The mathematics learning guide did include a work scheme but was not very descriptive or and did not provide the student with clear guidelines on what to expect from the module (F1). As mentioned in the Chemistry module learning guide (2019:12), the lecturer will provide the students with a work scheme (this was not available during the document analysis). As mentioned above, this leaves a gap for understanding the relevance of the learning guide. The same is seen in the Literacy and Communication learning guide (2019:10), where the work scheme is very limiting in guiding students in planning their studies. As noted in the Mathematics module learning guide (2019:4), a syllabus outline and a separate timetable show the module's work schedule. In my analysis, it seems that students battled with the mathematics module and requested more resources to assist them, as seen in the student's feedback (2019). Moreover, the students requested that more "*excercise for mathematics should be done*", as they are not coping with mathematics (Student feedback 2019). It should also be noted that in the SA context, because of the unequal systems some of the students are from disadvantaged school backgrounds. Therefore, they do not have the basic and foundational Mathematical knowledge.

Thorough and correct lesson planning was not consistently based on the student's needs but instead aimed at content transmission, possibly limiting effective teaching. On further investigation, most lesson plans were absent, except for the mathematics module (F2).

Lesson planning and providing the student with an effective lesson plan are important aspects in the facilitation process as it provide the students with a map of the module, the goal of the module and how to get to that goal. An effective curriculum includes instructional suggesstions, scripts, lesson plans and assessments (Carl 2012:42). Moreover, O`Toole and Essex (2012), mentioned that a formal teaching qualification is required to teach. I believe that this could also benefit EMC lecturers in understanding the basic facilitation skills needed to facilitate and plan lessons effectively.

It is unclear if the terms "Directed self-learning" and "Self-directed learning", as mentioned in the learning guides, refer to the same facilitation method. Findings that emanated from the analysis from the EMPP learning guides mostly did not clearly explain which facilitation methods will be used by the lecturer, for example, the Physical Sciences: Chemistry, Life Sciences, Numeracy, and Physics learning guides mention that "Methods of facilitation are designed to encourage maximum student participation and engagement during learning opportunities, whether formal or informal". However, facilitation methods were not concise and designed to enable the student to achieve the module outcomes. As mentioned by O`Toole (2012), facilitators should have experience and subject knowledge to be able to effectively facilitate learning and be adaptable and responsive to the needs of the adult student (Schmidt 2013).

According to the EMPP Mathematics learning guide (2019:13), the module is presented according to the outcomes-based education philosophy. The document further notes that the lecturer will use various instructional techniques and methods to achieve the outcomes and the general aims of the module and specific outcomes. However, the instructional techniques and methods for the EMPP Mathematics module were not fully explained in the document. In the EMPP Computer skills (2019:3) learning guide, I could not establish whether the learning material is aligned to the outcomes and whether the intent was clear or well communicated. Although the lecturer mentions the skills, knowledge and competencies, it was not explained how the latter could be accomplished through the module's content. Moreover, the learning guide indicated that "PowerPoint slides & individual activities" for all learning sessions will be used, which is very limiting, vague and does not provide a clear indication to the student as to how learning will take place. In my analysis, the computer module had many issues, as seen from the feedback from the students, namely,

"Basic digital literacy lecturer too fast, not enough time to practice computers",

“Basic Digital Literacy lecturer not cooperative as others”,
“short time for a computer module,
“difficult to follow computer module”,
“college computers are slow and different from CUT`s.”
“someone needed for computer practice” (Student weekly feedback 2019).

As mentioned in Chapter 2, section 2.3.12, it should be a priority to ensure that all EMC students are comfortable utilising a computer and manage online learning effectively. The basic digital literacy module plays a very important role for e-learning or blended learning to be successful (Shraim & Khlaif 2010:159). In my opinion, and as seen from the students weekly feedback, basic computer literacy should be an area of extra focus on a programme such as the EMPP.

The objective of constructive alignment should be to achieve a common purpose. In other words, students should be enabled to apply learning activities that foster the construction of their knowledge, behaviour, and skills and assess its outcomes (cf. 2.3.6). In my analysis, I found that a few learning activities are listed and mentioned in the computer module. The alignment between the outcomes, assessment criteria in the learning activities is not clear. However, regarding academic literacy and communications study guide learning activities, for example discussion groups, lecture presentations, discussion groups, directed self-learning and self-directed learning, internet searches and / or other information management tasks, case studies / scenario analysis are listed. However, they do not explicitly explain how they complement the learning opportunities and enhance learning. In addition, the learning activities mentioned above was used as is in some of the other learning guides. With regards to the study guides of the subjects computers and basic digital literacy, it became apparent that the lecturers should focus on enhancing the students’ experience in relation to the modules, issues like explaining the educational value of the study guide and putting into perspective the purpose and intent of the subject. Here I especially refer to the basic digital literacy study guide.

The alignment of the outcomes to the learning activities impacts on the intent and purpose of the subjects and its relevance. Quality assurance aspects of the learning guides are lacking and not adequately developed regarding the technical outline and required criteria needed. In my opinion, and as concluded through the document analysis, lectures need to understand the educational value of learning guides, and understand the responsiveness of these documents especially to the needs of the students and in the optimisation of learning.

4.4.2.2 *Emergency Medical Preparatory Programme level descriptors*

According to SAQA (2012:9), "level descriptor" describes a learning achievement at a particular level of the NQF that provides a broad indication of the types of learning outcomes and assessment criteria appropriate to a qualification at that level. In my analysis of an EMPP report (2018:1), it is noted that the EMPP has a credit-bearing of NQF Level 5 (cf. 2.2.6.6). NQF Level 5 descriptors are discussed in Chapter 2 and illustrated in Table 2.1 (cf. 2.2.1.3). As shown on page six of the EMPP approval document, the modules of the EMPP range from NQF Levels 4, 5, and 6 (EMPP short-learning programme approval document 2019:5). Contrary to the above, the EMPP individual learning guides indicate that the NQF Levels range from 4 to 5, as seen in Table 4.1. According to the CHE (2016:13), SLPs such as the EMPP should not assign attributes and other unique properties of the HEQSF, such as NQF levels and credits, to learning programmes offered outside the framework of the HEQSF (cf. 2.3.9). A needs analysis should be used to inform the design and development of short courses to ensure that each short course's need is clearly defined (CHE (2016:7)). This implies that preparatory programmes, such as the EMPP, should specifically address the student's needs seeking access to EMC HE programmes. In addition, to establish if the EMPP should be a credit-bearing short learning programme or not (cf. 2.4.3).

4.4.2.3 *Credits and notional learning hours*

As evident from the analysis, the EMPP is structured as a formally assessed competency-based, non-credit-bearing programme. However, the programme was developed as a programme carrying notional hours (EMPP short-learning programme approval document 2019:5 & cf. 4.2). It is commonly understood that 120 credits will take the average person 1 200 hours to meet the qualification's requirements (SAQA 2004:16). Credits are calculated on the basis that one credit is equal to ten notional hours of learning, in line with the SAQA specifications (SAQA 2013:4).

The EMPP are a short learning programme and should adhere to the guidelines for short learning programmes. In my opinion, the EMPP could be beneficial in providing credits for modules such as end-user computing. As the student provides evidence of mastering the module, credit should be given to the student for the module on the EMC programme. Table 4.3 provides evidence of the modules presented on the EMPP, including credit allocation in the EMPP programme (EMPP short-learning programme approval document 2019:6).

Table 4.3: EMPP module breakdown and credits

TITLE OF MODULE	TITLE AS PER LEARNING GUIDE	NQF-LEVEL	PROGRAMME DOMICILIUM OF THE MODULE	DISCIPLINE	CREDITS IN MODULE BREAKDOWN (EMPP)	CREDITS AS PER LEARNING GUIDES	NOTIONAL LEARNING HOURS IN MODULE BREAKDOWN	NOTIONAL LEARNING HOURS AS PER LEARNING GUIDES
Physical Science: Physics	Physical Science	4	Health Professions	EMC	10	20	100	200
Physical Science: Chemistry		4	Health Professions	EMC	10		100	
Mathematics	Mathematics	4	Health Professions	EMC	6	20	130	200
Life Science	Life Science	5	Health Professions	EMC	20	20	200	200
Numeracy	Numeracy	5	Health Professions	EMC	15	15	150	150
Basic Digital Literacy or Computer Skills	Basic Digital Literacy	5	Health Professions	EMC	6	6	60	60
Academic Literacy and Communication Studies	Academic Literacy and Communication Studies	5	Health Professions	EMC	12	12	120	120
TOTAL					79	93	860	930

When considering the EMPP credits and notional hours, I found that there seem to be discrepancies between the EMPP short-learning programme approval document and the actual learning guides regarding the total credits and notional hours for the EMPP. According to the EMPP short-learning programme approval document (2019:5), the total notional hours for the EMPP is 560. The above is inconsistent with the total credits of 93 as calculated from the individual learning guides displayed in Table 4.1, as it should amount to about 930 notional hours. Furthermore, the hours noted in the approval document are 860. A possible explanation for this discrepancy could be that the indicated 560 hours do not include any self-study hours. Also, I recognised that the EMPP module study guides do not specifically provide the student with a clear breakdown of the total notional hours, for example, 120 (12 credits), also not clearly defining the breakdown of the time allocation on each EMPP module, for instance, facilitator or student contact: about 45 hours, formative assessment: about 12 hours, engaged learning: about 60 hours and summative assessment: about three hours.

The credits for the Mathematics module presented at NQF Level 4 is indicated as six, while the notional hours are documented as 130 on page four of the learning guide. The above is inconsistent with the 20 credits and 200 notional hours mentioned on page 12 of the EMPP short-learning programme approval document. Additionally, the Mathematics learning guide syllabus outlined on page four is incomplete. On page six of the EMPP short-learning programme approval document, the Basic Digital Literacy module credits are given as six. As also evident from the Life Science learning guide (2019:1,5), contradiction about the NQF level was found, as it mentions on page one that the NQF Level is 5 for the specific module, while on page five, the NQF level is indicated at Level 4. The Basic Digital Literacy learning guide specifies that six credits and 60 notional hours are allocated to this module. It is also unclear if the Computer Skills learning guide and the Basic Digital Literacy are the same modules.

The EMPP Computer Skills learning guide does not indicate notional hours and credits, although the credits and hours are captured in the EMPP short-learning programme approval document. According to the EMPP short-learning programme approval document (2019:6), the Physical Preparedness and Learn-To-Swim are non-credit bearing modules. Certificates of competency are issued after the successful completion of the EMPP's credits. Again, as indicated in Chapter 2, section 2.3.9, the EMPP as a SLP should not attract an NQF level (SAQA 2021:online). In the case of the EMPP, the credits might be used as a guide to establish the level at which the EMPP should be presented.

4.4.3 *The Emergency medical preparatory programme exit level outcomes and how they are written*

Expounding a well-constructed outcome, it is indicative of three components which include: a **verb**, to show behaviour that can be observed and measured, for example, to develop, to analyse, to compile and secondly; a **noun** or a condition indicating the object of the verb, and lastly a **qualifier** or criterion, indicating the scope, standard or method through which something is done to be measured (Gravett & Geysler 2004:13 & cf.2.2.1.5).

Deviations in the EMPP model outcomes were evident as some outcomes in the current EMPP comprise only statements such as 'Graph'. Presenting only the word 'Graph' as an outcome is unclear and did not seem to aid the student in understanding what needs to be achieved by the learning outcome. Likewise, the Life Sciences learning guide (2019:1), "Construction and application of Life Sciences knowledge", and "Life Sciences, Technology, Environment, and Society" are not clear or well described. As a result, the above outcomes were found non-compliant to the specified structure for effective outcomes as presented earlier. Moreover, intended learning outcomes should clearly describe the knowledge, skills, and competencies that participants should acquire from a SLP (cf. 2.4.3). Valamis (2019:online), in agreement, mention that the learning outcome will focus on how the student will be able to apply their new knowledge in a real-world context, rather than on a student to recite information.

On appraisal of the specific learning outcomes of the different modules in the EMPP, I discovered that the learning outcomes in the Mathematics learning guide differ from those mentioned in the EMPP short-learning programme approval document. The above-mentioned might be the reason the module outcomes were not appropriately aligned. A well-constructed learning outcome forms an integral part of how well the students will understand what is expected of them (cf. 2.2.1.5). The EMPP module analyses seems as if the modules were designed as isolated units and not elements of the same programme. With a programme such as the EMPP, it is essential to recognise the broad connection between learning outcomes, levels, level descriptors, credits, teaching, learning, and assessment. Therefore, the curricula's development in terms of learning outcomes seemed to happen in a vacuum (cf. 4.1). Biggs (2014:5), emphasises the importance of constructively aligning the curriculum to ensure that the purpose of a programme or module is supported by the content selection, learning outcomes, teaching-learning methods, and assessment practices to present the programme effectively.

According to DHET (2013), Scott (2011), and SAQA (2009), learning outcomes also guide students on what they are expected to be able to do in terms of knowledge, skills and attitudes after completing the programme or parts of it. The correct interpretation of outcomes will guide both students and facilitators in choosing relevant learning and teaching methods to achieve the intended learning. When developing short learning programmes, both management and facilitators must be clear about what students should understand after completing their learning path. A well-written learning outcome will focus on how the student will apply their new knowledge in a real-world context, rather than on a student to recite information (Valamis 2019:online).

In the mathematics learning guide (F1), the specific outcomes focus on the lower-order, and the higher-order knowledge, skills, attitudes and the specific outcomes are aligned to the exit level outcomes in the study guide. Only the exit level outcomes are mentioned in the study guide of basic digital literacy, but not specific outcomes for the subject. Moreover, it seems as if generic exit level outcomes are allocated to all EMPP modules. Therefore, it is difficult to determine whether the lower-order and higher-order knowledge, skills and attitudes are addressed and whether the outcomes are constructively aligned to each other. The study guide of basic digital literacy assignments is only mentioned but not fully described for students to understand what is expected of them. There is no description, purpose, and expectation of learning activities in the basic digital learning guide. As mentioned in Chapter 2, section 2.3, Latucca and Stark (2009:4) mention that the following elements should form part of the curriculum and guide to the student:

- *Purposes:* the knowledge, skills, and attitudes to be mastered.
- *Content:* the discipline-specific and generic matter chosen to convey the knowledge, skills, and attitudes.
- *Sequence:* the arrangement of the subject matter and experiences that must guide students in achieving specific outcomes.
- *Students:* how the plan should be used to satisfy the needs of specific students.
- *Instructional resources:* the materials and environment to be used for teaching and learning.
- *Evaluation and assessment of learning:* ways to determine whether the different aspects of the plan are successful.
- *Adjustments:* changes to improve the plan, based on experience and evaluation

ELOs describe what a student will be capable of after completing a unit of learning or a

learning event and indicate the qualified student's competencies on completing the EMPP (cf. 2.2.1.3). There should be coherence between the content of the EMPP and the formulated outcomes. In addition, learning outcomes should be clear to the students, and to ensure this, well-defined learning outcomes and all-inclusive learning materials should be developed (McMahon 2005:38). A taxonomy such as Bloom's is recommended to assist the facilitator to achieve higher order learning outcomes and promoting deep learning (cf. 2.3.11.1). Bloom's taxonomy is a classification system for the cognitive abilities and skills that a student is expected to demonstrate. Bloom's taxonomy is arranged from the simplest cognitive function that involves little cognitive processing to the most complex, which requires more cognitive processing and deeper learning. Bloom's initial classification, which included six levels of cognitive function (cf.2.3.11.1), has been revised as follows: remember for knowledge, comprehend for comprehension, apply for application, analyse for analysis, evaluate for evaluation, and create for synthesis, with the top two levels interchanged. Bloom's taxonomy is frequently used to develop learning outcomes, with each level presenting a selection of verbs that reflect what the student is expected to accomplish (cf. 2.3.11).

The EMPP short-learning programme approval document mentions that the ELOs of the EMPP is structured to develop the necessary foundational knowledge, skills, and attributes needed to form the basis for further study in the fields of pre-hospital EMC (cf. 2.2.6.6). Contrary to the above, the EMPP Report (2018:6) states that the EMPP is not "focused on the disciplinary field of EMC" and that CUT proposed aligning to the EMC curriculum. Additionally, the second ELO provides access to qualifications within the HEQSF to enable students to pursue further personal and professional development within the EMC environment (cf. 2.2.6.6). Findings from the documentation indicate malalignment of the EMPP ELOs with the EMC education ELOs and SAQA critical cross-field outcomes. Learning outcomes and impacts should be the cornerstones on which sound SLPs are premised (CHE 2016:8). The third ELO of the EMPP is to promote lifelong learning (cf. 2.2.6.6). In my analysis, I could not find explicit evidence that the EMPP focus on providing lifelong learning to the students, or that graduates are requested to provide feedback on their further studies. I do believe, although outside of the scope of this study, that graduate feedback could also play an important role in the QA and improvement of the EMPP. Alignment of the set outcomes with the level descriptors and the ELOs for the EMPP is essential to the programme's success (cf. 2.2.1.2). Additionally, the EMPP ELOs are aligned with the programme's purpose, as seen on page 8 of the EMPP short-learning programme approval document (2019:8).

The EMPP short-learning programme approval document (2019:8) states that the specific outcomes for the EMPP are, for example, “Demonstrate insight into concepts and their appropriate application in each relevant module” and “Demonstrate comprehensive knowledge of the content of each module”. Typically, specific outcomes are linked to different modules in a programme, as Gravett and Geysler (2004:152) mentioned. The SAQA adopted generic critical cross-field educational outcomes for all qualifications at a particular NQF level. These outcomes are essential for developing the capacity for lifelong learning (CHE 2014:16 & 2.2.1.3). Mainly all the EMPP learning guides indicate that the SAQA critical cross-field outcomes were used. As an evident finding, the EMPP short-learning programme approval document states that the associated assessment criteria of the EMPP are the same as the critical cross-field outcomes of the mathematics module, namely:

- Identify and solve problems and make decisions using critical and creative thinking;
- Work effectively as individuals and with others as members of a team;
- Organise and manage themselves and their activities responsibly and effectively;
- Collect, analyse, organise, and critically evaluate information;
- Communicate effectively using visual, symbolic and language skills in various modes;
- Use science and technology effectively and critically showing responsibility towards the environment and the health of others; and
- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation (EMPP short-learning programme approval document 2019:8 & cf. 2.2.6.6).

With the analysis of the EMPP documentation, the developmental outcomes, as described by SAQA, that contribute to each student’s personal development and society’s social and economic development were not specified in the EMPP documentation (SAQA 2012:6 & EMPP Report 2018:1). The following section presents a brief overview of the EMPP learning facilitation.

4.4.3.1 *Learning facilitation*

The CHE (2016:13) states that selecting appropriate course delivery methods is fundamental in ensuring effective teaching and learning results. The most preferred teaching methods in the delivery of the EMPP should be those that promote active learning; allow for feedback to be provided to participants regarding their progress; facilitate participants’ understanding of the relationships between the concepts presented and their

application in real life and speed up participants' progression from simple to more complex levels of development. A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience. Included in such a combination are traditional face-to-face engagement modes such as lectures and tutorials, online learning resources, and audio-visual learning packages (CHE 2016:13). Mainly, EMPP work schemes or lesson plans did not consistently indicate the student's expectation for the specific session and did not always attempt to use simple phrases, for example, "session" and "PowerPoint slides & individual activities", as seen in the Computer Skills learning guide (2019:9).

Findings from the analysis, indicated significantly limited information explaining what the student can expect from the lesson and how the lesson will be facilitated. EMPP facilitation methods were not always linked to the specific module's outcomes to provide maximum student success opportunities. The learning guides also did not provide a clear link where the student was to find the ELOs. As mentioned in the EMPP report (2018:6), the EMPP students are all adults. Being adult students, various teaching and learning activities were not utilised apart from everyday PowerPoint presentations to assist learning. Also noteworthy is that the EMPP learning guides were not effectively designed using a standard layout as the basis of the learning guides. This could result in the students being confused. SAQA (2005:8), explain that exit-level outcomes should indicate what the student need to be able to do and will know on successful completion of a specific programme. Moreover, McMahon (2005:37) states that a 'clear understanding' refers to making the "intended learning process and the intended learning results" clear to students. In the analysis, I also discovered that the learning guides were not always formatted appropriately nor precisely presented to the students to assist them in achieving the module's outcomes more effectively.

EMPP learning guides are not consistent and specific regarding student support initiatives, for example, indicating and guiding the availability of psychological counselling and academic (educational psychological) counselling. Findings in agreement with the QEP mention that career and curriculum advising, life and academic skills development, counselling, student performance monitoring, and referral should be available to students, intending to improve their success at individual higher education institutions (HEIs) and in the HE sector (cf. 2.2). According to the Numeracy learning guide (2019:6) and the Chemistry learning guide (2019:9), EMPP students will be supported by e-Thutho, an electronic learning management system that offers a range of supporting learning tools to the student. Mainly all the EMPP learning guides mention that the students will be

continuously supported through regular feedback, advice, and encouragement. In my analysis, limited feedback reports were found.

Positive findings of the analysis related to sufficient access to the library facilities, reference material, and other instructional media that enhances effective learning. EMPP students have access to the main CUT library situated on the Bloemfontein campus. Venues for content delivery outside the institution's usual premises (off-site or off-campus venues) are sourced where necessary, and the off-campus venues meet all legal requirements linked with health and safety. As with the EMPP, the Pelonomi campus is used as an additional site.

4.4.3.2 *EMPP weekly student reflections*

As seen in the EMPP student weekly reflections, a shortage of study material is one of the concerns raised by the students. In addition, the students mentioned that the timetable is very congested and confusing. Furthermore, the students mentioned that the timetable did not allow breaks or lunchtime. The students also mention that they feel sleepy after physical training and find it challenging to stay awake in class. As mentioned in the report, EMPP Student weekly reflections (2019), the fact that most students are new to physical preparedness and, in addition, the fact that senior students have not been studying for the past several years may have a role to play for students battling to adapt to the educational environment.

The students also voiced their concerns regarding the computer and mathematics modules, as they feel that not enough time is provided for these modules. In addition, they mentioned that the digital literacy lecturer is relaying the module's content too hastily. Students mentioned that they struggle with the mathematics module.

As mentioned in the report, students battling with the computer module may be due to most students being exposed to a computer for the first time. Shraim and Khlaif (2010:159) mentioned that a lack of digital skills caused e-learning and blended learning failure. It should be a priority to ensure that all EMC personnel are comfortable utilising a computer and managing online learning effectively. The students also requested more time to practice swimming.

4.4.4 Assessment

Assessment can be defined as the act or result of judging the value or worth of something or someone (Bath, Smith, Stein & Swann 2007:313). The CHE (2004:7) defines assessment requirements for a curriculum as having “appropriate policies and procedures for internal assessment; internal and external moderation; monitoring of student progress; explicitness; validity and reliability of assessment practices; recording of assessment results; settling of disputes; and the rigour and security of the assessment system.”

4.4.4.1 *Emergency Medical Preparation Programme assessment processes and practices*

In all the learning guides (F1-F7), the assessment methods are not provided to demonstrate the responsiveness of the curriculum and the optimisation of learning. The assessment methods which are referred to here are the summative, formative and integrated assessment methods. Although the assessment methods are not mentioned in the study guide, the assessment criteria and critical cross-field outcomes are mentioned. The latter provides the students with some idea of evaluation that will be employed in the subject but does not demonstrate the constructive alignment between the learning and teaching of this subject. As discussed in Chapter 2, teaching and learning activities should align with intended learning outcomes and need to be adequately assessed (Biggs 1996). Only providing the assessment tasks and not the assessment methods present a misalignment with regards to the intention of the tasks and what should be learned. The student must understand what the assessment methods are. Kulm and Li (2009:7) and Geysler (2004:92-99) mention that the curriculum is the impetus that determines what should be assessed, and suggested that in order to determine the outcome of the assessment process, the following questions can serve as guidelines:

- a) Do I want to assess the student’s ability?
- b) Do I want to assess the student’s knowledge?
- c) Do I want to assess the student’s values?
- d) Do I want to assess the student’s skills?

It is very important to ensure that all aspects of the learning programme are constructively aligned to meet the programme's outcomes effectively.

4.4.4.2 *Assessment policies and practices at CUT*

According to CUT, the institutional assessment policy offers academic staff concise, easy-to-follow rules for conducting fair and reliable assessments suited for career-oriented education (CUT Assessment Policy 2017:2). Both the national and institutional guidelines outline specific assessment criteria that present “good practice”, such as validity, reliability, fairness, moderation, and procedures for handling grievances.

The EMPP did not effectively use the CUT’s Faculty of Health and Environmental Sciences Moderator Report Template to ensure that the assessment practices are sound and fair. The report above guides the moderation process regarding the quality of candidates’ answers, standards, and consistency of marking and module outcomes. Furthermore, the report mainly comments on summative scripts, assignments, and projects. The template was seemingly not used for any of the EMPP modules. Although moderation is an essential element of maintaining and ensuring the quality of qualifications and programmes, according to Dent and Harden (2017:116), it seemed not to be applied regularly. As was indicated in the Numeracy learning guide (2019:10), internal and external moderation processes are used on the EMPP, whereas the EMPP short-learning programme approval document states that only internal moderation is being used for the EMPP. The findings of the EMPP learning guides do not specifically indicate how QA will be handled regarding the alignment of outcomes, learning, and assessment activities. The importance of QA to promote outcomes and graduate competence is emphasised by Bilal and Manning (2020:5).

The Numeracy learning guide (2019:10) mentions that the Engineering Council of South Africa (ECSA) and the Higher Education Quality Committee (HEQC) also form part of quality control on the EMPP. While monitoring the efficacy of policies and the effectiveness of teaching and learning is essential for assessment, this was not always the case and could be a limiting factor in demonstrating the educational system’s accountability. Additional findings investigated the EMPP Mathematics module report, where it is mentioned that an early warning system on the assessment was performed to identify students at risk early on. However, the full extent of the meaning of an early warning system is not clear, as no documents are available to explain the process followed to identify the at-risk student. Additionally, the report further mentions that the lecturer was advised to work one-on-one with students (Mathematics report, 2019). As described by the CUT Assessment Policy (2017:5), findings concluded that assessing students’ performance in subjects, courses, or programmes was vital to the university’s teaching and learning responsibility. However, the

process of assessing students was not consistently contributing to educational value to entirely determine whether a student is ready for HE or required to repeat the EMPP. McMahon (2005:39) mentioned that assessment is an essential aspect guiding a student's decision to embrace a deep or surface approach to learning. In my opinion, assessment criteria should be clear and explained to the student. Merely indicating that the assessment will be "formative" is not assisting the student to prepare for the assessment adequately.

Positive findings included the CUT Assessment Policy (2017:6), which continually seeks to understand why assessment must be conducted in a particular manner for effective lectures. The CUT Assessment Policy states that it is based on the following, "assessment must be valid or fit for purpose", and "it must measure predetermined outcomes by using appropriate assessment tools". The mentioned elements are considered an essential and integral part of students' assessment and could contribute to achieving set objectives. In the EMPP short-learning programme approval document, the associated assessment criteria (cf. 2.2.2 & 2.2.3.3) are based on the SAQA NQF Level 5 descriptors. Specific assessment criteria should be clear, precise, and transparent statements against which successful or unsuccessful performance is measured. Assessment criteria should be derived from the learning outcomes, link to the learning outcomes, be understandable to students and staff, be clearly expressed, use accessible language, and be explicit about what is expected from the students (Gravett & Geyser 2004:95). Compared to the EMPP assessment criteria, the link between the assessment criteria and the learning outcomes for EMPP modules is mostly not well-defined. As mentioned by (Brits *et al.* 2020:6), assessments should be credible, satisfy fairness, validity, dependability, and practicability.

The assessment criteria design could be confusing students as to what is expected of them or what they need to know. For example, in the EMPP Chemistry learning guide (2019:4), the following statements are vague and do not guide the student on precisely what is expected: "List all possible variables" and "Interpret results". This is another concern regarding the assessment standards and criteria. The Physical Science: Chemistry learning guide (2019:2) indicates that "Students will demonstrate their competence in", "List appropriate variables", or "Interpret graphs". Therefore, students are not given specific instructions regarding assessment criteria where facilitation methods need to be specific to the module and what the student needs to be assessed on, as mentioned in 4.3.4. Additionally, several of the assessment criteria for the Computer Skills learning guide are duplicated (F5). As a result, the students are seemingly evaluated on the same assessment criteria more than once, possibly not reaching the objective as intended.

Although it is imperative to provide students with clear and well thought through assessment criteria and an opportunity to demonstrate the integration of the competencies and skills they have gained throughout the programme, it is not always the case with the EMPP assessments. The assessment criteria did not always consist of an object (noun), verb, and standard (qualifier), and were not usually introduced by a sentence such as: "You will know that you have achieved this outcome satisfactorily if..." (cf. 4.3.4). Further findings established that one of the EMPP Mathematics assessment's criteria, "Assessing knowledge", is significantly unclear (F1). Assessment criteria were not consistently written so that it clearly explains to the student what is expected. For example, "Selection of appropriate images necessary to providing diagnostic information for a specific pathological indication" rather than merely stating informal or formal assessment without an explanation. Furthermore, the following phrases, "Write Word test (45%)" and "This will be a practical test", could be confusing to the student if not clearly explained (Computer Skills learning guide 2019:9). Assessment dates were not always included in the learning guide or lesson plan, which could negatively influence the student's ability to plan for assessments. According to Western and Northern Canadian Protocol (WNCP 2011:3; cf. 2.3.13.1), assessment is a complex procedure that requires a facilitator's specialised judgement. This implies that facilitators are responsible for making decisions on:

- d) How to assess;
- e) What to assess; and
- f) When to assess.

Assessment methods were found not to consistently assess what was set out to be evaluated but rather to test what was possibly considered comfortable with assessing. Also, the appropriate assessment methods for the described outcomes being assessed were not always found to be used (cf. 4.3.6). The link between the assessment criteria and the outcomes should be clear to the student. As seen from the analysis, EMPP learning guides are not clear in mentioning the specific assessment methods. For example, only the terms "Formative" and "Summative Assessment" are used to describe the assessment methods. As mentioned in Chapter 2, section 2.3.13.1, valid assessment could be achieved if:

- a) A wide variety of methods are employed; and
- b) Assessment procedures are aligned with the teaching and learning outcomes and the activities that support the content conveyed during instruction (Dreyer 2008:14).

I discovered from the EMPP documentation that the students were not always aware of the outcomes being assessed or the actual assessment criteria for all described outcomes. This could be a limiting aspect since assessment is considered an integral part of short course delivery and indicates learning progression achievement when a course is assessed. The EMPP, like other short learning programmes, run for a limited period. Therefore, finding a line with adherence to objectivity, fairness, transparency, validity, reliability, authenticity, practicality, and flexibility is essential for the assessment to be credible and were established to be critical, to maintain a proper balance between instructional and assessment time (Brits *et al.* 2020:6).

4.4.5 Development of skills and competencies

The development of skills and competencies of the EMPP students should result in them having the ability to demonstrate and contextualise the seven critical cross-field outcomes (cf. 2.2.1.2). According to SAQA, these outcomes direct all teaching and learning in all levels of education and training and all modules and courses (cf. 2.2.1.2). For this document analysis, the researcher mainly focused on the critical outcomes of the Emergency Care Assistant (ECA) and Dip EMC. It is evident that there is a lack of emphasis regarding programme content and skills and competencies of the EMC practitioner in almost all the modules, except for the Physical Preparedness and Learn-To-Swim elements of the EMPP. In my opinion, a link between the EMPP and the EMC programmes, such as the ECA and Dip EMC, should be established. The reason is that the EMPP should assist the in-service EMC personnel not meeting the HE admission criteria. The link should be foundational and not include any clinical skills. The link should enable using EMC specific examples to explain mathematics or physics problems.

Furthermore, as mentioned in section 4.4.4.2, it is difficult to find the link between the module and the assessment outcomes that should develop the student as a critical and creative thinker. In providing emergency care to the community, the ECA practitioner needs to identify and solve problems using critical and creative thinking concerning patients' assessment and treatment. Some modules indicated that group discussion was done, contributing to the student's ability to effectively work with other students in a team, group, organisation, and community. EMC practitioners are expected to communicate effectively using visual, mathematical, and language skills when writing patient reports and the handover of patients to other services. During the analysis of the EMPP documentation, there was insufficient evidence that the students can indeed demonstrate ethical and

professional behaviour concerning personal conduct and interactions with patients, colleagues, and other services. Additionally, no evidence could be found that the EMPP prepares the EMC students regarding basic literature search skills, referencing skills, and academic writing, which all play vital roles in HE, and insight into QA processes as practitioners.

According to the EMPP report (2018:1), it is proposed that drug calculations, the use of infusion pumps, and syringe drivers as a teaching and learning activity be included within the EMPP Mathematics module. The report further mentions that the Numeracy module will be closely aligned to mathematics, with more discipline scenarios included in the assessments. The EMPP report (2018) also mentions that the Physical Sciences module will be aligned to first-year EMC Physics and Chemistry learning outcomes. Additionally, the EMPP report (2018) mentions that writing patient report forms, written or typed tasks, and student presentations based on the Professional Board for Emergency Care's (PBEC) Clinical Practice Guidelines (CPG) 2018 to assist the assignment writing skills, and a workshop on completing the Work-Integrated Learning (WIL) component on UJ's online platform (Excel spreadsheets), could potentially assist with the development of generic skills and competencies on the EMPP.

4.4.6 Physical preparedness

Physical Preparedness and Learn-To-Swim are also presented as part of the EMPP but not as structured modules (cf. 2.2.6.6). It is also noted that the Physical Preparedness is benchmarked from UJ, as mentioned in the EMPP short-learning programme approval document. Considering the before mentioned, the Physical Preparedness and Learn-To-Swim as structured modules were identified as areas of limitation if not formalised as structured modules. Some concerns were identified during the fitness programme concerning a few students who were reluctant to participate in all the activities (EMPP report, 2018). The EMPP report (2018) further mentions that the fitness component was initially going to be used as an entry requirement. However, after discussion with the Department of Health, an agreement between the Department and CUT was reached, stating that the fitness component would not be an entry criterion or carry a weighting towards completing the EMPP. The reasons for that included most staff (students) entering the programme were not physically fit, some were morbidly obese, and some expressed a fear of swimming. Also, the programme's duration was too short to allow for the successful completion as per UJ's fitness criteria for the swimming and running components. As stated

in the application to CUT's senate document (2019:8), the EMPP's physical fitness does not have entry requirements. I am of the opinion, that physical preparedness and swimming should not be exclusionary, I do take note of areas where offshore and sea rescue are important, but this could form part of specialised rescue training. To honor social justice, swimming, as other life skills such as defensive driving and self-defense could be seen as important in the education of EMC personnel, especially due to the dangerous environment the personnel are working in. However, these life skills are not part of the curriculum and should not hinder the student from gaining access or progressing in EMC programmes not having these skills as part of the curriculum.

According to the Learn-To-Swim assessment criteria document (2019), the EMPP's Learn-To-Swim programme is structured to allow students to progress at their rate. Furthermore, the programme is divided into four progressive levels, and all objectives must be achieved before a candidate can progress to the next level. The programme contains various progressive levels to teach the basic swimming stroke (freestyle). Candidates who can swim engage in a swimming course integrated into the fitness programme and its outcomes. The above is measured against the final assessment tool expecting the candidate to swim 200m in under six minutes. Candidates are also trained to run 5km in under 32 minutes and do an arm lock hang test lasting 30 seconds. A breakdown of the Physical Preparedness module, including Learn-To-Swim, is presented in Figure 4.1.

Day		Date		Activities		Extra	Times	
1	Monday	2019/06/02	ASSISTANT	4km as fast as possible NB!!		TAKE THEIR TIME		WEEK 1
2	Tuesday		W+ assist	Muscle endurance on field	Swim session		12:25-13:55	
3	Wednesday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
4	Thursday		W+ assist	Swim session	Muscle endurance on field		12:25-13:55	
5	Friday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
6	Saturday		OWN		Complete a 3km own time	*Take your time		
1	Monday	2019/06/02	ASSISTANT	Interval 1		TAKE THEIR TIME		WEEK 2
2	Tuesday		W+ assist	4 x7min (3min rest)	Swim session		12:25-13:55	
3	Wednesday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
4	Thursday		W+ assist	Swim session	4 x7min (3min rest)		12:25-13:55	
5	Friday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
6	Saturday		OWN		Complete a 4km own time	*Take your time		
13	Monday	2019/06/02	ASSISTANT	Interval 2		TAKE THEIR TIME		WEEK 3
14	Tuesday		W+ assist	Muscle endurance on field	Swim session		12:25-13:55	
15	Wednesday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
16	Thursday		W+ assist	Swim session	Muscle endurance on field		12:25-13:55	
17	Friday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
18	Saturday		OWN		Complete a 5km own time	*Take your time		
19	Monday	2019/06/02	ASSISTANT	1km x 4 times		TAKE THEIR TIME on each		WEEK 4
20	Tuesday		W+ assist	10x 400m	Swim session		12:25-13:55	
21	Wednesday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
22	Thursday		W+ assist	Swim session	10x 400m		12:25-13:55	
23	Friday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
24	Saturday		OWN		Complete a 6km own time	*Take your time		
25	Monday	2019/06/02	ASSISTANT	4km as fast as possible NB!!		TAKE THEIR TIME		WEEK 5
26	Tuesday		W+ assist	2 x 2km	Swim session		12:25-13:55	
27	Wednesday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	
28	Thursday		W+ assist	Swim session	2 x 2km		12:25-13:55	
29	Friday		WYNAND	Swim + GYM session	Swim + GYM session		9:30-11:30	

Figure 4.1: EMPP Physical Preparedness and Learn-to-Swim schedule

4.5 EMERGENCY MEDICAL PREPARATORY PROGRAMME QUALITY ASSURANCE PROCESSES

The analysis of the CUT Assessment Policy (2018), CUT's QEP (2019), Policy for the Management of Institutional CE Courses at CUT (2019), and the Procedure for the Management of Institutional CE courses at CUT supplemented the document analysis of the EMPP. The documents mentioned above guide the EMPP regarding programme QA. (cf. 4.3.6.1). In my analysis of the CUT policy **for the Management of Institutional Continuing Education (CE) Courses at CUT (O9)**, I discovered that the purpose of this policy is to improve and standardise the development, approval, review, administration, recording, certification, and reporting of CEs at CUT. Moreover, to ensure QA and overall monitoring of CEs. The policy, therefore, aims to:

- a) Outline the process of application and approval;
- b) Specify the internal process of quality assurance;
- c) Meet the HEQC's requirements for institutional accrediting of CEs;
- d) Maintain adequate mechanisms and policy direction to manage and support the design, development, approval, academic quality, registration, certification, documentation and presentation of CEs by the CUT;
- e) Ensure that the financial administration and resource management of CEs adhere to the Policy for the University.
- f) Protect the academic and administrative integrity of the CUT.

However, some weaknesses and threats emanated from the EMPP documentation analysis. Firstly, the EMPP documentation analysis did not show effective moderation processes, even though CUT has a moderation template. Also, the EMPP relies on internal moderation only. In my opinion, moderation is an essential part of QA. As previously mentioned, well-constructed learning outcomes, assessment criteria, and ELOs are vital for the students' success. Therefore, it should be subjected to thorough QA processes, including moderation (cf. 2.3). Furthermore, proper QA should allow for the proper alignment of the modules in a programme.

The EMPP, fall under the QA policies of the CUT. As mentioned in Chapter 2 (cf. 2.5), the Higher Education Act of 1997 assigns responsibility for QA in HE in SA to the CHE. This responsibility is discharged through its permanent sub-committee, the Higher Education Quality Committee (HEQC). The HEQC delegates the responsibility for the accreditation of

continuing education courses to HEI`s provided that the University has adequate measures to ensure the quality of CE provisioning and can provide evidence of the institutional quality management system (QMS). The criteria for approving CEs encompass all facets of the programme's design, purpose and relevance, teaching and learning, assessment, internal moderation, and certification. In addition to the programme's impact and the accuracy and reliability of its record keeping and certification process, all of the above are critical criteria for evaluating a short course's overall academic quality at the CUT (Q14). The EMPP is also subjected to the criteria mentioned above.

4.6 SUMMARY OF FINDINGS FROM DOCUMENT ANALYSES

From the results of the document analysis of the EMPP documents, the following was noticed:

- EMPP admission criteria are aimed at the in-service EMC personnel;
- EMPP curriculum should focus on providing foundational knowledge but use examples of EMC;
- Experiential learning and medical skills should not be part of the EMPP curriculum.
- Learning guides should be updated and impeccably designed;
- EMPP learning guides should be designed using the same layout;
- EMPP module-specific criteria should be clear, precise, and transparent statements against which successful or unsuccessful performance is tested;
- The EMPP ELOs are aligned with the purpose of the programme;
- The relationship between the level outcomes, learning strategies, and the module outcomes must be detailed and specific;
- Specific outcomes of almost all the EMPP modules must be revised and reconstructed;
- EMPP credits and notional hours must be realigned as it is not consistent throughout the EMPP documentation;
- Programmes such as the EMPP should not have NQF levels;
- EMPP facilitation methods should be designed to engage students optimally in the task's performance;
- EMPP lesson plans are not available or insufficiently designed;
- EMPP modules should not be isolated units but elements of the same programme;
- Some of the EMPP assessment criteria are the same for different modules;
- EMPP assessment criteria must be redesigned;
- Moderation processes should be included in the QA of the programme; and

- The Physical Preparedness and Learn-To-Swim are not structured modules or credit-bearing.

4.7 CONCLUSION

The overall goal of the document analyses was to evaluate the EMPP course design concerning level descriptors, ELOs, notional or unit hours, model or unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme, and swimming and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1. The reporting of this chapter's result, with cross-referencing to Chapter 2, confirmed the achievement of the overall goal and one of the set objectives for the study, namely: To analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in Objective 1 (cf. 1.5.3).

In Chapter 5, the **Result and discussion of the Delphi survey findings** will be presented and discussed (Objective 5).

CHAPTER 5

RESULTS AND DISCUSSION OF THE FINDINGS OF THE DELPHI SURVEY

5.1 INTRODUCTION

This chapter is dedicated to Phase 3 of the study (cf. 1.8.3.3), where the results obtained from Rounds 1 and 2 of the Delphi survey are discussed, in line with the aim (cf. 1.5.2) and objectives (cf. 1.5.3) as stated in Chapter 1. Chapter 4 provided the findings of the EMPP document analysis. This chapter will begin with an overview of the Delphi survey process and feedback, followed by a summarised outcome of the Delphi survey. The participants' biographical information is presented, followed by an interpretation and discussion of the Delphi survey's findings, including the free-text comments given by the participants. Finally, the draft QA and educational guidelines for an EMPP are presented, followed by a conclusion.

In the Delphi survey, the following objective was explored:

- To develop and refine the drafted QA and educational guidelines for an EMPP, guided by integrating data from Phases 1 and 2 and refined employing a Delphi survey (cf. 1.5.3 & 1.8.3.3).

The following section presents the survey process and feedback.

5.2 THE DELPHI SURVEY PROCESS AND FEEDBACK

The purpose of using the Delphi survey in this study was to achieve consensus from experts and refine the drafted QA and educational guidelines and criteria for an EMPP in SA. The reasons for choosing a Delphi survey as the data collection method, explaining the format and the timeframe of the Delphi survey process, are explained in detail in Chapter 3 (cf. 3.5.3).

The researcher obtained consent from the relevant institutions to conduct the study among their employees by sending letters of request for consent (cf. Appendix H) to the relevant institutions via email. Before conducting the Delphi survey, a pilot study of the Delphi survey was completed. Minor corrections were made to the questionnaire (cf. 3.5.3.1). Before

conducting the survey, pilot study questionnaires were completed by three EMC HE lecturers who met the criteria to be selected as experts.

The Delphi statements were divided into 10 sections with different titles as follows:

Section B: EMPP admission criteria focused on what the admission criteria for an EMPP should be. This section had nine statements with space for comments.

Section C: EMPP curriculum design, where the following were investigated: (i) what should an EMPP curriculum consist of, (ii) what should the EMPP's core focus be, and (iii) the duration of an EMPP and what the most appropriate way is to offer the EMPP. There were 38 statements in this section.

Section D: EMPP level descriptors with 13 statements.

Section E: EMPP learning outcomes with 18 statements.

Section F: EMPP credits and notional hours with eight statements.

Section G: EMPP learning facilitation with 29 statements.

Section H: EMPP assessment explored what evaluation methods could be used and how best to construct the assessment for an EMPP. There were 41 statements in this section.

Section I: EMPP physical preparedness investigated whether Physical Preparedness and Learn-To-Swim should be part of an EMPP, and if so, how should Physical Preparedness be facilitated on the EMPP? There were eight statements in this section.

Section J: EMPP generic skills and competencies considered whether the EMPP should include any generic skills and competencies. There were six statements in this section.

Section K: EMPP quality assurance observed the EMPP QA practices. There were 24 statements in this section.

A pilot study, of which the data was included in the main study, was done with three experts. Participants were asked to rate their opinions on a modified three-point Likert scale that included the options: "**Agree**", "**Not applicable**", and "**Disagree**" about each suggested statement (cf. 3.5.3.2).

The first round of the Delphi survey was distributed to 16 experts identified by the preselected criteria (cf. 3.5.3.3). Of these participants, 100% responded. The Delphi survey started on the 2nd of February 2021 and ended on the 3rd of March 2021.

The idea of the Delphi survey is to obtain consensus about a statement. A universally agreed proportion does not exist for the Delphi survey, as the level used depends on sample numbers, the aim of the research, and resources (Keeney, Hasson & McKenna 2011:33). According to Avella (2016:305), Giannarou and Zervas (2014:65), and Penciner, Lee, McEwen, Woods and Bandiera (2011:e333), consensus can be set at a value between 51% and 80%, but a value of 70% is considered standard. Of importance is that McMillan *et al.* (2016:658) states that a decision as to when consensus will be reached must be made at the beginning of the study. In this study, consensus was predetermined at 75%, when 12 out of 16 participants agreed on a statement. The statements on which consensus was reached in the first round were excluded from the second round (cf. 3.5.3.5).

The dates and method of distributing the questionnaire were discussed in Chapter 3 (cf. 3.5.3.4).

5.2.1 Round 1 of the Delphi survey

The initial timeframe for Round 1 was three weeks, but by the end of the second week, all the participants had returned the questionnaires. Reminders were sent from the EvaSys survey management system every week. The participants were requested to complete the questionnaires sent to them in a stipulated time, and they were informed that gentle reminders would be sent to them should they fail to respond in time. They were requested to answer all the questions as truthfully as possible.

The Delphi survey's first round consisted of 194 statements that were drafted and sent to the 16 participants using the EvaSys system (cf. Appendix I). The questionnaires also provided space for the participants to give their opinion on the statements. During the pilot study, it was estimated that it would take a participant about 60 minutes to complete the questionnaire (cf. 3.5.3.1).

Once all the participants' responses had been received for Round 1, consensus was based on a predetermined level of 75% agreement on a statement (cf. 3.5.3.4). Consensus measurement for Delphi surveys have been done in several ways; one of which is using a simple majority of 51% of participants who select recommendations deemed extremely important or using a Likert scale when measures of central tendencies are applied, such as the interquartile range or standard deviation (Giannarou & Zervas 2014:65).

Consensus was achieved on 169 of the 194 statements (87.1%) in the first round. The statements that achieved consensus in Round 1 were in the sections of Curriculum development (32 out of 38), Level descriptors (11 out of 13), Learning outcomes (17 out of 18), Learning facilitation (27 out of 29), Assessment (41 out of 41), and Quality assurance (24 out of 24). The following sections had the fewest statements, with consensus achieved on four out of eight statements for Physical preparedness, four out of nine statements for Admission criteria in Round 1, while Generic skills and competencies achieved consensus on three out of six statements, and Credits and Notional Hours on six out of eight.

The findings were shared with all participants by individualised emails. The email had two attachments: A letter of appreciation for their participation in Round 1 of the Delphi survey and informing them that there would be another round (cf. Appendix M), and the Delphi questionnaire with the consensus recommendations highlighted and comments from the various participants indicated in the comment section (cf. Appendix M). During the first round's feedback, the participants were made aware of their freedom to change or maintain their choices in previous rounds on statements that did not achieve consensus, and they were requested to reflect on their responses and those of others when responding to the final round.

5.2.2 Round 2 of the Delphi survey

After excluding the statements where consensus had been achieved during Round 1, Round 2 of the survey was sent to the participants via the EvaSys system (cf. Appendix J) with 25 statements (169 statements fewer than the original 194 in Round 1). The participants were asked to respond to the questionnaire as truthfully as possible and in a timely manner. Round 2 questionnaires were sent out, and 16 participants (100%) returned the questionnaire (cf. Appendix H) within two weeks. By the 3rd of March 2021, the researcher closed the survey as all the statements reached consensus or stability.

A timeframe of two weeks was given to participants to rate the statements using a three-point Likert scale (cf. 3.5.3 & 3.5.3.4). Again, the questionnaire provided space for the participants to give their opinion on the statements. Once all the participants' responses had been received (16 out of 16), nine out of 25 statements achieved consensus of more than 75%, and 16 statements reached stability (cf. Table 5.1). After analysing the returned questionnaires of Round 2, the researcher realised it would not change the results of the remaining statements where consensus was not reached in the previous round, and stability

was declared on these statements.

5.2.3 Summarised outcome of the Delphi survey

A high rate of consensus (91.7%) was achieved on 178 out of 194 statements after the two rounds of the Delphi survey, while stability was achieved on 17 statements (8.7%) (cf. Table 5.1). The participants provided a great deal of free-text comments on the statements submitted in each round (cf. Appendix K, L, M, N & S).

Table 5.1: Summarised outcome of the two-round Delphi survey

ROUND	NUMBER OF STATEMENTS SENT TO PARTICIPANTS	NUMBER OF CONSENSUSES ACHIEVED	NUMBER OF STABILITY ACHIEVED	PERCENTAGE CONSENSUS OR STABILITY ACHIEVED	CUMULATIVE PERCENTAGE OF CONSENSUS OR STABILITY ACHIEVED
1	194	169	0	87.1%	87.1%
2	25	9	16	100%	100%

The next section presents the participants' demographic information.

5.3 DEMOGRAPHIC INFORMATION

In this section, the participants' demographic information was interpreted and displayed in graphs. Information regarding the participants' ages, qualifications, and experience in HE was recorded.

5.3.1 Age distribution of participants

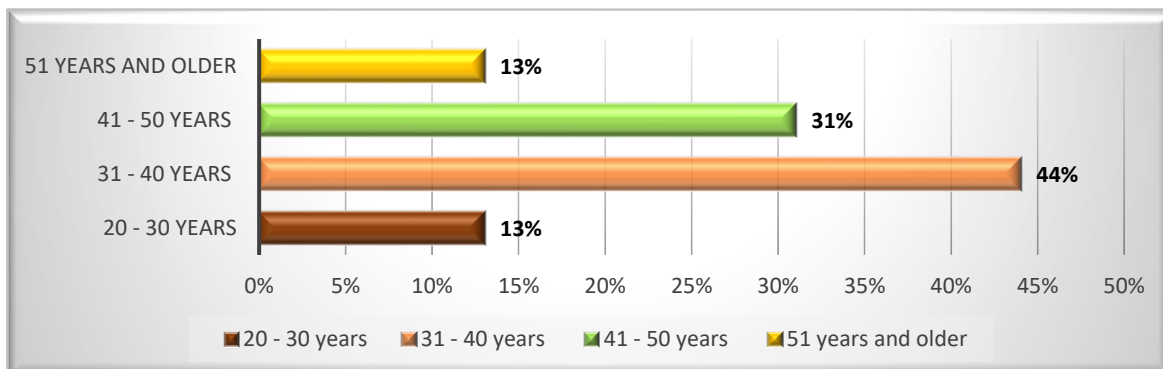


Figure 5.1: Age distribution of participants (n=17)

As depicted in Figure 5.1, the age group that was best represented was 31–40 years (44%). Twelve per cent of the participants fell into the age group 20–30 years and 32% into the 41-50 years age group. The remaining participants (12%) fell into the 51 years and older age group.

5.3.2 Qualifications of participants

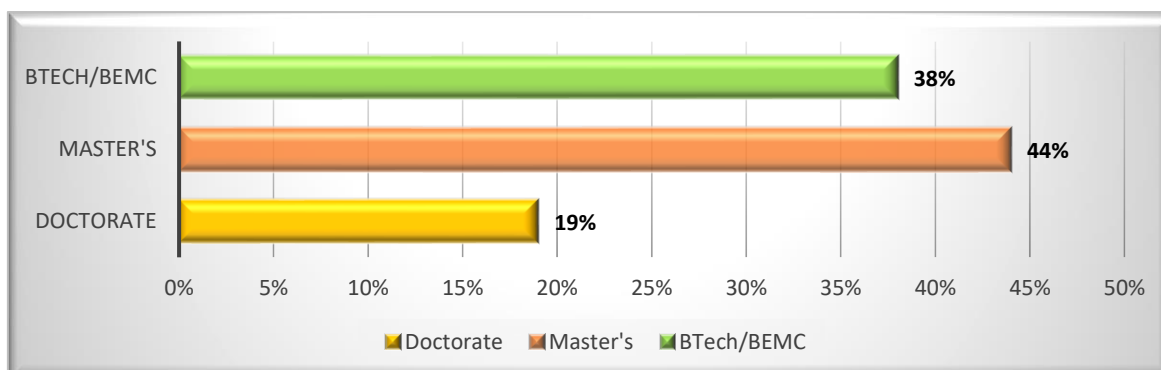


Figure 5.2: Qualifications of participants

As seen in Figure 5.2, all participants held a lecturer position at an HEI. These participants held various qualifications, including a Baccalaureus of Technologiae in EMC (BTech) and a Baccalaureus degree in EMC (BEMC) (six participants or 37.5%). Another 43.8% of the participants held a Master's degree in EMC (six participants) or a Master's degree in Health Professions Education (MHPE) (one participant). The last three participants (18%) held Doctorate degrees in either Physics, Chemistry, or Mathematics.

5.3.3 Experience of participants in higher education

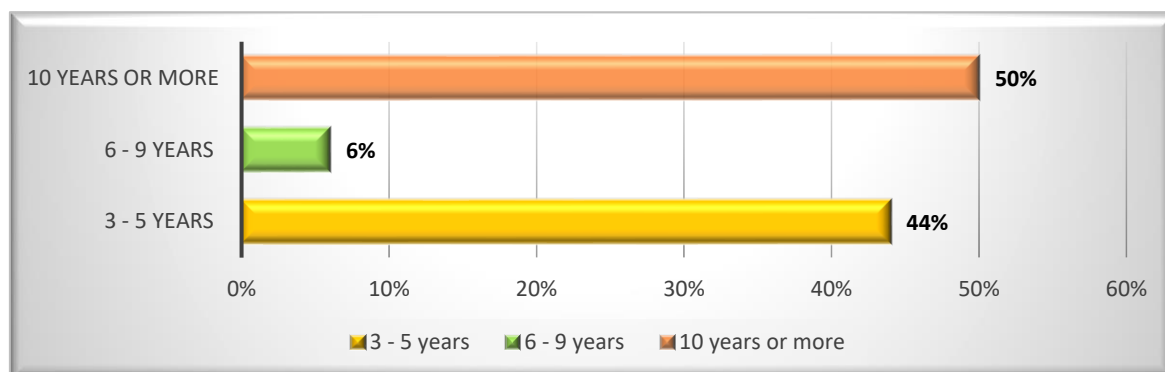


Figure 5.3: Years' experience in HE

All the Delphi survey participants had more than three years of experience in HE, with 50% of the participants having 10 years or more experience. As seen in Figure 5.3, only 5% of the participants had six to nine years of experience, while 45% had three to five years of experience.

The next section interprets and discusses the findings of the Delphi survey.

5.4 INTERPRETATION AND DISCUSSION OF THE DELPHI SURVEY FINDINGS

The following sections will discuss the Delphi survey's results. The results were analysed for consensus, agreement or disagreement at $\geq 75\%$ on statements using the given options of "**Agree**", "**Not applicable**", or "**Disagree**". At the end of Round 2, consensus was achieved on 178 statements and stability was reached on 17 statements (cf. Table 5.1).

The Delphi survey was utilised to develop and refine draft QA and educational guidelines for an EMPP (cf. Appendix S). Concerning the free-text comments made by the participants, a thematic approach was used to analyse the data of the two rounds by identifying concepts and themes (Keeney *et al.* 2011:4). I made no changes to the language, spelling, grammar, or sentence construction of the participants' comments or responses in the Delphi survey. In discussing the results, verbatim quotes of the participants' free-text comments enhance the trustworthiness of the comments' interpretation. Direct quotes are used extensively to represent the voices of participants. The content of quotes relevant to themes and categories under discussion are italicised for emphasis. Some responses are rich in information, spanning several themes or categories and may be used more than once to support discussion across themes or categories. The researcher included comprehensive

quotes of participant responses to retain the meaning and accuracy of the participants' voices to comply with conditions for "thick descriptions" (cf. 3.5.4.5).

The following colour scheme was used to indicate the Delphi survey's results:

Orange - Consensus was reached on a statement in Round 1.

Green - Consensus was reached on a statement in Round 2.

Yellow - Stability was reached.

5.4.1 Emergency Medical Preparatory Programme admission criteria

In this section, the participants were presented with specific statements about the EMPP admission criteria. Table 5.2 presents the percentages of the choices made by the participants. The researcher also indicated if consensus was reached on that specific statement or if stability was declared. Tables presenting the participants' free-text comments only show statements that received free-text comments. Furthermore, some statements were grouped as the participant indicated that the comment is related to more than one statement.

Table 5.2: EMPP admission criteria

SECTION B: THE EMPP ADMISSION CRITERIA					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
B1.	The number of students selected for the programme should not exceed the capacity available for offering good quality education.	100%			Consensus R1
B2.	The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.	100%			Consensus R1
B3.	The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a matric certificate or equivalent thereof.	75%		25%	Consensus R2
B4.	The EMPP should be accommodative to NSC or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.	56.3%		43.8%	Stability R2
B5.	It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.	87.5%		12.5%	Consensus R1
B6.	The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa should be able to apply for credits for modules presented on the EMPP.	56.3%	6.3%	37.5%	Stability R2
B7.	A physical fitness assessment should form part of the entry criteria for the EMPP.	75%	6.3%	18.8%	Consensus R1
B8.	Swimming should form part of the entry criteria for the EMPP.	18.7%		81.2%	Consensus R2
B9.	A basic medical assessment should form part of the entry criteria for the EMPP.	87.5%		12.5%	Consensus R2

Table 5.3 represents the participants' free-text comments during the two rounds of the Delphi survey concerning the EMPP admission criteria.

Table 5.3: EMPP admission criteria: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
B				EMPP ADMISSION CRITERIA
2.	The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.	Access criteria	Admission criteria Access Swimming criteria School-leavers Foundational Focus of the EMPP	<p><i>"EMPP admission criteria needs to be specific for the qualification which the candidate is preparing, especially taking the three-tiered ECQF into account. Is the learner completing EMPP for HCert or Degree for example? The requirements will be drastically different, and I do not believe that we can limit EMPP candidates to a lower level qualification/s - If they perform on the EMPP programme, will they be allowed to apply for Degree entry? The job of EMPP is not to teach subjects which the candidate never had. The role of the EMPP is to improve symbols where necessary - this for matriculants. There needs to be a timeline attached to the matriculant entering such a programme, as matriculants from, for 1988 are often using such systems/programmes to their advantage with no real benefit. Why have they previously not attempted to further/develop themselves? Physical fitness should not be a requirement for such a programme. What is the role of TVET colleges if we are creating a specific programme - Modules can be taken independently at these colleges - these are generic matric modules which require additional attention. As an emerging profession, the question remains, why are we the only "healthcare profession" going out of the way to assist applicants in meeting criteria? This going as far as to potentially develop a specialised programme."</i></p> <p><i>"Opening up the possibilities for school leavers to enter an EMPP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds."</i></p> <p><i>"Where it can also be used for other school leavers who do not hold the necessary subject combination."</i></p>
B				EMPP ADMISSION CRITERIA
3.	The focus of the EMPP should be	The purpose of the EMPP	Subject combination Short course holders	<i>"In my experience, the EMPP programme should be for applicants who have the necessary subjects from school at a Grade 12 level but fall short on the</i>

<p>on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a matric certificate or equivalent thereof.</p>		<p>Focus of the EMPP Intention of the EMPP School-leavers Prepare HE admission criteria Extended curriculum programme</p>	<p><i>APS score. Students who do not have the necessary subjects such as Mathematics, Life Sciences and/or Physical Sciences struggle with the content of the programme."</i></p> <p><i>"This means that any student with a senior certificate or an equivalent thereof might as well be placed on the ECP. The initial purpose of the EMPP served as a transformational tool. This being that, historically the SA EMS landscape used to have short course holder qualifications, as an example the Basic Life Support (BLS) practitioner. A student who wished to participate/ enrol in a BLS short course (EMS entry-level qualification) could do so without having a national senior certificate. The EMPP was designed specifically for those healthcare professionals who holds one of the short course qualifications, which is now phased out, as such, are sort of left between a rock and a hard place having to obtain a higher education EMC qualification. There are currently thousands of short course holders who are unable to meet the necessary requirements i.e., national senior certificate or equivalent thereof (never mind the other specific entry criteria) to gain access to HE. With the EMPP these candidates are not 'left behind'/ forgotten if you may. This is one of several reasons why the EMPP is not only targeting 'school leavers' or those having been exposed to some formal education previously."</i></p> <p><i>"Firstly, I think and in my opinion, the focus of any EMPP program to accommodate candidates with the intention to pursue a HE degree, diploma or certificate, is that they need to meet the minimum University Criteria. In my experience, the majority (8 out of 10) RPL candidates just do not perform up to standards when entering the HE system. I would recommend, candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enroll for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs."</i></p> <p><i>"The focus of the EMPP must be based on evaluating the students ability to cope with the work that education qualification, so as to adequately prepare the students not just preparing them to meet the criteria."</i></p> <p><i>"The main focus of a preparation programme should be on academic</i></p>
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				<p><i>content and preparing the candidate for higher education."</i></p> <p><i>"...the focus of any EMPP program to accommodate candidates with the intention to pursue a HE degree, diploma or certificate, is that they need to meet the minimum University Criteria."</i></p> <p><i>"...although the extended curricula programme is available and offered at Higher education for this very reason (a subgroup of students), it too, has its own entry requirements."</i></p>
B				EMPP ADMISSION CRITERIA
4.	The EMPP should be accommodative to NSC or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.	none	Correct subject combination Level of understanding APS	<p><i>"Accepting learners that do not have the correct subjects might be problematic. Educating learners on a new subject focussing on NQF 4 outcomes, without the required progression as per basic education Grade 6-12, could set the learner up for failure. A pre-test might be required to gauge the level of understanding that these learners have on the required subjects prior to them being accepted on the EMPP programme."</i></p> <p><i>"In my experience, the EMPP programme should be for applicants who have the necessary subjects from school at a Grade 12 level but fall short on the APS score. Students who do not have the necessary subjects such as Mathematics, Life Sciences and/or Physical Sciences struggle with the content of the programme."</i></p>
B				EMPP ADMISSION CRITERIA
5.	It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.	none	Competency level NQF level Prior learning	<p><i>"...is that the outcome criteria for HE be it degree, diploma, or certificate, requires the current competency levels of NQF4 including, for example, English, Maths, and Sciences. If a senior candidate, who has not studied at HE, but completed his/her matric 10 or more years ago, the candidate is likely to be not fit to study at HE without prior learning and assessment experience - meaning to complete some sort of NQF 4 or higher program or qualification prior to applying for HE Emergency Medical Care programs. I know this is a vague and unsustained statement, but I'm merely giving my opinion."</i></p>
B				EMPP ADMISSION CRITERIA
6.	The focus of the EMPP should be	Recognition of prior learning and	School-leaver Subject combination	<p><i>"I disagree, as I feel it should not only be focused on them only, as mentioned the EMPP is also a transformational tool. Where it can also be</i></p>

	<p>on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa should be able to apply for credits for modules presented on the EMPP.</p>	<p>access to the EMPP</p>	<p>Socio-economic and educational injustice Rural area Knowledge and skills gap Social disadvantage background Articulation gap Principle and concept of mathematics Occupational orientated National senior certificate Short course qualifications</p>	<p><i>used for other school leavers who do not hold the necessary subject combination. If we look at the SA context, there is still socio-economic and educational injustice that the majority of South Africans are exposed to. A student who obtained his national senior certificate from a rural area might not necessarily have had the same exposure to education (even if the subjects were the same) as a student who attended let's say school at a top private school in the city. Alternatively, the career guidance might not have been the same either, this career guidance allows the student to carefully think of what subjects he/ she should continue with from grade 10. So first, those students who do not have the correct subject combination are faced with attending the 'second attempt' subjects which is an additional year after matriculating. As a higher education institution we commonly refer to the articulation gap, the knowledge and skills gap that exists after having completed basic education i.e. the knowledge and skills that HE pre-empts 'matriculants' have when they enter HE. This also affects how HE designs their first year level programme, which often disadvantages those very students coming from socially disadvantaged background. If the EMPP can be designed in such as way that it can be accommodative to those candidates in those positions, it can be a method for HE to start closing that gap. As an example if a student did not take the subject of math's, but now does it in the EMPP at least we can design it in such a way that the Math's constructively aligns to the EMC discipline. One example of what I mean by this is in providing mathematics assessments which is in line with the discipline field of EMC where the student uses the principles and concepts of mathematics and having to calculate the medication/ drug dosage and having to then draw up and dilute the medication. Anyways just a thought."</i></p> <p><i>"Again, based on my years' experience, previous short course qualifications are not an academic advantage for applicants to HEI EMC programmes. NSC results & modules are far more important for success."</i></p> <p><i>"Opening up the possibilities for school leavers to enter an EMPP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds."</i></p>
B				EMPP ADMISSION CRITERIA
7.	A physical fitness	Physical	Fitness assessment	<i>"...although I stated that I agree to how the question was phrased, I do</i>

<p>assessment should form part of the entry criteria for the EMPP.</p>	<p>preparedness as a component of the EMPP</p>	<p>Compulsory fitness assessment Barrier to access Academic content Swimming as a life skill Non-formal fitness programme EMPP criteria Being healthy Swimming and fitness should not be exclusionary criteria Compulsory fitness requirement of EMC programmes Socio-economic issues Academic performance and being healthy EMPP entry criteria Non formal fitness programme</p>	<p><i>not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the programme. the same for swimming, many people of colour are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice."</i></p> <p><i>"The main focus of a preparation programme should be on academic content and preparing the candidate for higher education."</i></p> <p><i>"Swimming should be a life skill; this should also form part of the EMC programmes rather. On the EMPP a non-formal fitness programmes could be more suitable."</i></p> <p><i>"Physical fitness, including swimming, should be started as early as possible. Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme."</i></p> <p><i>"...that physical fitness assessment should form part of the criteria for EMPP. The reason being, higher levels of physical fitness and being healthier, in general, are associated with better-perceived health for academic performance AND professional performance in the workplace."</i></p> <p><i>"I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access."</i></p> <p><i>"The program must be able to adequately cater for diverse group whom socioeconomic status will vary as they will be coming from different backgrounds."</i></p> <p><i>"The reason being, higher levels of physical fitness and being healthier, in</i></p>
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				<p><i>general, are associated with better-perceived health for academic performance AND professional performance in the workplace."</i></p> <p><i>"I do not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the programme. The same for swimming, many people of colour are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice."</i></p> <p><i>"Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme."</i></p> <p><i>"Swimming should form part of the entry criteria for the EMPP."</i></p> <p><i>"Swimming should be a life skill; this should also form part of the EMC programmes rather. On the EMPP a non-formal fitness programmes could be more suitable."</i></p>
B				EMPP ADMISSION CRITERIA
8.	Swimming should form part of the entry criteria for the EMPP.	Learn to swim as part of the EMPP	Barrier to access Social injustice Academic content Life skill Swimming requirements	<p><i>"...although I stated that I agree to how the question was phrased, I do not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the programme. the same for swimming, many people of colour are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice."</i></p> <p><i>"The main focus of a preparation programme should be on academic content and preparing the candidate for higher education."</i></p> <p><i>"Swimming should be a life skill; this should also form part of the EMC programmes rather. On the EMPP a non-formal fitness programmes could be more suitable."</i></p> <p><i>"Physical fitness, including swimming, should be started as early as possible. Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme."</i></p> <p><i>"...that physical fitness assessment should form part of the criteria for EMPP. The reason being, higher levels of physical fitness and being healthier, in</i></p>

				<p><i>general, are associated with better-perceived health for academic performance AND professional performance in the workplace."</i></p> <p><i>"I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access."</i></p> <p><i>"The reason being, higher levels of physical fitness and being healthier, in general, are associated with better-perceived health for academic performance AND professional performance in the workplace."</i></p> <p><i>"Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme."</i></p> <p><i>"I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access."</i></p> <p><i>"Swimming should form part of the entry criteria for the EMPP."</i></p> <p><i>"Swimming should be a life skill; this should also form part of the EMC programmes rather. On the EMPP a non-formal fitness programmes could be more suitable."</i></p>
B				EMPP ADMISSION CRITERIA

9.	A basic medical assessment should form part of the entry criteria for the EMPP.	Being healthy as part EMC education	Healthy Medical fit to practice Basic medical assessment as part of the entry criteria for EMC programmes	<p><i>"This could be done at the end of the EMPP for entry in EMC education."</i></p> <p><i>"I agree as this may deter the candidate at a later stage once he/she gains access to a formal qualification. One needs to be medically fit to practice. I would place further emphasis on candidates undergoing a psychometric test prior to enrolment in any of the healthcare professions."</i></p> <p><i>"A basic medical assessment should form part of the entry criteria for EMC programmes."</i></p> <p><i>"I also feel that the medical is important as putting someone on the EMPP who has a medical condition that would exclude them from any of the EMC programmes, would be a wasted opportunity."</i></p>
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5.4.1 Discussion

As shown in Table 5.3, all the participants (n=16) indicated that the number of students selected for the programme should not exceed the capacity to offer good quality education. The participants (n=16) agreed that the EMPP admission criteria should be clear and indicate how they contribute to assisting with access to HE. Although 75% of the participants agreed that “the focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC HE qualifications but who hold a matric certificate or equivalent thereof.” One of the participants added that the EMPP admission criteria need to be specific for the qualification the candidate is preparing for, “*especially taking the three-tiered ECQF into account*” (cf. Chapter 2). In addition, one of the participants asked if “*...the learner completing EMPP for HCert or Degree for example?*”

Moreover, the participant further pointed out that the requirements for the programmes mentioned above are drastically different and states that the EMPP should not limit the candidates to only lower-level EMC candidates performing on the EMPP. I agree with the participant, as the EMPP should provide the students with foundational knowledge to succeed in EMC HE. The students should not be limited to only applying for lower-level EMC programmes. As McKenna in Dhunpath and Vithal’s collected volume ‘Alternative Access to Higher Education’ (2014: 51), students are better equipped for mainstream academics once they have gained the requisite foundation abilities. In contrast, one of the participants mentioned that the admission criteria for the degree programmes are very different to the ECA and Dip EMC (cf. 2.4.2). In comparison, one of the participants mentioned that,

“EMPP should focus on the ECA as an entry-level programme into EMC education”.

In my opinion, the EMPP should provide the candidate with an opportunity to develop academically. Consequently, if the student has proven academic ability, the candidate should be allowed to apply for an EMC programme of his or her choosing. As one participant mentioned, a more generic approach might provide the candidate with broader access to HE.

“A more generic approach may provide the candidate with wider access to Higher Education. The EMPP should focus on the ECA as an entry-level programme into EMC education.”

The EMPP should provide adequate and sufficient academic and foundational knowledge to provide the candidate with the best possible opportunity to pursue HE. The aim of widening

access is to mitigate the effects of disadvantages on the requirements of non-traditional students (SCQF 2010:113). Watt and Paterson (2010:113), agree that the aim is to preserve academic standards while broadening access. As mentioned by two of the participants, the EMPP should be aimed at filling the academic gaps by,

"bridging the gap for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. In other words, the question would be whether or not the ultimate goal is to prepare students for the course or to give the students access to the course"

"The main focus of a preparation programme should be on academic content and preparing the candidate for higher education.

"I think the proposed programme should focus on addressing the gap identified from entry requirements, rather than dealing with profession specific content which will be covered in the EMC programmes anyway. Part of the EMPP should be about professionalism, but again, I don't see the need for any specific EMC content."

If we look at other university access programmes, for example, the ECP, students are not limited to lower-level programmes, but if successful, continue with the degree the student applied for (cf. 2.4.2). Moreover, limiting the student to lower-level EMC courses after completing an access or preparatory programme could be interpreted that access to certain EMC programmes is limited to a selected few. Furthermore, HE does not include a staggering system anymore, whereas in the case of EMC short courses, students were required to complete an introductory ambulance course to obtain access to the next course. The admission criteria for EMC programmes are discussed in Chapter 2 (cf. 2.2.6.2).

As mentioned in Chapter 2, section 2.4.4, the rationale of the EMPP is to provide the student with the necessary foundational knowledge, skills and attributes necessary to provide access to qualifications within the HEQSF (EMPP short-learning programme approval document 2019:5). In addition, one of the participants suggested that the goal of the EMPP should not be to teach subjects the candidates never had but should focus on improving the subject symbols of the candidates. However, improving only the symbols of the candidate will assist in gaining access to EMC HE programmes. However, as seen in the literature, students find the transition from primary school to higher education difficult, especially without the necessary knowledge base and may lead to underperformance (Sobuwa & McKenna 2019:14; Watt & Paterson 2010:9). Many EMC in-service personnel are adult students, and as seen in the Free State, many are over the age of 30 (FSCoEC report 2021). Hence, providing the students with only access may not necessarily assist with mitigating underperformance, as Sobuwa and McKenna (2019:14) mentioned. Another view posed by one of the other participants is that the focus of a preparation programme should be on academic content and preparing the candidate for HE. He also emphasised

that the focus of the EMPP must be based on evaluating the student's ability to cope with the work that will be given in a HE qualification,

"...so as to adequately prepare the students not just preparing them to meet the criteria".

In contrast, one of the participants indicated that the focus of an EMPP programme should be to accommodate candidates to pursue a HE degree, diploma, or certificate is that they need to meet the minimum university criteria (n=1). In addition, the participant explained that the outcome criteria for HE, be it a degree, diploma, or certificate, require the student to be competent regarding the SAQA NQF Level 4, including, for example, English, Mathematics, and Sciences (n=1). The participant further mentioned that a senior candidate who has not previously studied at a HE and completed their matric ten or more years ago would probably battle with HE without prior learning and assessment experience. I believe that this view does not consider the socio-economic and previous schooling system. Furthermore, I believe that in-service EMC personnel, and for that matter, any person subjected to socio-economic and unfair schooling of the past should be provided with a means to access HE and sufficient support to be successful. Moreover, I believe that this is precisely where an EMPP could have a valuable contribution to make. Moreover, Walton *et al.* (2015:263) mention that access programmes should focus on gaining access and providing the candidate with the best opportunity to succeed in HE.

As mentioned by the (RSA DoE 1997:14), an increase in access is not always accompanied by success, as the failure rate of undergraduates increased and is attributed to the under-preparedness of students upon leaving the basic education system (CHE 2013:15). One of the participants indicated that most RPL candidates do not perform up to standards when entering the HE system. He made the following recommendation:

"...candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enrol for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs."

Little research is available on the success rate of adults attempting to complete the NSC as amended. Although this is one of the possible pathways, I believe that a more focused and occupational orientated approach for EMC in-service personnel could be more beneficial, as the student would already have previous knowledge and experience. RPL provides an alternative access pathway for students to pursue HE (Roy & Marsafawy 2021:9). It is further mentioned that the RPL process provides opportunities for non-traditional students

to engage HE (O`Flaherty & Libby 2017:1031). As seen in the literature, poor preparedness of RPL candidates produces a significant sense that older students find learning very challenging (Cermak 2016:9). This view is poignantly agreed upon by one of the participants in mentioning that

"RPL candidates just do not perform up to standards when entering the HE system. I would recommend, candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enroll for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs."

Regarding in-service EMC personnel, I believe that RPL should be an important part of the access and preparation for HE. However, RPL should be an individual application, taking the candidate's individual needs into account (Williams 2021). As seen in Table 5.2, 12 participants felt that the focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC HE qualifications but hold a matric certificate or equivalent thereof. One participant mentioned that the EMPP should cater to candidates with the correct subject combination but not the correct "*Admission Point Score (APS) score*". Furthermore, students who do not have the correct subjects, such as mathematics, life sciences, and Physical Sciences, struggle with the content of EMC HE programmes (n=1). One participant mentioned that accepting students who do not have the correct subject combination might be problematic. The participant further said that it could set the candidate up for failure and mentioned the following:

"...educating learners on a new subject focussing on NQF 4 outcomes, without the required progression as per basic education Grade 6-12, could set the learner up for failure. A pre-test might be required to gauge the level of understanding that these learners have on the required subjects, prior to them being accepted on the EMPP programme."

One other participant indicated that the EMPP should cater to candidates with the correct subject combination but not the correct symbols. Fourteen participants agreed that offering the EMPP to candidates with the correct subject combination but without the correct symbols would be reasonable. The initial purpose of the EMPP, as mentioned by one of the participants, is that it "*...served as a transformational tool*". The participant further mentioned that,

"...historically the SA EMS landscape used to have short course holder qualifications, as an example the Basic Life Support (BLS) practitioner. A student who wished to participate/enrol in a BLS short course (EMS entry-level qualification) could do so without having a national senior certificate. The EMPP was designed specifically for those healthcare professionals who holds one of the short course qualifications, which is now phased out, as such, are sort of left between a rock and a hard place having to obtain a higher education EMC qualification. There are currently thousands of short course holders who are unable to meet the necessary requirements i.e. national senior certificate or equivalent thereof (never mind the other specific entry criteria) to gain access to HE. With the EMPP these candidates are not 'left behind'/ forgotten if you may. This is one of several reasons why the EMPP is not only targeting 'school leavers' or those having been exposed to some formal education previously."

According to the EMPP short-learning programme approval document (cf. 2.2.6.6), the goal of the EMPP is to develop the foundational knowledge, skills, and attributes necessary to form the basis for further study in the field of pre-hospital EMC and will provide access to qualifications within the Emergency Care Qualifications Framework (ECQF) aligned with the Higher Education Qualifications Sub-Framework (HEQSF). One participant mentioned that the initial purpose of the EMPP was a *"transformational tool"*. The participant further mentioned that historically the SA EMC landscape used to have short course holder qualifications, for example, the BAA, AEA, OECP and CCA courses (cf. 2.2.6). A student who wished to enrol for these short courses (EMS entry-level qualification) could do so without having a national senior certificate. Consequently, the EMPP was explicitly designed for those healthcare professionals who hold one of the short course qualifications.

It should be noted that the EMC short courses were phased out in 2008 (cf. 2.2.6). The same participant also pointed out that the above-mentioned left the short course holder *"between a rock and a hard place"* having to obtain a HE EMC qualification. As mentioned in Chapter 2 (cf. 1.2.3), very few in-service EMC personnel in the Free State meet the requirements for admission to HE, for example, the Diploma in EMC (Dip EMC) (Van Eden 2021).

One participant indicated that opening the possibilities for school-leavers to enter an EMPP programme might positively affect the healthcare industry, where change can be instilled early on, using young and willing minds. Additionally, the EMPP can benefit other school-leavers who do not hold the necessary subject combination. One participant further mentioned that if the EMPP would cater for *"matriculants"*, the participant felt that there should be a *"timeline"* attached to the matriculant entering the EMPP. The participant then stated the following:

"...as matriculants from, e.g. 1988 are often using such systems/programmes to their advantage with no real benefit. Why have they previously not attempted to further/develop themselves?"

The role of the EMPP regarding school-leavers was also a very controversial topic and is discussed later in the chapter. In my opinion, we need to keep in mind that most of the EMC in-service staff experienced an unfair schooling system. As mentioned in Chapter 2, (cf. 2.2), there are pathways available to assist candidates with access to HE. If the candidate does meet the HE admission criteria, they should be allowed to access the programme. I believe that the reason why "matriculants" have not previously attempted to develop themselves have many reasons but are outside of the scope of this study. However, I believe that we should be cognisant of the unfair schooling system and the effect on the adults wanting to pursue HE, especially the in-service EMC personnel now battling to obtain admission to HE.

The role of Technical and Vocational Education and Training (TVET) colleges in assisting the candidates with entry into HE was mentioned by a participant (n=1). The participant explained that modules

*"can be taken independently at these colleges - these are generic matric modules that require additional attention."
"What is the role of TVET colleges and/or redoing the necessary subjects at a matric (NQF4) level in their private capacity? We are the only emerging healthcare profession who is willing to "spoon feed" potential candidates for professionalisation and redress of historical injustices"*

Although TVET colleges can play a role, further engagement is needed. As Geduld (2017) emphasise, the TVET college in Bloemfontein does not currently present a one-year programme covering the needed outcomes. Moreover, the subjects, although similar, do not meet the HEI requirements. The gap between access and success is generated by a mismatch between HE expectations and students' preparation after finishing basic education, FET, or vocational education (CHE, 2013:15-17). We need to be cognisant that people were employed in EMC without meeting HE admission criteria regarding EMC education. In addition, as Rowe Rowe (2017) mentions, most EMS staff do not qualify for HE. The role of the EMPP is to possibly prepare these candidates and increase the likelihood of success in HE (cf. 2.2.6.6). Moreover, as seen from the literature, access programmes such as the ECP, RPL and CEP are available, but as in the case of the ECP, have very specific admission criteria (Slabbert & Friedrich-Nel 2016; cf. 2.2.2).

Furthermore, as mentioned by Tinto (2008:9) "access without assistance is not an

opportunity; hence, institutions recruiting students must have a strategy to assist them in succeeding." In my opinion, students should be assisted not only with access to HE, but also with the ability to be successful. Moreover, most in-service EMC personnel did not have chemistry, mathematics, and physics at the matric level. Hence, they will probably battle with these subjects on NSC level. As seen in the literature, although the department of Higher Education focused on promoting access with success for those wanting to pursue HE, it appeared that an increase in access is not always accompanied by success (RSA DoE 1997:14; CHE 2013:15). In addition, the success rate of the candidates on the NSC amended should be investigated to provide a clear picture of the success rate of the person who completed the NSC as amended. However, this was not part of the scope of this study (cf. 2.2.2.3). The main fact to remember is that access programmes and preparatory programmes such as the EMPP are not there to replace any qualification. It aims to assist students, as programmes such as the ECP or CEP to obtain access and be prepared for the HE programmes they wish to engage.

As mentioned in Chapter 2, section 2.4.2.1, EMC programmes admission criteria include being physically fit and swimming. In a study by Vincent *et al.* (2017:6), it is mentioned that emergency care workers who are unfit cannot perform as they should, which has a negative effect on the rescue operation and patient care. As mentioned in Chapter 2 and 4, the ECA do not have any related rescue outcomes, and the Dip EMC do have very limited rescue outcomes (cf. 2.4.4; 4.4.1). Clear guidelines why swimming should be part of these programmes are not clear. Moreover, Muhlbauer *et al.* (2021), indicated that there is currently no scientifically validated tool to assess the physical fitness criteria needed on EMC programmes. As mentioned in the EMPP short learning-programme approval document (2019), physical fitness and swimming are not exclusion criteria for admission onto the EMPP. In my opinion, physical fitness and swimming should not be part of the entry criteria of the EMPP but should be done to obtain the baseline swimming capability and physical fitness level of the candidate. Subsequently, it should be part of the goal of the EMPP, in other words, the EMPP should be providing the candidates with a platform to learn to swim and obtain information about the benefits of a healthy lifestyle, in the sense of being physically fit.

Twelve participants felt that physical preparedness should form part of the entry requirements of the EMPP. Also, as indicated by 13 participants, swimming should not be part of the entry criteria for the EMPP. Physical preparedness, learning to swim, and basic medical assessment are discussed later in this chapter (cf. 5.4.8). Although 13 participants

indicated that swimming should not form part of the entry criteria for the EMPP, the feeling was that it should be part of the EMPP. One participant made the following statement:

"Swimming and physical fitness should definitely form part of the EMPP, but not as an entry requirement".

However, swimming should not be compulsory for admission for the EMPP. One participant mentioned that if swimming is part of an entry assessment to the EMPP, it may be exclusionary. One other participant mentioned that swimming should not be made a criterion because most candidates currently employed in EMS cannot swim, and the swimming resources in the areas they live in are scarce. He also said that the fundamental aspect of the EMPP is to prepare EMS personnel to be ready for the work that will be presented in a HE qualification. This will assist them in meeting the demands required by the EMC programmes. I am of the opinion that swimming should not be part of an assessment and moreover should not be seen as an exclusion criterion. In addition, EMC programmes such as the ECA does not have any rescue module as part of the curriculum.

One participant mentioned that making swimming a prerequisite does not cater to students who have never had access to a swimming pool or training. Swimming should form part of a baseline assessment when enrolling for the EMPP, but it should not be used as a critical criterion to grant someone access to the programme (n=1). The participant made the following statement:

"...many South Africans, especially people of colour are unable to swim, this would be an unfair (exclusionary) assessment to most. Furthermore, a student participating in the EMPP should be able to gain the basic learn to swim skills whilst on the programme, since the function/ role of the EMPP would be used as an educational tool that provides students with basic foundational knowledge and skills necessary to be successful on an EMC programme fitness i.e., swimming, being one of them."

As one participant stated, swimming should be seen as a life skill that is quite easily taught once a student has been selected. It is again stated that applicants should be made aware that they will be required to learn to swim before commencing with the EMPP. In my opinion, the EMPP should provide a learn to swim programme. Subjecting the candidates to harsh fitness and swimming requirements could be seen as exclusionary, as one of the participants mentioned. Moreover, specialised rescue is only presented on the BEMC programme, where it could be argued that the students would need to be at a certain fitness level, including the ability to swim at a certain level. Once again, we should validate why swimming is part of the curriculum for basic programmes such as the ECA. I believe that doing specialised rescue programmes and techniques should be an option for the

student after completing basic EMC programmes. The role of swimming in EMC programmes should be validate, as mentioned water rescue does not form part of the curriculum of the ECA and Dip EMC programmes. It should also be mentioned that most of the EMC personnel subjected to swimming on the EMC programmes are not working in an offshore environment.

"Swimming should be a life skill: this should also form part of the EMC programmes rather. On the EMPP a non-formal fitness programme could be more suitable."

According to 14 of the participants (n=14), a basic medical assessment should form part of the entry criteria for the EMPP. As one participant mentioned, this could be done at the end of the EMPP to enter EMC education. In my opinion, the medical assessment should be conducted when the EMPP commence, not as an exclusion criterion, but to obtain as much information about the candidate's medical health as soon as possible (cf. 4.4.1). One participant also stated the following:

"I agree as this may deter the candidate at a later stage once he/she gains access to a formal qualification. One needs to be medically fit to practice. I would place further emphasis on candidates undergoing a psychometric test prior to enrolment in any of the healthcare professions." As mentioned by one of the other participants, "...a medical is important as putting someone on the EMPP who has a medical condition that would exclude them from any of the EMC programmes, would be a wasted opportunity."

5.4.2 Emergency Medical Preparatory Programme curriculum design

The EMPP curriculum design was investigated in this section, and the results are presented in Table 5.4 and Table 5.5. As seen in Table 5.4, 38 statements were included in this section.

Table 5.4: EMPP Curriculum design

SECTION C: THE EMPP CURRICULUM DESIGN					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
C1.	The EMPP curriculum design should maintain an appropriate balance of theoretical, practical and experiential knowledge and skills.	87.5%	6.3%	6.3%	Consensus R1
C2.	Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake.	81.3%		18.8%	Consensus R1
C3.	The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy.	100%			Consensus R1
C4.	Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design.	100%			Consensus R1
C5.	Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme.	100%			Consensus R1
C6.	Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.	93.8%		6.3%	Consensus R1
C7.	Student diversity should be taken into account with the development of curricula (for example, students from rural backgrounds).	81.3%	6.3%	12.5%	Consensus R1
C8.	The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes.	93.8%		6.3%	Consensus R1

C9.	The EMPP curriculum should be aligned with that of EMC education.	80%		20%	Consensus R1
C10.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.	62.5%	6.3%	31.3%	Stability R2
C11.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.	43.8%		56.3%	Stability R2
C12.	The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment.	75%		25%	Consensus R1
C13.	Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations.	87.5%		12.5%	Consensus R1
C14.	The EMPP should be designed to support the achievement of the specified learning outcomes.	100%			Consensus R1
C15.	The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained.	86.7%	13.3%		Consensus R1
C16.	After successfully completing the EMPP, the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education.	81.3%	18.8%		Consensus R1
C17.	The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes.	100%			Consensus R1
C18.	The EMPP should be guided by policies and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals.	100%			Consensus R1
C19.	EMPP students should be prepared for basic medical techniques and skills required for EMC.	12.6%	6.3%	81.3%	Consensus R2
C20.	EMPP students should be taught how to complete EMC documentation, for example, patient report forms.	18.7%	6.3%	75%	Consensus R2
C21.	The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.	56.3%		43.8%	Stability R2
C22.	Academic writing should form part of the EMPP curriculum.	93.8%		6.3%	Consensus R1
C23.	The EMPP should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally.	93.8%		6.3%	Consensus R1
C24.	All EMPP modules should be designed and structured as complementing components of the programme.	93.3%		6.7%	Consensus R1

C25.	The ability of EMPP students to function as adult learners and take responsibility for their learning is important.	100%			Consensus R1
C26.	All students from the EMPP should be able to cope with the academic requirements of higher education.	100%			Consensus R1
C27.	To minimise the time candidates are away from work, the EMPP should be offered as a limited contact programme.	37.5%	6.3%	56.3%	Stability R2
C28.	The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task.	100%			Consensus R1
C29.	The EMPP student should be able to apply basic processes of analysis, synthesis and evaluation of collected information	93.8%	6.3%		Consensus R1
C30.	The EMPP should be able to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC to promote access during first time application at HEIs.	100%			Consensus R1
C31.	The EMPP should aim to bring about learning with understanding.	100%			Consensus R1
C32.	EMPP learning content should be relevant, realistic, manageable and accessible.	100%			Consensus R1
C33.	The EMPP should take the students existing knowledge into consideration.	93.8%		6.3%	Consensus R1
C34.	The EMPP should be current with regards to the needs of the student and society.	93.8%	6.3%		Consensus R1
C35.	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Consensus R1
C36.	The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively.	100%			Consensus R1
C37.	The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes.	100%			Consensus R1
C38.	Lecturers teaching modules on the EMPP should be involved in the design of the curricula.	87.5%	6.3%	6.3%	Consensus R1

Comments made by the panel of experts regarding the EMPP curriculum design are shown in Table 5.5.

Table 5.5: EMPP Curriculum design: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
C				EMPP CURRICULUM DESIGN
1.	The EMPP curriculum design should maintain an appropriate balance of theoretical, practical, and experiential knowledge and skills. Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student	The EMPP curriculum outcomes and goals	Learning needs	<i>"Experiential learning should not be part of the preparation programme. Maybe a theoretical approach to EMC documentation."</i>
2.			Assessment principles Learning outcomes Student success Content development Educational outcomes Student needs Basic education Curriculum design Learning methods	

	intake.			
C				EMPP CURRICULUM DESIGN
6.	Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.	The role of the EMPP in the development of the student	Broadening access	<i>"For three growth to be achieved, the learners should not be limited in only progressing towards EMC higher education acceptance."</i>
C				EMPP CURRICULUM DESIGN
7.	Student diversity should be taken into account with the	The EMPP curriculum outcomes and goals	Pedagogical principles Admission criteria	<i>"Again, I partially agree. I don't think that student background should drive the curriculum, rather it should drive the pedagogical principles that drive the delivery of the curriculum. The curriculum should remain an independent variable that seeks to achieve the aims of the EMPP."</i>
8.	development of curricula (for example, students from rural			<i>"Minimum entry criteria for higher educational institutions should still be enforced using the minimum "M" score count. Lowering the acceptance criteria for these learners might set them up for failure in the higher education environment."</i>

	backgrounds). The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes.			
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C		EMPP CURRICULUM DESIGN	
9.	The EMPP curriculum should be aligned with that of EMC education.	The EMPP curriculum outcomes and goals	<p>Constructive alignment Access to higher education Non-technical skills should be part of the EMPP Generic approach to education Focus of the EMPP</p> <p><i>"A more generic approach may provide the candidate with wider access to Higher Education. 4.11 The EMPP should focus on the ECA as an entry level programme into EMC education."</i></p> <p><i>"...and the community needs. Perhaps management as well?"</i></p> <p><i>"The EMPP curriculum should be aligned with that of EMC education" - What defines EMC education? If the definition includes comprehension and understanding, then yes, I agree. Meaning that to some level, EMC education should also include components of non-technical skills. For example, Non-technical skills such as decision-making, situation awareness, leadership, and teamworking are essential skills needed in EMC as a profession and should be included in EMC education."</i></p>
C		EMPP CURRICULUM DESIGN	
10.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.	The ultimate goal of the EMPP	<p>The aim of the EMPP National senior certificate Access pathways EMC short course programmes Bridging the gap Minimum higher education admission criteria Acceptance criteria Access to all EMC HE programmes Should not contain any clinical content</p> <p><i>"The EMPP programme should attract the students based on their NSC modules and scores and students should then be directed accordingly as to whether based on that they are attending the EMPP for the HCert, Diploma or Degree. I think we need to move away from the historical trend where you did BAA, then AEA and then CCA. This HEI system is not the same and was not designed to follow that pathway."</i></p> <p><i>"This is dependent on what the EMPP actually aims to achieve. If the EMPP is aimed at 'bridging the gap' for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. In other words, the question would be whether or not the ultimate goal is to prepare students for the course or to give the students access to the course. The two are not the same in my mind."</i></p> <p><i>"My question here is what the EMPP is aiming to achieve. If it is for access, then indirectly, this would be a valid statement due to an extrapolative way of thinking that by granting a person access, one would be enabling students to pursue further personal and professional development within the Emergency Medical Care environment, but would this be a direct aim of the EMPP."</i></p>
11.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.		
12.	The EMPP should enable		

	students to pursue further personal and professional development within the Emergency Medical Care environment.			<p><i>"Is there any reason why they cannot enter any higher education undergraduate course of their choosing?"</i></p> <p><i>"If the EMPP curriculum and outcomes are structured at improving acceptance criteria, the learner should be able to enter any higher education programme and not limit the learner to purely have access to lower pre-hospital medical qualifications."</i></p> <p><i>"The EMPP should prepare the students to be able to access any of the courses offered in EMC, it should be able to allow students time so that can be fully functional while they are on the preparatory course. The course can have basic and intermediate knowledge that is assessed, but no limited to the clinical, it should contain all aspects that govern EMS, this will be able to completely prepare the student holistically."</i></p>
C				EMPP CURRICULUM DESIGN
13.	Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations.	The ultimate goal of the EMPP	Meet the needs of the profession Effective teaching methods	<p><i>"The EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations. This statement seems to ignore the fact that the course is designed to meet a specific curriculum need. Whilst it is important to involve role-players, their needs []to come second to the primary need that the course is designed to meet."</i></p> <p><i>"...is that not directive teaching. What about community/African/South African needs?"</i></p>
C				EMPP CURRICULUM DESIGN
16.	After successfully completing the EMPP, the student should understand the	The ultimate goal of the EMPP	Prepared for higher education Promotion of the EMPP	<i>"The learner should be prepared for entering a higher educational environment, however, the learner must be guided to understand the concept of what pre-hospital emergency medicine entails. Selling the programme to the learner will result in an increased intake for that academic year."</i>

	key terms, concepts, facts, general principles, rules, and theories of EMC education.			
C				EMPP CURRICULUM DESIGN
19.	EMPP students should be prepared for basic medical techniques and skills required for EMC.	The ultimate goal of the EMPP	Focus of the EMPP Should not contain any clinical content EMC links as examples to support learning	<i>"The EMPP should not be focused on specific skills as this will be the function of EMC specific programmes."</i>
20.				<i>"These students will not hold a student registration with the HPCSA, and therefore I don't feel that any specific EMC content should be included in the programme. The focus needs to rather be on getting the student ready to deal with studies at an HEI level and fill the gaps with Life Sciences, Maths and Physical Science."</i>
21.	EMPP students should be taught how to complete EMC documentation, for example patient report forms. The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.			<i>"I disagree with these statements because this is not the aim of the course- this is the job of the course that the students would ultimately enrol for. In my mind (and I may be wrong) the EMPP is designed around access to the HEI qualification as opposed to actually teaching them the principles of emergency medical care."</i> <i>"The learner should purely be prepared for the higher education environment. Medical concepts and others can be included within the EMC programme curriculum."</i>
C				EMPP CURRICULUM DESIGN
23.	The EMPP	Alternative access	Alternative access	<i>"...perhaps an analysis of the gaps between ANT and undergraduate can lead</i>

	should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally.		programmes Preparatory programmes	<i>the EMPP."</i>
C				EMPP CURRICULUM DESIGN
27.	To minimise the time candidates are away from work, the EMPP should be offered as a limited contact programme.	EMPP duration	Student responsibilities Programme duration Family commitments Adult learning Limited contact sessions Distance education EMPP course structure Different backgrounds	<p><i>"I disagree, most of the students that enrolls for the EMPP are adult learners, whom already have other responsibilities such as raising kids etc. Because the EMPP introduces the student to HE culture, it might be best to have a full-time programme so that they can learn how to adapt to HE life and what it would be like once they get entry into an EMC qualification. Previously from what I have witnessed many adult learners quit EMC programmes in their first year of study due to family commitments and their unfamiliarity to the exposure, pressure, and time management obligations that a full-time programme entails. At least if a student does the EMPP he/she and their families already have an idea of what life will be like in EMC and can from there make an informed decision of whether they would like to continue onto a year or two-year qualification."</i></p> <p><i>"Limited contact is a higher educational concept of adult learning. Preparing these learners to achieve competence in obtaining an NQF4 qualification might require more contact time."</i></p> <p><i>"With regards to the development of curriculum; the curriculum may be disseminated via means of distance learning platform – digital platforms. This will allow applicable candidates to continue with primary jobs."</i></p> <p><i>"The structure of the course should allow for learners to have time for themselves to espouse information given to them, this will assist learners to</i></p>

				<i>understand that in higher education training you need to push yourself in order to gain better understanding. The structure of the EMPP should allow for enough time for practical aspect of the program so as to adequately prepare the learner for the up-and-coming challenge in the higher education qualification. The program must be able to adequately cater for diverse group whom socioeconomic status will vary as they will be coming from different backgrounds."</i>
C				EMPP CURRICULUM DESIGN
28.	The EMPP should take the students existing knowledge into consideration.	Recognition of prior learning	none	<i>"Are you indicating current grade 12 knowledge or EMC knowledge? EMC knowledge would be beneficial, yes, but preparing the learner for any higher education programme in improving their M-scores might be more worthwhile."</i>

5.5 DISCUSSION

There is no singular, accepted definition for a curriculum. According to Botha (2009:159), the curriculum is a complicated, multi-faceted concept and can only be considered within a specific context. This context may be a single module, a programme, an institution or a post-school curriculum. According to 14 participants, the EMPP curriculum design should maintain an appropriate balance of theoretical, practical, and experiential knowledge and skills. However, one participant mentioned that experiential learning should not be part of the EMPP:

"Experiential learning should not be part of the preparation programme. Maybe a theoretical approach to EMC documentation."

The participant further mentioned that a theoretical approach to EMC documentation should be taken. In my opinion, the EMPP should not include any experiential learning (medical skills), but specific links and examples should be used to explain certain topics, for instance, in mathematics and physics. Including EMC examples could make teaching more enjoyable and understandable to the students. Most participants (n=13) agreed that the EMPP curriculum should align with EMC education (cf. 2.2.6.6). One participant gave the following explanation:

"The EMPP curriculum should be aligned with that of EMC education - What defines EMC education? If the definition includes comprehension and understanding, then yes, I agree. Meaning that to some level, EMC education should also include components of non-technical skills. For example, Nontechnical skills such as decision-making, situation awareness, leadership, and teamwork are essential skills needed in EMC as a profession and should be included in EMC education."

Thirteen participants indicated that learning outcomes, degree, or curriculum choice, teaching and learning methods, modes of delivery, learning materials, and expected completion time should cater to the learning needs of the target student intake (cf. 2.2.1). As mentioned in Chapter 2, section 2.3.1, adult students are motivated to learn due to unsatisfied needs, interests and experiences (cf. 2.3.1). In addition, adult learning activities should be organised around life situations rather than subjects, as adults' orientation to learning is life-centred (Wang 2009). Furthermore, adults have a strong desire to be self-directed. The facilitator's role is to engage them in mutual inquiry rather than transmit their knowledge to them and then evaluate their compliance with it (Wang 2009). One participant alluded that the dynamic of learning styles can change depending on the cohort:

"Learning styles are dynamic therefore can change depending on cohort. Adult learners are also flexible in learning and often have overarching learning styles."

Moreover, one participant stated that limiting the curriculum to cater purely to EMC student intakes places a restraint on the student's capability. In addition, the participant indicated that

"Adult students are also flexible in learning and often have overarching learning styles."

Even more, the EMPP must cater to student learning needs, but these must be considered within the proposed curriculum (n=1). One participant mentioned that the curriculum outcomes of the EMPP should be guided by the *"CAPS documents used in basic education, thus broadening the acceptance possibilities for these students."* As discussed in Chapter 2, section 2.2.2.3, the NSC amended is a year programme (Education 2021:online), with the following criteria:

1. Pass three subjects at 40%, one of which must be an official language at the Home Language level.
2. Pass two subjects at 30%, one of which must be an official language at the First Additional or Home Language level.
3. Obtain a subminimum of 20% in the sixth subject

One of the other participants mentioned that the EMPP should attract the students based on their National Senior Certificate (NSC) modules' scores. As a participant alluded, the students should then be directed accordingly based on whether they attend the EMPP for the HCert, diploma or degree (cf. 2.2.6). As discussed in Chapter 4, most EMC in-service personnel do not meet the minimum HE admission criteria (cf. 2.4.2.1). I agree the EMPP should definitely benchmark from the NSC amended. In addition, Human (2021) proposed that the Department of Basic Education (DBE) could assist with the upskilling of EMC personnel regarding NQF level 4 subjects (cf. 2.2.2.3). Human (2021) further mentions that finishing school may also be a good option for candidates to attend these schools in their local district. I believe that this could be a viable option, as many in-service personnel are located far from the bigger cities. In addition, this could also save the employer expenses related to accommodation and long periods away from work.

Fifteen participants indicated that pedagogy should contribute to transformation because it develops individual students' capabilities for personal enrichment, and social development

and economic and employment growth requirements. One participant stated that for

"...free growth to be achieved, the learners should not be limited in only progressing towards EMC higher education acceptance".

According to 13 participants, student diversity should be considered with curricula development, for example, students from rural backgrounds. One participant mentioned that the student's background should drive the curriculum. It should drive the pedagogical principles that drive the curriculum's delivery. Moreover, the curriculum should remain an independent variable that seeks to achieve the EMPP's aims. Pillai (2011:2) mentioned that curriculum design could be viewed as an inclusive plan for an educational programme, providing a new outlook to fulfil the changing needs of a dynamic global society. Moreover, the curriculum should include,

- a) the values and rationale of learning;
- b) learning outcomes;
- c) methods, activities, content, and media;
- d) learning and teaching strategies;
- e) methods of assessment; and
- f) evaluations of delivery, moderation (cf. 2.3; SAQA 2014:online).

Fifteen participants mentioned that the EMPP should have sufficient content and theoretical depth at the appropriate level to serve its educational purposes. In agreement, Latucca and Stark (2009:4-5), believe that the curriculum must be viewed as an academic plan or blueprint, weighing or considering the significant elements required to guide the students through their studies, rather than merely attending to only elements such as specific content or teaching strategies. The EMPP should not only be a means for the students to obtain access. I believe that the EMPP should also assist the student in being successful and, importantly, developing lifelong learners. As indicated by 12 participants, the EMPP should enable students to pursue further personal and professional development within the EMC environment.

Another participant agreed that if the EMPP curriculum and outcomes are structured to improve acceptance criteria, the student should enter any HE programme and not be limited to access to lower pre-hospital medical qualifications only. One participant stated the following:

"...we need to move away from the historical trend where you did BAA, then AEA and then CCA. This HEI system is not the same and was not designed to follow that pathway."

One other participant felt that the EMPP should prepare the students to access any of EMC courses (cf. 2.2.6). It should allow students time to be fully functional while on the preparatory course. The course can have basic and intermediate knowledge assessed, but not limited to the clinical. It should contain all aspects that govern EMS, which will prepare the student holistically. In contrast, one participant mentioned that the main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.

As all the participants (n=16) indicated, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors, and professional associations. Notably, one participant mentioned that while it is essential to involve role-players, their needs must come second to the primary need the course is designed to meet. Another participant made the following statement:

"What about community/African/South African needs?"

Thirteen participants indicated that after completing the EMPP, the student should understand EMC education's key terms, concepts, facts, general principles, rules, and theories (cf. 2.2.6). One participant mentioned that students should be prepared to enter a HE environment. However, the student must be guided to understand what pre-hospital emergency medicine entails. Selling the programme to the student will increase intake for that academic year.

One participant mentioned that the EMPP should not be focused on specific skills as this will be the function of the EMC-specific programme (cf. 4.3.8). One other participant mentioned that the focus should be on getting the students ready to deal with studies at an HEI level and filling the gaps with Life Sciences, Mathematics, and Physical Sciences. Another participant agreed that the EMPP should be designed around access to the HEI qualification instead of teaching students the principles of EMC (cf. 2.2.6 & 2.2.6.6). The students should purely be prepared for the HE environment.

According to 15 participants, the EMPP should be benchmarked against similar programmes on offer at other local or international HE institutions. One participant made the following statement:

"...perhaps an analysis of the gaps between ANT and undergraduate can lead the EMPP".

As mentioned in Chapter 2, section, in the analysis of the EMPP documents, I discovered that the EMPP was not benchmarked from similar types of programmes. I believe that benchmarking from similar programmes could provide valuable information for implementing the EMPP (cf. 2.2.1). The literature shows that access programmes such as CEP's, RPL and ECP are available. Although, as seen in the literature, the ECP do have specific admission requirements (Slabbert & Friedrich-Nel 2016), the basic concept of the ECP could provide the developers of the EMPP with valuable guidelines. As discussed in Chapter 2, section 2.2.2.3, the EMPP may benchmark other EMC colleges. One of the colleges in the Western Cape is using a CEP and RPL to assist their personnel with access to HE. Van Tonder (2021) mentioned that the Northern Cape presents a redesigned EMPP (cf. 2.2.2.3).

Regarding the statement to minimise the time students are away from work and if the EMPP should be offered as a limited contact programme, one participant indicated that

"...limited contact is a higher educational concept of adult learning. Preparing these learners to achieve competence in obtaining an NQF4 qualification might require more contact time."

The participant further mentioned that most students that would enrol for the EMPP are adults with family responsibilities. Furthermore, if the EMPP introduces students to the HE culture,

"...it might be best to have a full-time programme so that they can learn how to adapt to HE life and what it would be like once they get entry into an EMC qualification". One participant indicated that "...the curriculum may be disseminated via means of distance learning platform"

as this will allow applicable candidates to continue with primary work-related functions. I believe that a blended learning situation could be valuable. As mentioned, allowing students to attend classes from their hometowns could save resources and finances. In addition, with the new trend in online learning, students will need to adapt to the situation. However, I believe that the students should start with a face-to-face period with basic digital literacy to ensure that they can handle online learning (cf. 2.3.13).

One participant mentioned that

"...the curriculum may be disseminated via means of distance learning platform – digital platforms. This will allow applicable candidates to continue with primary jobs."

At the Ghana's University of Cape Coast, distance education is used to increase access to high-quality higher education. Conversely, Sobuwa and Christopher (2019:4) mention that in SA, currently, there is no distance or part-time options available for EMC personnel in rural areas. Although many barriers do exist, solutions to mitigate these barriers should be further investigated. Thompson & Porto (2014), argue that adult students' self-efficacy with computers and the internet is critical for successful online learning processes, a view shared by Johnson, Morwane, Dada, Pretorius, & Lotriet (2018).

Another participant mentioned that the course structure should allow students to espouse information. The design of the EMPP should allow for enough time for the practical aspect of the programme to adequately prepare the students for the up-and-coming challenge in the HE qualification. As seen in the literature, the EMPP should benchmark from other similar programmes (cf. 2.2.2).

All the participants (n=16) indicated that the EMPP should consider the students' existing knowledge. One participant stated,

"...are you indicating current grade 12 knowledge or EMC knowledge? EMC knowledge would be beneficial, yes, but preparing the learner for any higher education programme in improving their M-scores might be more worthwhile."

5.5.1 Emergency Medical Care Preparatory Programme level descriptors

As in Table 5.6, 13 statements were made in this section, and 12 of the 13 statements reached consensus.

Table 5.6: EMPP Level descriptors

SECTION D: EMPP LEVEL DESCRIPTORS					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
D1.	The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.	81.3%		18.8%	Consensus R1
D2.	The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.	87.5%		12.5%	Consensus R1
D3.	EMPP level descriptors should be descriptive and not prescriptive.	86.7%	6.7%	6.7%	Consensus R1
D4.	The Critical Cross-Field Outcomes of SAQA should be embedded in the level descriptors of the EMPP.	93.8%		6.3%	Consensus R1
D5.	The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.	93.8%		6.3%	Consensus R1
D6.	The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.	100%			Consensus R1
D7.	The EMPP student should be able to collect, analyse, organise, and critically evaluate information.	87.5%	6.3%	6.3%	Consensus R1
D8.	The EMPP should use science and technology effectively and critically showing responsibility towards the environment and others` health	100%			Consensus R1
D9.	The EMPP should be able to demonstrate and understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.	100%			Consensus R1
D10.	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Consensus R1

D11.	The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in verbal and written presentation modes, mainly through reports and the handover of patients to other services.	75%	6.3%	18.8%	Consensus R1
D12.	The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services.	62.5%	6.3%	31.3%	Stability R2
D13.	Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.	12.5%	6.3%	81.3%	Consensus R2

Table 5.7 presents the participants' free-text comments regarding the EMPP level descriptors.

Table 5.7: EMPP Level descriptors: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
D				EMPP LEVEL DESCRIPTORS
1.	The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.	EMPP level descriptors	EMC programme content Foundational knowledge NQF level Academic preparedness Focus of the EMPP	<i>"...why are students being taught content from the course that they are trying to get access to?"</i>
2.				<i>"These are beyond the scope of EMPP and will be taught in EMC higher education."</i>
	The EMPP			<i>"These are high-level cognitive functions which will be developed later on in his/her educational journey. Focus on the basics..."</i>
				<i>"The EMPP should be focusing on NQF level 4 as the ECA is NQF level 5."</i>
				<i>"As mentioned previously, I see the EMPP as getting the student academically ready to engage with HEI learning, and therefore don't see the occupational link."</i>
				<i>"The focus of the EMPP is to improve symbols of the learner to be able to gain entry into a higher education programme. Maintaining competence in reaching an NQF 4 qualification might be more</i>

	level descriptors should be designed to meet the needs of academic as well as occupational requirements.			<i>appropriate as guided by HEI acceptance criteria."</i>
D				EMPP LEVEL DESCRIPTORS
11.	The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in verbal and written presentation modes, mainly through reports and the handover of patients to other services.	EMPP student abilities and attributes	Focus of the EMPP Purpose of the EMPP EMC programme content EMC admission criteria	<i>"Should be part of EMC education."</i> <i>"Again, this would depend on the core focus of the EMPP. Would these not be taught on the qualification?"</i> <i>"The learner must be prepared to communicate effectively in the instructional language, but not focussing on patient handover or anything specific."</i>
12.				<i>"Behaviour specific interventions should not focus purely on healthcare interaction. I am not sure if EMPP should include any content of EMC. I should rather focus on bridging the gap identified from the entry-level criteria of EMC requirements, for example, appropriate school subjects and symbols."</i>
13.	The EMPP student should understand ethical and			

<p>professional behaviour about personal conduct and interactions with patients, colleagues, and other services.</p> <p>Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.</p>			
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5.6 DISCUSSION

Level descriptors and qualification descriptors are articulated in terms of learning outcomes. Additionally, level descriptors define the learning outcome at a specific level of the NQF, providing a comprehensive indication of the learning outcomes suitable to a qualification at NQF Level 5 (SAQA 2012:9). The EMPP level descriptors should be designed to meet academic and occupational requirements. Moreover, level descriptors should provide standardised criteria for credentials on the HEQSF regarding the predictability of knowledge and skill complexity at each NQF level (SAQA 2012:5). Consensus was achieved among the participants on most of the EMPP level descriptors statements (cf. 2.2.1.2). As one participant indicated, the

"learner must be prepared to communicate effectively in the instructional language, but not focussing on patient handover or anything specific".

One participant mentioned that they were not familiar with the EMPP's aim. The researcher clarified that the EMPP aims to develop the necessary foundational knowledge, skills, and attributes to form the basis for further study in pre-hospital EMC and access to qualifications within the HEQSF. The EMPP is ultimately designed to enable students to pursue further personal and professional development within the EMC environment and promote lifelong learning (cf. 4.2).

The participants (n=13) indicated that the EMPP's level descriptors at an NQF Level 5 should provide a broad indication of the learning achievements or outcomes appropriate to a programme at NQF Level 5 (cf. 4.3.1). Alternatively, one of the participants stated that the EMPP should focus on NQF Level 4 as the ECA is NQF Level 5 (cf. 2.2.1.3). In my opinion, the EMPP should have a generic role in preparing EMC in-service personnel for HE. As mentioned previously, if the student completes the EMPP, the student should apply for an EMC programme of their choosing. However, SLPs such as the EMPP should not assign attributes and other unique properties of the HEQSF, such as NQF levels and credits, to learning programmes offered outside the framework of the HEQSF (CHE 2016:13). As the CHE (2016:7) mentions, an institution's highest academic decision-making body should govern and approve short courses using a written institutional policy. The CHE (2016:5) further mentions that SLP should be (i), planned and designed in accordance with the requirements and expectations of participants, employers, sponsors, and, where relevant, professional associations (ii) adhere to an institution's vision, purpose, goals, core

competencies, and resources, and have a clearly stated teaching and learning philosophy that informs the design and development of SLP, (iii) The intended learning outcomes and potential effect of the SLP should be explicitly stated in writing during the design and development phases.

As Campbell (2021) mentions, subjects are not part of the admission criteria in Australia. Hence, the candidate is not limited by subject choice in applying for admission, as the EMC programme includes foundational subjects. One of the participants mentioned that the EMPP's role is to get the student academically ready to engage with HEI learning. The participant made the following statement:

"I see the EMPP as getting the student academically ready to engage with HEI learning, and therefore don't see the occupational link."

In the case of EMC in-service personnel, I believe the EMPP should provide some occupational links. In essence, the EMPP is currently developed to assist in-service EMC personnel not meeting HE admission requirements. However, as the EMPP is not a registered EMC qualification, clinical skills or medical procedures should not form part of the EMPP. The focus should be on using EMC examples to explain certain concepts and assist the student in understanding certain mathematical concepts.

5.6.1 Emergency Medical Care Preparatory Programme learning outcomes

In this section, the EMPP learning outcomes were investigated. As seen in Table 5.8, 18 statements were made. Consensus was reached on 18 out of 18 statements after Round 2 (100%).

Table 5.8: EMPP Learning outcomes

SECTION E: EMPP LEARNING OUTCOMES					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
E1.	EMPP learning outcomes should have a defined purpose.	93.8%	6.3%		Consensus R1
E2.	The EMPP learning outcomes should provide applied competence and a basis for further learning.	100%			Consensus R1
E3.	The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	75%	12.5%	12.5%	Consensus R1
E4.	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Consensus R1
E5.	Facilitators in the EMPP should ensure that learning outcomes are educationally sound.	100%			Consensus R1
E6.	Statements of intended learning outcomes should clearly describe the knowledge, skills and competencies that students should obtain from learning.	100%			Consensus R1
E7.	The learning outcomes should be arranged in a recognisable and logical sequence.	100%			Consensus R1
E8.	Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme.	100%			Consensus R1
E9.	The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear.	100%			Consensus R1
E10.	Learning outcomes should be well formulated.	100%			Consensus R1
E11.	Learning objectives should describe measurable outcomes.	100%			Consensus R1
E12.	Adequate physical resources, consistent with the intended learning outcomes of the EMPP	100%			Consensus R1

	should be available to the students (library etc.).				
E13.	The EMPP curriculum should contain more EMC specific outcomes.	25%		75%	Consensus R2
E14.	Learning outcomes should provide applied competence and a basis for further learning.	100%			Consensus R1
E15.	Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	87.5%	6.3%	6.3%	Consensus R1
E16.	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Consensus R1
E17.	Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students.	100%			Consensus R1
E18.	About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress.	100%			Consensus R1

The participants' comments relating to the EMPP learning outcomes are shown in Table 5.9.

Table 5.9: EMPP Learning outcomes: Delphi survey round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
E				EMPP LEARNING OUTCOMES
3.	The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	EMPP learning outcomes	EMC programme content Cognitive thinking skills Constructive alignment	"...not sure if the level of this course (NQF) would allow for deeper thinking." "Would these outcomes not be embedded in the course that the student is hoping to access?"
E				EMPP LEARNING OUTCOMES
15.	The EMPP should be	EMPP learning outcomes	Outcomes of the EMPP Credits	"...this would depend on the core outcomes of the EMPP. If it is a course designed to facilitate access, then no, if it is a

	occupationally based and when completed constitute credits towards a qualification registered on the NQF.		Access	<i>course designed around building credits, then yes. The two are technically mutually exclusive, although it possible that a hybrid model may exist, but this would then be a EMPP-type course on its own."</i>
E				EMPP LEARNING OUTCOMES
18.	The EMPP curriculum should contain more EMC specific outcomes.	EMPP learning outcomes	Foundational knowledge EMC programme content EMC links and examples to support learning EMC learning outcomes Foundational knowledge Focus of the EMPP EMPP outcomes	<i>"Whilst we can use assessment opportunities that integrates the foundational level of knowledge and skills such mathematics, and let's say academic writing etc. these cannot entirely be aligned to healthcare treatments per se. We can teach the mathematical concepts of conversions such as grams to mg, and explain dilution, but we cannot teach them the actual drug/medication (EMC / healthcare knowledge). These will be taught on the EMC programme. Same with academic writing, we can teach them the basic concepts of how to write coherently and how to paraphrase, but we cannot assess any healthcare matters discussed or mentioned in let's say a patient report document, for reasons that- that was not the intended purpose of the assessment, since students are not taught about for example taking of vital signs or doing a patient assessment and documenting their findings (if that is what is needed to write in the patient report document). The EMPP provides the basic knowledge and skills of how to approach it as a starting point whereas the EMC learning outcomes would be looking at it holistically i.e. writing coherently and correctly documenting vital signs and other clinical findings, same with drug calculations, i.e. correctly selecting the appropriate drug/ medication, calculating the dosage and the actual administration of that drug, reassessment of the patient and the continuation of the drug/ medication as applicable."</i>

				<p><i>"EMPP curriculum should only focus on improving symbols for entry into a higher education institution and programme."</i></p> <p><i>"This should be an introductory programme to higher education and focused on generic skill development which will aid academic pathway."</i></p> <p><i>"Perhaps I am the only one who feels this way, but it would appear as if there is a theme here that students should be taught course content whilst completing a course aimed at access. I fail to understand the logic behind this and would question the educational motivation for teaching content from a course for which access is being sought. That said, unless there is a concern for pass rates of the actual course and that the EMPP is being used as a preparatory system with the aim of improving pass marks once students access the course?"</i></p> <p><i>"Perhaps the curriculum should include EMC related outcomes and activities, but these may not necessarily be specific to EMC EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC specific content will be covered in the EMC programmes."</i></p> <p><i>"I see the EMPP programme preparing the student to engage with HEI teaching, learning and assessment. I don't see any EMC content being addressed on this programme. This would be reserved for the HCert, Diploma or Degree."</i></p>
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5.7 DISCUSSION

As 11 participants indicated, the EMPP learning outcomes should go beyond subject knowledge and reach the promotion of deeper-level learning competencies. As McMahon (2005:38), emphasises, learning outcomes contain “domains of ‘knowledge and understanding’, ‘key skills’, cognitive skills and subject-specific skills” One participant stated the following:

“...not sure if the level of this course (NQF) would allow for deeper thinking”. One other participant asked: “Would these outcomes not be embedded in the course that the student is hoping to access?”

One participant made the following comment:

“...this would depend on the core outcomes of the EMPP. If it is a course designed to facilitate access, then no, if it is a course designed around building credits, then yes. The two are technically mutually exclusive, although it [is] possible that a hybrid model may exist, but this would then be an EMPP-type course on its own.”

As one participant indicated, the EMPP curriculum should include EMC-related outcomes and activities, but these may not necessarily be specific to EMC (cf. 2.2.1.3 & 4.3.2). Interestingly, 75% of the participants indicated that the EMPP curriculum should not contain more EMC specific outcomes. One participant stated:

“I see the EMPP programme preparing the student to engage with HEI teaching, learning, and assessment. I do not see any EMC content being addressed on this programme. This would be reserved for the HCert, Diploma or Degree. Furthermore, the EMPP should not act as an RPL programme, but merely as a preparatory course for higher education.”

In my opinion, and as previously mentioned (cf. 4.6), the EMPP should not include any medical-related or medical skills, as this would need to be registered by the HPCSA. However, I believe that the EMPP curriculum should be aligned with EMC education in the sense of using related examples and explanations to explain certain concepts to the students. Thus, making the subject matter of the EMPP interesting to the students and allowing the student to relate to the concepts, for example, mathematics and its role in emergency medical care. One of the participants expressed the following concern,

“Perhaps I am the only one who feels this way, but it would appear as if there is a theme here that students should be taught course content whilst completing a course aimed at access. I fail to understand the logic behind this and would question the educational motivation for teaching content from a course for which access is being sought. That said,

unless there is a concern for pass rates of the actual course and that the EMPP is being used as a preparatory system with the aim of improving pass marks once students access the course?"

In comparison, one of the other participants mentioned that the EMPP could include EMC related outcomes and activities. I do agree but believe that medical skills and EMC programme course content should not be taught on the EMPP. The use of examples to clarify and explain mathematical and physics concepts could benefit the students. One of the participants further mentioned that the EMPP should focus on bridging the gap identified from the entry requirements of EMC. Moreover, EMC-specific content will be covered in the EMC programmes.

"Perhaps the curriculum should include EMC related outcomes and activities, but these may not necessarily be specific to EMC EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC specific content will be covered in the EMC programmes."

According to CHE (2016:13), facilitation methods should be those that promote active learning; allow for feedback to be provided to participants regarding their progress; facilitate participants' understanding of the relationships between the concepts presented and their application in real life and speed up participants' progression from simple to more complex levels of development. All the participants (n=16) agreed that the successful planning and delivery of the EMPP are only possible when the desired learning outcomes are transparent and well formulated. As mentioned by Gravett & Geysler (2004:94), well-formulated learning outcomes should be based on:

- a) The students' specific goals must be important;
- b) The students' specific goals must be measurable; and
- c) The output should meet the program's quality standards

In addition, a well-written learning outcome will focus on how the student will apply their new knowledge in a real-world context, rather than on a student to recite information (Valamis 2019:online). As seen in Table 5.19, intended learning outcomes should clearly describe the knowledge, skills, and competencies students should obtain from learning (cf. 2.2.1.5). Furthermore, the learning outcomes should be arranged in a recognisable, logical sequence and describe measurable outcomes. Also of importance is that the set outcomes must be aligned with the level descriptors and the ELOs, as this is essential to teaching and

learning. Creating clear, actionable learning outcomes is important for creating training programmes in organisations. When developing these programmes, both management and instructors need to be clear about what students should understand after completing their learning path.

The participants indicated that learning outcomes should provide applied competence, a basis for further learning, and go beyond subject knowledge, promoting deeper-level learning competencies. Moreover, the learning outcomes should also be arranged in a recognisable and logical sequence from entry levels to exit levels, so students would be able to gauge their progress towards achieving them in the process of learning. According to DHET (2013), Scott (2011), and SAQA (2009), learning outcomes also guide students on what they are expected to be able to do in terms of knowledge, skills and attitudes after completing the programme or parts of it. The participants also indicated that the learning outcomes and impacts should be the cornerstones of sound SLPs. Noteworthy is the agreement from all the participants (n=16) that adequate physical resources consistent with the intended learning outcomes of the EMPP, for example, libraries, should be available to the students. As mentioned in Chapter 4, section 4.4.3.1, the CUT has sufficient library resources available to the students.

The participants indicated that students should be provided with timely, constructive, and fair feedback on their progress. As Geyser (2004:101) emphasised, a major feature of continuous assessment is the feedback from each assessment that informs the facilitator how to adapt his/her teaching strategy to provide quality and effective assessments to students.

5.7.1 Emergency Medical Care Preparatory Programme credits and notional hours

In this section, the EMPP credits and notional hours were investigated. As seen in Table 5.10, eight statements were made, and consensus was reached on six out of eight statements (75%). Stability was reached on two out of eight statements after Round 2 (25%).

Table 5.10: EMPP Credits and notional learning hours

SECTION F: EMPP CREDITS AND NOTIONAL LEARNING HOURS					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
F1.	The EMPP modules should provide the student with a clear breakdown of the total notional hours.	93.8%		6.3%	Consensus R1
F2.	The EMPP should be a credit-bearing short learning programme.	75%		25%	Consensus R1
F3.	The EMPP should be presented at an NQF level 5.	62.5%	6.3%	31.3%	Stability R2
F4.	All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.	100%			Consensus R1
F5.	Consideration should be given to the level at which the learning is being offered.	100%			Consensus R1
F6.	Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.	81.3%	6.3%	12.5%	Consensus R1
F7.	The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF.	56.3%	6.3%	37.5%	Stability R2
F8.	The breakdown of the time allocation on each EMPP module should be clearly defined.	100%			Consensus R1

Table 5.11 represents the participants' opinions and statements regarding the EMPP credits and notional hours.

Table 5.11: EMPP Credits and notional hours: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
F				EMPP CREDITS AND NOTIONAL HOURS
2.	The EMPP should be a credit-bearing short learning programme.	EMPP credits and notional hours	Credit bearing Non-credit bearing Foundational knowledge EMPP learning outcomes NQF level	<p><i>"EMPP should not offer credits. It is simply a preparatory course."</i></p> <p><i>"It appears the purpose of the EMPP is to partially help build credits, but it also equips the students with foundational knowledge and skills necessary for first time success once on an EMC programme. I do not think the learning outcomes of the EMPP would necessarily constitute credits toward a qualification, as only foundational knowledge is taught."</i></p> <p><i>"Credit-bearing course will benefit the students, and it makes it easier for them to access university qualification."</i></p> <p><i>"EMPP should not offer credits. It is simply a preparatory course."</i></p> <p><i>"...is a SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?"</i></p>
F				EMPP CREDITS AND NOTIONAL HOURS
3.	The EMPP should be presented at an NQF Level 5.	EMPP credits and notional hours	NQF level of the EMPP Access EMPP notional hours Independent short learning programme Technology Generic qualification APS Occupation orientated	<p><i>"Should be presented on NQF 4."</i></p> <p><i>"Why would the EMPP be presented at an NQF level 5 when it aims to plug the gaps in the fourth tier of the NQF? this would also open up the debate about completing an NQF level 5 qualification to access a NQF level 5 qualification. I understand that if one of the aims may be to build credits, but then how would the course in its entirety be registered as an NQF level five qualification with the relevant notional hours etc and how would these integrate into the qualifications for which access is being sought?"</i></p>

				<p><i>"This should be offered as an independent SLP. The level should be offered as an NQF4 programme, as this is only to improve symbols and prepare the candidate for higher education with generic skills, how to learn, basic technologies, etc. This is not an EMC specific qualification. Resources available to the learner need to be technology based, otherwise we are not advancing with times. Consultation/guidance as a physical resource is extremely important to the calibre of learner expected on such a programme."</i></p> <p><i>"Unable to answer as no insight to course, but a programme is needed to articulate into higher education."</i></p> <p><i>"The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested."</i></p> <p><i>"The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested."</i></p> <p><i>"...this should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested."</i></p> <p><i>"...the EMPP should not be presented at NQF 5. NQF 4 may be more appropriate should the course be developed to gain entrance to ECA."</i></p> <p><i>"...whole qualification, and therefore don't feel that unit standards apply."</i></p> <p><i>"...is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores."</i></p>
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				<p><i>"NQF 4 may be more appropriate as at that level many minimum entry criteria to EMC higher education are already lacking. NQF 5 may be too high and can be saved for ECA."</i></p> <p><i>"Majority of candidates would partake in such a course due to the failure or non-success of an NQF4 qualification (matric)."</i></p>
F				EMPP CREDITS AND NOTIONAL HOURS
7.	The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF.	EMPP credits and notional hours	EMPP NQF level Credits Occupation Orientated APS Entry requirements EMC programme content	<p><i>"This relates to my previous comment related to the NQF level of the EMPP. If it is a SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?"</i></p> <p><i>"This is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores."</i></p> <p><i>"EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC specific content will be covered in the EMC programmes."</i></p>

5.8 DISCUSSION

According to 15 participants, the EMPP should be a credit-bearing short learning programme (SLP). In addition, two participants mentioned the EMPP should be occupationally based and, when completed, constitute credits towards a qualification registered on the NQF, that the EMPP

"...is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores." One participant mentioned that the "EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC-specific content will be covered in the EMC programmes".

One participant mentioned that the EMPP should not offer credits and stated it is simply a preparatory course (cf. 2.2.1.4). As mentioned in section 2.3.9, short learning programmes such as the EMPP should not assign attributes and other unique properties of the HEQSF, such as NQF levels and credits, to learning programmes offered outside the framework of the HEQSF (CHE 2016:13). The participant further mentioned:

"I do not think the learning outcomes of the EMPP would necessarily constitute credits toward a qualification, as only foundational knowledge is taught."

According to SAQA (2004:5), a SLP is defined as a course with a credit value of fewer than 120 credits, which is considered equivalent to a year of full-time study and is not considered a whole qualification. As one participant alluded to, the EMPP is not a whole qualification, and therefore, unit standards would not apply. The CHE (2016:5) further mentions that SLP should be (i), planned and designed following the requirements and expectations of participants, employers, sponsors, and, where relevant, professional associations (ii) adhere to an institution's vision, purpose, goals, core competencies, and resources, and have a clearly stated teaching and learning philosophy that informs the design and development of SLP, (iii) The intended learning outcomes and potential effect of the SLP should be explicitly stated in writing during the design and development phases. In my opinion, the EMPP should offer students access to opportunities for learning that lead to nationally recognised unit standards and certifications and provide occupationally oriented education (SAQA 2004:21).

In comparison, one of the other participants stated the following:

"Credit-bearing course will benefit the students, and it makes it easier for them to access university qualification."

The level at which the EMPP should be presented brought about some discussion. As one participant mentioned:

"...why would the EMPP be presented at an NQF level 5 when it aims to plug the gaps in the fourth tier of the NQF? This would also open up the debate about completing an NQF level 5 qualification to access a NQF level 5 qualification. I understand that if one of the aims may be to build credits, but then how would the course in its entirety be registered as an NQF level five qualification with the relevant notional hours, etc. and how would these integrate into the qualifications for which access is being sought?"

Moreover, one other participant alluded that the EMPP should be offered as an independent SLP. I believe that this could be a viable option for a programme such as the EMPP. In my opinion, the EMPP should be registered as a SLP, which will provide in-service EMC personnel with the necessary foundation to succeed with their HE studies. The general feeling was that the EMPP should be offered at an NQF Level 4, as seen from the following statements:

"The level should be offered as an NQF4 programme, as this is only to improve symbols and prepare the candidate for higher education with generic skills, how to learn, basic technologies, etc. This is not an EMC specific qualification. Resources available to the learner need to be technology based, otherwise we are not advancing with times. Consultation/guidance as a physical resource is extremely important to the calibre of learner expected on such a programme."

"The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested."

"...the EMPP should not be presented at NQF 5. NQF 4 may be more appropriate should the course be developed to gain entrance to ECA."

"Majority of candidates would partake in such a course due to the failure or non-success of an NQF4 qualification (matric)."

"NQF 4 may be more appropriate as at that level many minimum entry criteria to EMC higher education are already lacking. NQF 5 may be too high and can be saved for ECA."

One of the participants mentioned that the EMPP should be presented at an NQF level 4. NQF level 4, would mean that the EMPP would not be offered at the HE level. I believe that the EMPP should be developed as a university SLP.

5.8.1 Emergency Medical Care Preparatory Programme learning facilitation

In this section, the EMPP learning facilitation was investigated. As seen in Table 5.12, 29 statements were made. Consensus was reached on 28 out of 29 statements (96%), and one of the statements obtained stability in Round 2.

Table 5.12: EMPP learning facilitation

SECTION G: EMPP LEARNING FACILITATION					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
G1.	Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme.	100%			Consensus R1
G2.	A mechanism should be in place to ensure the appropriateness of teaching and learning methods.	100%			Consensus R1
G3.	Lecturers should continuously upgrade teaching and learning methods on the EMPP.	100%			Consensus R1
G4.	The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.	93.8%		6.3%	Consensus R1
G5.	Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology.	100%			Consensus R1
G6.	Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life.	100%			Consensus R1
G7.	Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results.	100%			Consensus R1
G8.	Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes.	100%			Consensus R1
G9.	A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience.	100%			Consensus R1

G10.	The student should have a clear understanding of how the lesson will be facilitated.	93.3%	6.7%		Consensus R1
G11.	EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success	100%			Consensus R1
G12.	Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time.	100%			Consensus R1
G13.	EMPP learning material should be focused on EMC.	18.7%	6.3%	75%	Consensus R2
G14.	EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.	100%			Consensus R1
G15.	EMPP learning guides should be in a standard format for all modules.	93.8%	6.3%		Consensus R1
G16.	EMPP learning guides should be consistent and specific with regards to student support initiatives.	100%			Consensus R1
G17.	The EMPP learning guides should include a descriptive work scheme descriptive providing the student with clear guidelines on what to expect from the module.	100%			Consensus R1
G18.	The learning guides should provide a clear link where the student will find the exit level outcomes.	93.8%	6.3%		Consensus R1
G19.	Lesson planning plays a vital role in the successful planning of a module/subject.	100%			Consensus R1
G20.	Thorough lesson planning should be consistently based on the learner's needs.	93.8%		6.3%	Consensus R1
G21.	Financial support plays a role in the success of students.	84.6%	15.4%		Consensus R1
G22.	Student psychological support services are available and accessible.	100%			Consensus R1
G23.	Additional student academic support is offered where necessary.	100%			Consensus R1
G24.	There should be continuous guidance available to students with regards to the use of resources, e.g. online resources Blackboard.	100%			Consensus R1
G25.	Academic staff should be trained to develop learning materials.	100%			Consensus R1
G26.	EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment.	68.8%		31.3%	Stability R2
G27.	The EMPP student's existing knowledge should be explored.	100%			Consensus R1

G28.	The individual student's attributes, preferences and needs should be accommodated.	81.3%	12.5%		Consensus R1
G29.	The teaching and learning strategy should be appropriate for the institutional type as reflected in its mode of delivery and composition.	100%			Consensus R1

The participants' free-text comments concerning the EMPP learning facilitation are shown in Table 5.13.

Table 5.13: EMPP Learning facilitation: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
G				EMPP LEARNING FACILITATION
4.	EMPP learning facilitation	The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.	Types of learning	"What about passive learning? and the other types of learning?"
G				EMPP LEARNING FACILITATION
13.	EMPP learning facilitation	EMPP learning material should be focused on EMC.	EMPP outcomes EMC links as examples to support learning Generic qualification Financial support	"...this relates to my comments around what the core outcomes for the EMPP are. If it is access, credit building or both- this is contextual." "EMC links may be brought in at times, but I do not see EMC being a focus on the EMPP." "Should be more generic." "What about some form of management, or introduction thereof?"
G				EMPP LEARNING FACILITATION
21.	Financial support plays a role in the success of students.		Financial support	"...the issue of financial support is key especially for individuals who are having family, who have debts to pay. the issue of financial support will help take the burden of sharing the money for two households as it will assist them to be able to focus purely on academics, as a result it will help the mental state of the student in the EMPP course."
G				EMPP LEARNING FACILITATION

26.	EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment.	EMPP learning facilitation	Working environment of the student EMPP outcomes Improving admission requirements	<p><i>"Technically the student's working environment will only be apparent once they register for the qualification. Again, contextual within the core outcomes for the EMPP."</i></p> <p><i>"The EMPP should focus purely on improving the acceptance criteria of the learner."</i></p>
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5.9 DISCUSSION

The participants (n=16) indicated that students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme. Furthermore, all participants felt that lecturers should continuously upgrade teaching and learning methods on the EMPP. As (O'Toole & Essex 2012), emphasises, facilitators must possess certain competencies that support adult learners learning. In addition, facilitators must have facilitation experience and subject knowledge to facilitate adult learning effectively. Education is about having a genuine interest in assisting adults in understanding and being present when "light bulb moments" occur (Schmidt, 2013). Moreover, facilitators must be more adaptable and responsive to adult learners' needs (Schmidt, 2013).

The participants (n=15) indicated that the most preferred teaching methods in the delivery of the EMPP should promote active learning (cf. 4.3.5). Although consensus was achieved amongst the participants that the EMPP learning material should not be focused on EMC, one of the participants indicated that the EMC links may be brought in at times, but the focus of the EMPP should not be on EMC. In addition, the EMPP should be generically focused (n=1). Additionally, one participant asked the following question

"What about some form of management, or introduction thereof?"

The EMPP should be focused on foundational knowledge, providing management content I believe is outside of the scope of the EMPP. I do, however, believe that EMC personnel could benefit from formal management programmes. The participants reported that financial support plays a role in students' success. Likewise, a participant mentioned that financial support is vital, especially for an individual with financial difficulties and mentioned that financial support would lighten the financial burden and assist the student to focus purely on academics. As a result, it will help the student's mental state:

"...the issue of financial support is key especially for individuals who are having family, who have debts to pay. the issue of financial support will help take the burden of sharing the money for two households as it will assist them to be able to focus purely on academics, as a result it will help the mental state of the student in the EMPP course."

One participant mentioned that technically the student's working environment would only be apparent once they register for the qualification. Regarding the statement about if

students' working environment should be relevant, the participant further stated that it is contextual within the core outcomes for the EMPP:

"The EMPP should focus purely on improving the acceptance criteria of the learner".

I am not in agreement and advise that merely assisting students to obtain access could set the candidate up for failure.

5.9.1 Emergency Medical Care Preparatory Programme assessment

In this section, the EMPP assessment was investigated. As seen in Table 5.14, 41 statements were made. Consensus was reached on 41 out of 41 statements in this section (100%).

Table 5.14: EMPP assessment

SECTION H: EMPP ASSESSMENT					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
H1.	Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies.	100%			Consensus R1
H2.	Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum.	100%			Consensus R1
H3.	Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP.	100%			Consensus R1
H4.	Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks.	100%			Consensus R1
H5.	Student progress should be monitored.	100%			Consensus R1
H6.	For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures.	93.8%	6.3%		Consensus R1
H7.	The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics.	93.8%	6.3%		Consensus R1
H8.	Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy.	93.8%	6.3%		Consensus R1
H9.	Measures should be taken to ensure the reliability, rigour and security of the assessment	100%			Consensus R1

	system. Assessment results are recorded securely and reliably.				
H10.	Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented.	100%			Consensus R1
H11.	Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements.	93.8%	6.3%		Consensus R1
H12.	There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously.	100%			Consensus R1
H13.	Provision should be made for the development of staff competence in assessment.	100%			Consensus R1
H14.	Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students.	93.8%	6.3%		Consensus R1
H15.	Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level.	100%			Consensus R1
H16.	Students' assessment records should be reliable and secure.	100%			Consensus R1
H17.	Internal assessment of student learning achievements by academic staff should be important.	100%			Consensus R1
H18.	Monitoring student progress in the course of the programme should be important.	100%			Consensus R1
H19.	Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanours should be important.	100%			Consensus R1
H20.	Development of staff competence in assessment should be important.	100%			Consensus R1
H21.	An assessor should know about current changes in higher education.	100%			Consensus R1
H22.	Assessors should be formally trained in the principles of assessment.	93.8%	6.3%		Consensus R1
H23.	Assessment should be a learning experience for both students and assessors.	93.8%		6.3%	Consensus R1
H24.	Assessment should identify areas where adjustments in teaching and learning could be made.	100%			Consensus R1
H25.	Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP.	100%			Consensus R1

H26.	The assessment methods should include a wide range of approaches.	100%			Consensus R1
H27.	The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module.	100%			Consensus R1
H28.	The EMPP should make use a variety of teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc.	100%			Consensus R1
H29.	Clear stated outcomes must be formulated as part of the construction of assessment.	100%			Consensus R1
H30.	Assessment should be integrated and must therefore cover all aspects of the EMPP.	93.8%	6.3%		Consensus R1
H31.	Students must have sufficient opportunity to prepare for assessments.	100%			Consensus R1
H32.	Students should know how the weight of assessments is determined.	100%			Consensus R1
H33.	The learning content that will be evaluated in the assessment should be explained to the students.	93.8%		6.3%	Consensus R1
H34.	Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment.	100%			Consensus R1
H35.	Memorandums should form part of all assessments.	100%			Consensus R1
H36.	Assessment should be moderated by appropriately trained moderators with specific expertise in the learning area.	100%			Consensus R1
H37.	The pre-defined assessment purposes should determine the assessment methods.	100%			Consensus R1
H38.	Assessment criteria must be developed and used during the assessment.	100%			Consensus R1
H39.	Students should be informed about the goal and importance of feedback.	100%			Consensus R1
H40.	A clear process should be available to recognise the at-risk student.	100%			Consensus R1
H41.	Selected assessments measure the course learning objectives.	93.8%	6.7%		Consensus R1

Table 5.15 represents the participants' opinions and statements regarding EMPP assessment.

Table 5.15: EMPP assessment: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
H				EMPP ASSESSMENT
23.	EMPP assessment	Assessment should be a learning experience for both students and assessors.	Lecturer qualifications and training Quality of assessment Quality assurance skills	<i>"The lecturers should receive training prior to the setting of an assessment. I think receiving training whilst setting an assessment may impact the quality of the assessment."</i>
33.		The learning content that will be evaluated in the assessment should be explained to the students.	Continuous assessment Moderation of assessment Purpose of the EMPP	<p><i>"The word "Scope" when it comes to assessments has become a dirty word in HEI. I see students being informed of what study units the test will cover, and the total mark allocation, etc but I do not see there being any more detail than this."</i></p> <p><i>"CE should be adopted with such a programme. Less emphasis placed on grading, but more placed on evidence of learning and applied knowledge. Moderation in the EMPP should not focus purely on assessment but can be broadened to programme moderation. This continuous moderation process will build on formative assessment periods to improve the overall feedback and response of the learners. The EMPP must not focus purely on preparing the learner for any specific medical programme or qualification, but rather focus on improving acceptance possibilities within a higher education programme."</i></p> <p><i>"...evidence of learning and applied knowledge and lesson grading."</i></p>

5.10 DISCUSSION

The participants did not experience problems regarding any statements in this section, and the consensus was achieved on all questions. All the participants (n=16) agreed that assessment should be a learning experience for both students and assessors (cf. 2.2.2). Furthermore, all the participants (n=16) felt that the learning content evaluated in the assessment should be explained to the students.

All the participants (n=16), indicated that assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies. Wan (2009) also believes that assessment outcomes should be stated explicitly and in advance, together with specified conditions for reaching the assessment outcomes. Furthermore, EMPP facilitators should ensure that students understand the assessment criteria and assessment outcomes on the commencement of the module. As discussed in Chapter 4, section 4.4.2.1, the mathematics learning guide does not provide the student with clear guidelines on what to expect from the module (F1). The fact that the students are not explicitly informed about the outcomes of the module leaves a gap for understanding the relevance of the module.

As mentioned by all of the participants (n=16), assessment criteria should be aligned with the learning outcomes of the EMPP and at an appropriate standard. In addition, the participants indicated that learning activities and the required assessment performances should align with learning outcomes at the programme and modular level. Constructive alignment is intended to enhance the quality of teaching and learning and hinges on defining the outcomes students are intended to achieve (Robnagelld *et al.* 2021:2). I believe that constructive alignment is essential to efficiently link teaching, learning, and evaluation on the EMPP. EMPP students should be able to apply learning activities that foster their knowledge, behaviour, and skills and assess its outcomes.

An integrated assessment provides the means to present evidence of an individual's applied competence in terms of that individual's knowledge, which should reflect practical, reflexive and fundamental competencies (SAQA, 2005:7). One of the participants mentioned that more emphasis should be placed on

"...evidence of learning and applied knowledge and lesson grading".

According to the participants (n=16), student progress should be monitored. Gravette and Geyser (2004), McMillan (2011:61), and SAQA (2005:7) suggest that assessment is the process of gathering evidence on an individual's performance, which will, in turn, provide information on the level of competence against assessment criteria.

Moreover, assessment should be moderated by appropriately trained moderators with specific expertise in the learning area. There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. As inferred from the criteria mentioned by Dent and Hardon and agreed upon by Brits *et al.* (2020:6), credible assessments satisfy the requirements for fairness, validity, dependability, and practicability. Furthermore, WNCP (2011:4) agree that it is important to keep the four basic principles of assessment in mind when preparing for the classroom: reliability, validity, fairness, and practicability. Similarly, to Brits *et al.*, Dent and Harden (2017:254), draw attention to the following criteria for good assessments:

- a) Validity or coherence – There should be coherent evidence that supports the use of the results of an assessment for a particular purpose;
- b) Reproducibility or consistency – The assessment's results would be the same if conducted twice in similar circumstances;
- c) Equivalence – When conducted across institutions the same evaluation produces comparable results or judgments;
- d) Feasibility – The assessment is reasonable, feasible, and practical considering the given circumstances. Educational impact – The assessment encourages those who take it to prepare in an educationally beneficial manner;
- e) Catalytic effect – The assessment process generates, enriches, and promotes education; and
- f) Acceptability – The assessment method and findings are deemed credible by stakeholders

The participants reported that feedback should be seen as an important aspect of the assessment process on the EMPP. As Wang (2009) mentioned, feedback should guide the students' learning experience. In my opinion, student feedback should be seen as part of the learning process, as without feedback, the student will not be able know if the concept and outcomes of the module are reached. The participants agree that students should be informed about the goal and importance of feedback (n-16). In addition, the learning content that will be evaluated in the assessment should also be explained to the students

(n=16). Dreyer (2008:3) suggested that clear guidelines as to why assessment takes place will enable students to control their learning and provide valid information regarding their progress and achievements. Assessment can provide the necessary information on:

- a) The effectiveness of instruction; and
- b) If necessary, ways to modify and improve approaches towards assessment.

The participants also indicated that assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum. All the participants agreed upon the importance of staff development (n=16). As one of the participants mentioned, an assessor should know about current changes in higher education. Moreover, assessors should be formally trained in the principles of assessment. In my opinion, EMC lecturers should have basic teaching qualifications. For example, Campbell (2021) mentioned that this could benefit the profession. As noted by O'Toole & Essex (2012) and Human (2021), you need to have an introductory teaching qualification to teach, for example, a post-graduate certificate in education. This disparity in qualifications and preparation for the role prevents EMC education from being recognised as a legitimate vocation (O'Toole & Essex, 2012), as it appears that anyone willing to teach EMC can be employed. The importance of lecturers receiving training before setting assessments was also mentioned, as this could have a significant influence on quality:

"The lecturers should receive training prior to the setting of an assessment. I think receiving training whilst setting an assessment may impact the quality of the assessment." One participant indicated that "...the word "Scope" when it comes to assessments has become a dirty word in HEI. I see students being informed of what study units the test will cover, and the total mark allocation, etc. but I don't see there being any more detail than this."

All the participants (n=16) agreed that the procedures should be in place to ensure an assessment's reliability, validity, and trustworthiness. SAQA (2014:8) defines validity during the assessment process as measuring what is to be measured in terms of knowledge, understanding subject content, proficiency, information, behaviours. Therefore, assessment procedures, methods and instruments are obliged to assess that which has been identified for assessment.

The participants (n=16) indicated that it is important that the progress of EMPP students is continuously monitored. The monitoring of student progress is one of the assessments requirements stipulated by the CHE (2004:7). Moreover, the EMPP should also ensure that

various teaching and assessment techniques, e.g., lectures, journal reviews, seminar presentations, examinations, are used on the EMPP (cf. 2.3). As mentioned in Chapter 4, section 4.4.2.1, I discovered that some of the EMPP learning guides do not indicate what assessment methods will be used (cf. 2.3.13). In my opinion, assessment outcomes should be explained to the student, as this will assist the student in preparing and obtaining the outcomes of the module. In addition, and vitally important, learning outcomes must be formulated with the assessment in mind (n=16). In other words, the learning outcomes should be validated by the assessment methods (n=16). Validation can be seen as a process to establish the kind of inferences that are warranted based on assessment outcomes and those that are not (Haynes and McDowell 2008:17-28). As indicated by the participants, pre-defined assessment purposes should determine the assessment methods. This view is supported by Vandeyar and Killen (2010:102), stating that before facilitators can assess students, the purpose of the assessment must be clear and unambiguous since well-planned assessment will contribute to fair and appropriate assessment practices. Furthermore, assessment should be planned in cohesion with the purpose of the curriculum to be assessed (cf. 2.3.13).

One of the participants indicated that continuous assessment should be implemented on the EMPP,

"CE should be adopted with such a programme. Less emphasis placed on grading, but more placed on evidence of learning and applied knowledge. Moderation in the EMPP should not focus purely on assessment but can be broadened to programme moderation. This continuous moderation process will build on formative assessment periods to improve the overall feedback and response of the learners. The EMPP must not focus purely on preparing the learner for any specific medical programme or qualification, but rather focus on improving acceptance possibilities within a higher education programme."

Van Zyl and le Roux (2021:3) highlight that CA may also assist in mitigating anxiety associated with only conducting final summative examinations. Additionally, Cook, Butler, and Jordan (2013) argue that when final assessments are predominantly summative, students are prone to cram their studies before the assessment (Lovatt, Finlayson, and James 2007), culminating in superficial learning. I also believe that continuous assessment could potentially remove the fear of assessment by allowing the student to progress gradually and not be stressed out on the day of a final assessment and potentially failing that assessment. As mentioned by Geyser (2004:101), a significant feature of continuous assessment is the feedback from each assessment that informs the facilitator how to adapt their teaching strategy to provide quality and effective assessments to students.

5.10.1 Emergency Medical Care Preparatory Programme physical preparedness

In this section, the EMPP physical preparedness was discussed. As seen in Table 5.16, eight statements were made. Consensus was reached on four out of eight statements (50%) in Round 1 and one out of eight statements (12,5%) in Round 2. Stability was reached on three of the statements in Round 2.

Table 5.16: EMPP physical preparedness

SECTION I: EMPP PHYSICAL PREPAREDNESS					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
I1.	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	87.5%		12.5%	Consensus R1
I2.	Physical preparedness should be a formal module on the EMPP.	18.8%		81.2%	Consensus R2
I3.	The EMPP Physical Preparedness module should have formal assessment criteria.	62.5%	6.3%	31.3%	Stability R2
I4.	Being physically healthy is essential.	93.6%	6.3%		Consensus R1
I5.	EMC practitioners need to learn to swim.	81.3%		18.8%	Consensus R1
I6.	Learning to swim should be a formal module on the EMPP.	31.3%	6.3%	62.5%	Stability R2
I7.	Learning to swim should have formal assessment criteria.	43.8%	31.3%	25%	Stability R2
I8.	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	93.8%		6.3%	Consensus R1

In Table 5.17, the participants' free-text comments regarding the EMPP's physical preparedness are shown.

Table 5.17: EMPP physical preparedness: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
I				
EMPP PHYSICAL PREPAREDNESS				
1.	EMPP physical preparedness	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	Physical preparedness Life skill Physical preparedness should be part of the EMPP as an informal programme Swimming should be part of the EMPP as an informal programme Focus on medical education and clinical reasoning	<p><i>"It should not be at all. Physical preparedness should be a life skill/characteristic. What is the role of higher education?"</i></p> <p><i>"Although physical preparedness is very important it should form part of the EMPP as an informal programme."</i></p> <p><i>"The topic of physical preparedness within any EMC programme is very controversial. Yes, pre-hospital practitioners should maintain some level of physical fitness, but being assessed on this level of fitness is not required. Using the ECA programme as an example; the programme has no formal education on any rescue elements but maintaining and passing physical fitness is still a requirement. The learners should be encouraged to live a positive and healthy lifestyle while enrolled in the programme, but the course credits dedicated to rescue subject course work and physical preparedness, that includes swimming, can much rather be used to include preparedness for medical education and enhance the clinical reasoning of these learners with the goal of professionalising the prehospital environment. This is not the function of such a programme. Physical preparedness is a personal journey. Swimming is a good life skill, not the job an academic programme."</i></p>
I				
EMPP PHYSICAL PREPAREDNESS				
2.	EMPP physical preparedness	Physical preparedness should be a formal module on the EMPP.	Non-credit bearing Physical preparedness is an important area to be addressed by the EMPP Should continuously monitor student progress	<p><i>"Should not be credit-bearing, should rather be a lifestyle."</i></p> <p><i>"If the institutional policies allow for it, Physical Prep should be a non-credit bearing module. The swim forms part of Physical Prep and should not be separated out of the module."</i></p>

			EMPP as an informal programme	<p><i>"This is an important area to address on the EMPP as it will improve the pass rate in 1st year of the HCert, Diploma or Degree as they would have already learnt to swim and work on the other areas of physical prep prior to entry into the EMC programme."</i></p> <p><i>"Physical preparedness is key for all EMS practitioners, but it cannot have credit-bearing as it may hinder progress of learners, and swimming is very key but it can never be made a failing criteria. Swimming is necessary as a life skill and it has no role in EMPP as there are life techniques being taught in its current form, therefore it should be taught to prepare the students for the courses in higher education."</i></p> <p><i>"The challenge with making physical preparedness credit-bearing is that it potentially disadvantages certain students. Unlike a subject like Anatomy, where all students are on a reasonably even footing from day one, a student who cannot swim can suffer significant disadvantage based on the fact that they could not swim on day one. Conversely, not allocating credits to the subject may mean that students underestimate its importance; the whole "If it is not for marks..." debacle. This ties in directly with 10.6 where learning to swim can be assessed and constitute a mark. This could be a single assessment at the end of the year with a Yes/No result. It is perhaps also important to acknowledge that there are other outcomes related to EMC education that can be achieved within physical preparedness interactions and that merely seeing it as an obstacle to progression (both by lecturers and students) diminishes its role within the wider qualifications and profession."</i></p>
I				EMPP PHYSICAL PREPAREDNESS
3.	EMPP physical	The EMPP Physical	Different backgrounds	<i>"I disagree because, whilst it can be assessed, it should</i>

	preparedness	Preparedness module should have formal assessment criteria.	Should not be assessed Swimming and physical preparedness should be one module	<i>not be compulsory to pass the fitness component in order to gain a certificate of completing the EMPP. as long as the student participates in the physical fitness module and there is constant improvement that is ok. as mentioned earlier, we cannot treat all people the same, we all come from different backgrounds, it should be the responsibility of the university where they do EMC to further their confidence and competence in the physical fitness components."</i>
I				EMPP PHYSICAL PREPAREDNESS
4.	EMPP physical preparedness	Being physically healthy is essential.	Should not be assessed EMPP as an informal programme Should not be the same as EMC modules with technical rescue outcomes Non-credit bearing Swimming and physical preparedness should be one module Physical preparedness and swimming outcomes do not need to be on the same level as EMC programmes	<i>"All physical activity must be taken as a form of fitness in a course which aims to keep students/learners fit and healthy, it should not be about assessment. Physical preparedness should have a criteria in rescue oriented courses where students will be required to use their strengths and energy. In the EMPP there is no need for a structured programme especially if students will be doing only ECA and Diploma where there is no intense rescue. Swimming can be made a criteria for the modules that will have technical rescue such as swift water rescue."</i> <i>"Physical preparedness should be an ongoing exercise without making it to carry any credits as they will not be reflecting on the certificate as is not on SAQA requirement for all EMC modules. "I don't see swimming as separate from one being physically prepared for the EMC programmes. So I see swimming forming part of the physical prep module which should be non-credit bearing."</i>
I				EMPP PHYSICAL PREPAREDNESS
7.	EMPP physical preparedness	Learning to swim should have formal assessment criteria.	Physical preparedness and swimming outcomes do not need to be on the same level as EMC programmes. Lack of intrinsic drive if not formally assessed	<i>"Assessment criteria for physical preparedness, including swimming, on EMPP does not need to be at the same level as that of EMC higher education, however, it is a critical component to introduce in the EMPP. "Swimming skills is a necessity in today's society. If not an assessable module, there will be no intrinsic drive."</i>

5.11 DISCUSSION

Although 87,5% of the participants indicated that physical preparedness plays a vital role in EMC education and should form part of the EMPP (cf. 2.2.6.2 & 4.3.7), 81.2% of the participants indicated physical preparedness should not be a formal module on the EMPP. In my opinion, physical preparedness should not have formal assessment criteria. As depicted by the participants (62,5%), physical preparedness should not have formal assessment criteria. As mentioned in the study by Muhlbauer *et al.* (2021), a scientifically validated assessment tool or criteria for physical preparedness does not exist. Without valid criteria to assess the physical preparedness level of the students, the question that we need to answer is how constructive are assessing physical preparedness and does it have a role to play on EMC programmes not presenting rescue modules. Without clear assessment guidelines, the assessment of the outcomes could be seen as being unfair.

As mentioned in Chapter 4, the HCert (cf. 2.4.2.2), does not include any rescue modules. With the lack of specific guidelines and criteria on physical fitness, students may be subject to unnecessary strict fitness regimes (cf. 2.4.4; 4.4.1; 5.10.1). The importance of being healthy is in no way disregarded, as shown by the agreement of 93.6% of the participants indicating that being healthy is important. In addition, 81.3% of the participants noted that learning to swim is also important. In my opinion, learning to swim should be seen as upskilling the individual but should not be an assessment or admission criteria to the EMPP, or in general, on EMC HE programmes. As indicated by one of the participants, physical preparedness should be seen as a life skill (n=1). Furthermore, the participant questioned the role of physical preparedness in HE. In Australia, physical preparedness and learning to swim does not form part of the curriculum of the EMC HE programmes (Campbell 2021). I believe that being physically fit and healthy should be important for EMC personnel and individuals in general. However, I believe physical preparedness and swimming should not be a barrier to widening access to EMC HE programmes, especially on EMC programmes with no rescue related modules or very basic content in the curriculum. Again, being healthy is important, as indicated by Muhlbauer *et al.* (2021).

One other participant indicated that although physical preparedness is vital, it should form part of the EMPP as an informal programme. In addition, according to another participant, physical preparedness within any EMC programme is very controversial. The participant further mentioned that although pre-hospital practitioners should maintain some level of physical fitness, physical preparedness does not need to be assessed at the level of the

EMPP. The participant made the following example:

"...the ECA programme as an example, the programme has no formal education on any rescue elements but maintaining and passing physical fitness is still a requirement. The learners should be encouraged to live a positive and healthy lifestyle while enrolled in the programme, but the course credits dedicated to rescue subject course work and physical preparedness, that includes swimming, can much rather be used to include preparedness for medical education and enhance the clinical reasoning of these learners with the goal of professionalising the prehospital environment. This is not the function of such a programme. Physical preparedness is a personal journey. Swimming is a good life skill, not the job an academic programme."

As indicated by one of the participants, students should be encouraged to live positive and healthy lifestyles, but indicate that rescue subjects, physical preparedness and swimming should not form part of the ECA. The participants mention that the focus should be on medical preparedness and clinical reasoning instead. As seen in Australia, the foundational subjects are part of the EMC programme (Campbell 2021). One of the participants reported that it is important to remember that making physical preparedness credit-bearing could be seen as exclusionary. As one of the other participants mentioned, the challenge with making physical preparedness credit-bearing is that it could potentially disadvantage certain students. The participant presented the following example:

"Unlike a subject like Anatomy, where all students are on a reasonably even footing from day one, a student who cannot swim can suffer significant disadvantage based on the fact that they could not swim on day one. Conversely, not allocating credits to the subject may mean that students underestimate its importance; the whole "If it is not for marks..." debacle. This ties in directly with 10.6 where learning to swim can be assessed and constitute a mark. This could be a single assessment at the end of the year with a Yes/No result. It is perhaps also important to acknowledge that there are other outcomes related to EMC education that can be achieved within physical preparedness interactions and that merely seeing it as an obstacle to progression (both by lecturers and students) diminishes its role within the wider qualifications and profession."

In my opinion, if physical preparedness is included in the curriculum of a programme such as the EMPP, or any other EMC programme, clear guidelines informing how the assessment criteria were formulated should be provided to the students. I believe that learning to swim and being physically healthy is important, but as facilitators, we need to be able to validate the assessment criteria when we are subjecting students to assessments. According to Wang (2009), assessments should be stated explicitly and in advance, together with specified conditions for reaching the learning outcomes. One participant mentioned that assessment criteria for physical preparedness, including swimming, on the EMPP does not need to be at the same level as EMC HE. However, it is a critical component to introduce in the EMPP.

"...swimming skills are a necessity".

In comparison, the participant also said that if it is not an *"assessable module"*, there will be no innate drive to swim:

"Swimming skills are a necessity in today's society. If not an assessable module, there will be no intrinsic drive."

Again, as mentioned, we need to validate why swimming and physical preparedness need to be assessed, even if it is not part of the curriculum of that particular programme. The importance of being physically fit is recognised but could be included as a student wellness programme. Having non-credit-bearing modules that keep students from obtaining qualifications are not good educational practices. In agreement, one of the participants mentioned that although physical preparedness is vital for all EMS practitioners, it cannot be credit-bearing as it may hinder students' progress (n=1). As mentioned in Chapter 4, section 4.4.1, an example of students passing all academic subjects but failing only physical preparedness could be seen as unfair, even more so on a programme not having any rescue related content as part of its curriculum. The participant further stated that although swimming is essential, it cannot be a failure criterion. One participant made the following statement:

"...swimming is necessary as a life skill and it has no role in EMPP as there are life techniques being taught in its current form, therefore it should be taught to prepare the students for the courses in higher education."

However, in my opinion, physical preparedness should not be an exclusion criterion for a programme such as the EMPP or any other EMC HE programme without specialised rescue content. I am further opinion that the rescue content on the Dip EMC does not validate intense physical preparedness and swimming requirements. As one participant mentioned, all physical activity must be taken as a form of fitness in a course that aims to keep students fit and healthy, and it should not be about assessment. The participants further mentioned that physical preparedness should have criteria in rescue-oriented courses where students must use their strengths and energy. The participant indicated that for the EMPP, there is no need for a structured programme, especially if students only do ECA and the Dip EMC where there is no intense rescue. Swimming can be made a criterion for the modules that have a technical rescue, such as swift water rescue. Physical preparedness should be an ongoing exercise without making it credit-bearing, as it will not reflect on the certificate because it is not on SAQA's requirement for all EMC modules.

One participant mentioned: *"I don't see swimming as separate from one being physically prepared for the EMC programmes. So, I see swimming forming part of the physical prep module which should be non-credit bearing."*

One other participant further stated that if the institutional policies allow for it, physical preparedness should be a non-credit-bearing module. The participant also stated that learning to swim should form part of physical preparation and should be included in the physical preparation module. The importance of physical preparedness is alluded to by one participant and mention that it is an important area to address on the EMPP. The participant further mentioned that being physically prepared will improve the pass rate in the first year of the HCert, diploma or degree, as they would have already learned to swim and worked on the other areas of physical preparedness before entering the EMC programme. As mentioned in Chapter 2, section 2.4.2, the ECA does not have any rescue related course content. Hence, it could be argued that there is no reason for candidates wishing to pursue the ECA programme to be exposed to intense levels of physical preparedness and swimming. Moreover, the Dip EMC does not have any water rescue related outcomes as part of the curriculum. We need to validate why physical preparedness and swimming are part of EMC qualifications and determine how to assist the candidate best.

In comparison, one of the participants stated that while it can be assessed, it should not be compulsory to pass the fitness component to gain an EMPP completion certificate. The participant further mentioned that the student should participate in the physical fitness module and be continuously monitored for improvement. In my opinion, physical preparedness and the role in EMC should be correctly aligned and validated. Further research might be needed to investigate the criteria for having a physical preparedness module and how effective the module is in reaching the intended outcomes.

One other participant mentioned that students are not all the same and come from different backgrounds. Furthermore, the participant indicated that it should be the university's responsibility where the student does the EMC programme to further their confidence and competence in physical preparedness.

In conclusion, little research is available on EMC personnel's physical preparedness and swimming assessment criteria. Moreover, the need to include physical preparedness and swimming on EMC programmes such as the ECA and Dip EMC should be investigated.

In this section, the EMPP physical preparedness was discussed. As seen in Table 5.16, eight statements were made. Consensus was reached on four out of eight statements (50%) in Round 1 and one out of eight statements (12,5%) in Round 2. Stability was reached on three of the statements in Round 2.

5.11.1 Emergency Medical Care Preparatory Programme generic skills and competencies

In this section, the EMPP generic skills and competencies were investigated. As seen in Table 5.18, six statements were set, and consensus was reached on three out of six statements (50%). Stability was reached on three out of six statements in Round 2 (50%).

Table 5.18: EMPP generic skills and competencies

SECTION J: EMPP GENERIC SKILLS AND COMPETENCIES					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
J1.	The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education.	81.3%		18.8%	Consensus R1
J2.	The student should have insight into quality assurance processes as practitioners.	56.3%	6.3%	37.5%	Stability R2
J3.	Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.	68.8%		31.3%	Stability R2
J4.	The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments.	86.7%		13.3%	Consensus R1
J5.	The Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes.	75%		25%	Consensus R1
J6.	The EMPP should include an introduction to patient report forms.	62.5%	6.3%	31.3%	Stability R2

The participants' comments on the EMPP generic skills and competencies are shown in Table 5.19.

Table 5.19: EMPP generic skills and competencies: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
J				EMPP GENERIC SKILLS AND COMPETENCIES
1.	EMPP generic skills and competencies	The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education.	Academic writing skills Writing skills Foundational knowledge	<p>"I disagree with the question because I only partly agree with it, I agree that it should equip them with referencing skills, and academic writing, but what is the definition of research skills? research to search for literature online definitely, but basic research to do a literature review requires more time, which would mean the programme would need to be extended?"</p> <p>"...focus should rather be on writing skills, and not specific to a patient report form."</p> <p>"...orientation and foundation laying, I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course."</p> <p>"I feel this programme to be more the orientation and foundation laying. I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course."</p>
J				EMPP GENERIC SKILLS AND COMPETENCIES
2.	EMPP generic skills and competencies	The student should have insight into quality assurance processes as practitioners.	Quality assurance skills	"Not sure if I am reading the question right - do you mean the same insight as practitioners - then no, I feel they are too junior for this."
J				EMPP GENERIC SKILLS AND COMPETENCIES
3.	EMPP generic skills and competencies	Basic drug calculations as a teaching and learning activity should be included within the EMPP Mathematics module.	EMC links as examples to support learning Teaching and learning aids Everyday applicability of the new skills Basic concepts of EMC	"I have agreed, based on my earlier comment, we teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e. administration of medication once they are on the EMC programme."

			<p>EMPP learning outcomes Foundational knowledge</p>	<p><i>"I agree that these should be included, but there should be caution exercised not to turn the mathematics module into a drug calculation module."</i></p> <p><i>"...the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs."</i></p> <p><i>"This is a practical manner in which to teach and aid learning... Not so much because it is a "drug calculation", but it is a practical example which is applicable to everyday life of majority of the candidates. Candidates need to understand the value of a taught skill to learn it in an effective manner."</i></p> <p><i>"...teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e. administration of medication once they are on the EMC programme."</i></p> <p><i>"...the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs.",</i></p> <p><i>"...the foundational mathematical principles of drug calculations should be appropriate. However, it should not go too far into, was the correct drug drawn up or dosage given as these would be appropriate for an EMC programme. The EMPP only provides the foundational knowledge and helps the student to finally see how participating in Mathematics will help him as an EMC professional one day. I don't think students should view an EMPP as merely a 'second attempt at mathematics' always wondering where the PIE equation fits into the profession. Instead, the student should look at the EMPP as a programme that will provide him/ her with the foundational knowledge to make</i></p>
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				<i>a success of his/ her EMC studies and a success of his/ her EMC career. Research has shown that once a student is able to understand how one module and its learning outcomes aligns to the professional abilities (knowledge and skills) they actually pay more attention to meeting those outcomes."</i>
J				EMPP GENERIC SKILLS AND COMPETENCIES
5.	EMPP generic skills and competencies	The Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes.	Bridging the gap APS	<p><i>"...the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes."</i></p> <p><i>"...the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes."</i></p>
J				EMPP GENERIC SKILLS AND COMPETENCIES
7.	EMPP generic skills and competencies	The EMPP should include an introduction to patient report forms.	Writing skills Focus of the EMPP	<i>"The focus should rather be on writing skills, and not specific to a patient report form."</i>

5.12 DISCUSSION

The development of skills and competencies of the EMPP students should result in them having the ability to demonstrate and contextualise the seven critical cross-field outcomes (cf. 2.2.1.2). According to SAQA, these outcomes direct all teaching and learning in all levels of education and training and all modules and courses (cf. 2.2.1.2).

One participant responded as follows:

"I disagree with the question because I only partly agree with it, I agree that it should equip them with referencing skills, and academic writing, but what is the definition of research skills? Research to search for literature online definitely, but basic research to do a literature review requires more time, which would mean the programme would need to be extended?"

Additionally, a participant mentioned that the

"...focus should rather be on writing skills, and not specific to a patient report form".

In my opinion, a link between the EMPP and the EMC programmes, such as the ECA and Dip EMC, should be established. The reason is that the EMPP should assist the in-service EMC personnel not meeting the HE admission criteria. The link should be foundational and not include any clinical skills. I agree with including writing skills as part of the EMPP curriculum. The link should use EMC-specific examples to explain mathematics or physics problems.

One participant stated that the EMPP candidates might be too junior to have insight into QA processes:

"...I feel they are too junior for this".

Most of the EMPP students are in-service personnel. In my opinion, the basic QA process should form part of the teaching of the EMPP.

As one participant mentioned, the EMPP should focus on

"...orientation and foundation laying, I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course."

Another participant explained that

"...the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs".

Likewise, another participant stated that the EMPP should teach the students basic concepts of drug calculations appropriate to the EMC discipline field but should not include administering the medication as this will be taught on EMC programmes. Agreeing, one other participant alluded that the foundational mathematical principles of drug calculations should be appropriate on the EMPP but cautioned that it should not go into too much detail, for example:

"...was the correct drug drawn up or dosage given as these would be appropriate for an EMC programme".

The EMPP should only focus on providing foundational knowledge and assisting the student in understanding how Mathematics plays a role in the EMC profession (cf. Table 5.19 & 4.3.8. The participant made the following statement:

"Research has shown that once a student is able to understand how one module and its learning outcomes aligns to the professional abilities (knowledge and skills) they actually pay more attention to meeting those outcomes."

A participant further mentioned that the Mathematics module assists with the skills needed to undertake drug calculations instead of drug calculations. According to the EMPP report (2018:1), it is proposed that drug calculations, the use of infusion pumps, and syringe drivers as a teaching and learning activity be included within the EMPP Mathematics module. Although I agree with including examples from EMC into the EMPP modules, I believe that infusion pumps and syringe drivers should not be part of the EMPP and be left for the EMC programme. The report further mentions that the Numeracy module will be closely aligned to mathematics, with more discipline scenarios included in the assessments. The EMPP report (2018) also notes that the Physical Sciences module will align with first-year EMC Physics and Chemistry learning outcomes. Five participants made the following comments regarding the Mathematics module, namely:

"I agree that these should be included, but there should be caution exercised not to turn the mathematics module into a drug calculation module."
"...the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs."
"This is a practical manner in which to teach and aid learning..."
"...teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field..."
"...the foundational mathematical principles of drug calculations should be appropriate..."

Twelve participants agreed that the Physical Sciences module should align with first-year EMC Physics and Chemistry learning outcomes. One participant indicated that the Physical Science module should bridge the gap between matric and the low APS score, assisting the student in engaging with the first-year EMC programme content effectively:

"...the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes."

Regarding the statement if the EMPP should include an introduction to patient report forms, one participant stated that the EMPP should instead focus on writing skills and not specifically on EMC patient report forms:

"The focus should rather be on writing skills, and not specific to a patient report form"

5.12.1 Emergency Medical Care Preparatory Programme quality assurance

In this section, the EMPP QA was investigated and contained both statements and free-text comments. As seen in Table 5.20, 24 statements were developed in this section. Consensus was reached on 24 out of 24 statements (100%).

Table 5.20: EMPP quality assurance

SECTION K: EMPP QUALITY ASSURANCE					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	OUTCOME OF THE DELPHI SURVEY
K1.	Moderation should be an essential element of ensuring and maintaining the quality of the EMPP.	100%			Consensus R1
K2.	Moderators are appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.	100%			Consensus R1
K3.	Clear monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised.	100%			Consensus R1
K4.	Instructional materials are reviewed periodically to ensure they meet program standards, and that course information is up to date and relevant	100%			Consensus R1
K5.	Quality assurance procedures must be in place and must be strictly adhered to on the EMPP.	100%			Consensus R1
K6.	Lecturer evaluations should be done.	100%			Consensus R1
K7.	The EMPP should be review in a clustered process.	100%			Consensus R1
K8.	EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review.	100%			Consensus R1
K9.	Planning and programme design of the EMPP should be done adequately.	100%			Consensus R1
K10.	Planning and management of the EMPP should be a key focus area of quality assurance.	100%			Consensus R1
K11.	Early recognition of the at-risk student.	100%			Consensus R1
K12.	Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support	100%			Consensus R1

	services, marketing, appointments and promotions.				
K13.	The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme.	100%			Consensus R1
K14.	The EMPP should provide for staff development opportunities where staff can upgrade their teaching methods.	100%			Consensus R1
K15.	The EMPP should have systems in place to deal with under-performing or inactive students in the programme.	100%			Consensus R1
K16.	The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time.	100%			Consensus R1
K17.	The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives.	100%			Consensus R1
K18.	The results of reviews and evaluations should be utilised in the planning process of the EMPP.	100%			Consensus R1
K19.	User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes.	100%			Consensus R1
K20.	There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme.	100%			Consensus R1
K21.	The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments).	100%			Consensus R1
K22.	The EMPP curricula should be based on the students' needs and differences within that institution.	75%	12.5%	12.5%	Consensus R1
K23.	Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students.	100%			Consensus R1
K24.	The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.	100%			Consensus R1

Table 5.21 represents the participants' free-text comments regarding the EMPP QA.

Table 5.21: EMPP quality assurance: Delphi survey Round 1 and 2 free-text comments

NO.	THEME	SUB-THEME	CODE	FREE-TEXT COMMENTS
K				EMPP QUALITY ASSURANCE
6.	EMPP quality assurance	Lecturer evaluations should be done.	Lecturer evaluation	<i>"Lecturers should be evaluated on a regular basis, for example quarterly."</i>
K				EMPP QUALITY ASSURANCE
22.		The EMPP curricula should be based on the students' needs and differences within that institution.	EMPP outcomes Student needs Student success Curriculum needs Learning needs Student needs	<p><i>"As per one of my previous comments, the curriculum should talk to the core outcomes and aims of the EMPP, not be based on student needs and differences within an institution. These are addressed at the curriculum delivery level using appropriate pedagogical techniques to deliver the curriculum."</i></p> <p><i>"I definitely agree with this statement, and just to add, this is why the sentiment of physical fitness not being treated as a compulsory module. We would not be very willing to be addressing students needs and differences if this were the case."</i></p> <p><i>"What about industry and patient needs? How will you meet" each student's needs?"</i></p>

5.13 DISCUSSION

The participants did not experience any problems regarding any statements in this section, and consensus was achieved on all statements. The participants made only a few comments. With statement 22, two participants indicated that they disagreed with the statement, and two participants indicated that they felt the statement was not applicable. One participant indicated that they agreed with statement 22:

"I definitely agree with this statement, and just to add, this is why the sentiment of physical fitness not being treated as a compulsory module. We would not be very willing to be addressing students' needs and differences if this were the case."

Twelve participants indicated that the EMPP curricula should be based on the students' needs and differences within that institution. One participant stated that

"...the curriculum should talk to the core outcomes and aims of the EMPP, not be based on student needs and differences within an institution. These are addressed at the curriculum delivery level using appropriate pedagogical techniques to deliver the curriculum."

As seen in the short learning policy at the NMU, the guidelines as required from SAQA are implemented to ensure quality *"To delegate the quality assurance for these areas to the institutions and to examine the quality arrangements during HEQC audits"*. (Council for Higher Education, 2013). Moreover, the relevant academic unit is responsible for the quality assurance of SLPs, which should entail at least the following aspects:

- Reviewing the relevance, contents and academic standards of the SLP every three years as part of the SLP renewal process that will be initiated by the UCE.
- Validating the qualifications of course presenters who are not academic staff of the NMMU (external facilitators).
- Obtaining feedback/evidence from students by means of a programme evaluation form.
- Involving professional bodies and external specialists in regular reviews where career or profession specific SLPs are offered.
- Including the evaluation of SLPs during the formal programme self-evaluation process.

As indicated by the participants, moderation should be an essential element of ensuring and maintaining the quality of the EMPP. Moreover, moderators should be appointed with clear criteria and procedures and conduct their responsibilities in terms of clear guidelines. As Adie, Lloyd & Beutel (2011) mentioned, the purpose of moderation is to ensure that assessment aligns with established criteria, learning outcomes and standards; its processes

are equitable, fair and valid; and judgements are consistently reliable based on evidence. In addition, effective moderation processes involve discussing assessment tasks, criteria, standards, and judgment decisions to ensure the validity and reliability of assessments to improve the quality of the teaching/learning experience.

The participants also agreed that transparent monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised. The HEQC requires institutions offering SLPs to keep a register in place, outlining the purpose, nature, and status of SLPs. Such a register shall include course title and code, statement of purpose; outcomes; credit-bearing status; admission requirements; assessment criteria and methods; teaching and learning strategies; coordination and delivery, including the venue, fees, and other financial information as well as certification rules and procedures which clearly distinguish between certificates of competence and certificates of attendance (CHE 2012:14).

The participants reported that it is important that quality assurance procedures be in place and must be strictly adhered to on the EMPP. In addition, the EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the programme's design. Vroeijenstijn (2021:11) emphasises that continuous attention to quality by spreading quality awareness among faculty, staff and students is the best way to ensure quality. Moloï and Motaung (2014:137), also argue that it is equally important to promote improvement, rather than mere maintenance of quality, placing a responsibility on higher education institutions to create an ongoing culture of QA that recognises the need for continuous quality improvement across all sectors.

As mentioned by the participants, planning and programme design of the EMPP should be done adequately. Ornstein and Hunkins (2016:157) suggested similar guidelines as Sweet and Palazzi (2020:138), for an effective curriculum design plan, namely:

- a) consider personal preconceptions, such as philosophical, educational, and curriculum-related, about the purposes and objectives of a particular HEI;
- b) take into account the educational requirements and ambitions of the students for whom the curriculum is developed;
- c) when designing a curriculum, take into account the components and their organisation;
- d) align the components of curriculum design with the institution's mission and goals; and
- e) assess the quality of the curriculum design by sharing it with a colleague for constructive

criticism (Ornstein & Hunkins 2016:157).

All the of the participants (n=16), agreed that the EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments). In a mixed-method study by Dames (2012:37), utilising action research, constructive alignment is defined as “the fact that the learning activity in the intended outcomes, expressed as a verb, to be activated in the teaching of the outcome is to be achieved and in the assessment task to verify that the outcome is achieved.” All the participants indicated that lecturer evaluations should be done. One participant suggested that

“Lecturers should be evaluated on a regular basis, for example quarterly”.

5.14 DRAFT QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL PREPARATORY PROGRAMME IN SOUTH AFRICA

The draft QA and educational guidelines were refined by the Delphi survey in this study and are attached as Appendix S.

5.15 SUMMARY

The admission criteria of the EMPP should not be exclusionary. It should provide sufficient evidence of how the candidates are selected. Moreover, physical preparedness and swimming should not be exclusion criteria for access to the EMPP.

The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.

The EMPP curriculum should focus on teaching foundational knowledge but may link EMC examples in the facilitation methods. Medical content and experiential learning should not be part of the curriculum of the EMPP. The EMPP should be presented at an NQF level 4.

The EMPP should include various facilitation methods to enhance the students' learning experience. Furthermore, facilitators should continuously update their knowledge and benefit from an introductory teaching qualification.

Furthermore, the EMPP should employ the concept of constructive alignment of assessment. In addition, the importance of students understanding the assessment outcomes is also emphasised.

Physical preparedness and learning to swim should be a non-formal part of the EMPP. Moreover, it should not be formally assessed and could be implemented as a student wellness initiative.

The EMPP should ensure that quality assurance procedures and policies are in place and followed. The importance of including moderation processes are a crucial part of QA. In addition, facilitators evaluations should be done. The EMPP should also have mechanisms in place to ensure that teaching and learning methods are appropriate for the programme's design.

5.16 CONCLUSION

In this chapter, the results of the two rounds of the Delphi survey were summarised and discussed. In Chapter 6, entitled, **Results and discussion of the findings of the expert panel discussion**, the results and a discussion of the findings of the expert panel discussion will be presented.

CHAPTER 6

RESULTS AND DISCUSSION OF THE FINDINGS OF THE EXPERT PANEL DISCUSSION

6.1 INTRODUCTION

"The problem we have in South Africa is not a shortage of good ideas. Many of the policies of government are good policies and are well thought out, our challenge continues to lie in finding ways to operationalise and deliver on them. In so doing ensuring the end goals are achieved"
(Vincent-Lambert 2015:online).

After the draft guidelines had been developed, as described in Chapter 5, the researcher set out to refine and finalise the QA and educational guidelines for an EMPP in SA. After the literature review, document analysis, and Delphi survey (cf. Figure 4.4), the draft guidelines developed by the researcher were subjected to an expert panel discussion for refinement and finalisation to ensure its credibility towards finalising the guidelines for an EMPP in SA. The draft guidelines were presented to a selected panel of EMC specialists to explore the participants' views (cf. Appendix S) and elicit innovative suggestions not expected at the beginning of the inquiry (Creswell & Poth 2018:211). Therefore, a validation meeting using an expert panel discussion was held as part of the development process. The goal of the research expert panel discussion was for the panellists to discuss areas where they may disagree on gaps (Coulter *et al.* 2016:8). The data obtained during the validation meeting was applied to refine, enhance, and finalise the credibility of the developed guidelines.

In Chapter 5, the Delphi survey's findings were discussed. This chapter aims to present the results of the expert panel discussion conducted for this study. Firstly, the research team and reflexivity will be discussed, followed by the expert panel discussion environment. Next, the reporting of the findings, including the participants' demographics, duration of the discussion, participant selection, data collection, and data analysis, will be presented, followed by a content analysis, discussion of the findings, and conclusion.

This chapter is dedicated to Phase 4 of the study (cf. 1.8.3.2) to finalise the QA and educational guidelines for the EMPP.

6.2 RESEARCH TEAM AND REFLEXIVITY

When doing research and collecting data, using methods such as an expert panel

discussion, it is important to consider the characteristics of the research team and relationships with participants. De Vos *et al.* (2011:334), mentions that the quality of data is enhanced when a good relationship is maintained with all community members throughout the project, and the researcher ensured that a relationship of trust was maintained. Tong, Sainsbury, and Craig (2007:351), assert the importance of close engagement of all the parties in the qualitative research process, as it may directly affect how the data is collected, analysed, interpreted, and finally presented. From this perspective, the characteristics of the researcher, expert panel facilitator, and their relationship with the participants will be discussed in section 6.2 under two sub-headings, namely personal characteristics (cf. 6.2.1) and relationship with the participants (cf. 6.2.2).

6.2.1 Personal characteristics

The facilitator and researcher's personal attributes, and their interaction with the expert panel discussion participants, will be explored in the next section.

6.2.1.1 *Personal characteristics of the researcher*

The researcher is a registered emergency care practitioner (ECP) with 25 years' experience in pre-hospital emergency care and, since 2008, holds a lecturer position at the Free State College of Emergency Care (FSCoEC). He is also registered at the HPCSA and PBEC since 1996. The researcher progressed through education in EMC through both the short course and tertiary qualifications as follows: Basic Ambulance Assistant (BAA) in 1996; Ambulance Emergency care Assistant (AEA) in 2001; and the Bachelor of Technology: EMC (BTech: EMC) in 2013. The researcher also completed a Master's in Health Sciences Education (M HPE) in 2016.

6.2.1.2 *Personal characteristics of the expert panel facilitator*

An independent facilitator was appointed to facilitate the expert panel discussion to avoid bias (cf.). The facilitator was selected based on his prior experience in EMC education as a programme manager and supervisor. The facilitator completed a degree in project management and a Bachelor of Technology degree in EMC (BTech EMC). During the expert panel discussion, the facilitator used an interview guide (cf. Appendix T) to stay focused on the study outcomes but still explore, probe, and ask questions to clarify and explain a particular subject (Turner 2010:755 & cf. 3.5.4.4). The following quotes are some examples of the facilitator probing or summarising while facilitating the expert panel discussion:

"...we are looking at this EMP programme and we need to ask the question whether this should be focused on providing access to tertiary education for the participants in the programme? Or should it be focused on preparing the participants in this programme for what they can expect to find once they enter the mainstream (p) of the education in the three qualifications?" [Facilitator]

"Thank you. I see there is another hand" [Facilitator].

"Number four, please continue" [Facilitator].

"...the second question under the curriculum design, which was what should the core focus of an EMPP be? So, I think we should move on to the second last question, which is what should the duration of an EMPP be?" [Facilitator]

"...it seems from the meeting chat that most participants are agreeing on the one-year programme" [Facilitator].

"Thank you. Number two, I am also seeing the chats, most of the participants are agreeing that it should be a blended learner learning programme. So, I (p) some components would need to be contact based on the comment from speaker Number five. So, it seems that the consensus is, that it should be more of a blended learning with a slight focus towards face to face. (p) Are there any other comments on this? Before we move on to the next topic? It seems we've reached our level of saturation on this" [Facilitator].

"I'm looking at another question that we are formulating" [Facilitator].

"There's a comment here from Speaker five, methods should be similar to those they would encounter in the HEI programmes which are being prepared. I think that ties in with what Speaker one just said. So, I take it that there is agreement there, just waiting for another comment there from Speaker six and Speaker two" [Facilitator].

"Gentlemen, thank you, it seems that we've reached almost a consensus on this matter, and I think we can now safely move on" [Facilitator].

"...that is, I believe a valid statement. However, I wish to just direct us back to the topic of the swimming situation" [Facilitator].

"...just a point of clarification" [Facilitator].

"one of the points that the first speaker, Number two raised and then there's another comment here about EMC clinical skills can be addressed on the HEI EMC programme. Just again, for the sake of clarity, the question does not relate to the clinical skills." [Facilitator]

"...it seems that we have addressed the quality assurance question quite well. Your comments are noted, and I thank you for them" [Facilitator].

"...and just to note, nothing is off the topic right now and under the general discussion versus open for anybody to add any additional comments, air their opinions, share their thoughts on how this programme can be" [Facilitator].

6.2.2 Relationship with the participants

The facilitator and the researcher were familiar with the participants as colleagues in the EMC environment. The participants knew that the researcher would use the generated data to complete a PhD study. This was stated in the consent forms (cf. Appendices H & R) and again by the facilitator at the onset of the expert panel discussion. The participants were

again reminded that should they want to withdraw from the study, they could do so at any time.

The facilitator was not personally involved in the research enquiry; hence the facilitator had no bias and gained no personal benefit from the expert panel discussion. The researcher acted as an observer and did not participate in the expert panel discussion, thus eliminating the chance of any influence on the discussions or responses by participants. These factors contributed to the credibility, transferability, dependability, confirmability, and trustworthiness of the expert panel discussion.

6.3 EXPERT PANEL DISCUSSION ENVIRONMENT

The expert panel discussion was scheduled online using the Microsoft Teams platform on the 5th of April 2021 (cf. 3.5.4.4). A dedicated office (Room 59) at FSCoEC was prepared in advance for the facilitator to conduct the online expert panel discussion. The researcher used live streaming to view and listen to the discussion and also made field notes thereof.

6.4 REPORTING OF THE FINDINGS

The expert panel discussion participants' demographic profiles, description of the duration of the panel discussion, and the analysed and interpreted findings are presented in this section.

6.4.1 Demographic profile of the expert panel discussion participants

In total, seven participants consented and indicated their willingness to partake in the discussion (cf. 3.5.4.3 & 3.5.4.4). All seven participants were male between 30 to 60 years.

Table 6.1 represents the qualifications and positions held by the expert panel discussion participants.

Table 6.1: Qualifications and positions held by expert panel participants

NO.	INVOLVEMENT IN EMC EDUCATION AS SENIOR LECTURER OR PROGRAMME MANAGER OR HOD	QA AND PROGRAMME DEVELOPMENT	QUALIFICATIONS	PREVIOUS OR CURRENT MEMBERSHIP OR REGISTRATION OF PBEC
1.	HoD at a university offering EMC education	Responsible for QA of EMC HE programmes	BTech (EMC) M (HPE)	ECP
2.	Principal or Deputy-Principal of a college offering EMC education	Responsible for QA of EMC HE programmes	BTech (EMC) M (DM)	ECP
3.	Programme manager of EMC HE programmes	Responsible for QA of EMC HE programmes	BTech (EMC) M (EMC)	ECP
4.	Principal or Deputy-Principal of a college offering EMC education	Responsible for QA of EMC HE programmes	BTech (EMC) M (HPE)	ECP Member of PBEC
5.	Vice-Dean or HoD EMC	Responsible for QA of EMC HE programmes	NHD (PSE) NHD (FST) BTech (EMC) MTech (ED) PhD (HPE)	ECP Previous member of PBEC
6.	HoD at a university offering EMC education	Responsible QA of EMC HE programmes	BTech (EMC) M (EMC) PhD (EMC)	ECP Member of PBEC
7.	Senior lecturer at a university offering extended curriculum programmes	Educationalist with extensive experience in extended curriculum programmes	MTech (EH)	

The expert panel discussion consisted of (i) HoDs and principals of the following EMC education and training institutions: UJ, NMU, DUT, CUT, and FSCoEC; (ii) an expert involved with QA in HE, and (iii) members of PBEC (cf. 3.5.4.3).

6.4.2 Participant selection

In this study, the expert panel discussion participants were selected because they share the same characteristics or experiences in EMC training and education and HE QA processes (cf. 3.5.4.3). Hence, I selected individuals considered experts in EMC training and education in HE.

6.4.3 Duration of the expert panel discussion

The expert panel discussion commenced at 9h00 and was concluded at 11h01, a total of 121 minutes (cf. 3.5.4.4). As part of the introduction to the discussion, the facilitator indicated that scheduled breaks would be allowed during the session. All the participants indicated that they did not need a break and the participants did not at any stage during the discussion indicate that they were experiencing fatigue. Fortunately, there were no interruptions, such as a loss of internet connection and electricity. The level of engagement was consistent.

6.4.4 Exploratory discussion

In preparation for the panel discussion, the researcher conducted an exploratory discussion with the facilitator to identify and clarify any problems with the data collection process or instruments (De Vos *et al.* 2011:188). In consultation with the research promoters, the meeting agenda was finalised to ensure that the researcher's data collection would be done correctly during the expert panel discussion.

6.4.5 Data gathering and construction process

All phases of the research study were ethically approved before the commencement of data collection in the study (cf. 1.8.3). Once participation had been confirmed, suitable dates for the expert panel discussion were proposed to the participants using a Microsoft calendar. Six participants indicated that the 5th of April 2021 would be a suitable date and one of the participants indicated that the mentioned date would not be suitable. The

participant indicated that input would be given via email. Each participant received the following documentation via email three weeks before the scheduled meeting in preparation for the discussion:

- Information document (cf. Appendix P), detailing the study aims, objectives, and procedure;
- The draft QA and educational guidelines (cf. Appendix S); and
- Resultant Delphi survey statements informing the guidelines (cf. Appendices K, L & N).

As King and Horrocks (2010:62) mention, using a group interview process encourages recall and stimulates opinion elaboration. A schematic representation of the expert panel data collection pathway is provided in Figure 6.1.

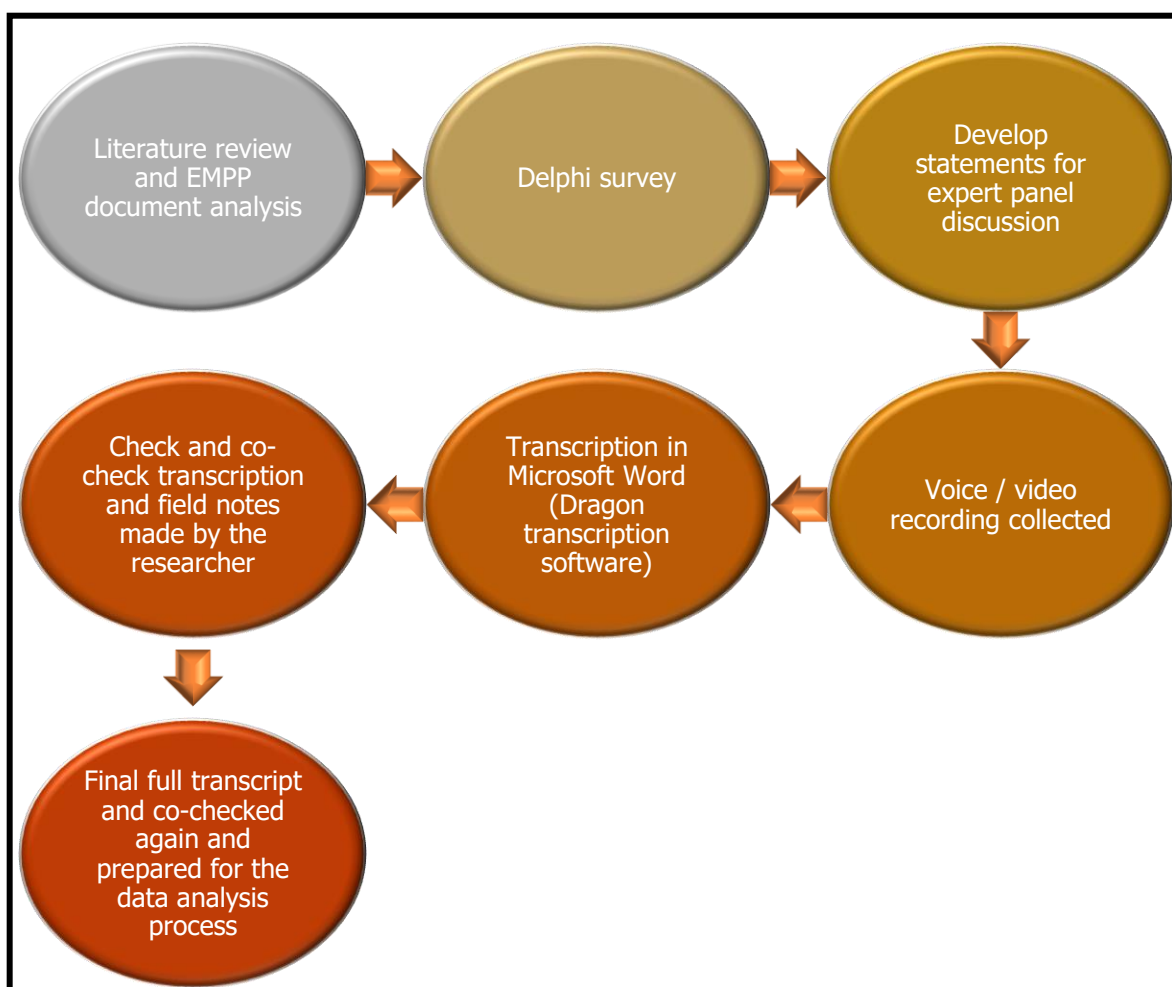


Figure 6.1: Expert panel discussion data collection pathway

In Chapter 3, the data collection method (cf. 3.5.4.4), the credibility, transferability, dependability, and confirmability (cf. 3.6), and the ethical considerations (cf. 3.7) were discussed. The facilitator used an interview guide compiled by the researcher (cf. Appendix T). This guide was developed to facilitate the discussion, encourage participation, and allow for a dynamic flow of the discussion.

The facilitator welcomed the participants, gave a brief overview of the topic, set them at ease, and stated the process and ground rules. Confidentiality was confirmed again as described in Chapter 3 (cf. 3.7.3.2) regarding the numbers and that no names would be used. At the end of the expert panel discussion, the facilitator reviewed the purpose and asked if anything had been missed, and then he expressed his thanks and dismissed the group.

The final transcript of the expert panel discussion was used as a database for the analysis and interpretation of the expert panel discussion.

6.4.6 Data analysis

Data analysis was discussed in detail in Chapter 3 (cf. 3.5.4.5). The expert panel discussion transcription was transcribed verbatim into a Microsoft Word document (Office 2016, Microsoft Corporation, Redmond, WA). Subsequently, for further analysis, the transcription was then imported into Atlas.ti (version 9, Atlas.ti Scientific Software Development GmbH, Berlin, Germany). The perceived advantages of Computer-Assisted Qualitative Data Analysis Software (CAQDAS) guided the decision to use Atlas.ti in this enquiry. Additionally, some of the benefits of utilising CAQDAS tools have been linked to more thorough data analysis that takes less time than traditional approaches (Rambaree & Faxelid 2013:56).

The expert panel transcription was read repeatedly to ensure better immersion into the data. During the analytical process, the researcher used an inductive approach in the format of *in vivo* coding. Furthermore, the coding involved allowing patterns and themes to emerge from the data. When using an inductive approach, researchers develop these codes as they code the data.

The facilitator and promoters of this study also checked the transcription for correctness, and it was sent to all the participants from the expert panel discussion (cf. 3.5.4.5). The entire transcription was used for analysis and interpretation. Two weeks were provided to

review the transcript for accuracy. Both the facilitator and five of the participants replied that they were happy with the transcription, which ensured the trustworthiness of the expert panel discussion.

To evaluate data saturation, the researcher studied the expert panel session's content and field notes while observing for possible saturation (cf. 3.5.4.5). Saturation was considered as gathering sufficient rich data to make sense of the EMPP as a social phenomenon to construct a full and persuasive theory without gaps when no new information emerged from the raw data (Goldie *et al.* 2007:612).

6.5 EXPERT PANEL DISCUSSION FINDINGS

In the following section, the results of the expert panel discussion will be presented. As mentioned in Chapter 3 (cf. 3.5.4.4 & 3.5.4.5), the expert panel discussion, including themes, statements, and supporting quotes, will be provided in detail. As previously mentioned (cf. 3.5.3.4, 3.5.4.5 & 3.7.3.1), during the expert panel discussion, each participant was named by the alphabet letter 'P' and a numerical number from one to seven. The same letters and numbers were used in the analysis of the data. The text was coded by first writing the alphabet letter, followed by the expert panel member number, for example, [P3]. The statements presented to the expert panel participants are shown in Table 6.2.

Table 6.2: Content analysis summary following panel discussion meeting

THEME	STATEMENT
EMPP admission criteria	What should the contents of the admission criteria for an EMPP consist of? Access versus preparation.
EMPP curriculum design	What should an EMPP curriculum consist of? What should the core focus of an EMPP be? What should the duration of an EMPP be? What would be the most appropriate methods of facilitation to offer an EMPP? For example, face-to-face, e-learning, blended learning.
EMPP assessment	What methods of evaluations/assessment could be used in the evaluations/assessment process?
EMPP physical preparedness	Should Physical Preparedness and Learn-To-Swim be part of an EMPP? How should physical preparedness be facilitated on the EMPP?
EMPP generic skills and competencies	Should the EMPP include any generic EMC skills and competencies?
EMPP quality assurance	What should be included in quality assurance practices for an EMPP?

6.5.1 Emergency Medical Preparatory Programme admission criteria

The theme **EMPP admission criteria** were extended into two sub-categories to highlight the importance of identifying admission criteria and define access and preparatory programmes. The first relates to determining what admission criteria should be included to access the EMPP; the second relates to access programmes and preparation programmes. The statements posted to the expert panel participants according to the interview guide are depicted in Table 6.3.

Table 6.3: Theme 1: EMPP admission criteria

CODE	THEME	STATEMENT
Academic screening Access pathways Access to higher education Alignment with emergency medical care education At risk students Basic medical assessment Career progression CHE guidelines Emergency medical care short courses EMPP should be directed at in-service employees EMPP's admission criteria Focus of the EMPP Mature age Adult student National senior certificate as amended Poor schooling Recognition of prior learning Role of the EMPP School-leaver Socio-economic conditions Student attrition Under-preparedness	EMPP admission criteria	What should the admission criteria for an EMPP consist of?
Emergency medical care education Emergency medical care short courses EMPP should be directed at in-service employees EMPP's admission criteria Focus of the EMPP Mature age Basic medical assessment National senior certificate as amended Outcomes based learning	EMPP admission criteria	Access versus preparation.

Personal and professional development Poor schooling Preparation Recognition of prior learning Role of the EMPP Role of TVET colleges School-leaver Socio-economic conditions Student attrition Under preparedness		
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In Figure 6.2, a graphic representation of the code network of the EMPP admission criteria are presented.

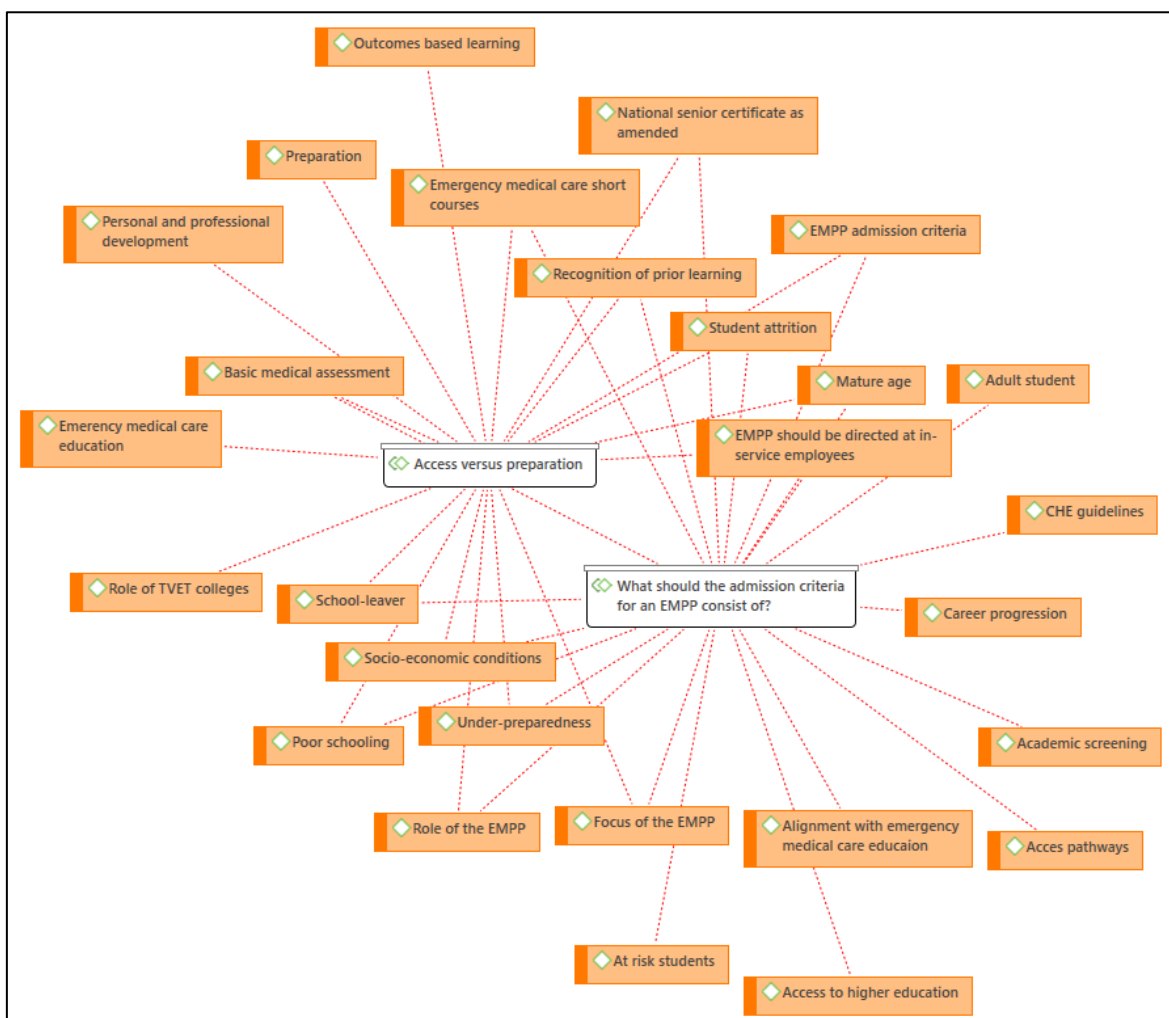


Figure 6.2: EMPP admission criteria code network

Statement: What should the admission criteria for an EMPP consist of?

As stated in the NECET policy, the main aim should be to assist personnel with access to

HE and progression within EMC education. It is further mentioned that career progression should be the focus (NECET 2017:4). The participants were very vocal about the EMPP's admission criteria and felt that the focus of the EMPP should be directed at in-service employees from the Department of Health, as is eminent from the following:

"...who is not in the emergency medical services (p) that they need to follow a different route, they need to go the route of doing the NSC as amended or upgrading the matric and applying for the programme when they meet the requirements" [P5].
"...perhaps then for the school-leaver is not an EMP, but perhaps from an employer level, a bit more direction about avenues to follow to enter into HEI programmes" [P2].
"I wish to agree with Number two and indicate that, specifically, as we said, in the beginning that we're looking at in-service staff" [P1].
"... definitely this is not for school-leavers" [P4].

In addition to the statements mentioned above, the participants seemed to suggest that in-service personnel should also have the correct subject combination to access HE programmes. Three of the participants indicated the following:

"I think from my side, the entry criteria should probably be an in-service or a staff member that is employed by a department of health or an emergency service that does have a matric but does not meet the entrance requirements of an HEI programme, either the higher certificate or the diploma EMC progress" [P2].
"I would like to add to that and say, also having the correct subjects that are required to access these programmes as well" [P1].
"...they should have the required subject combinations" [P5].

As many in-service EMC personnel do not have the correct subject combination as well as the correct APS, only assisting personnel with the correct subject combination would be a very limiting attempt. As mentioned in the FSCoEC report (2021), most EMC in-service personnel do not meet the HE admission criteria. The main concern as stated by the CHE (2013:15), is that it appears that an increase in access is not always accompanied by success, as the failure rate of undergraduates increased and is attributed to the under-preparedness of students upon leaving the basic education system. The ultimate goal of programmes such as the EMPP, should be to satisfy students' educational requirements and other needs, meaning that social, intellectual, and cultural needs should be included in the design of the programme (cf. 2.2.1). Even if the topic is introductory, fundamental provisions should ensure that students' academic expectations are addressed. As in the case of ECP's, the EMPP should also be designed to aid university students' academic growth where educational or socioeconomic inequities have hampered past learning (cf. 2.2.2).

"...you look at the different cadres that are there and knowing very well that they are officials with the right subjects that would like to access EMC programmes and go further with their studies, but they're having difficulty because they don't have the right symbols."

As the participant further mentioned, *"...this is where the preparatory programme comes in, to give that kind of access"*[P1].

I agree that the EMPP has a definite role in assisting candidates to be successful in EMC HE programmes as adult students. According to Appana (2008) a poor perceived level of ability in these areas and older adult learners may encounter difficulties during this process, which may result in dropout (Appana, 2008). Additionally, adults assume several roles such as husband, parent, colleague, and student, which entails additional duties and effort (Kara, Erdogdu, Kokoc & Cagniltay 2019:6-7). One participant [P5] further mentioned that without a programme such as the EMPP, it would be unlikely for in-service personnel to progress and access EMC HE programmes, as seen in the following statement by another participant:

"So, in such a way, then it will give them (p) in-service staff access to these programmes that without this particular programme, they are unlikely to be able to gain access and cannot further study if such a programme is not in place"[P1].

As mentioned by Scott (2010) and Scott and Yeld (2007) that even though diversity and inequalities make the articulation gap complex, it does not mean a lack of intellectual capacity, and being underprepared for the traditional forms of higher education does not preclude the potential to be successful. Therefore, I believe with providing the personnel with a solid academic foundation, they could be able to be successful in EMC HE programmes. Based on the above, it becomes clear that the admission criteria of any programme should be guided by the purpose it serves. The EMPP's overall intent is to assist adult students in the EMC field to engage HE. It is important to keep in mind that EMC personnel currently not meeting HE admission criteria are mainly students of between 30 and 60 years of age (FSCoEC report 2021).

As mentioned in the EMPP short-learning programme approval document (2019:6), the EMPP endeavours to establish a platform to prepare candidates for the academic rigour linked to HE studies, particularly in the EMC field (EMPP short-learning programme approval document 2019:6). One participant mentioned,

"...the entrance criteria for a programme, I think should be seen through the purposes they serve" [P5].

The EMPP's objectives are to establish the basic knowledge, skills, and characteristics essential for subsequent study in the field of pre-hospital EMC (cf. 2.2.6.6). Moreover, the EMPP is a means to assist candidates in reaching a certain readiness level to engage successfully in HE. In the same way, the intention of the EMPP, as mentioned by one of the participants, is to grant candidates access into HE, as illustrated by the following:

"EMPP's initial goal of granting access to candidates not having the initial pre-education for entering HE should be maintained"[P7].

The participant further mentioned that the alignment of the EMPP with EMC programmes is essential. In addition, the participant further stated that admission should be guided by the short course the candidate holds and not the prerequisite subjects on a Grade 12 level. I believe that previous EMC short courses should also be considered for admission to the EMPP, as the EMPP's goal is to assist EMC personnel not meeting HE admission criteria.

"(EMPP → H Cert → Diploma) as gazette prescribes" [P7]. He also stated that the EMPP's focus should, therefore, be on those "...candidates who do not hold the NSC (NQF 4 exit) but wish to upgrade their qualification"[P7].

"...the admission should be what short course each candidate holds and not the specific prerequisite subjects on a Grade 12 level. For candidates holding a NQF 4 or NSC, an Extended Curriculum Programme for the diploma is recommended" [P7].

"EMP programme is a vehicle to take people without the underbuilt and get them to a point where they might be successful in engaging with a higher education programme" [P5].

"...granting access to candidates not having the initial pre-education for entering HE" [P7].

One participant mentioned that the admission criteria of the EMPP should filter out those candidates who would not be successful and those who would be able to use different routes to access HE programmes. I do agree that a screening process may provide valuable information, for example to establish if the in-service personnel already qualify to access, HE. I do advise that possible candidates should be screened with caution regarding their eligibility and preparedness to engage with HE. As with the role of programmes such as the ECP, the aim should be to assist in-service personnel not only to gain access, but in addition to assist with being successful. The participant acknowledged what another participant mentioned by saying that the,

"...gap is too far" [P6].

"...they just don't have (p) those subjects at all, and those people should not be left out, but possibly their route would be to go and do the NSC as amended and add those subjects and then that the NSC as amended is not an EMP programme, it is an existing programme, and the services should invest in paying those registration fees and letting the providers of the NSC as amended deal with it" [P5].

As mentioned by Lubbe (2017:60), a significant cause of this under-preparedness is poor schooling, which unfavourable family and socio-economic conditions exacerbate. Even though diversity and inequalities make the articulation gap complex, it does not mean a lack of intellectual capacity, and being underprepared for the traditional forms of higher education does not preclude the potential to be successful (Scott, 2010; Scott & Yeld, 2007). I believe as mentioned in Chapter 5, that for the reason mentioned by Lubbe, those candidates who successfully complete an EMPP programme should not be limited to only lower-level EMC programmes (cf. 6.5.1)

"...the entrance criteria need to filter out people that would not be able to be successful on the EMP programme"[P5].

"...to filter out people using the EMP programme, when there are other ways of them upgrading their grade 12 exception" [P5].

Moreover, as the EMPP's aim is to assist students in being successful in HE EMC programmes, merely providing them with access could have a major effect on student attrition. Bourdieu (as cited in Pym & Kapp, 2013) raised a valid concern about whether underprepared students have the necessary capabilities to succeed at higher education institutions. Bourdieu's concern raised the question of whether higher education institutions can manage challenges that arise from a more diverse and disadvantaged group of students. In my opinion and in agreement with Tinto (2008:9) who emphasises that without guidance, access is not possible. As a result, it is extremely important that institutions must develop a plan for assisting students and ensuring their success (cf. 2.2.1). Another participant mentioned that a programme such as the EMPP should be properly registered with

"...our bodies and be accepted by all universities offering EMC programmes"[P1].

This suggests that the EMPP should be correctly and appropriately registered with the relevant bodies. It may be possible to allow more candidates to obtain admission into the programme, as reiterated in the following statement:

"...is to develop this programme and get it registered with the relevant bodies for access. Because then what we can do is, if this is done, appropriately and correctly, we can have more people enter into the programme that does not necessarily meet the requirements" [P2].

The participant alluded to the fact that this will allow the programme to still adhere to the guidelines of the CHE and the frameworks guiding HE. In agreement, one participant alluded that the NECET policy regulates and gives direction regarding EMS education. Furthermore, the NECET policy also caters to the officials' migration plans and how they could be upgraded (cf. 1.2.3, 1.2.5 & 2.2.6). As mentioned by SAQA (2014:8)), "a Credit-bearing short course is a type of short learning programme for which credits, in relation to the course's contribution to a unit standard and/or (part) qualification, are awarded and "a non-credit-bearing short course is a type of short learning programme for which no credits are awarded in relation to unit standards or (part) qualifications depending on the purpose and/or assessment of the programme" (cf. 2.4.3). In my opinion the EMPP should be presented and benchmarked from the ECP but should be purposely designed for the EMC in-service personnel not meeting HE admission criteria. The programme can later be used to assist school-leavers wishing to follow a career in EMC but do not meet the minimum admission criteria.

Currently, all EMC education programmes are registered HE education programmes. The PBEC functions as the ETQA EMC short course programmes and jointly with the HEQC for HE-level registered EMC programmes in SA (cf. 1.3.2). Therefore, I believe that the migration plan's delivery, as stipulated by the NECET policy, should be the main guiding factor to assist EMC personnel regarding career progression (NECET 2017).

"...and we end up just repeating ourselves without necessarily achieving the goal that the NECET had intended to achieve" [P1].

Recognised Prior Learning (RPL) may provide an alternate pathway for in-service personnel to obtain HE (cf. 2.2.4 & 5.4.1). Additionally, one of the participants mentioned that another concern is the CHE only allows 10% RPL applicants (CHE 2016).

"then there's that 10%"[P2].

I believe that while personnel may get access via the RPL method, this does not always aid their readiness for HE studies. Lifting the 10% cap on student intake through the RPL method might increase access to EMC programmes for in-service candidates, but these candidates would still need to be prepared for the rigours of HE and success in the

programme (cf. 2.2.4, 2.2.6.2 & 4.2). Admission via an RPL route exceeding 10% of the student cohort in a programme may be granted in exceptional circumstances and only for undergraduate programmes (CHE 2012:9). Moreover, as seen in the UK, the RPL process was tightened up to not award students blanket RPL because of their previous professional qualification but to look at each student individually (Williamson 2021). This view is supported by Mothokoa and Maritz (2018:2), who writes that adults enter education events with a large quantity of experience that varies from individual to individual. It is also important to note that adult learning is unique, and that each individual learns at their own pace and in their way (cf. 2.2). RPL should be an individual application, taking the individual needs of the candidate into account. Based on the current policy (SAQA 2019:8), RPL can be utilised in SA in two ways: i) RPL for access: to provide an alternative access route into a higher education qualification for those who do not meet the formal entry requirements for admission; ii) RPL for credits: to provide for the awarding of credits for, or towards, a qualification or part-qualification registered on the NQF.

I suggest, and the Delphi survey results support, that it is critical to remember that SLPs such as the EMPP should not use characteristics and other HEQSF-specific qualities such as NQF levels and credits for learning programmes delivered outside the HEQSF (CHE 2016:13; cf. 2.2.1.4 & 4.3.3). Furthermore, the CHE stipulates that even though students in the EMPP do not earn credits, information on the EMPP may be utilised to help applicants with RPL applications for admittance into HE programmes (cf. 4.3.3). Three participants made the following comments:

"...SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?" [P1]
"...allow for the transformation of in-service staff, because if those two role-players agree, then the 10% rule of RPL and everything is besides that..." [P2].
"And you've either come through RPL for access, or whichever the means is that specifically looking at our in-service staff..."[P6].

Moreover, one participant seemed to suggest that in-service personnel would be eligible to follow either the mature age or the RPL route (cf. 5.4.1). I am not refuting that EMC personnel qualify for access to HE based on mature aged. Only looking at access, could potentially set the candidate up for failure, as seen in the literature, many challenges are noted with the RPL process. In a study conducted by Cantwell and Scevak (2004:143), RPL candidates perceived the theoretical structure of their courses to be much simpler because of their acquired work experience. The authors, however, raised a concern regarding the students' perception and underestimation of the course content and the relationship

between this belief and less functional learning dispositions and poorer academic outcomes. One of the participants raised a concern,

"...however, then what we would find is when once that person has gone through that route, they are not prepared for the programme, which means they might have been a person (p), they've done the various things and senate says, it's good, the person's portfolio looks good enough, they can enter into the programme, but once they're in the programme, they simply do not cope" [P2].

I believe this might exactly be where programmes such as the EMPP together with access pathways, such as RPL could be valuable. Although, research on the outcomes as mentioned by the participant are not available, it could be argued that aligning an RPL process with a preparation programme could better the success rate of these candidates. Lima and Guimaraes (2016:29) mention that the goal of RPL is to recognise experiential learning in informal and non-formal settings while also acquiring knowledge and skills reflective of constructivist learning and enabling people without traditional formal qualifications to access higher education or vocational training.

I agree with the statement that a basic medical assessment should form part of the EMPP curriculum to identify at-risk students as soon as possible. The Delphi survey results indicated that a basic medical assessment should form part of the entry criteria for the EMPP. As one participant mentioned, this could be done at the end of the EMPP to enter EMC education. In agreement, the expert panel participants validated that a basic medical assessment should form part of the EMPP and indicated that such an assessment could be done on completion of the EMPP (cf. 6.5.2). I believe it would be more beneficial to do the basic medical assessment on commencement of the EMPP, as this would identify the at-risk student early. The importance of mitigating the possible risk of students being injured or subjected to possible injury is critical on EMC programmes, as indicated by one of the panel members.

Statement: Access versus preparation?

The statement, "Access versus preparation", proved to be challenging for the participants. The statement "Access versus preparation" initiated intense discussion, evident that the statement was controversial. I believe that the terms 'access' and 'preparation' must be clearly defined to achieve the EMPP's goals. According to UFS (2021:online), access programmes assist students who, due to the school system's imbalances, cannot meet the

admission criteria of HE. On the other hand, preparation programmes, such as the EMPP, assist students with obtaining access and foundational knowledge to prepare for formal programmes. Slabbert and Friedrich-Nel (2015:46) agree that the purpose of foundation provision is to establish academic pathways for potential students entering HE for the first time. An example of this is the EMPP, one of the Central University of Technology's (CUT) approaches implemented in 2018 to assist EMC personnel not meeting the required HE admission requirements in the Free State.

Six participants strongly indicated that the EMPP should focus on in-service EMC personnel. Although one participant indicated that the EMPP should also have a role to play regarding access, they also agreed on the crucial role the EMPP must play in preparing in-service personnel for HE programmes. In contrast, one participant mentioned that the EMPP should be a preparation programme with some aspects of access later:

"...would be simply a preparedness programme that takes someone who already can enter into the system and just prepare them. I think there's a bit of that. But I think, is this more than that? Does this thing speak more to access? I think (p) that would probably be the answer, is this would eventually speak to access more than what it would speak to simply preparedness" [P2].

As mentioned by Shay *et al.* (2016:30), one of the main motivations in HE should be to achieve equality for students from previously disadvantaged backgrounds is teaching for epistemological access i.e., access to the ways of doing and thinking at the university in their particular fields, as opposed to simply physical access to enable students to be independent and confident. The goal of the EMPP was unclear to one of the participants, especially regarding access versus preparation:

"...I am not too sure. What the purpose of the preparation programme is"[P3].

As previously mentioned, the aim of the EMPP is to establish a platform to prepare candidates for the academic rigour associated with tertiary studies, especially in the medical emergency field. In addition, the EMPP ultimately aim to enable students to pursue further personal and professional development within the EMC environment and promote lifelong learning (EMPP short-learning programme approval document 2019:5; cf. 4.3). In my opinion, the EMPP should be part of a solution package to assist in-service EMC personnel with access and success with regard to EMC HE (cf. Figure 2.1). One participant seemed to suggest that including two streams, for example, having access and preparation included on the EMPP may demand more time, resources, and funding

"...looking at timewise and resource-wise, it's going to start taking a lot of resource, funding, and so forth if you need to take individuals that do not have the requirements, though, I think there is a need for it" [P6].

I believe the EMPP may also have a role to play in access by including an RPL component (cf. 5.4.1). An RPL component could reduce the period that potential students are away from work, thus reducing the need for additional funding for a separate access programme. We cannot disregard the responsibility towards underprepared EMC personnel. DHET (2012a:42) explains that students from the basic education, FET and vocational education and training systems who enter HE underprepared are the main reason for high failure and low success rates. Taking the above in mind, access alone will not, in many cases, ensure student success. An important fact to remember is that some candidates who completed high school more than 20 years ago may find the transition into HE much more difficult. As Sobuwa and McKenna (2019:14) mentioned providing the students with only access may not necessarily assist with mitigating underperformance.

"...that are in-service, that meet the requirements, and also possibly have not been in any source of education for a time period" [P6].

Agreeing, one participant [P5] stated that there is a need to provide the in-service personnel with access to HE but questioned if this should be the goal of the EMPP. One participant mentioned that the EMPP should only focus on preparation and not access. In my opinion, the EMPP in combination with the access pathways mentioned in Chapter 2, could provide a means for EMC in-service personnel with access and success.

"...it's actually preparing them to come into a higher education programme to help them be successful..." [P6].
"...that they have the subjects, but they don't have the right symbols and just to prepare them, up them, as we know that there is numeracy literacy, getting the languages up and going the computer sciences and just to have a candidate that is more eligible for the programme" [P6].

The same in some provinces in SA, where a CEP and RPL are used to assist personnel to gain access (cf. 2.4.4). In my opinion, as seen in Figure 2.1, the EMPP should be part of a package providing personnel with the best possible opportunity to be successful in HE. One participant made the following comments:

"...individual should have already come through access and say, "Yes, we grant you access, but you have to go on this preparatory programme" because there are certain areas so access to me is a separate process" [P6].

"...the purpose of the programme, and therefore the curriculum will stem from that (p), it will flow from that purpose, it is a preparatory programme, not an access programme, the access process is a separate process that the university should have handled, and with its own criteria and its own purpose" [P6].

A possibility that could assist in-service personnel is to do the National Senior Certificate (NSC) amended and then engage with the EMPP to prepare them for specific EMC programmes [P5]. The participant further mentioned that some in-service personnel do not have matric equivalent to matric and then, as previously mentioned, engage the EMPP. In my opinion adult students might struggle with following the NSC amended route as it does not necessarily prepare the candidate to be successful in EMC programmes (Tinto 2008:9). It might also prolong the duration of the study period for the candidate to obtain an EMC qualification. Given the under-preparedness of SA students for post-secondary education, I believe that extra time would be needed at the start of the EMPP to help students adjust to a more self-directed and outcomes-based learning approach.

"...need to then go and register through to adult basic education (ABET) courses" [P5],

"...EMS do have a matric or grade 12, but they don't have the required subjects" [P5].

As mentioned by one of the participants [P5], Technical and Vocational Education and Training (TVET) colleges might have a role to play regarding certain subjects needed by the candidates. As mentioned in Chapter 5, section 5.4.1, currently TVET college in Bloemfontein does not currently present a one-year programme covering the needed outcomes. Moreover, the subjects, although similar, do not meet the HEI requirements (Geduld). Moreover, the gap between access and success is generated by a mismatch between HE expectations and students' preparation after finishing basic education, FET, or vocational education (CHE 2013:15-17). Furthermore, as mentioned by Human (2021), finishing schools could assist personnel to obtain the needed subjects in their districts. In addition, the teaching of foundational subjects at the EMS provincial college could also be an option by means of registering the college as training sites (Human 2021).

As mentioned in section 2.2.1, there are pathways available to assist with access, together with proper preparation candidates could be supported in their HE journey. In my opinion, using blended learning platform could assist with managing employer concerns such as time away from work and the financial implications. I believe that the EMPP should focus on preparing in-service EMC personnel to enter HE and assist the candidate in being

successful in EMC HE programmes. Providing in-service personnel with viable pathways into EMC HE is crucial.

"...TVET colleges, and so forth, I think there's a role that they also can play..." Additionally, it is mentioned that "...even though TVET colleges can come in and play a role. We mean something that we have to really debate on as to whether does it belong with TVET colleges? Or does it belong with (p) the universities that are offering these programmes or not? But I feel that it will really be of good help to have the two streams"[P1].

"...those in-service staff who want to study in higher education should go in my opinion and do the NSC as amended and there are many places that it can be done and get the required subjects on and then engage with the EMPP"[P5].

"...or whether those people need to engage with another vehicle to get those modules added"[P5].

"...where one would completely exhaust the number of those that have the right subjects, and if one has created such a programme, there has to be a means of maintaining it and continuing with it. So hence, I said, it has to have two streams just to also guarantee its existence, and perhaps later on, then roll out to those with interest who are not in-service officials" [P1].

"...should actually cater for both, (p) had two streams where, it addresses those with the right subjects, as well as a second stream that looks at those without the correct subjects..." [P1].

"...having the right subjects and it will be addressing specifically the symbols and having a second stream that looks at those (p) without subjects..."[P1].

6.5.2 Emergency Medical Care Preparatory Programme curriculum design

The EMPP is not credit-bearing and is presented as a SLP at NQF Level 5 (cf. 2.2.6.6, 4.2, 4.3.3 & 5.8.1). The following adaptations were made to the guidelines after inputs from the expert panel discussion agreed:

- The EMPP curriculum should be constructively aligned;
- The purpose of the EMPP should guide the content of the curriculum; and
- The EMPP curriculum should be linked to EMC education but should not include any technical skills.

The EMPP curriculum is depicted in Table 6.4 (cf. 4.3.3).

Table 6.4: EMPP curriculum outline

TITLE OF MODULE
Physical Science: Physics
Physical Science: Chemistry
Mathematics
Life Science
Numeracy
Basic Digital Literacy or Computer Skills
Academic Literacy and Communication Studies
Physical Preparedness
Learn-To-Swim

The statements posted to the expert panel participants are shown in Table 6.5.

Table 6.5: Theme 2: EMPP curriculum design

CODE	THEME	STATEMENT
Curriculum EMPP programme content Constructive alignment of curriculum Lecturer responsibilities Module planning Focus of the EMPP Experiential learning Access Preparation Success Extended curriculum programmes Foundational knowledge In-service emergency medical care personnel Barriers to academic success Academic support Academic writing	EMPP curriculum design	What should an EMPP curriculum consist of?
Focus of the EMPP School-leavers In-service EMC personnel Access Admission requirements Emergency medical care programmes Emergency medical care short courses Foundational knowledge Migration into emergency medical care higher education Higher education qualifications NQF Adult student Employing people not meeting HE admission requirements Purpose of the EMPP	EMPP curriculum design	What should the core focus of an EMPP be?
Notional learning hours Purpose of the EMPP Define learning goals Academic year Duration of the EMPP Types of short learning programmes Align with admission criteria	EMPP curriculum design	What should the duration of an EMPP be?
Blended learning approach Basic digital literacy	EMPP curriculum design	What would be the most appropriate methods of facilitation

Online learning Teaching and learning strategies Face-to-face approach Barrier to academic success Learning facilitation		to offer an EMPP? For example, face-to-face, e-learning, blended learning.
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In Figure 6.3, a graphic representation of the code network of the EMPP curriculum design is presented.

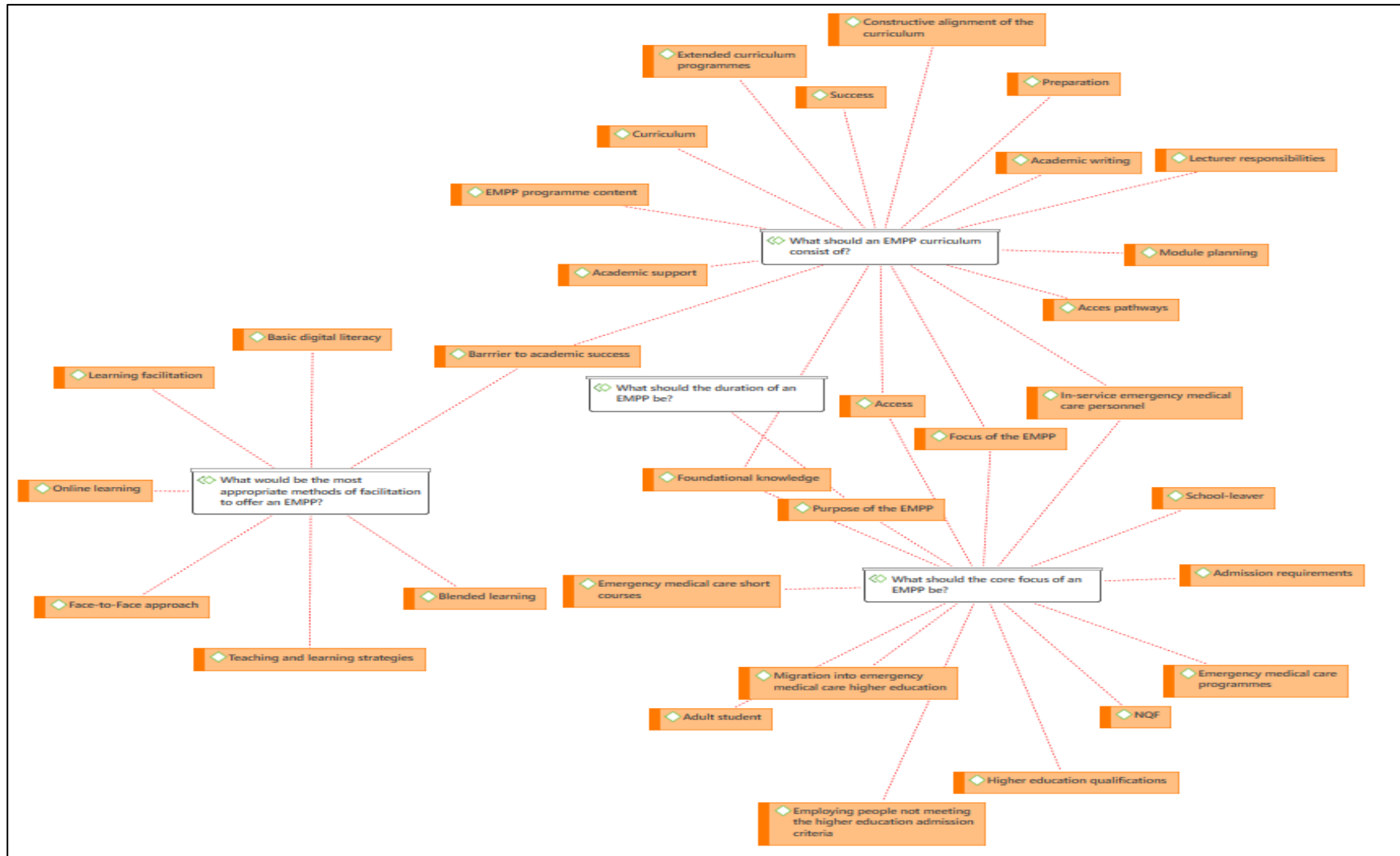


Figure 6.3: EMPP curriculum design code network

Statement: What should an EMPP curriculum consist of?

A curriculum consists of content, educational strategies, learning opportunities, assessment, educational environment, and learning outcomes (Dent & Harden 2017:5 & cf. 2.2.1). In my opinion the EMPP curriculum should be aligned with EMC education and focus on comprehension and understanding (cf. 5.4.2). Moreover, I agree with the Delphi survey results suggesting that the programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes. Furthermore, the EMPP curriculum should include decision-making, situation awareness, leadership, and teamwork. It is important that a theoretical approach should be followed with EMC content; therefore, I suggest that all EMPP modules should be designed and structured as complementing components of the programme (cf. 2.3.2).

I believe that the lecturers responsible for the EMPP modules should be involved in planning the modules, as indicated by the Delphi survey results (cf. 5.4.2). In addition, to achieve the EMPP's aims, the curriculum should remain an independent variable-seeking curriculum, as indicated by the Delphi survey results that the EMPP's objective should guide the design of the curriculum (cf. 5.4.2).

The expert panel participants' views correlated with literature on constructive alignment. As (Biggs 2014:5), emphasis, constructive alignment is a results-based method on how learning goals that students are expected to accomplish are established before instruction. The author further mentions that to ensure effective implementation of constructive alignment, institutional policies and processes must be in place, cascaded, and embraced (cf. 2.2.4, 2.2.5 & 5.7.1). Therefore, in my opinion the EMPP curriculum must be constructively aligned (cf. 2.2.6.6). In agreement, one participant recommended that constructive alignment of the EMPP is essential. Constructive alignment is intended to enhance the quality of teaching and learning and hinges on defining the outcomes students are intended to achieve (Robnagelld *et al.* 2021:2). The back design of the programmes should be done as seen in the following comment:

"...the aligned for articulation into the next level which is NQF 5 (for the learning outcomes, even for the EMPP I will also recommend the back design or constructive alignment done even within a qualification (working thus from the diploma, back to the NCert to the EMPP)"[P7].

As mentioned in 6.5.1, the curriculum will flow from the purpose of the programme. In my opinion, the curriculum of the EMPP should be constructively aligned as well as aligned

with EMC education. As indicated by the Delphi survey results, the EMPP curriculum should align with EMC education (cf. 2.2.6.6; 5.5). However, the Delphi survey results cautioned that although EMC links can be part of the teaching on the EMPP, experiential learning and EMC medical skills should not be part of teaching on the EMPP. In my opinion, the EMPP should not include any experiential learning (medical skills), but specific links and examples should be used to explain certain topics, for instance, in mathematics and physics. Including EMC examples could make teaching more enjoyable and understandable to the students (cf.5.5).

*"I think that the curriculum, in my opinion, will flow from the purpose of the programme"[P5].
 "...the purpose of the programme, and therefore the curriculum will stem from that (p) it will flow from that purpose, it is a preparatory programme, not an access programme, the access process is a separate process that the university should have handled, and with its own criteria and its own purpose" [P6].*

In my opinion, the EMPP should be seen as part of the package to provide the candidates with access and preparation. Although, access and preparation are seen as two separate processes, in the case of EMC in-service personnel both processes should be aligned for the candidate to gain access and to provide the candidate with the best possible opportunity to be successful. In Australia, a one-year full-time or two-year part-time course that combines academic skills development, basic health sciences, and social sciences are done (Campbell 2021, O`Meara 2021). Moreover, these programmes are distinguished by small class sizes and intensive individual support. On completion, students transition into the mainstream degrees and carry forward credits into year 2 of their selected degrees. In my opinion, as mentioned the ECP could follow the same underbuilt as the ECP.

"...main purpose is so that a person who has been through that programme will gain entry into, for example, a higher certificate, but not only will they gain entry, they will have an as good success rate as matriculants leaving because if the purpose in my mind, if the purpose of an EMP programme is to take in-service staff who are normally mature age, who haven't been at school for a while, and prepare them so that they can be successful when they do enter the higher certificate or diploma, for example, then the curriculum must speak to those areas of the higher certificate or the diploma where we know there are challenges" [P5].

I support the view of one of the participants who said that passing Physical Science and Mathematics at HE level could be very daunting for adult students who never engaged in HE before:

"...logic dictates that part of the curriculum of the EMPP must be focused on addressing those understandings of Physics to the point that they would be having a similar understanding as the classmates"[P5].

In the case of the EMPP the curriculum should be focused on foundational areas, such as mathematics, physics. The Delphi survey results are supporting the views of the expert panel that foundational knowledge needs to be included in the curriculum of the EMPP. I further support the statement made by one participant that the goal of the EMPP should be clearly defined and that the curriculum should speak to that goal (cf. 4.2). However, as mentioned previously, access pathways and programmes such as the EMPP should be combined in the solution to assisting EMC in-service personnel to gain access to HE. I do, however, feel that although a programme such as the EMPP should be focused on preparation, it should not be delinked from access pathways. As mentioned by a participant, the

"EMPP firstly caters to those with the correct subjects but not having the required symbols. Hence, one stream will cater to those, and a second stream will cater to those without the correct subjects" [P1].

In my opinion, the unique situation of EMC in-service personnel should be handled by providing access (cf. 2.2.1) and then adequately preparing the candidate for HE. As seen in the literature, a study in Australia, indicated that equity-group students articulating from access programmes experience some barriers to success, for example, that students may have greater resilience due to the access programme, but still lack preparation and academic support McKay *et al.* (2018:51). Hence, my opinion is that access alone is not enough to effectively assist in-service EMC personnel to provide them with the best possible opportunity to be successful with their studies.

"So, I think the curriculum, in my opinion, would flow from saying where the pressure points in those programmes that mature age learners will struggle, and then the curriculum must speak to those areas"[P5].
"...if it's preparation, that is what you're looking for, then you need to speak to the preparation aspect of it" [P1].
"...if it's access, then it ought to, for example, be what are the subjects that the candidates are lacking for the particular programme?"[P3].
"Thank you, I wish to agree with the previous two speakers, and just add the fact that we are talking to access, one, having looked at the specific subjects where one is lacking, that means one would have to then focus on that, if it's one subject, where one needs to upgrade to be then the one subject, and if it's all subjects, that one should be able to register, then for all subjects into an upgrade for access. So yeah, that is just (p) my opinion on that one" [P1].

As mentioned by one participant, emphasis should be placed on academic writing as a focus area of the EMPP: *"...I mentioned academic writing" [P3].*

Statement: What should the core focus of an EMPP be?

The expert panel members reached consensus that the focus of the EMPP should be on in-service EMC personnel. As seen from the Delphi survey, including school-leavers could open possibilities for school-leavers to enter an EMPP programme might positively affect the healthcare industry, where change can be instilled early on, using young and willing minds. In my opinion, although I believe that the inclusion of school-leavers could provide opportunities for young people to access EMC education, currently the focus of programmes such as the EMPP should be on assisting the in-service EMC personnel currently battling with access to HE (cf. 2.2.1). The role of an EMPP with regards to school-leavers should be further investigated, and in the case of school-leavers should be benchmarked from the ECP programme (cf. 2.2.2).

Although, one of the participants mentioned that school-leavers should follow a different route of access, we cannot disregard that some school-leavers not meeting the requirements might want to study EMC. Moreover, to build the EMC professional we cannot disregard the role of school-leavers. As mentioned, I do agree that the EMPP should firstly focus on in-service personnel, but as with other extended curriculum programmes, EMC HE should not find itself in a position of not wanting to develop the school-leaver. One of the participants, agreed, that first we need to assist the in-service EMC personnel, before assisting school-leavers. Regarding whether the EMPP should also cater for school-leavers, it was poignantly expressed by a participant as follows,

"...in a stream with school-leavers already that the gap between the school-leaver and the staff member that's been in the service for the last five or 10 odd years..." [P6].
"...that there is a need for such a programme" [P6].
"...a school-leaver or someone who's employed and what have you, (p) who is not in the emergency medical services (p) that they need to follow a different route, they need to (p) go the route of doing the NSC as amended or upgrading the matric and applying for the programme when they meet the requirements" [P5].
"I don't think this programme is and for anyone who's not in that category, otherwise we are creating a duplicitous system where it's not about the matric anymore, you know, there's this other avenue to get in, and I don't think that would work. But obviously, there might be different views on it" [P5].
"I wish to agree with Number two and indicate that, specifically, as we said, in the beginning that we're looking at in-service staff. We need to keep in mind that we had a few documents that came out that are regulating and trying to give sort of direction to EMS where we sitting with, I believe it was the NECET policy of 2017" [P1].
"...that also caters for a migration plan of officials, and especially now looking at those that are in-service and how they can be upgraded" [P1].

The participant also indicated a need for an access programme for school-leavers, but that it should be a separate programme. One other participant mentioned that role-players in

EMC education felt that programmes such as the EMPP might be an avenue for school-leavers to enter EMC, but the participant also indicated that if this is allowed, it may initiate confusion between access and preparation (cf. 5.4.1).

"I am aware of discussions and opinions outside of this forum where it has been mentioned as well, we have some of the industry role-players feel that this is an avenue for a school-leaver to enter, but I do think that the previous speaker is completely correct in saying that if we include school-leavers in the cohort or in the group of people that are allowed to enter into the EMPP, we're again getting confused between access and preparation." [P2]
"...the school-leaver isn't in the system already and isn't necessarily part of the cohort that has been part of a historical disadvantage where they thought that they do the BAA, AEA then the CCA, that's how they progress"[P2].
"So the school-leaver, I think should not be part of this programme, that should be for the in-service staff"[P2].
"...perhaps then for the school-leaver is not an EMPP, but perhaps from an employer level, a bit more direction about avenues to follow to enter into HEI programmes" [P2].

One participant seemed to indicate that the EMC profession could not be transformed if it only qualified school-leavers from EMC programmes and further emphasised that we should not forget about the in-service personnel. I strongly believe that the migration of in-services EMC personnel is important in professionalising the EMC profession. However, I also deem it essential that the youth's important role in developing a new profession such as EMC should not be overlooked.

"Opening up the possibilities for school-leavers to enter an EMP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds"(cf. 5.4.1).
"Because the real challenge in my mind is, you have a group of people entering a programme like a higher certificate or diploma, but that group is not homogenous. Some of them are school-leavers, and some of them now will be in-service staff because we cannot transform the profession by only qualifying school-leavers. We need to not forget about the people that are in-service, who have not through fault of their own, not had the required symbols or maybe hadn't gone to the best school or went to school many years ago"[P5].

The focus of the EMPP should be on be on those holding one of the EMC short courses (cf. 4.4.1). Additionally, one participant mentioned that the EMPP's focus should be on foundational knowledge (cf. 4.2, 5.4.1 & 5.4.2).

"...those who hold one of the three EMC short course qualifications and are currently registered with the HPCSA" [P1].

"...the focus might also be influenced by the current need in the field of EMC nationally" [P7].

"It's not like they're upgrading, if they had Physics on a three off to the EMPP, they're not going to walk away with an NSC that's amended to show Physics on a four/five" [P5].

"...(p) if you have an EMP programme that exists, either it's going to be offered by the university, or it's going to be offered by a provider, but the university, to make that programme valuable, the university would have to accept their senate. So, if I use example UJ - UJ senate would need to accept the EMP programme run by Damelin, as just as an example, as a bona fide programme that leads to entry into the higher certificate for in-service staff who may have Physics but not on the level. And also, not only the senate of the universities have to approve these programmes, but the University of South Africa will also have to approve these programmes as a bona fide vehicle to (p) allow for the transformation of in-service staff, because if those two role-players agree, then the 10% rule of RPL and everything is besides that..." [P5].

"...the purpose of the EMP programme would be to speak to that person who is in the industry, but who does not meet the requirements to enter into the HEI programme."

"Most of the time should be spent building up those gaps in their knowledge for the foundational academic under-build like Computer Literacy, language, English writing skills, stuff that's going to make them successful" [P5].

The importance of the NECET policy regarding the migration plan and the significance to in-service personnel was mentioned (NECET 2017:5 & cf. 4.2). In addition, the participants felt very strongly that the EMPP should only be for in-service personnel. In my opinion the NECET policy is not providing sufficient guidance on the actual migration of EMC personnel into HE. If the focus of the EMPP is on preparation, a participant made the following comparison:

"...but if it is a preparatory programme, then it will be a matter of the people needing access, they meet the minimum requirements, terms of the subjects, they've done the subjects elsewhere, for example, whether to be a Damelin or whatever the institution that offers matric (p), and then the preparation programme then would speak to things like (p), academic writing, you know, and other aspects of the programme, depending on which programme they want to have access into whether it's the higher certificate, the diploma or the four-year degree, because I would imagine that the preparation programme would have to be tailored for each of those various programmes" [P3].

The importance of legislative agreement is emphasised. The EMPP at the CUT is approved by the senates of the UJ and the CUT. One of the participants [P5] further mentioned that we are in a situation where EMS will be professionalised, meaning only HE qualifications will register with the HPCSA. The participant indicated that the main issue is managing all those in-service personnel who do not have HE qualifications. Most in-service personnel have short courses not on the NQF and are also not registered with SAQA (cf. 1.2). The participant mentioned that it is simple to say that some will not want to study further.

"...this programme would need to be accepted by the senate and by University of South Africa as a bona fide vehicle to bridge that gap only for mature age in-service staff and, you know, I think that's probably in my mind what the EMP programme should be looking at" [P5]. The participant indicated that his understanding of the EMPP is "...taking people who have the grade 12, they also have the subjects, but they don't have the APS score, and therefore, they would now go through a refresher-type prep programme and so that if they are successful, they can be accepted on to the programme" [P5]. It is also stated that the EMPP should serve as a "...filter so that students who engage in the EMP programme will do very poorly or do not pass the programme, do not waste further public funds and resources and everything engaging then in the programmes because the evidence is that they aren't ready, and they will not be successful" [P5]. "...understand that we are in a transition as a profession and that the transition that we are in is going to affect all of us as educators and the profession" [P5].

"The guys that are close to retirement and everything, they will not want to, but they may be younger people or mid-career people who want to..." [P5].

Moreover, the participant mentioned that the EMPP is a vehicle for those younger or mid-level candidates who still wants to progress in EMS. I believe that the EMPP must be a means to assist EMC personnel in being successful on EMC HE programmes by effectively preparing the adult EMC candidates for HE studies. As mentioned in Chapter 2, the EMPP might have a role to play together with access pathways (cf. 2.2.2). As mentioned by (Tito 2008), the students should be assisted with access and success in HE.

"...this vehicle, the EMPP is catering for those people, but if we are still running EMP programmes 10 years from now, then the only people to blame are the EMS managers and services because they keep employing people with BAA and a grade 12 with Biblical Studies and Agricultural Sciences." [P5]

The importance of the EMPP was emphasised, but it should not be a long-term solution. The participant elaborated that the EMPP is currently needed but not for the long-term and mentioned that EMS need to change their mindset. The participant seemed to propose that EMS should not employ candidates not meeting the HE admission criteria, including those with short course training. Furthermore, the participant mentioned that EMS must be portrayed as professionalised:

"...until that mindset can be changed in EMS, we will continue to have I think a need for these types of programmes" [P5].

"...you don't see nurses and doctors and dentists saying 'where is our preparation programme?' For a guy who leaves school but wants to be a doctor but doesn't have maths" [P5].

"...reason we have these questions is, our profession is in its young transition phase" [P5].

The participant continued by providing the following reason for the EMC profession still needing programmes such as the EMPP. In agreement, one other participant mentioned that we should close the gap of employing more people not meeting HE admission requirements. The participant further indicated that if the problem mentioned above is not

sorted out, having in-service personnel who do not meet HE admission criteria will persist. The EMPP serves a great purpose and that, as previously mentioned, talks to the needs of the NECET policy, which is focusing directly on the in-service personnel:

"...try and close the tap of having more people coming in that are not meeting the requirements from the beginning, and the employers should make sure that they hire the correct people" [P1].
"...looking at specifically in-service personnel and trying to get them to gain access on to these major programmes that the service is in need of and to upgrade and migrate its people from the levels they are to the next level" [P1].

Statement: What should the duration of an EMPP be?

The term 'notional learning hours' refers to the anticipated amount of time required for an 'average' student to accomplish the course unit or programme's defined learning goals (SAQA 2004:18, cf. 2.2.1.4 & 4.3.3). These are not accurate measures, but they give students an idea of the amount of study and effort required. Notional learning time includes time spent in contact with facilitators, for example, lectures, seminars, tutorials, laboratory practical's, workshops, and fieldwork; time spent preparing for and administering formative and summative assessments, for example, written coursework, oral presentations, and exams, and time spent on private study, whether during the academic year or the summer vacations (cf. 4.3.3).

Consensus was reached among participants (n=7) that the EMPP should be a one-year SLP. As seen in Australia, an access programme at the La Trobe university have a one-year full-time or two-year part-time course that combines academic skills development, basic health sciences, and social sciences (O`Meara 2021). In addition, a university foundation programme in Qatar, Education city are also a one-year programme. As mentioned by Rollnick, 2010, Ogude *et al.* (2019), foundation programmes are one-year non-credit programmes that include modules that differ from standard academic modules, whereas augmented programmes are modified academic programmes that allow students to complete them sooner than standard programmes. One of the participants indicated that the EMPP should be presented in an academic year. I agree with the expert panel members that if the EMPP is a one-year programme, it will provide the university with sufficient time to plan and identify those candidates who will form part of the next cohort (cf. 2.2.1.4 & 4.3.3). In addition, one of the participants mentioned that the duration of the EMPP should align with the admission criteria. In addition, the outcomes of the EMPP will guide the duration of the programme.

"...would be as close to an academic year as possible" [P2].

"...that the type of student that we would be with that would be on the programme would need more time to grapple with or to engage with and grapple with the content, and to ensure that the content makes sense" [P2].

"...such as a Physical Preparedness module, and the longer we've got with the student, the better Physical Preparedness results you can get without the risk of injury or adverse events" [P2].

"...which should be aligned with the admission criteria" [P7].

"...focus is established, the duration will be apparent" [P7].

"I will look at the outcomes of the SLPs which can grant a candidate access to the EMPP (this will obviously be aligned with the NQF levels) and then recommend a reasonable time of duration. Also, remember that notional hours and credits (if it should change to credit-bearing) also influence the duration. Twelve credits equal 120 notional hours, and one year of study should not exceed 120 credits. My personal feeling is that it should be one additional year for such prospective candidates" [P7].

"So as close to an academic year as possible. The other reason why I would say that is because that would allow the university that makes the decision whether this person enters or not to get those final cohort of people who will then go into the HEI programme. If the academic year can end (p) with the rest of the academic year, that gives the university enough time to plan and identify those candidates who will form part of the next cohort. If the EMPP carries on too long or is too far outside an academic calendar, it makes the planning for the cohort of the next year very, very difficult" [P2].

Also, as depicted by one participant, the educational model chosen by the EMPP would play a role in determining the duration of the programme. In my opinion, the EMPP and an access pathway should indicate the duration of the EMPP. I also believe that an academic year would be sufficient to prepare the candidates.

"Yeah, again, in terms of the timeline for such a programme would depend on the models that they are taking. So, if it is, for example, Physics or Chemistry and those kinds of modules, that is a year module, if you go study at FET, for instance, so it's definitely year module. It would also be depending on writing the exam or the matric at matriculation board, and that will take another few months" [P4].

Statement: What would be the most appropriate methods of facilitation to offer an EMPP?

For example, face-to-face, e-learning, blended learning

To engage with a changing generation of students, blended learning principles are increasingly being implemented by SA academic institutions as part of their revised teaching and learning strategies. Blended learning is a coherent design approach that openly assesses and integrates face-to-face and online learning strengths to address worthwhile educational goals (Dent & Harden 2017:107). I agree with the participants (n=7) that the most appropriate way to facilitate the EMPP would be to follow a blended learning approach. In my opinion, a blended learning approach will assist in reaching more EMC personnel. This approach will allow EMC personnel based outside of urban areas to complete theory components of the EMPP online. However, the researcher agrees that

the students should first have face-to-face sessions to adapt to the HE environment. The researcher further suggests that the Basic Digital Literacy module be presented at the beginning of the EMPP. Most participants acknowledged the role that COVID-19 played in transforming education into a more online platform.

"Surely a blended learning approach. The current pandemic has had great influence on the development of blended learning styles. Surely the candidates that I will suggest enrol for the EMPP are working and adult learners, which may not always be available for face-to-face instruction. The practical component of the EMPP should be reserved for face-to-face instruction or simulation. Here the proposed time to spend on a module will also need to be aligned with the assigned credits, notional hours etc., to be informed by each modules level of difficulty, at-risk modules, and the learning outcomes" [P7].

"...obviously, with the COVID regulation taking place, I say initially (p) more face-to-face, and then moving on to blended learning" [P4].

"...and now HEIs is being forced, thanks to COVID, to use a more blended learning approach" [P3].

As suggested by one participant, the EMPP should begin with a face-to-face approach and then a more blended learning scenario. The participant further mentioned that for in-service personnel to be able to cope with the workload of HE, it would probably be better to start with a face-to-face approach and then include the online platform. In agreement, another participant mentioned that the online platform might be a challenge and possibly present a barrier to academic success for in-service personnel. The participant further mentioned that this would also be an area that the EMPP should be looking at.

"...and the only reason I think that is if we look at our current HCert and Dip first-year students, the biggest thing that those students grapple with is the immediate online education or the online form of their education" [P4].

"...start with what the students are familiar with, and that would probably be more of face-to-face type approach and as the prep programme moves on, move towards a more blended learning, more online-type [inaudible] to prepare them for when they hit the HEI" [P4].

"...with folks in the service know how to use online platforms, etc., you know, I would imagine would be a challenge. So, I mean, issues like those would play a significant barrier to academic success" [P3].

"...so, I think the preparation programme would need to speak to such issues" [P3].

Regarding learning facilitation, one participant justifiably mentioned that one would need to take the recommendations from the professional bodies, such as the CHE and HPCSA, for example:

"...the EMPP (say it is developed on an NQF 4), will have to include facilitators at least at one level higher, but the higher, the better" [P7].

6.5.3 Emergency Medical Care Preparatory Programme assessment

The expert panel members agree that the EMPP should follow a continuous assessment process. The expert panel members validated the Delphi survey results, stating that multiple assessment methods should be used for the EMPP. Furthermore, assessment methods should be aligned with the outcomes of the EMPP. The statements posted to the expert panel participants according to the interview guide are presented in Table 6.6.

Table 6.6: Theme 3: EMPP assessment

CODE	THEME	STATEMENT
Feedback Assessment methods Constructive alignment Learning outcomes Continuous assessment Facilitators Evaluation	EMPP assessment	What methods of evaluation/assessment could be used in the evaluation/assessment process?

Figure 6.4, represent the EMPP assessment code network.

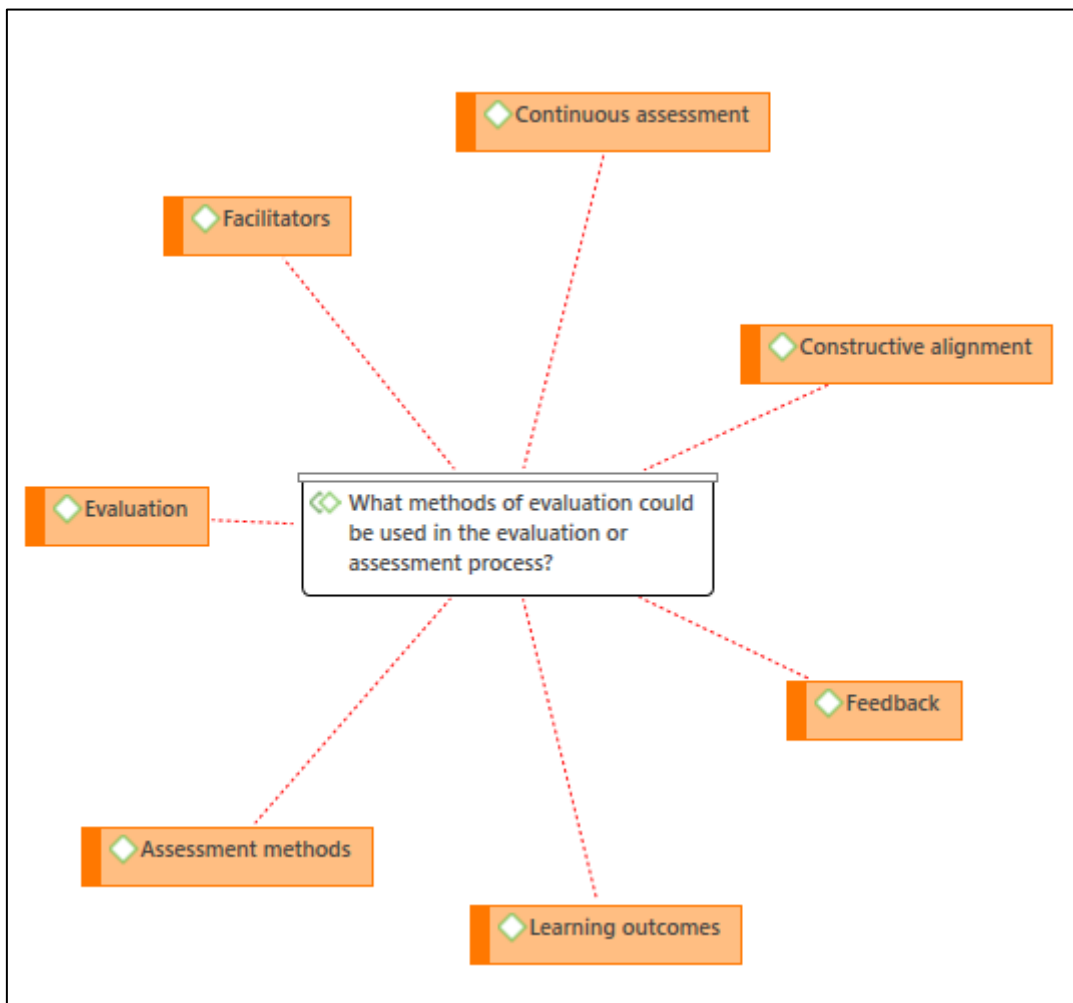


Figure 6.4: EMPP assessment code network

Statement: What methods of evaluation could be used in the evaluation or assessment process?

The importance of good assessment criteria is vital for assessment to be effective. More recently, emphasis is placed on how thoroughly the assessment provides results and feedback by ensuring that learning is created, enhanced, and supported (Dent & Harden 2017:254). The Delphi survey results, indicating that assessment methods should align with knowledge, skills, and outcomes defined at the beginning of each module (cf. 2.2.2 & 2.2.2.1).

Assessment methods should include a wide range of approaches (cf. 2.2.2 & 5.4.7). Multiple assessment methods, as shown in the Delphi survey, should be purposefully incorporated to facilitate the strengths of one method to compensate for the weaknesses of another.

Moreover, it is beneficial to appreciate the advantages and disadvantages of different assessment methodologies (Dent & Harden 2017:262 & cf. 2.2.2). One participant mentioned that the assessment methods should be linked to the correct assessment level. The participant also stated that the assessments should be based on Bloom's taxonomy (cf. 2.2.1.6). As mentioned in, Blooms, Bloom's taxonomy refers to categorising the many learning objectives established for students (Bloom, Engelhart, Furst, Hill & Krathwohl 1956:4). These educational objectives are divided into three domains, namely **cognitive**, **affective**, and **psychomotor**. Within each of these domains, learning at a higher level is reliant on mastery of the prerequisite knowledge at the lower levels. There are six levels, moving from the lowest to the highest level in the **cognitive** domain as revised by Anderson and Krathwohl (2014:114; cf.2.3.1.2).

As mentioned by one other participant, assessment methods should be aligned to the assessment methods used on the EMC HE programmes. In my opinion assessment methods should speak to appropriately constructed learning outcomes of a suitable quality to ensure that students are well prepared (cf. 2.2.1, 2.2.1.3, 2.2.1.5 & 4.3.4).

"Okay, my opinion on methods of evaluation, one would say they should be exposed to a variety of assessment methods, I mean, as much as we ought to have a blended type of learning, (p) the methods of assessment must also be that which are pegged on the right level and preparing them to deal with university levels of assessments. So, we need to be making sure that we cater everything according to Bloom's. So, your formative assessment summative assessments, whether one uses diagnostic assessments, anything that one can use, that is used at a level of an HEI they need to be exposed to that at this level" [P1].

"...should be similar to those they would encounter in the HEI programmes for which they are being prepared"[P5].

"...the assessments need to be robust enough, and of a sufficient standard to make sure that those who pass are indeed well prepared" [P5].

"Outcomes should be logic and fit for purpose"[P6].

All the participants seemed to agree that the EMPP should implement a continuous assessment strategy, possibly reducing the students' pressure. Van Zyl and le Roux (2021:3) highlight that CA may also assist in mitigating anxiety associated with only conducting final summative examinations. Additionally, Cook *et al.* (2013) argue that when final assessments are predominantly summative, students are prone to cram their studies prior to the assessment (Lovatt *et al.* 2007), culminating in superficial learning. As mentioned by Geysers 2004:101), the advantages of CA enable students to understand the areas in which they are having difficulty and allow that these areas are addressed. In addition, CA also ensure that frequent interaction between students and the facilitator enable the facilitator to know the strengths and weaknesses of their students. Furthermore,

facilitators can evaluate the effectiveness of their teaching strategies relative to the curriculum and the students can monitor their achievement of learning goals and visualise their progress towards those goals while it is still possible to do so (cf. 2.3.4). The following statements depict the views of four participants:

"... stress levels at the end of the year where students have to be subjected to an assessment where everything is done all at once" [P1].
"...there has to be a clear daily schedule in place. With continuous evaluation and not have final assessment at the end"[P1]
"...agree that the assessments should be CE not..."[P3].
"...agree that the assessments should be CE, not one high stakes assessment at the end of the year" [P4].
"...we need to also have a form of a continuous evaluation in place where we reduce stress levels at the end of the year where students have to be subjected to an assessment where everything is done all at once"[P5].

An important point raised by one participant was that assessment should prepare in-service personnel to the same academic level as school-leavers:

"...should prepare the candidate to be comparable to the school-leaver counterpart" [P6].

I believe that this is where the EMPP has a possible role to play, as candidates should be assisted to gain access to, HE programmes and be successful on these programmes. The EMC workforce is mainly adult students, who may not have had sufficient opportunities to study at HEIs in the past and will need to be assisted with the transformation of EMC education into HE (cf. 1.1).

6.5.4 Emergency Medical Care Preparatory Programme physical preparedness

The expert panel stated that a Biokineticist should scientifically plan the physical preparedness. The researcher supports this statement, as there is a need to relook at the criteria specific to Physical Preparedness and Learn-To-Swim. The panel indicated that the above-mentioned are out of the expertise of this panel. Mention was made that a study is currently being done on this topic. The statements posted to the expert panel participants according to the interview guide are depicted in Table 6.7.

Table 6.7: Theme 4: EMPP physical preparedness

CODE	THEME	SUB-THEME
Importance of assessment criteria Assessment methods Constructive alignment Assessment approach Alignment with assessment methods Appropriately aligned learning outcomes Continuous assessment Effectiveness of teaching strategies Role of assessment Blended learning	EMPP physical preparedness	Should Physical Preparedness and Learn-To-Swim be part of an EMPP?
Physical fitness requirements Swimming Learn to swim Scientific assessment criteria Scientific approach Formal assessment criteria Continuous assessment Healthy lifestyle Physical preparedness should not be a failing criteria Swimming should not be a failing criteria Fitness assessment Fitness programme	EMPP physical preparedness	How should physical preparedness be facilitated on the EMPP?

Figure 6.5, represent the EMPP physical preparedness code network.

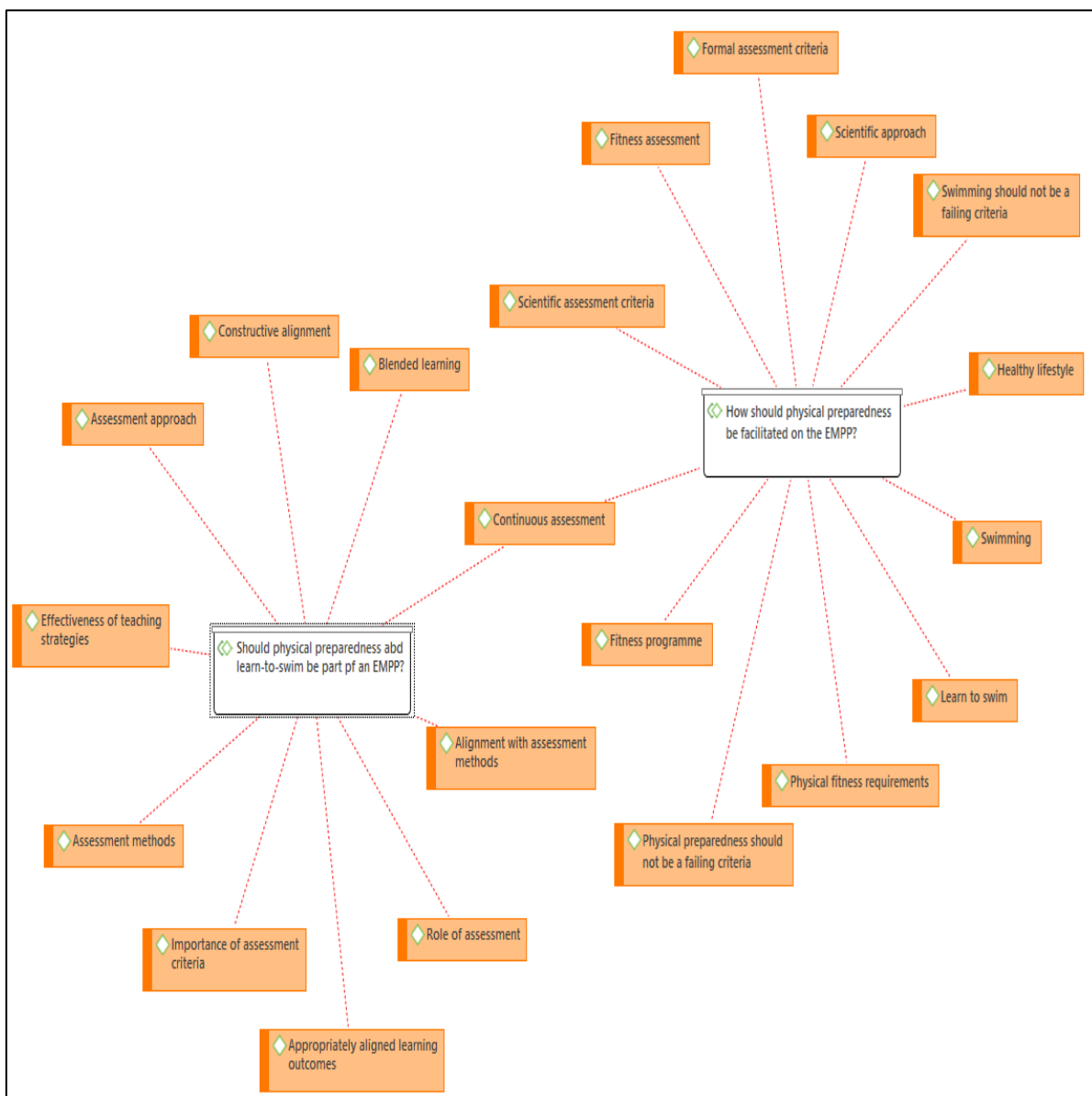


Figure 6.5: EMPP physical preparedness code network

Statement: Should Physical Preparedness and Learn-To-Swim be part of an EMPP?

The EMPP short-learning programme approval document (2019:2) shows that physical fitness is not an entry requirement for the EMPP. I agree with the Delphi survey results (cf. 5.4.8) and the expert panel participants (n=7) that physical preparedness, including learning to swim, should form part of the EMPP. As Muhlbauer *et al.* (2021:2), emphasises, physical inactivity relates to an increased risk of injury and decreased capacity to execute duties. A concern was raised regarding the general fitness level of in-service personnel, and that physical preparedness are a vital component to address on the EMPP. One of the participants also mentioned that the level of physical preparedness required from HE EMC programmes should inform the level of physical fitness. As mentioned in, section 2.4.2.1, a

scientifically research tool does not exist to establish the exact criteria for assessing the physical fitness levels of students (Muhlbauer *et al.* 2021). In my opinion, subjecting the candidates to harsh fitness and swimming requirements could be seen as exclusionary, as one of the participants mentioned. Moreover, specialised rescue is only presented on the BEMC programme, where it could be argued that the students would need to be at a certain fitness level, including the ability to swim at a certain level. Moreover, EMS should provide personnel with continuous physical aptitude tests or health assessments. I propose that emergency care services provide personnel with clear guidelines on being physically healthy and guidelines on how health assessments will be monitored.

"...looking at what is required by the universities on the diploma or Hcert or degree, that particular level of physical preparedness needs to be included in the EMPP" [P1].

"...folks in the profession, the older folk may not necessarily be in a state of physical readiness to take part in the programme. So, I think this will be a vital component, and I mean, the older folks generally sometimes struggle with the physical preparedness component" [P3].

As indicated by one participant, the Physical Preparedness module should be matching the programme the candidate is applying for.

"...it should be pegged correctly to match that of the programmes for which the candidate will be applying for (p), so it should not be any different" [P1].

The expert panel agree with the Delphi survey results, that the EMPP, should have a Learn-To-Swim component (cf. 5.10.1). As one participant stated, swimming should be seen as a life skill that is quite easily taught once a student has been selected (cf. 5.10.1). Furthermore, the importance of making the applicants aware that they will be required to learn to swim on the EMPP, before commencing with the programme was again emphasised. In my opinion, the EMPP should provide a learn to swim programme.

"...has a Learn-To-Swim, which I fully agree that it should have a Learn-To-Swim in it" [P1].

Although learning to swim should form part of the EMPP, one participant pointed out that the requirements for swimming would need to be addressed. The general feeling was that learning to swim should be taught as a life skill. In my opinion the candidates should know exactly what is expected from them at the start of the EMPP regarding physical preparedness and learning to swim. Moreover, physical preparedness and learning to swim should have valid and obtainable outcomes. I am in support with the view of one of the participants that physical preparedness should be a life skill. As mentioned in the study by Muhlbauer *et al.* (2021), a scientifically validated assessment tool or criteria for physical

preparedness does not exist. Without valid criteria to assess the physical preparedness level of the students, the question that we need to answer is how constructive are assessing physical preparedness and does it have a role to play on EMC programmes not presenting rescue modules. Without clear assessment guidelines, the assessment of the outcomes could be seen as being unfair. As mentioned by one of the participants, the assessment criteria should be scientifically developed. Another participant further mentioned that a tailor-made programme should be constructed focusing on specific needs.

"...so that at least this part of a life skill, being able to swim to save yourself and hopefully be able to retrieve someone else in the process" [P1].
"I fully agree, but the swim requirements need to be addressed" [P1].
"I agree that the difference between being able to swim, the level expected for swimming for EMS workers and then level expected for rescuers will all need to be determined more scientifically"[P5]. "...selection should be strict and not set candidates up for failure!" [P1].
"...embed itself, such that people who don't pass this component should not pass the EMPP, and if they don't pass the EMPP, then by virtue of that they should not enter into the higher education programmes, and we'd need to repeat components of the EMPP because there could take the pressure off the higher educations that are currently many managing programmes that have this included" [P5].
"...they will be told, I mean, this is what is the expected outcome of these people at the end of the programme, and then have a programme that is tailor-made to suit the individuals on the programme"[P3].
"Fully agree with this. Anyone applying needs to know exactly what would be expected of them and also should be in good health"[P5].
"I don't think that being able to swim should be an entry requirement, they should rather be taught whilst on the programme, agree that the assessments should be CE not..." [P3].
"...agree that the assessments should be CE not one high stake assessment at the end of the year"[P4].

One of the participants [P4] mentioned that EMS personnel see physical preparedness as only PT, and do not understand that they fail if they do not complete the module. Once again, in my opinion, we should validate why swimming is part of the curriculum for basic programmes such as the ECA. I believe that doing specialised rescue programmes and techniques should be an option for the student after completing basic EMC programmes. I do not disagree that being physically fit and healthy are vitally important, but as mentioned in Chapter 5, we need to validate why swimming and physical preparedness need to be assessable, even if not part of the curriculum of that programme (cf. 5.10.1).

The participant indicated that the staff does not understand that Physical Preparedness is a module and that one would need to pass the module like any other module. In my opinion, as mentioned in section 5.4.1, having non-credit-bearing modules that keep students from obtaining qualifications are not good educational practices. In agreement, one of the participants mentioned that although physical preparedness is vital for all EMS practitioners, it cannot be credit-bearing as it may hinder students' progress (n=1). As mentioned in

Chapter 4, section 4.4.1, an example of students passing all academic subjects but failing only physical preparedness could be seen as unfair, even more so on a programme not having any rescue related content as part of its curriculum.

"'PT' and do not understand why a student should fail if they fail physical preparedness".
"It's a module, I mean, the student cannot pass or graduate without passing any module"
 [P3].

The students will be required to obtain a flight medical assessment prior to enrolment into the programme. In agreement with the Delphi survey results, a basic medical assessment should form part of the entry criteria for the EMPP. I believe a basic medical examination would provide sufficient information on the medical fitness of the candidate. In addition, a flight medical assessment is more expensive and not always available, as it is very specialised (cf. 4.4.1).

Statement: How should physical preparedness be facilitated for the EMPP?

I believe, that as in countries such as Australia, SA EMC training should move in a direction were the student complete the basic EMC programmes and then have the option of completing a rescue programme (cf. 4.4.1). One participant indicated that it would be a great advantage if the EMPP could assist in preparing the student to pass the physical fitness requirements. A primary concern was that students on EMC programmes pass all academic subjects but fail to meet the Physical Preparedness module outcomes. This has a significant impact on the individual student and also has financial implications. As mentioned in section (above), physical preparedness and swimming should not hinder students from progress, especially in programmes that do not present any rescue related content, or as in the case of the Dip EMC very basic rescue concepts.

"...it will take a massive amount of pressure off the university"[P5].
"...there's a huge amount of energy and interest, and it's not all positive about that person who comes on a programme and then passes everything and then right near the end they can't, you know, fitness requirements."[P5].

The participants stated the following regarding physical preparedness and learning to swim being entry criteria:

"It's very important that it needs to be part" [P1].
"I definitely think, I mean, it should be part of the EMPP" [P3].
"...that they are also having issues with the diploma and that they are not getting the adequate throughputs because the folks are not making it (p) as a result of the physical preparedness." [P3]
"Yes, but as a life skill preparing candidates to be successful in the HEI programme" [P6].
"I don't think that being able to swim should be an entry requirement" [P3].

I believe that physical preparedness and learning to swim should be based on a scientifically developed fitness programme structured around students' individual needs. I support the results of the Delphi survey that Learn-To-Swim and Physical Preparedness should not be formal modules but a lifestyle. Furthermore, as mentioned by one of the Delphi survey participants, physical preparedness and learning-To-swim are essential aspects that the EMPP should focus on. One participant mentioned that the entry criteria of the EMPP should filter out based on BMI. In my opinion, rather than excluding candidates based on BMI, which may be seen as exclusionary and in a certain sense discriminating, they should be supported to obtain a healthy weight if they would want to pursue EMC programmes, such as rescue. Another concern was that physical preparedness assessments should also be continuous.

"...depending on what needs to be achieved, I think someone from a sports science background can assist, and then certain the coordinator can simply just facilitate things" [P3].
"...we need to try to determine things like (p) when we assess fitness, your cardiovascular fitness, your muscle strength power to weight ratio is not actually directly linked to whether you can swim or not" [P5].
"I think that it needs to be linked with going all the way back to the actual selection for the EMPP. Part of the selection criteria to allow someone onto the EMPP would also be a basic medical check-up, with special attention to the BMI and obesity because we know that people, I'm not talking about people that are slightly unfit to overweight, I'm talking about people that are obese, they get injured, and they don't pass" [P5].
"...there's already way too much pressure academically, and now having pressure when it comes to the actual exercise part of things. It adds a lot more now to the problem. If one can do an assessment on a continuous basis, even if one passes say that run, there needs to be that continuous, it doesn't mean that no, (p) you stop running. You continuously exercise to maintain that level" [P1].

The significance of candidates being medically cleared and that a scientific approach needs to be taken was raised. Subsequently, one other participant agreed and mentioned that scientific research should form the baseline for physical preparedness. The participants [P4] reported that it is essential to establish the expected fitness level required for EMS workers compared to rescue workers:

"I agree that the difference between being able to swim, the level expected for swimming for EMS workers and then level expected for rescuers will all need to be determined more scientifically" [P5].

"...in my opinion to follow a scientific fitness programme" [P5]. The importance of the correct facilitation of physical preparedness was emphasised, and it was stated that a thorough risk assessment of the student should be done.

"...a risk analysis of students getting into a programme, knowing fully well what they're about to embark on, so, I mean, you can't subject folks, especially the older folks who might be at even greater risk of physical preparedness in the EMPP and not do a thorough risk analysis in terms of medical screening before partaking in the EMPP" [P3].

"...you need the scientific programme, for example, (p) whether it's a personal trainer or someone from the sports science background, who will draw up a programme for people" [P3].

"...medically cleared; Baseline instruction; scientific programme to be followed; structured contact sessions" [P6].

"...but I just think that assessing fitness levels needs to be scientific, and the study from DUT is trying to determine what the tool would be. My feeling is that after a full year on an EMPP programme, I believe that the person should be assessed and be found to be physically fit to the same level as the students on that programme would need to be. It doesn't make sense to me that after a year you still haven't made it. If students are willing and able to exercise, there's no reason why after one year, they can't achieve the level that the school-leavers would be expected and that sets them up for success in the programme when they do" [P5].

"...my point that I made, especially when it comes to the swimming, is that the focus has to be definitely on being able to swim, being able to swim to save yourself and even in the training part of it. We need to ensure that we introduce the skill of being able to go down and get someone out of the pool, then I feel some (p) swimming module in these programmes. And as well said, the criteria on the EMPP needs to be similar to that on the programmes to which one wants to access" [P1].

"...EMPP curriculum should inform physical preparedness outcomes and assessment etc. Outcomes should be logic and fit for purpose" [P6].

One participant made a valid statement about mitigating the risk of students getting injured. I support the statement made by one participant that the lecturer presenting physical preparedness must have physical fitness experience. I believe that a physically fit and healthy facilitator, who can participate in physical activities, such as swimming and running, will motivate students to achieve their physical fitness and swimming outcomes. One participant further mentioned that the students might have some sessions that they can do at home, but it should mainly be a contact session.

"...not have people on the EMPP that simply are not going to make it or will become injured, and the second thing is once they're on the programme..." [P5].

"...have the background experience, and they themselves need to probably know a little bit about exercise and exercising and so" [P5].

"So, I think it would have to be a mixture of contact" [P5].

According to one participant regarding the swimming requirements, students are currently required to do a 200m swim over six minutes. The participant further suggested that students should not only be trained to complete a 200m swim but should also be able to

perform other skills. As mentioned by one participant, institutions are slowly moving away from old physical preparedness criteria but indicated that the current panel might not be experienced enough to give a conclusive answer. In addition, as mentioned by Mulhbauer *et al.* (2021), the assessment criteria for physical preparedness are not based on a scientifically proven tool, as this is not available.

"...it does not serve the purpose that I believe it is that the programmes are intended for" [P1]. "...but in the end, not being able to go down and pick up somebody who's maybe at the bottom of a pool out and maybe even do CPR on them and in the case where one has fallen in a pool, one is not going to be swimming 200 meters fast and then go and retrieve the patient"[P1].

"If one can swim, one goes to the side closest to where the patient dive down, pick up the patient, take out the pool, and resuscitate" [P1].

"...at the moment and how it has been structured, my feeling is that it serves a purpose of building stamina, but it doesn't serve the purpose of being able to help somebody" [P1].

"You can be very fit but be unable to swim and I think that maybe, what Number one was saying was that we should reflect on the ability to swim almost being seen as a life skill for all citizens of the country. But how good should we be at swimming if we are an EMS person? Because there's different levels, being able to doggy paddle to the side of a piece of water, if you slip and fall in is different from the type swimming you would need to retrieve a child from the bottom of a pool"[P5].

"I do not think this panel has got the experience to determine what is needed. It must be some from the biokinetics was sport science institution to answer those kinds of parameters and questions" [P4].

"...but here you are, you are correct, that those kinds of parameters was put in place in the 90s and we haven't really deviated from those criteria. The individual institutions are slowly moving away from that, especially our institution and some of that criteria that I have implemented last year (p) this year" [P4].

According to the Delphi survey results (cf. 5.11.1), the EMPP Physical Preparedness module should not have formal assessment criteria. I propose that Physical Preparedness and Learn-To-Swim be assessed as a normal EMC programme, allowing the student and facilitator to monitor the student's progress. However, the assessment outcomes should not be seen as a 'failing' criteria but rather a monitoring system. I do advise that the assessment outcomes of the Physical Preparedness and Learn-To-Swim criteria for EMC be further researched and updated to provide the practitioners with skills and capabilities aligned with their daily functions as EMC providers (cf. 2.5.4; 4.4.6; 5.10.1).

6.5.5 Emergency Medical Care Preparatory Programme generic skills and competencies

The expert panel agreed that the EMPP should not include generic skills and competencies, for example, administering medication. One participant mentioned that if the EMPP caters for in-service personnel, it is possible to include a one-day healthcare provider refresher course. All the other panel members agreed that the EMPP should not include technical

skills. However, the panel members reported that the EMPP content should be linked to that of EMC (theoretically) (cf. 5.12.1). The statements posted to the expert panel participants are presented in Table 6.8.

Table 6.8: Theme 5: EMPP generic skills and competencies

CODE	THEME	STATEMENT
Focus of the EMPP Alignment with EMC education Foundational knowledge Generic emergency medical care skills Access Preparation Emergency medical care educational links	EMPP generic skills and competencies	Should the EMPP include any generic EMC skills and competencies?

Figure 6.6 represents the EMPP generic skills and competencies code network.

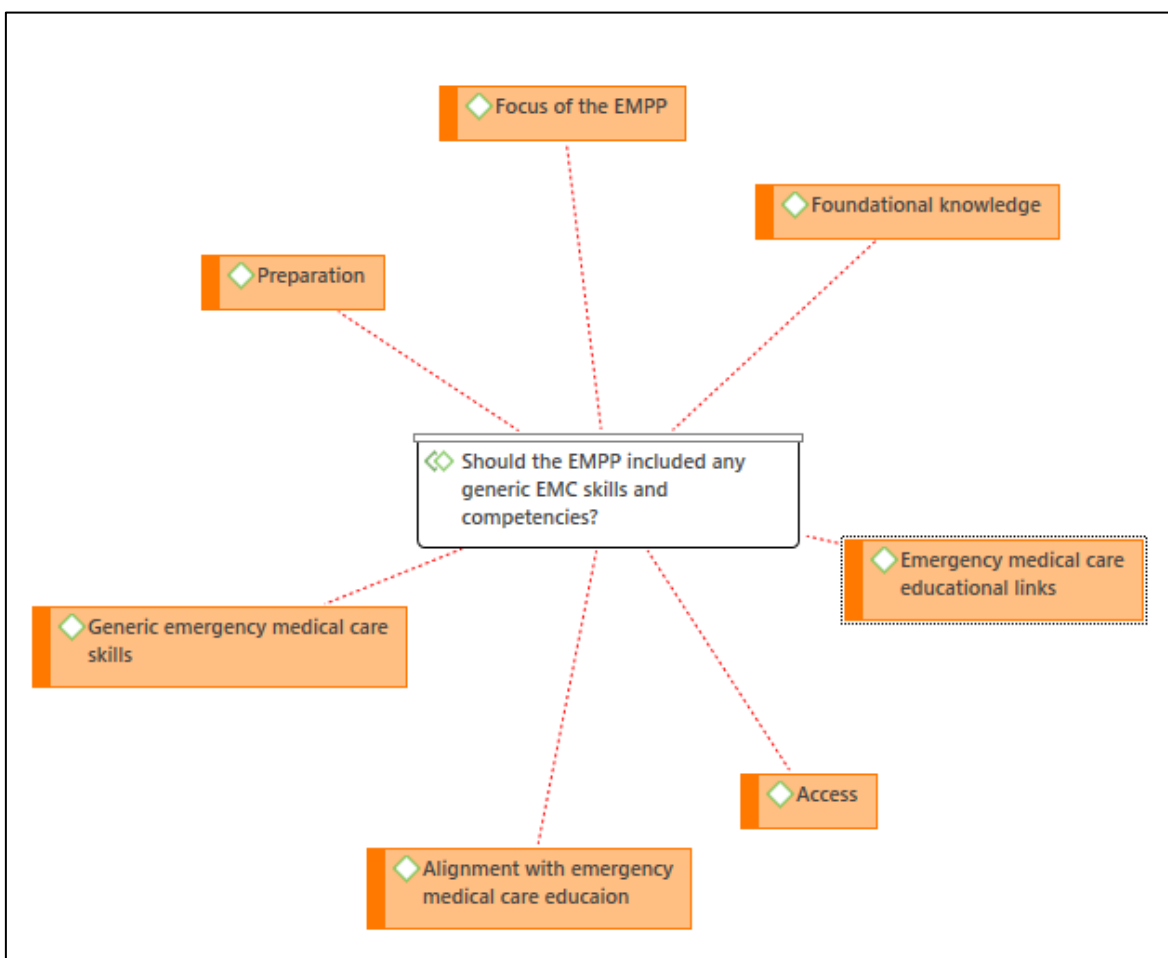


Figure 6.6: EMPP generic skills and competencies code network

Statement: Should the EMPP include any generic EMC skills and competencies?

The primary purpose of the EMPP should not be focused on refreshing EMC skills. The EMPP should not be focused on teaching physical skills, for example, how to site an IV line, but as mentioned by one of the participants it should assist in improving the writing and computer abilities of the student. I believe that the EMPP curriculum should align with EMC. For example, the EMPP may use theoretical concepts to assist the student in making sense of how mathematics is used in the EMC environment (cf. 5.12.1). However, the in support of the Delphi survey results, the EMPP should not include any generic skills and that experiential learning should not form part of the EMPP curriculum. One of the participants mentioned that in-service personnel are battling with Life Sciences, Mathematics, and Chemistry, and these subjects should be aligned to EMC education. The participants further mentioned that aligning the EMPP with EMC education would assist the student with focus on the areas they are going to engage on the EMC programme. Academic subjects were pointed out as the foremost concern when one looks at the preparedness of in-service personnel.

"...a refresher programme for EMC skills because those skills will be refreshed when they arrive, and they do the actual programme" [P5].

"...specifically also thinking of the person that doesn't necessarily pass the EMPP and doesn't make it onto the HEI programme but goes back into service, but now they understand or their ability to work on a computer, for example, has improved, their writing has improved, the way they complete patient report forms has improved" [P2].

"..... I think the understanding the generic EMC skills, if it's either skill driven understanding towards EMC, my opinion is no" [P6].

"...generic Life Sciences, Maths, etc., and preparing the individual" [P6].

"...aligned, and it should be purpose-built for EMC" [P6].

"...it would be speaking to the programme that is coming and not just overall generic one, it usually helps the students better if you focus more on the areas that they will be engaging on the upcoming HEI programme" [P6].

"...I think if you look at or if one looks at the feedback coming from the areas where the EMPP candidates have entered into the programmes, the concern with the preparedness is not always(p), in fact, that's the minority of cases where the concern is with clinical skill sets or the technical skill sets. The areas where these individuals are quite significantly underprepared are the areas that was mentioned, or were mentioned by the previous speaker, and those were, and those would be the more academic areas that speaks to the non-clinical modules, but those are the areas where the students struggle the most. So definitely, I think let's reserve the clinical updates for the BAA and the AEA refreshers in the CPG updates and things like that and keep the EMP programme where it's supposed to add the most value, and that is to prepare the students for the areas that they would struggle with the most, which is not clinical skill" [P5].

In comparison, one participant felt that the EMPP could include a BLS for healthcare provider's course. In addition, one of the other participants mentioned that the EMC in-service personnel are already registered health care professionals and could benefit from being refresher while on the EMPP. In contrast one participant indicated that the EMPP

could include some skills but that this is not necessary. I support the statement made by one expert panel member that the time spent on an EMPP should still provide candidates with some form of benefit when they return or go back to the service.

"I believe that if this programme is to really cater for access and preparation for the EMC, taking into account the fact that these are in-service officials and with what I said previously about the swimming and the skills required, it would not hurt to have a one-day BLS for healthcare provider that addresses issues of doing proper CPR and how to use a BVM." [P1]
"As if there are to be changes to how the swimming part is offered, and how it is assessed, those particular skills would then be necessary in terms of an area of focus. So, I would rather than to say when it comes to this particular question, my view is yes, thank you" [P1].
"The people on this programme are already registered health care professionals, i.e., at minimum, they would be BLS qualified?" [P5].
"I wouldn't mind if there was some skills, but I don't think they absolutely have to be there on the prep programme..." [P5].
"EMC clinical skills can be addressed on the HEI EMC programme" [P6].
"Definitely, in the EMPP it is important, especially for the person who doesn't necessarily make it, it still needs to be valuable when they go back into the service that they can at least benefit (p) from the time spent" [P2].

6.5.6 Emergency Medical Care Preparatory Programme quality assurance

No adjustments were made to this category by the expert panel members. However, the following recommendations were made:

- The expert panel agreed that the EMPP should align its QA processes with the HPCSA and CHE;
- The relevant institutional policies and guidelines on QA should be adhered to; and
- The EMPP should be consciously monitored as well as previous graduates to establish the success of the EMPP.

The statements posted to the expert panel participants according to the interview guide are shown in Table 6.9.

Table 6.9: Theme 6: EMPP quality assurance

CODE	THEME	SUB-THEME
Quality assurance process Prescriptions of professional bodies Responsibility Moderation Moderation process Qualified facilitators Upskilling	EMPP quality assurance	What should be included in quality assurance practices for an EMPP?

Figure 6.7 represents the EMPP quality assurance code network.

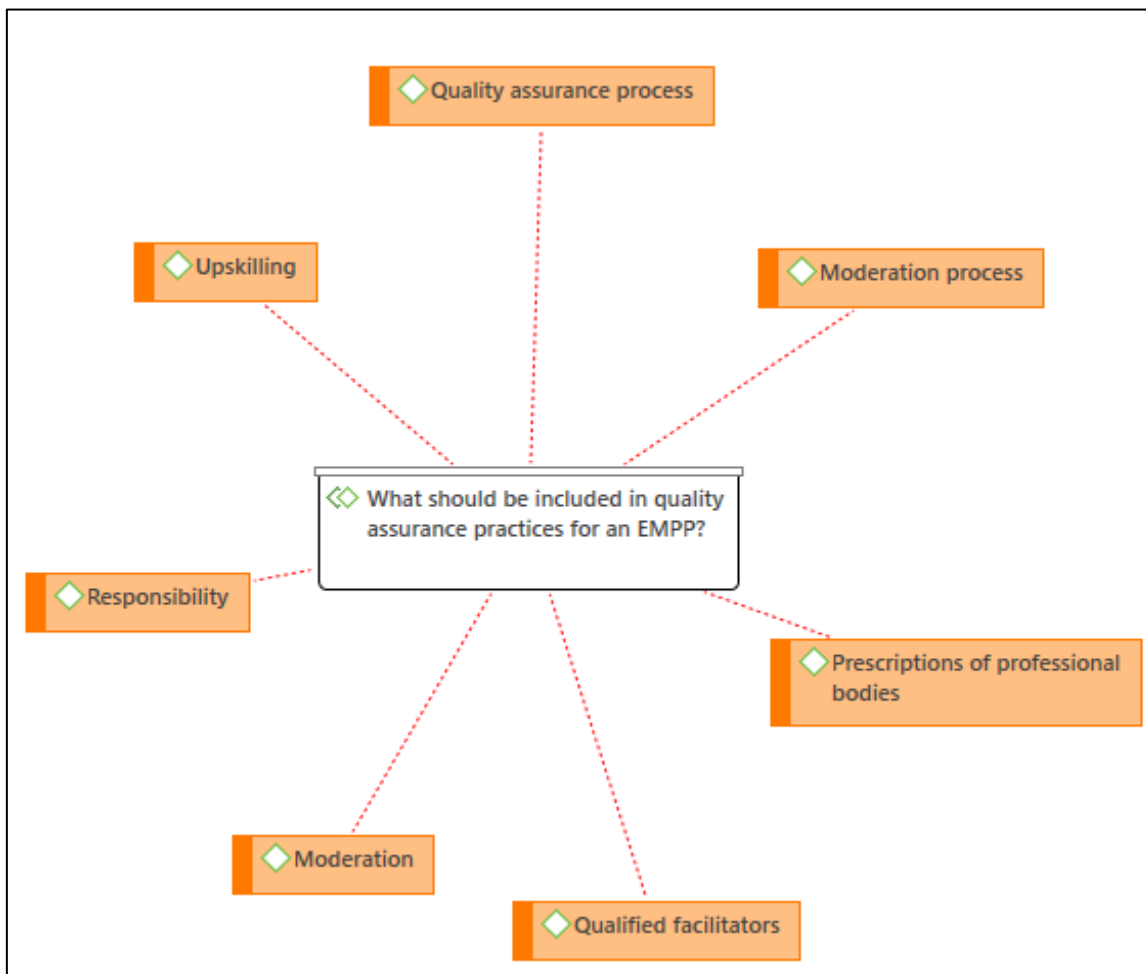


Figure 6.7: EMPP quality assurance code network

Statement: What should be included in quality assurance practices for an EMPP?

In SA, the HEQC defines QA as the “processes of ensuring that specified standards or requirements have been achieved” (CHE 2013:6; cf. 2.2.1). The HEQC clearly states in their criteria document for delegation of the quality management of SLPs that “an integrated institutional strategic planning framework courses” is required from providers (CHE 2008:13; cf. 2.3). The QAF is predicated on the idea that HEIs are accountable for the quality of their core academic and support services and that academic leadership, Communities of Practice, peer review, and innovation all work together to accomplish continual quality improvements and upgrades. Institutions should be able to transform the data provided by IQA and EQA processes into institutional knowledge that may be used for institutional planning, academic leadership, and innovation. The CHE emphasises curriculum change, pedagogical renewal, and provisional flexibility in the QAF. It does so in a way that

encourages HEIs to think critically about the implications of their IQA results and the best way to address them (CHE 2021:31).

The CHE's EQA system for HE must be "fit for purpose" in the SA context. It must address the continuous transformation issue, including the need to expand both formal and epistemic access. Moreover, it must monitor system adaptability to suit the demands of students. The EQA system must address the problems posed by a SA HE system that is expanding, becoming increasingly complicated, fluid, and at times unstable. It must be responsive to rapid technological advancements and socio-economic challenges affecting HE (CHE 2021:35). According to one participant, one would have to set clear goals and requirements and continuously monitor whether the programme is achieving what it is intended to:

"...complying with the goals set and the requirements and this should be a regular check that is done in order to make sure that the programme does achieve that for which it was created" [P1]. The participant further mentioned that "...measures have to be put in place, and there has to be clear monitoring on a continuous basis" [P1].

"...we should not find ourselves at the end of the year only and say we've taken students onto the programme as a full academic year programme and at the end, we find that students still cannot swim, or students are not passing Mathematics or they're not passing Sciences. So, they need to be a clear continuous monitoring taking place" [P1].

In my opinion the QA practices of the EMPP should be aligned with the applicable prescriptions of the professional body governing EMC education, and as stated by one participant (cf. 2.3). Moreover, as mentioned by one of the participants only registered institutions should present the EMPP. One participant felt that if a provincial college presented the EMPP, there should be a joint responsibility towards QA as the university policies and procedures are then used for the EMPP.

"...with the approved quality assurance policies and procedures of the institution offering the EMPP" [P7].

"EMPP should be seen as a formal qualification and hence should be handled as any other qualification" [P7].

"...quality assurance mechanisms would be taken from the quality procedures and policies of that individual institution presenting the EMPP" [P5].

"...no institution should provide the EMP programme, unless they are a bona fide or registered provider of educational programmes" [P5].

"...elects to partner with a provincial college that offers the programme or parts of the programme, then the responsibility for quality would both rest with the university as well as with whoever the provider is" [P5].

Moderation is the process of verifying and validating the reliability, accuracy, and validity of the assessment process (examination and marking procedures and the module's outcomes)

for summative assessment assignments and deliverables (CHE 2004:29). I agree with the Delphi survey results that the assessment of student learning achievements by academic staff responsible for a lectured module should be subjected to external moderation by appropriately qualified academics. Furthermore, suitably qualified external moderators or examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. Moderation was seen as an essential part of monitoring the quality of the EMPP.

As the Delphi survey results suggest, moderation should be an essential element of ensuring and maintaining the quality of the EMPP. Moreover, moderators should be appointed with clear criteria and procedures and conduct their responsibilities in terms of clear guidelines. As Adie, Lloyd & Beutel (2011) mentioned, the purpose of moderation is to ensure that assessment aligns with established criteria, learning outcomes and standards; its processes are equitable, fair and valid; and judgements are consistently reliable based on evidence. In addition, effective moderation processes involve discussing assessment tasks, criteria, standards, and judgment decisions to ensure the validity and reliability of assessments to improve the quality of the teaching/learning experience. I support that EMPP graduates be monitored on EMC programmes to establish the success of the EMPP. The EMPP be of such a standard that prospective candidates would receive the best chance of success.

"... a form of moderation as it is done with all the subjects in an HEI where one monitors the quality of the assessments that are set, where one checks on the physical fitness preparedness levels of the students and that is not solely dependent on the service provider to check themselves, which is, in a way not a good way to go, there has to be a way where if the programme has been accredited by a university, not accredited as such, but accepted by a university, like the UJ, or DUT or NMU, then there be someone from the university assigned to moderate and check on what is being offered, and ensuring that facilitators that are training students on these programmes are fairly qualified enough to offer these courses or modules on these programmes so that we don't also end (p) up with a situation where they're given a substandard work. And that is not pegged at the right NQF levels" [P1].

"...we need to have a monitoring of those cohorts of EMPP students, monitoring of how they perform in the programme when they get into those programmes because if the EMPP is about preparing people to be successful in a programme, the true judge of quality will be, are they successful in a programme?" [P5].

"...and it doesn't make sense to take a person away from the base and their shift for all year and to spend taxpayer's money because they don't pay for the this for themselves" [P5].

"This is an in-service thing and then after a whole year they go on a programme they still can't pass. So, I think the quality is during the programme, but the other comment on quality is, are they actually successful if they are successful, and they pass the higher certificate, and they pass the diploma, despite the fact that they may not have had a great matric, that speaks to a quality preparation programme, and I think that that is a very very important thing in my opinion" [P5].

The QAF places considerable emphasis on the learning, teaching, and educational

experiences provided to students, and their personal development and the extent to which institutions prepare graduates for national, continental, and global citizenship capable of addressing complex societal, environmental, economic, and political issues and leading change and innovation (CHE 2021:30). As was evident in the Delphi survey, lecturers should be supported regarding their upskilling and development to fulfil the required facilitative roles needed to provide students with an optimal learning experience and facilitate student learning (cf. 5.4.1). I believe that it is vitally important that EMC lecturers be upskilled with educational qualifications and curriculum planning and development. The researcher believes that developing lecturer competence in assessment is vital for effectively planning and implementing an assessment.

6.6 GUIDELINES FINALISATION

The fact that most in-service personnel do not meet the HE admission criteria, and how to assist the personnel to progress career-wise, was not fully unpacked by the NECET policy as seen in the following quote:

"...the NECET policy at the time that it was developed, didn't fully unpack the how" [P5].

As stated by one participant, the EMPP should be treated as a project to assist all provinces in SA to meet the migration plan as set out by the NECET policy (cf. 1.2.3). Furthermore, as mentioned by one participant, EMS personnel will not easily leave their steady jobs in EMS due to the country's economic stance, which is precisely where the EMPP has a big role to play. According to one participant, when someone holding a short course EMC qualification retires, only people holding new HE qualifications should be employed to transform the EMS service. To assist with the transformation, programmes like the EMPP have an especially important role to play.

"...when it comes to EMPP it needs to be treated as a project where one identifies and say throughout the provinces, there are so many BAA and so many ILS staff, these are the people that meet the migration plan criteria, this is how they can be migrated to various levels" [P1].

"You will have people in EMS who don't have the new qualifications and so, it's got to be a moderated, modified approach where we don't forget the in-service cohort and I say this, it's especially the youngsters in-service and the mid-career people and I think the EMPP, although it's not completely sorted out, is a wonderful vehicle to cater for that cohort of people" [P5].

"I think it's going to become very difficult to create new posts. I'm not saying there won't be some, but EMS is not going to suddenly explode with 5, 6, 700 new posts"[P5].

"...and because of the limited funding government have now and I mean our public finances is very tight the expansion of EMS that was alluded to in the 2030 health plan, I don't think is going to happen"[P5]

"Now if you have an environment where your workforce is remaining inside EMS, it doesn't help to train more and more school-leavers, because you now find that you will have school-leavers with the new qualifications spoken to in NECET, you are unable to enter EMS because there aren't posts"[P5].

"I don't think we're going to see many people that have a steady job working in EMS leaving EMS (p) and the message that needs to go forward then is that the people that are employed by EMS are going to stay there" [P5].

"...as was the vision of the NECET"[P5].

"...the EMPP can contribute to this change that we want to see happen and the EMPP is going to take this number for this year in this province, and next year this number and we're looking at the year 2030 everyone having been covered by the EMPP' [P1].

6.7 SUMMARY

The ultimate goal of programmes such as the EMPP, should be to satisfy students' educational requirements and other needs, meaning that social, intellectual, and cultural needs should be included in the design of the programme (cf. 2.2.1). Even if the topic is introductory, fundamental provisions should ensure that students' academic expectations are addressed.

A basic medical assessment should form part of the EMPP curriculum to identify at-risk students as soon as possible. It is also advised that possible candidates be screened regarding their eligibility and preparedness to engage with HE. As with the role of programmes such as the ECP, the aim should be to assist in-service personnel not only to gain access, but in addition to assist with being successful. Furthermore, as mentioned by Human (2021), finishing schools could assist personnel to obtain the needed subjects in their districts. In addition, the teaching of foundational subjects at the EMS provincial college could also be an option by means of registering the college as training sites (Human 2021).

Moreover, it is recommended that the EMPP align with EMC programmes. However, although EMC links can be part of the teaching on the EMPP, experiential learning and EMC medical skills should not be part of teaching on the EMPP.

It is recommended that the EMPP be constructively aligned. In the case of the EMPP the curriculum should be focused on foundational areas, such as mathematics, physics. The EMPP should currently be focused on in-service personnel, but the option to later cater for school-leavers are not excluded. As seen from the Delphi survey, including school-leavers could open possibilities for them to enter an EMPP programme might positively affect the healthcare industry, where change can be instilled early on, using young and willing minds.

Consensus was reached among participants (n=7) that the EMPP should be a one-year SLP, as it will provide the university with sufficient time to plan and identify those candidates who will form part of the next cohort. As suggested by one participant, the EMPP should begin with a face-to-face approach and then a more blended learning model. Moreover, as recommended, the most appropriate way to facilitate the EMPP would be to follow a blended learning approach.

The EMPP assessment methods should include a wide range of approaches. In addition, multiple assessment methods should be purposefully incorporated to facilitate the strengths of one method to compensate for the weaknesses of another. All the participants seemed to agree that the EMPP should implement a continuous assessment strategy.

Although physical preparedness and learning-to-swim should be part of the EMPP it should not be a formal programme. Without valid criteria to assess the physical preparedness level of the students, the question that we need to answer is how constructive are assessing physical preparedness and does it have a role to play on EMC programmes not presenting rescue modules.

The QA practices of the EMPP should be aligned with the applicable prescriptions of the professional body governing EMC education. Moreover, only registered institutions should present the EMPP. The importance of moderation is also emphasised, and moderation should be an essential element of ensuring and maintaining the quality of the EMPP.

The final QA and educational guidelines for an EMPP in SA are presented in Chapter 7.

6.8 CONCLUSION

This chapter aimed to present the results of the expert panel discussion conducted for this study. This chapter provided an overview of the research team and reflexivity, followed by an explanation of the expert panel discussion environment. A breakdown of the participants' demographics, duration of the discussion, participant selection, data collection, and data analysis were also provided. A discussion of the findings of the expert panel was then presented.

The overall goal of the expert panel discussion was to refine and finalise the QA and educational guidelines for an EMPP. This chapter discussed the results of the expert panel discussion and an exposition of the findings from the data.

As indicated by the title of Chapter 7, **Quality assurance and educational guidelines for an Emergency Medical Preparation Programme**, the chapter is devoted to the guidelines, being the study's outcome. This is accomplished by synthesising findings from the literature review, the document analysis, the Delphi survey, and the results from the expert panel discussion.

CHAPTER 7

DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL PREPARATORY PROGRAMME

"The EMPP should be treated as a project to assist all provinces in SA to meet the migration plan as set out by the NECET policy" (cf.1.2.3; 2.2 & 6.6).

7.1 INTRODUCTION

To develop QA and educational guidelines for an EMPP, the study aimed to review the literature and existing documentation on QA guidelines for HE qualifications in SA. The literature review was used to determine educational guidelines and criteria for NQF Level 5 programmes, SLPs, and EMC education and training programmes (cf. 1.5.3 & 1.8.3.1). The researcher presented a literature review to ground the study in theory, which identified content related to QA and educational guidelines (Kivunga & Kuyini 2017:5).

Phase 2 of the study involved an analysis of the EMPP documentation and was linked to the achievement of the second research objective, which was:

To analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in Objective 1.

With the document analysis, the researcher conducted an in-depth analysis of the EMPP documentation that spoke to the design of the EMPP in terms of level descriptors, ELOs, notional or unit hours, module or unit outcomes, facilitation of learning, development of generic skills and competencies, assessment throughout the programme, and physical preparedness. Together with the literature review, the outcomes of the in-depth analysis of the EMPP documentation provided the necessary foundational knowledge to generate statements for the research processes, i.e., the Delphi survey (cf. Chapter 5) and expert panel discussion (cf. Chapter 6).

Additionally, to reach consensus or convergence of opinions to refine and develop the draft QA and educational guidelines for the EMPP, collection and analysis of data were done through a Delphi survey to a sample of experts at HE institutions presenting EMC education and training. The statements used in the Delphi survey were drawn from the results of the

literature review and document analysis. The results of the Delphi survey were summarised in Chapter 5. In addition to summarising the results, the researcher analysed the experts' free-text comments. From this analysis, the statements for the expert panel discussion were derived. The expert panel discussion was conducted with the main goal to refine and finalise the QA and educational guidelines for an EMPP (cf. 1.8.3.4 & Chapter 6).

The findings from the approaches mentioned will be collated in this chapter to finalise QA and educational guidelines for an EMPP in SA. This chapter presents the unique contribution of this study by answering the following research question:

Which QA and educational guidelines can be used to enhance quality in an EMPP in SA?

Firstly, an overview of the findings of this study will be discussed, followed by the presentation of the QA and education guidelines. Finally, a conclusion of the chapter will be given.

A schematic overview of this chapter is presented in Figure 7.1.

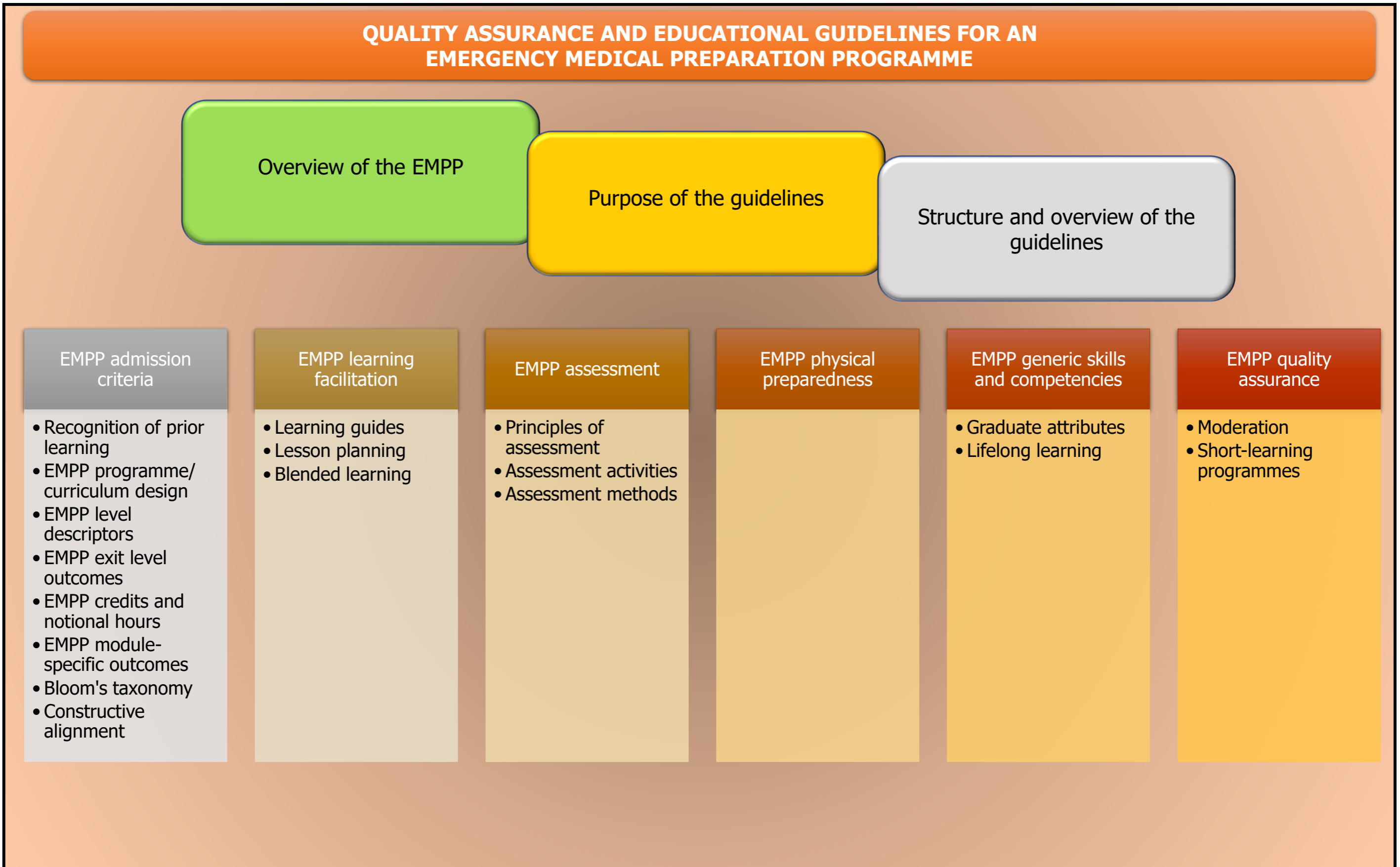


Figure 7.1: Schematic overview of Chapter 7

7.2 OVERVIEW OF THE FINDINGS

In the next sections, an overview of the study's findings will be presented.

7.2.1 Summary of Phase 1: Literature review

This phase of the inquiry focused on the literature review to provide (i) in-depth background information about QA guidelines for HE qualifications in SA, and (ii) the educational guidelines and criteria for (i) NQF Level 5 programmes, (ii) SLPs, and (iii) EMC education and training programmes. Literature was also scrutinised for QA guidelines specific for SLPs and EMC education and training governed by a professional body. Information obtained from the literature overview was used to generate statements for the Delphi survey (cf. Chapter 2).

7.2.2 Summary of findings of Phase 2: Emergency Medical Preparatory Programme document analysis

This phase of the inquiry included the analysis of the EMPP curriculum design concerning EMPP admission criteria, EMPP curriculum design, EMPP learning facilitation, EMPP assessment, EMPP physical preparedness, EMPP generic skills and competencies, and EMPP QA to determine alignment with the guidelines and criteria as set out in Phase 1 of the study. This document analysis (cf. 3.5.2 & Chapter 4) was used to generate statements for the Delphi survey. In Figure 7.2, an overview of the document analysis findings is presented.

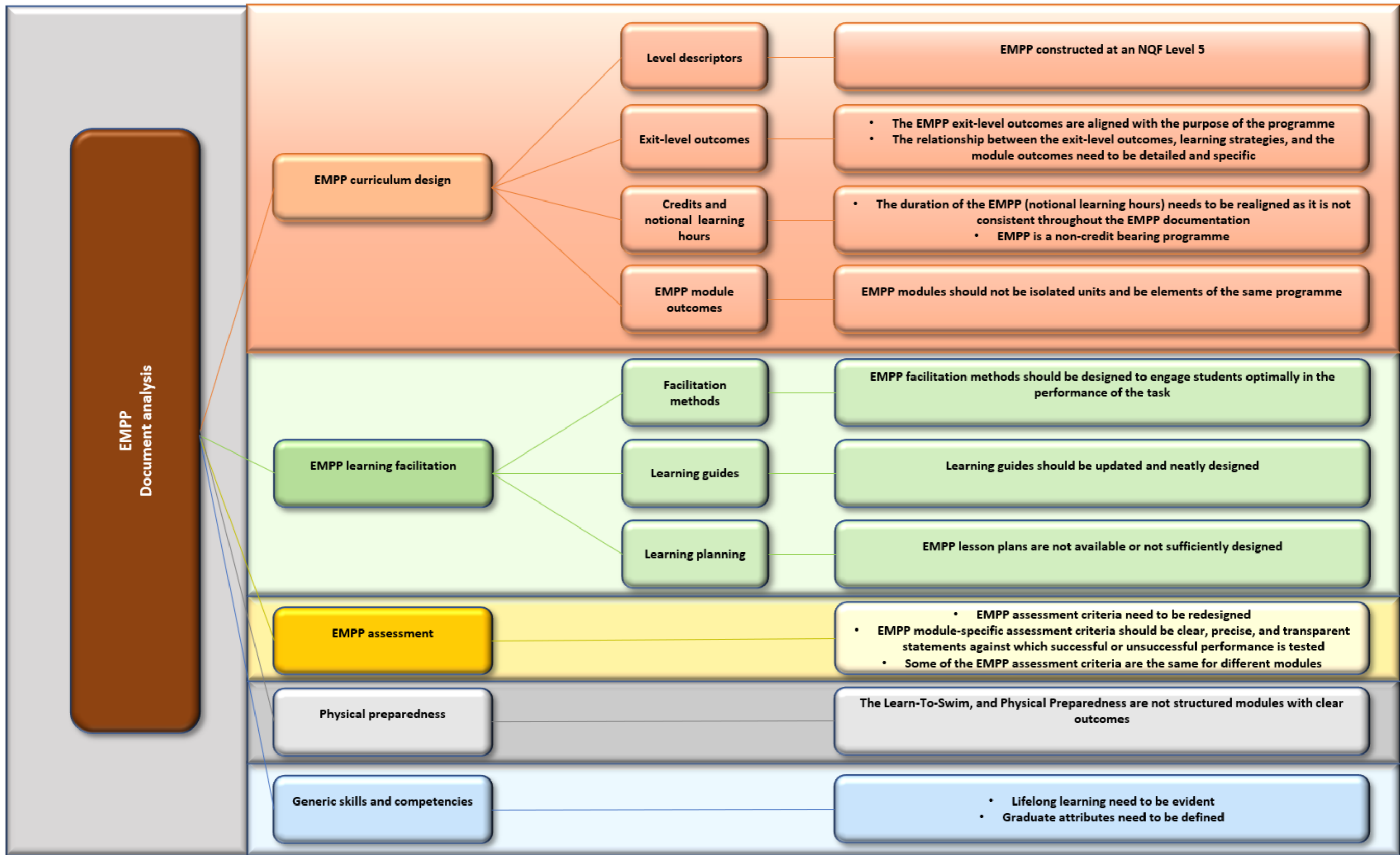


Figure 7.2: Overview of the findings of the EMPP document analysis (Compiled by the researcher, Nell 2021)

7.2.3 Summary of findings of Phase 3: Delphi survey

The purpose of using the Delphi survey in this study was to achieve consensus from experts and refine the drafted QA and educational guidelines and criteria for an EMPP in SA. In Figure 7.3, an overview of the Delphi survey findings is presented.

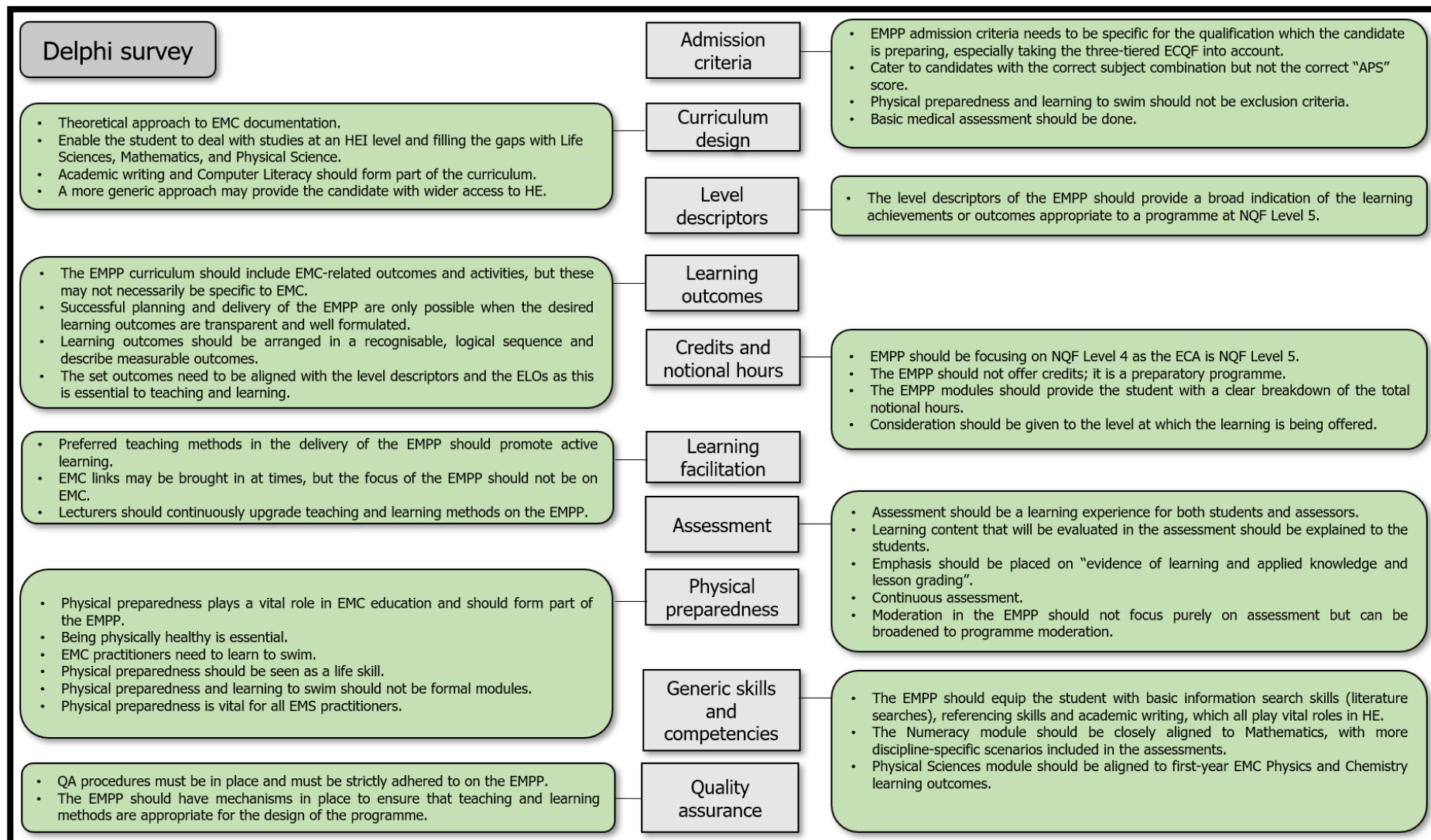


Figure 7.3: Overview of the findings of the Delphi survey (Compiled by the researcher, Nell 2021)

7.2.4 Summary of findings of Phase 4: Expert panel discussion

In Chapter 6, the results of the expert panel discussion were presented. The expert panel discussion was conducted to finalise the QA and educational guidelines from the inputs from an expert panellist. Table 7.1 presents an overview of the expert panel discussion's findings.

Table 7.1: Overview of the findings of the expert panel discussion

THEME	STATEMENT	SUMMARY
EMPP admission criteria	What should the admission criteria for an EMPP consist of? Access versus preparation	The EMPP should be directed at in-service personnel from the Department of Health. The candidates who have matric but do not meet the entrance requirements of an HEI programme. The candidates who do not have the correct symbols. Assist candidates to reach a certain readiness level to engage in HE successfully. Admission criteria of the EMPP should filter out those candidates who would not be successful and those who would be able to use different routes to access HE programmes.
EMPP curriculum design	What should an EMPP curriculum consist of? What should the core focus of an EMPP be? What should the duration of an EMPP be? What would be the most appropriate way to offer an EMPP? For example, face-to-face, e-learning, blended learning.	Constructive alignment of the EMPP is essential. Basic Sciences, Mathematics, academic writing, Physical Preparedness, Learn-To-Swim. Recommendations from professional bodies, such as the CHE and HPCSA. EMPP firstly caters to those with the correct subjects but without the required symbols. One stream will cater to those candidates, and a second stream will cater to those without the correct subjects. EMPP should be a one-year programme. Blended learning approach.
EMPP assessment	What methods of evaluations or assessment could be used in the evaluation or assessment process?	Similar to those they would encounter in the HEI programmes. Various assessment methods. Assessment methods would need to speak to well-constructed learning outcomes. Continuous assessment. Assessment should prepare in-service personnel to the same academic level as school-leavers.
EMPP physical preparedness	Should physical preparedness and learn to swim be part of an EMPP? How should	Physical Preparedness, including Learn-To-Swim, should form part of the EMPP. Learning to swim should be taught as a life skill. The candidates should know exactly what would be expected from them at the beginning of the course regarding Physical Preparedness and Learn-To-Swim.

THEME	STATEMENT	SUMMARY
	physical preparedness be facilitated on the EMPP?	The Physical Preparedness module should match the programme the candidate is applying for. The level of physical preparedness required from HE EMC programmes should inform the level of physical fitness. Physical Preparedness assessments should be continuous. The significance of candidates being medically cleared and that a scientific approach needs to be taken is important. It is essential to establish the expected fitness level required for EMS workers compared to rescue workers. The importance of the proper facilitation of physical preparedness was emphasised and stated that a thorough risk assessment of the student should be done. Facilitators presenting Physical Preparedness should have the necessary background.
EMPP generic skills and competencies	Should the EMPP include any generic EMC skills and competencies?	The focus of the EMPP should not be on clinical skills. The EMPP may use theory examples to link content with EMC. Academic subjects were pointed out as the foremost concern.
EMPP quality assurance	What should be included in QA practices for an EMPP?	Clear goals and requirements and continuously monitor if the programme is achieving what it is intended to. The QA practices of the EMPP should be aligned with the applicable prescriptions of the professional body governing EMC education. Institutional policies and procedures should be a guide. Graduates from the EMPP should be monitored on EMC programmes to establish the success of the EMPP.

7.3 QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL PREPARATORY PROGRAMME

In the following section, the QA and educational guidelines for an EMPP will be presented.

7.3.1 Overview of the Emergency Medical Preparatory Programme

The EMPP commenced on the 4th of June 2018 at CUT to assist in-service EMC personnel with access to NECET qualifications (cf. 1.2.5 & 2.2.6.6). The goal of the EMPP is to develop the foundational knowledge, skills, and attributes necessary to form the basis for further study in pre-hospital EMC and provide access to qualifications within the ECQF aligned with the HEQSF. The EMPP is ultimately designed to enable students to pursue further personal and professional development within the EMC environment and promote lifelong learning. The EMPP also aims to support candidates with a platform to prepare for the academic rigour associated with tertiary studies, especially in the emergency medical field.

7.3.2 Purpose of the guidelines

The purpose of these guidelines is to provide QA and educational guidelines for an EMPP, possibly assisting other EMC educational programmes in the maintenance and assurance of quality. The QA and educational guidelines were produced with the objectives of the NECET policy in mind, which is to establish a national framework for EMC education and training. The NECET policy aims to facilitate access, mobility, and progression within EMC education, thus allowing career progression and amend the past's unfair discrimination (NECET 2017). Additionally, these guidelines were developed based on the accreditation guidelines established by the CHE (CHE 2012:4).

7.3.3 Structure and overview of the guidelines

Figure 7.4 presents a graphic overview of the guidelines to follow, organised into seven sections. The priority areas addressed by these guidelines, as depicted in Figure 7.4, include the following elements related to QA and the educational processes of an EMPP:

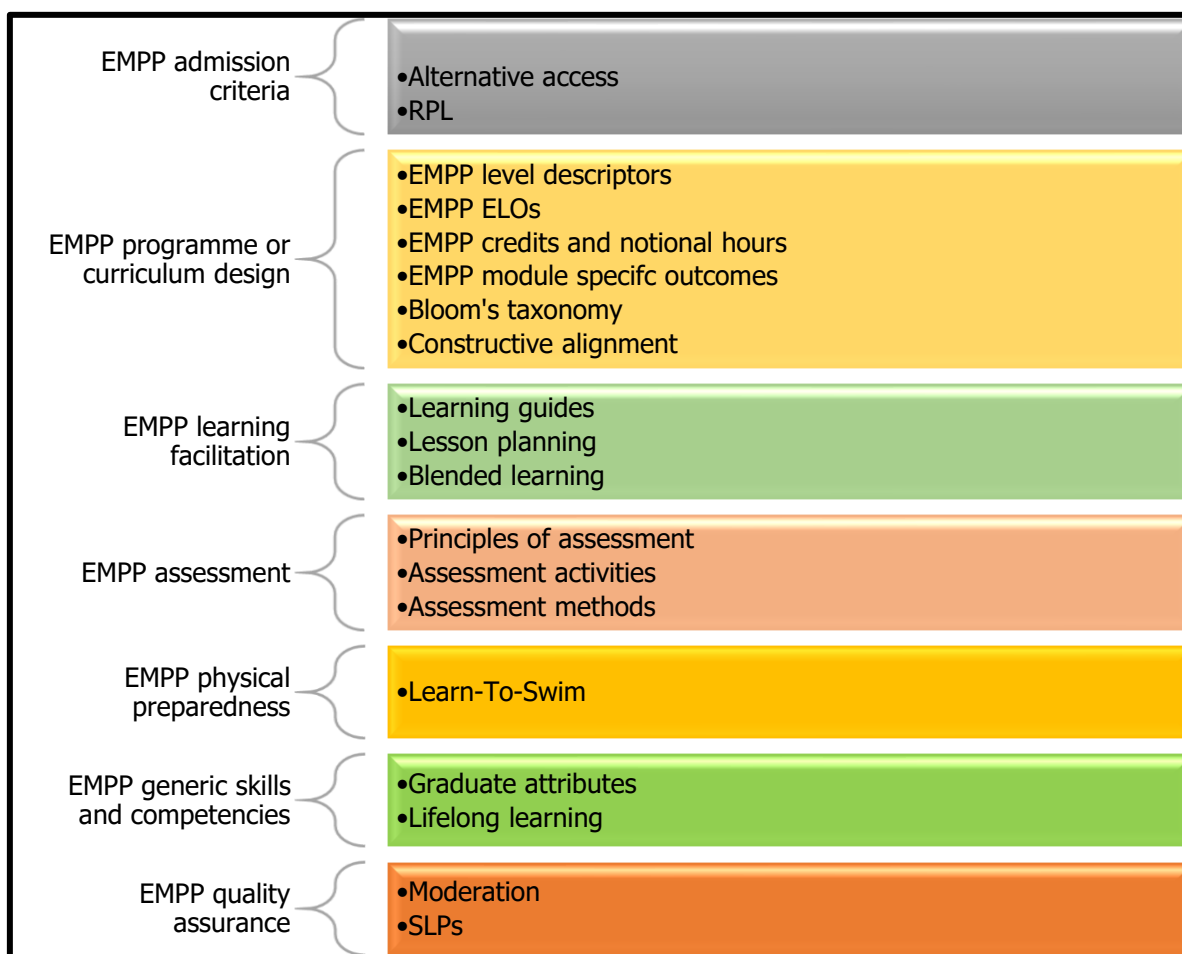


Figure 7.4: Structure and overview of the guidelines (Compiled by the researcher, Nell 2021)

7.3.3.1 *Emergency Medical Preparatory Programme admission criteria*

Underpinning the direction regarding SLP admission criteria, the CHE (2016:10) states that “Short course admission criteria should be appropriate, relevant, fair and non-discriminatory and they should be applied consistently in a transparent manner.”

Guidelines

The requirements for admission to short courses are different from those for admission to programmes that lead to qualifications on the HEQSF (cf. 2.2.6). The former is focused more on determining the applicants’ ability to complete the respective short courses successfully.

The EMPP admission criteria should:

- Be in line with the **degree of complexity** of learning required within the context of widening access and promoting equity (cf. 5.4.1 & 6.5.1);
- Adhere to current legislation concerning **admission, matriculation exemption, and age exemption** (cf. 2.2.6.2 & 6.5.1);
- Align with the **National Plan for Higher Education's** (NPHE's) goal of widening access to HE (cf. 2.2.5);
- Clearly state the **equity targets** and the plans for attaining them (CHE 2012:9 & 5.4.1);
- Assist **adult EMC personnel** in preparing for success in HE EMC programmes (cf. 5.4.1 & 6.5.1);
- **Bridge the gap** between grade 12 and HE (cf. 6.5.2);
- Serve as a filter in **identifying the at-risk candidate** (cf. 6.5.1);
- Include a **swimming assessment, but should not be exclusionary** (cf. 5.4.1 & 6.5.1); and
- Include a **physical fitness assessment but should not be exclusionary** (cf. 5.4.1 & 6.5.1).

The admission criteria of the EMPP should filter out those candidates who would not be successful on EMC programmes and those able to follow different access routes for HE programmes (cf. 6.5.1 & Figure 7.5). It is further recommended that a pre-test be done to gauge the level of understanding of possible EMPP candidates on the required subjects before commencing with the EMPP. The pre-test should not be seen as an exclusion criterion (in-service staff with previous short course qualifications) but as a baseline to establish the prospective students' academic level (cf. 6.5.1). A vital aspect to keep in mind is that a proper risk analysis of prospective candidates should mitigate the risk of students injuring themselves on the EMPP and provide guidance on whether they are at risk on any of the EMC programmes. The risk analysis should include a basic medical assessment and Body Mass Index (BMI) assessment (cf. 6.5.4), as this could potentially recognise the at-risk candidate. However, a medical assessment should not be exclusionary but should seek to identify any medical conditions that could hinder the candidate's success (cf. 6.5.4).

Physical fitness and learning to swim should form part of the entry criteria of the EMPP (cf. 5.4.1 & 6.5.4), although it should not be seen as an exclusion criterion for access into the EMPP but form a baseline to monitor the candidates' progress during the EMPP (cf. 5.4.1 & 6.5.4). The intent of the EMPP should be to assist and prepare in-service EMC personnel with the correct modules or subjects but not with the required grades (EMPP

2019:5, 5.4.1 & 6.5.1) by:

- Assisting candidates to reach a certain readiness level to engage in HE successfully; and
- Gaining access to HCert and Dip EMC programmes (cf.4.2).

Figure 7.5 provides a schematic overview of the EMPP admission pathway.

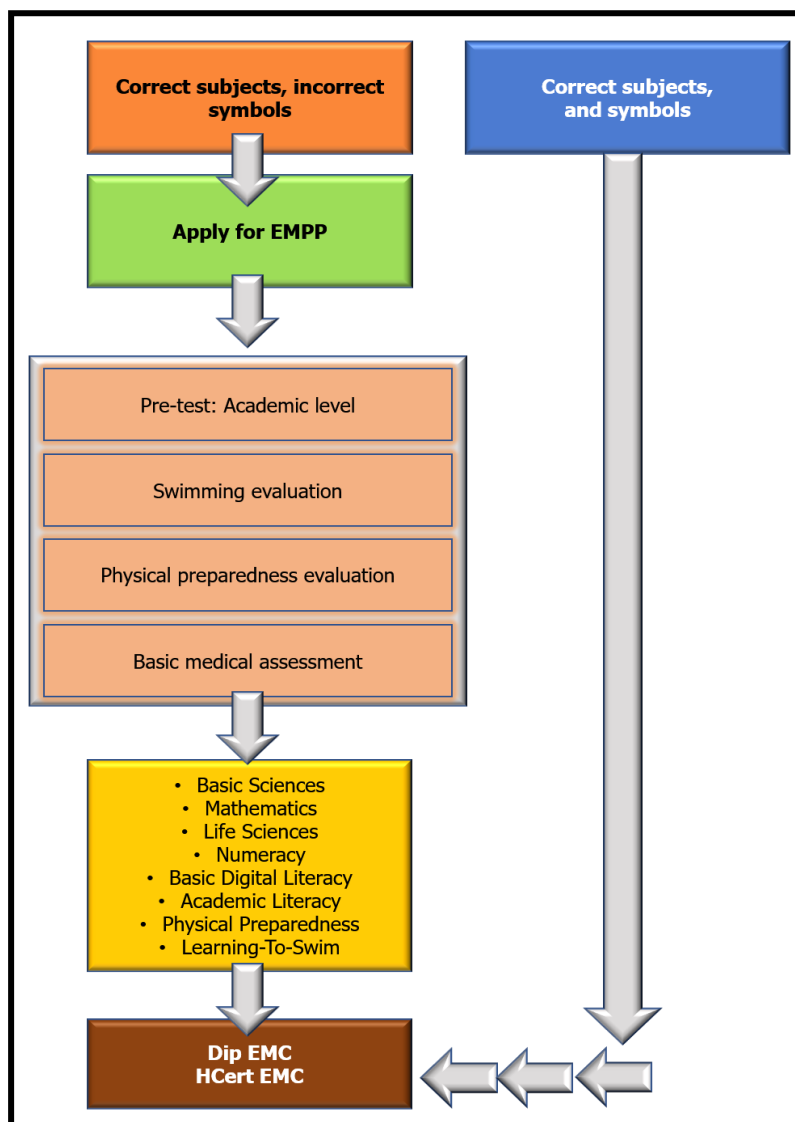


Figure 7.5: EMPP admission pathway (Compiled by the researcher, Nell 2021)

Alternative access

According to Human (2021), the Department of Basic education and training (DBET) could assist in upskilling EMC with regard to NQF level 4 subjects. In addition, EMC colleges could register as stand-alone examination centres to assist personnel in obtaining NQF level 4

subjects. Again, as mentioned previously, a clear distinction between access and success is vital. Figure 2.1 (cf.2.2) shows that four possible pathways are available to access EMC HE (Human 2021). As part of Pathway 3 and 4, the NSC amended may assist some candidates to amend senior certificate results. In addition, programmes such as Continuous Education Programme (CEP) are administered by the DHET and assist candidates to improve their basic education and meet the admission criteria for HE. The continuing Education and Training (CET) programme enables selected EMS staff to improve their Grade 12 results.

Recognition of prior learning

SAQA (2021:online) defines RPL as a process aimed at formally recognising prior learning regardless of how and where it was obtained. Whether learning occurs informally or at a formal educational institution, RPL accepts that learning is a continual process. The EMPP should endeavour, where possible and relevant, flexible entry routes, including RPL, and concerning general admission requirements, with the addition of the requirements mentioned earlier in this section. RPL refers to finding a way to recognise the learning that has taken place outside traditional learning contexts. However, admission requirements and additional requirements should be kept in mind (cf. 2.2.6.2 & Figure 7.4). The EMPP should adhere to institutional and national guidelines and policies regarding RPL for access and credit transfer. Table 7.2 depicts the purpose of the RPL.

Table 7.2: Purpose of the RPL

RPL FOR ACCESS:	Provide an alternative access route into a learning programme, professional designation, employment, and career progression.
RPL FOR CREDIT:	To provide for the awarding of credits for, or towards, a qualification or part qualification registered on the NQF.

Although RPL may be an additional route for in-service EMC personnel to gain access to HE (cf. 2.2.1.4, 5.4.1 & 6.5.1), it is vitally important that the RPL process be closely monitored, as most EMC RPL candidates do not perform as expected when entering the HE system (cf. 5.4.1). It should be noted that even though personnel could potentially gain access through the RPL route, this is not necessarily assisting them with preparedness for HE. The possibility of lifting the 10% limit on student intake numbers using the RPL route could potentially allow more in-service candidates access to EMC programmes, but these candidates would still need to be prepared for the rigour of HE to succeed in the programme (cf. 6.5.2). In special situations, and only in undergraduate programmes, admission following an RPL route exceeding 10% of the student cohort in a programme may be

permitted (CHE 2012:9; 5.4.1 & 6.5.1). However, it is essential to carefully evaluate every EMPP RPL candidate to be appropriately placed within the programme (cf. Chapter 2).

The RPL process can be summarised as follows:

- **Identification** of the EMPP candidate's **knowledge**;
- Associating the **knowledge, skills, and experience** of the EMPP candidate with the **outcomes and corresponding assessment criteria**;
- The EMPP candidate's **knowledge** is measured **against the outcomes**; and
- Acknowledging the **experience, knowledge, and skills** the EMPP candidate gained in the **past**.

Implementation of the Emergency Medical Preparatory Programme admission guidelines by:

- Ensuring that the **number of students** is balanced against the **intended learning outcomes** of the EMPP, and considers the **mode(s) of delivery** and the **components of the programme** (modules, assessment) (CHE 2004:8, 2.2.1.3, 2.2.1.5 & 5.4.1);
- Ensuring that the admission requirements for entry into HE are **according to institutional policy** (cf. 4.4 & 5.4.1);
- Providing **clear admission criteria** and indicating how the admission criteria **contribute to assisting with access** to HE (cf. 5.4.1 & 6.5.1);
- Developing admission **criteria specifically for the EMPP** and taking the **three-tiered ECQF** into account (cf. 1.2.3, 2.1.6.2, 5.4.1 & 6.5.2);
- Focusing on **in-service EMS personnel** to **prepare them for HE** qualifications (cf. 1.2.3; 5.4.1; 6.5.1);
- Ensuring that the EMPP student intake does not **exceed the capability to offer quality education** (cf. 2.2.6.6 & 5.4.1);
- Focusing on in-service EMC candidates with the correct subject combination but without the correct symbols (cf. 5.4.1; 6.5.1);
- Focusing on candidates holding one of the previous EMC short course qualifications (cf. 2.2.6, 5.4.1; 6.5.1);
- Including a **physical fitness assessment** as part of the entry criteria for the EMPP, but **not as an exclusion criterion** (cf. 1.2.5; 2.2.6.2; 5.4.1; 5.4.8; 6.5.4);

- Including **swimming as part of the EMPP** entry criteria, but **not as a failing criterion** (cf. 4.3.7; 5.4.8; 6.5.4); and
- Including a **basic medical assessment** as part of the entry criteria for the EMPP at completion of the EMPP (cf. 2.2.6.6; 5.4.1 & 6.5.1).
- Provide **RPL for access support to the candidates** (cf. 2.2.2).
- In-service EMC personnel should be informed about the **access pathways** and sufficiently supported as part of the EMPP admission criteria (cf. 2.2.2);
- The inclusion of **basic education in providing foundational subjects**, as well as finishing schools in rural areas should be considered (cf. 2.2.2).
- Registering **EMC colleges as finishing school sites** to assist EMC candidates in obtaining foundational subjects (2.2.2).

Implementation of the admission guidelines aims to assist candidates to be sufficiently prepared when entering HE EMC programmes. The guidelines should be implemented together with the access pathways as mentioned in Chapter 2. (cf. 2.2).

7.3.3.2 Emergency Medical Preparatory Programme curriculum design

The curriculum of the EMPP needs to flow from the purpose of the programme. Designing a curriculum involves conceptualising it and arranging the major segments (subject matter or content, instructional methods and materials, and learner experiences or activities) as direction and guidance (Ornstein & Hunkins 2015:32).

The EMPP curriculum needs to align with EMC programmes such as the HCert EMC and Dip EMC (cf. 5.4.2). However, generic skills should not form part of the EMPP curriculum, and the focus should be on comprehension and understanding of how modules like Mathematics are linked to the EMC environment (cf. 5.4.2 & 6.5.4). It is recommended that the EMPP curriculum include English writing and foundational academic components. Furthermore, the EMPP must be a tailor-made programme to assist EMC in-service personnel (cf. 6.5.2). A diagrammatic overview of the modules which currently forms part of the EMPP curriculum is presented in Chapter 4 (cf. 4.3.3). The following modules are recommended as part of the EMPP curriculum.

- Numeracy;
- Basic Digital Literacy;
- Academic Literacy and Communication;

- Physical Science;
- Life Sciences;
- Mathematics; and
- Physical Preparedness and Learn-To-Swim.

Guidelines

Sweet and Palazzi (2020:138) identified a six-step approach to curriculum development to provide “a practical, theoretically sound approach to developing, implementing, evaluating, and continually improving educational experiences in medicine”. As seen in Figure 7.6, the six steps are (i) problem identification and general needs assessment, (ii) targeted needs assessment, (iii) goals and objectives, (iv) educational strategies, (v) implementation, and (vi) feedback and evaluation (Sweet & Palazzi 2022:138).

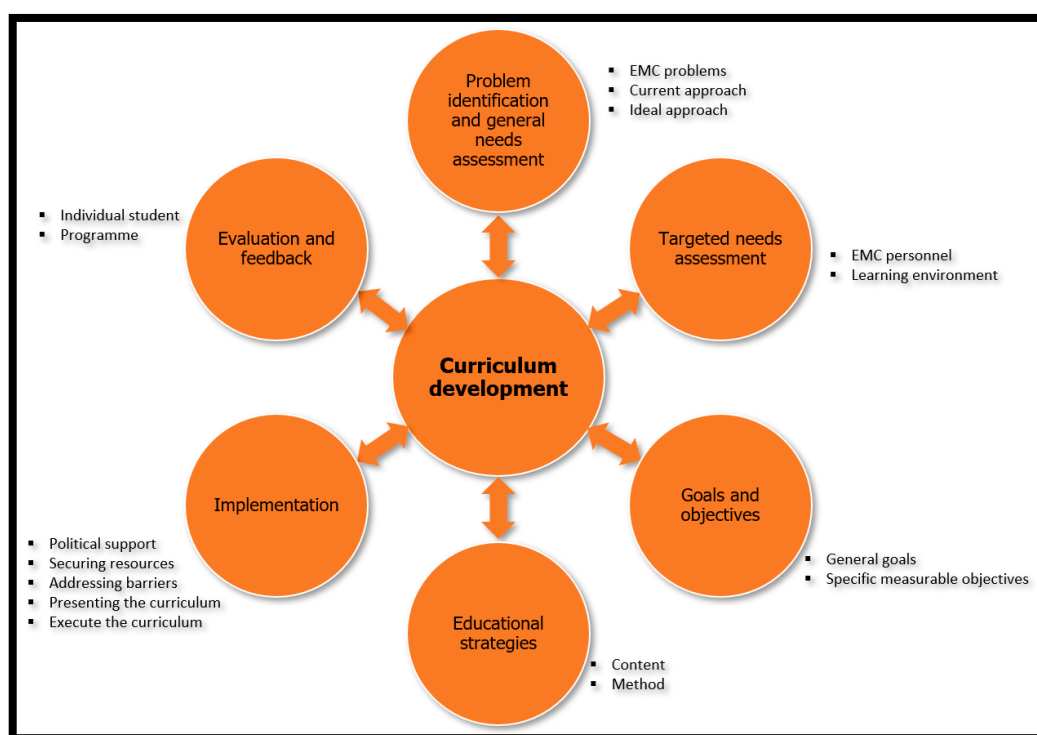


Figure 7.6: A six-step approach to curriculum development (adapted by the researcher, Nell from Sweet & Palazzi 2022:138)

To compile an effective curriculum design plan, the EMPP should follow the recommended steps as in Table 7.3:

Table 7.3: Curriculum development steps (Ornstein & Hunkins 2009:157)

- | |
|--|
| <ol style="list-style-type: none"> i. Reflect on personal assumptions, e.g., philosophical, educational, and curriculum-related, about the aims and goals of a specific HEI. ii. Consider the needs and aspirations of the students for which the curriculum is designed. iii. Consider the components and their organisation in curriculum design. iv. Align the curriculum design components to the institution's aims and goals. v. Review the curriculum design by sharing it with a colleague for critical feedback. |
|--|

"Design Down, Deliver Up" programme design approach

Regarding the curriculum design of the EMPP, a "Design Down, Deliver Up" should be considered, as presented in Figure 7.7.

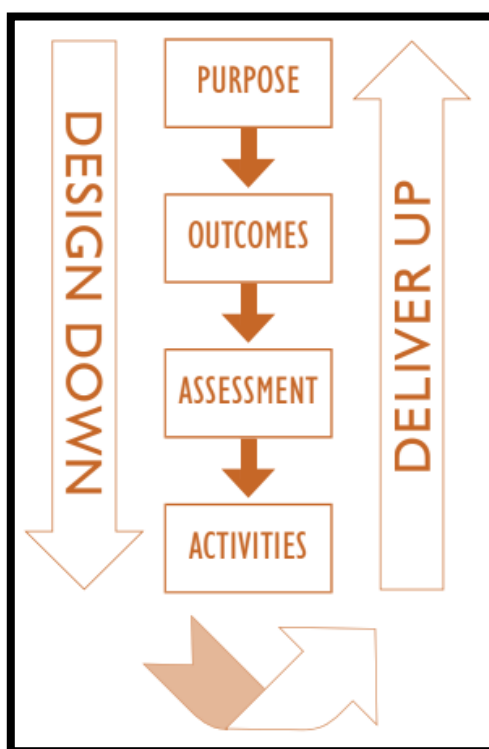


Figure 7.7: The "Design Down, Deliver Up" approach (SAQA 2021:online)

The "Design Down" approach can be represented by addressing the following aspects:

- Determining the objective of the qualification;
- Determining whether the objective can be accomplished. Identifying what students need to be capable of and how much they understand to accomplish the objective;
- Determining the values presented in the objective;
- Considering the points mentioned above and writing them as outcomes,
- Asking how one knows whether the students have accomplished the outcomes and the evidence to consider. Asking how the students are going to be assessed to determine

whether they have achieved the outcomes; and

- Asking how the students are going to be prepared for assessments. For example, which learning and teaching activities will provide the skills, knowledge, and principles needed by the assessment activity? (SAQA 2014:online).

Upon completing the “Design Down” process, the “Deliver Up” approach should be followed by conducting learning activities to prepare students for assessment activities. This will allow the facilitator to monitor whether the learning activities adequately prepared the students for assessment, thereby confirming that the students achieved the outcomes and thus met the programme’s purpose (SAQA 2013:6).

Implement the Emergency Medical Preparatory Programme curriculum guidelines by:

- Ensuring that the EMPP curriculum design maintains an appropriate **balance of theoretical and practical knowledge and skills** (cf. 2.2.1 & 5.4.2);
- Ensuring that the EMPP **learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials, and expected completion time** should **cater to the learning needs** of the target student intake (cf. 2.2.1 & 5.4.2);
- Ensuring that **the EMPP’s intent** informs the statement of **functional competence, curriculum design, and assessment strategy** (cf. 5.4.2);
- Implementing measures to **ensure the EMPP’s academic coherence** and that all **requirements for the provision of the programme are met** regarding programme design (cf. 5.4.2);
- Having regular and adequate **communication with the students**. Additionally, consistent **information regarding various aspects of the EMPP** should be provided to the students (cf. 5.4.2);
- Ensuring that **pedagogy contributes to transformation** by developing individual students’ capabilities for personal enrichment, social development, and economic and employment growth requirements (cf. 5.4.2);
- Considering **student diversity** regarding **curricula development**, for example, students from rural backgrounds (cf. 5.4.2 & 6.5.2);
- Having **sufficient content and theoretical depth** at a suitable level to serve the **educational intentions of the EMPP** (cf. 5.4.2 & 6.5.2);
- **Aligning the EMPP curriculum with that of EMC education**, but ensuring that the primary focus of the EMPP is **not EMC generic skills and competencies** (cf.

5.4.2 & 6.5.2);

- **Constructively aligning** the EMPP curriculum (outcomes, facilitation, and assessments) (cf. 2.2.1.6, 5.4.1 & 6.5.2);
- Ensuring that the EMPP curricula are based on the **students' needs** (cf. 5.4.2);
- Enable EMPP students to **pursue further personal and professional development** within the EMC environment (cf. 5.4.2);
- Where applicable, the **EMPP should be designed and developed** to meet the **needs and expectations of students**, employers, sponsors, and professional associations (cf. 5.4.2 & 6.5.2);
- Ensuring that the design of the EMPP **promote the attainment** of the stated **learning outcomes** (cf. 5.4.2 & 6.5.2);
- Ensuring that the design of the EMPP **promote the students' understanding of the EMC** occupation (cf. 5.4.2 & 6.5.2);
- Ensuring that the student should **understand the main terms**, perceptions, facts, general principles, rules, and theories of **EMC education** on completion of the EMPP (cf. 5.4.2 & 6.5.1);
- Ensuring that the EMPP design and development process **provides distinct and concise written statements of intended learning outcomes** (cf. 5.4.2);
- Ensuring that the EMPP is **guided by policies and procedures** to develop and evaluate learning materials and **ensuring their alignment** with the **goals of the EMPP** (cf. 5.4.2);
- Including **academic writing** as part of the **EMPP curriculum** (cf. 5.4.2; 6.5.2);
- **Benchmarking** the EMPP against **similar programmes** on offer at other HEIs, either locally or internationally (cf. 5.4.2);
- Ensuring that all **EMPP modules** are designed and structured as **supplementing sections of the EMPP** (cf. 5.4.2);
- Enabling the **EMPP students** to function as **adult students** and take **responsibility for their learning** (cf. 5.4.2; Chapter 6);
- Ensuring that all **students** from the EMPP can handle the **academic requirements of HE** (cf. 5.4.2);
- Ensuring that the **EMPP students** can demonstrate the ability to **gather information** from various sources, including oral, written, or symbolic texts, to select information appropriate to the task (cf. 5.4.2);
- Ensuring that the **EMPP students** apply fundamental analysis, synthesis, and evaluation processes to **collect information** (cf. 5.4.2);

- Ensuring that the EMPP **students learn with understanding** (cf. 5.4.2);
- Ensuring that the **EMPP learning content** is **relevant, realistic, manageable, and accessible** (cf. 5.4.2);
- Being current concerning the **needs of the students** and society (cf. Chapter 5 Section 5.4.2);
- Ensuring that the **EMPP students** work effectively as **individuals** and with others as **members of a team** (cf. 5.4.2);
- Ensuring that **EMPP students** can **organise and manage their activities** and themselves **correctly and effectively** (cf. 5.4.2);
- Ensuring that the EMPP students **communicate effectively** and can **apply visual, symbolic, and language skills in various forms** (cf. 5.4.2);
- Involving **lecturers** who teach EMPP modules in the **design of the curricula** (cf. 5.4.2);
- The Numeracy module should be closely aligned to Mathematics, with more discipline-specific scenarios included in the assessments; and
- The Physical Sciences module should be aligned to first-year EMC Physics and Chemistry learning outcomes.

Implementation of these guidelines contributes to the alignment of the EMPP curriculum with EMC mainstream educational programmes. The intent of the EMPP curriculum guidelines are to assist the developers of the EMPP as well as lecturing staff to effectively develop the EMPP curriculum and provide guidelines to lecturers on the implementation of the EMPP curriculum.

Emergency Medical Preparatory Programme level descriptors

According to the CHE (2013:18), level descriptors are "...expressed in terms of learning outcomes. The design of programmes makes assumptions about the volume of learning that is likely to be necessary to achieve the intended outcomes" (CHE 2013:15). "The level descriptors are the outermost layer of qualification specification. At each level, they describe the generic nature of learning achievements and their complexity. Thus, level descriptors are broad qualitative statements against which more specific learning outcomes can be compared and located" (CHE 2013:18).

A qualification descriptor specifies the exit level of the qualification type, its minimum credit

rating, and its purpose and characteristics in terms of the types of knowledge and skills that it is intended to develop (HEQC 2013:9 & 2.2.3.4).

The NQF level and its level descriptor form the outer and most generic layer regarding the knowledge and skills that students are required to acquire. A level descriptor integrates and demonstrates applied competence at each level of cognitive complexity on the HEQSF. SAQA is responsible for developing the content of the level descriptors for each level of the NQF in consultation with the three quality councils, namely, CHE, Umalusi and the Quality Council for Trades and Occupations (QCTO). The level descriptors provide universal standards for qualifications on the HEQSF in terms of the predictable levels of complexity of knowledge and skills at each NQF level (SAQA 2012:5).

The following categories define the competencies to be acquired for the 10 NQF levels:

- Scope of knowledge;
- Knowledge literacy;
- Method and procedure;
- Problem-solving;
- Ethics and professional practice;
- Accessing, processing, and managing information;
- Producing and communicating information;
- Context and systems;
- Management of learning; and
- Accountability (cf. 2.2.5).

The following principles underpin the application of the level descriptors across the three sub-frameworks of the NQF:

- There is one standard set of level descriptors for the NQF to be used in different contexts;
- The level descriptors incorporate 10 competencies;
- The level descriptors are designed to meet the needs of academic and occupational qualifications;
- There must be a correlation between qualification levels and occupational levels in the world of work;
- The critical cross-field outcomes of SAQA are embedded in the level descriptors;

- Level descriptors are cumulative, i.e., a progression in the competencies from one level to the next;
- Level descriptors apply to the RPL;
- Level descriptors are descriptive and not prescriptive; and
- The terminology for qualifications is dealt with in the sub-frameworks of the NQF (SAQA 2012:4, cf. 2.2.1.2 & 2.2.3.1).

Level descriptors do not incorporate all the critical outcomes, although it is expected that students accomplish them by the time they finish the programme content and are awarded the whole qualification. Below are the prescribed critical outcomes that the EMPP students should be capable of:

- Detect and resolve problems;
- Work successfully with others in a team;
- Organise themselves efficiently;
- Gather, examine, organise, and evaluate information;
- Communicate well through writing or speech;
- Become entrepreneurial;
- Explore education and career opportunities;
- Be culturally and aesthetically sensitive;
- Participate as responsible citizens in community life;
- Explore strategies to learn more effectively;
- Comprehend that the world is a set of correlated systems; and
- Use science and technology responsibly (SAQA 2014:online & cf. 2.2.1.2).

Guidelines

EMPP critical outcomes should therefore be guided and grounded on the above level descriptors. The design of the EMPP should continue successively through three key stages of analysis, namely:

- a) Analysing the programme,
- b) Analysing the ELOs; and
- c) Analysing the outcome collectively with its assessment criteria and associated information (SAQA 2014:online).

Implement the Emergency Medical Preparatory Programme level descriptors guidelines by:

- Ensuring that the **level descriptors** of the EMPP at an **NQF Level 4** provide a **comprehensive indication** of the learning achievements or outcomes **appropriate at an NQF Level 4** (cf. 2.2.1.2, 4.3.1 & 5.4.3);
- Ensuring that the **EMPP level descriptors** meet the **academic and work-related requirements** (cf. 2.2.1.2, 4.3.1 & 5.4.3);
- Ensuring that the **EMPP level descriptors** are **explanatory** (cf. 2.2.1.2, 4.3.1 & 5.4.3);
- Embedding the **critical cross-field outcomes of SAQA** in the **level descriptors** of the EMPP (cf. 2.2.1.2, 4.3.1 & 5.4.3);
- **Aligning** the **EMPP outcomes** with the **level descriptors and ELOs** (cf. 2.2.1.5, 4.3.1 & 5.4.3);
- Ensuring that the **relationship** between the **ELOs, learning strategies, and the module outcomes** of the EMPP modules are **clear** (cf. 2.2.1.3, 2.2.1.5, 4.3.2, 5.4.3);
- Ensuring that the **EMPP students** can **collect, scrutinise, organise, and critically evaluate information** (cf. 5.4.3);
- Ensuring that the **EMPP students** use **science and technology** effectively and decisively, presenting **accountability** regarding the **environment and others' health** (cf. 5.4.2); and
- Ensuring that the **EMPP students** demonstrate and understand the world as a set of related systems by recognising that **problem-solving contexts** do not exist in isolation (cf. 5.4.3).

Emergency Medical Preparatory Programme ELOs

ELOs refer to outcomes the student must achieve on completing a programme, and in the case of the EMPP, being awarded a certificate on completion. Moreover, learning and assessment activities originate from the outcomes that make up the programme (SAQA 2015:5).

Guidelines

The ELOs should indicate what the successful student would be capable of and know upon completing the EMPP (cf. 5.4.4). Moreover, the ELOs ought to be outlined in contrast to the level descriptors. Criteria designating the nature and level of assessment must flow from

the level descriptors (SAQA 2013:6 & cf. 5.4.3).

The EMPP assessment should test and reward higher-order learning for encouraging deep learning and include the following questions:

- What do the outcomes indicate that the students should be capable of and understand?;
- What would need to be examined as per the assessment criteria for an outcome?;
- What content will the students require?;
- What activities will enable students to accomplish outcomes and meet the assessment criteria?; and
- What teaching approaches will guide students to the point where they can produce evidence of the required learning? (SAQA 2014:online).

Implementation of these guidelines contributes to the alignment of the EMPP's ELOs. The guidelines aim to provide information about the effective construction and development of the EMPP learning outcomes. The guidelines should be implemented as part of the EMPP facilitator preparation for facilitation on an EMPP.

Emergency Medical Preparatory Programme credits and notional hours

The following section will discuss the EMPP notional learning hours.

Guidelines

Although the EMPP is non-credit-bearing, it is recommended that the EMPP curriculum is based on an NQF Level 4 (cf. 5.4.1). The CHE (2016:13) mentions that programmes such as the EMPP should not use terms such as NQF levels when issuing Certificates of Competency (CHE 2016:13, cf. 5.4.5 & 6.5.2). The EMPP is an attendance-based preparatory programme and does not carry any credits unto any further qualification. However, even though the EMPP is non-credit-bearing, it is recommended that the duration of the EMPP is one year to assist the students with adapting to the HE environment (cf. 6.5.2). It is recommended that notional learning hours be used to determine the duration of the specific modules of the EMPP and how to align the EMPP to a one-year programme. If the EMPP is a one-year programme, it will provide the institution offering the EMPP sufficient time to plan and identify those who will form part of the next cohort. The

candidates must be provided with sufficient time to engage with the content and ensure they are adequately prepared for HE. Moreover, it also allows candidates to be successful with Learn-To-Swim and Physical Preparedness. Also important is that Physics and Chemistry are one-year modules (cf. 6.5.2).

The CHE stipulates that even though EMPP students do not attain credits, information on the EMPP may be utilised to help applicants with RPL applications towards admittance into HE programmes (cf. 4.3.3 & 6.5.4.5).

Implement the Emergency Medical Preparatory Programme credits and notional hours guidelines by:

- Ensuring that the **EMPP modules** provide the students with a **clear breakdown** of the **total notional hours** (cf. 2.2.1.4; 4.3.3; 5.4.5);
- Making the EMPP a **one-year academic programme** (cf. 4.3.3 & 6.5.2);
- Ensuring that all **learning relevant** to the **learning outcomes** are considered when **notional learning time** is being **estimated** (cf. 5.4.5 & 6.5.2);
- **Informing the students** of the **level** at which the learning is being offered (cf. 5.4.5);
- Clearly defining the **breakdown** of the **time allocation** on each **EMPP module** (cf. 5.4.5); and
- **Constructively aligning** the EMPP **modules** (cf. 2.2.1.6, 5.4.1 & 6.5.2).

Implementation of these guidelines aims to assist with the alignment of the duration of the EMPP and ensure that the EMPP conforms to regulations as stipulated by the CHE (cf. 2.2.3.2 & 6.5.2).

Emergency Medical Preparatory Programme module-specific outcomes

Learning outcomes are measurable achievements that help students understand the importance of the information they will gain from their engagement with the learning activity. Critical features of learning outcomes are (cf. 5.4.4):

Table 7.4: Critical features of learning outcomes

- | |
|--|
| <ul style="list-style-type: none"> i. The intended achievement for the students must be meaningful. ii. The intended achievement for the students must be measurable. iii. The outcome should speak to the quality standards established for the programme. |
|--|

The EMPP should define clear, actionable learning outcomes. Rather than focusing on students' ability to recite information in a classroom, a well-written learning outcome would highlight how students will apply their knowledge in real-world situations (Valamus 2019:online; cf. 5.4.4).

According to the CHE (2016:7), intended learning outcomes should clearly describe the knowledge, skills, and competencies students should expect to acquire from a SLP (cf. 2.2.2.3 & 5.4.4). Moreover, such statements should provide the focal points for instruction and learning. The EMPP learning outcomes must be arranged in a recognisable and logical sequence from entry-level to exit-level for students to gauge their progress towards achieving their goals in the process of learning (cf. 5.4.6). Equally important is the availability of adequate physical resources, consistent with the intended learning outcomes of the EMPP (CHE 2016:8).

Guidelines

Biggs and Tang (2011:119-125) provide valuable guidelines for designing learning outcomes at the module level within the HE landscape. Suggested guidelines for designing learning outcomes are presented in Figure 7.8 and summarised as follow:

Firstly, the lecturer must establish the end goal of the learning opportunity, for example, **"At the end of this module..."**, secondly, providing a subject, **"students"**, followed by an action verb associated with the planned cognitive process, will be able to **"understand and apply..."**, followed by a specific circumstance, **"the basic terms, rules, concepts, principles..."** Lastly, a specific set of values and norms, **"present their work using appropriate computer technologies..."**

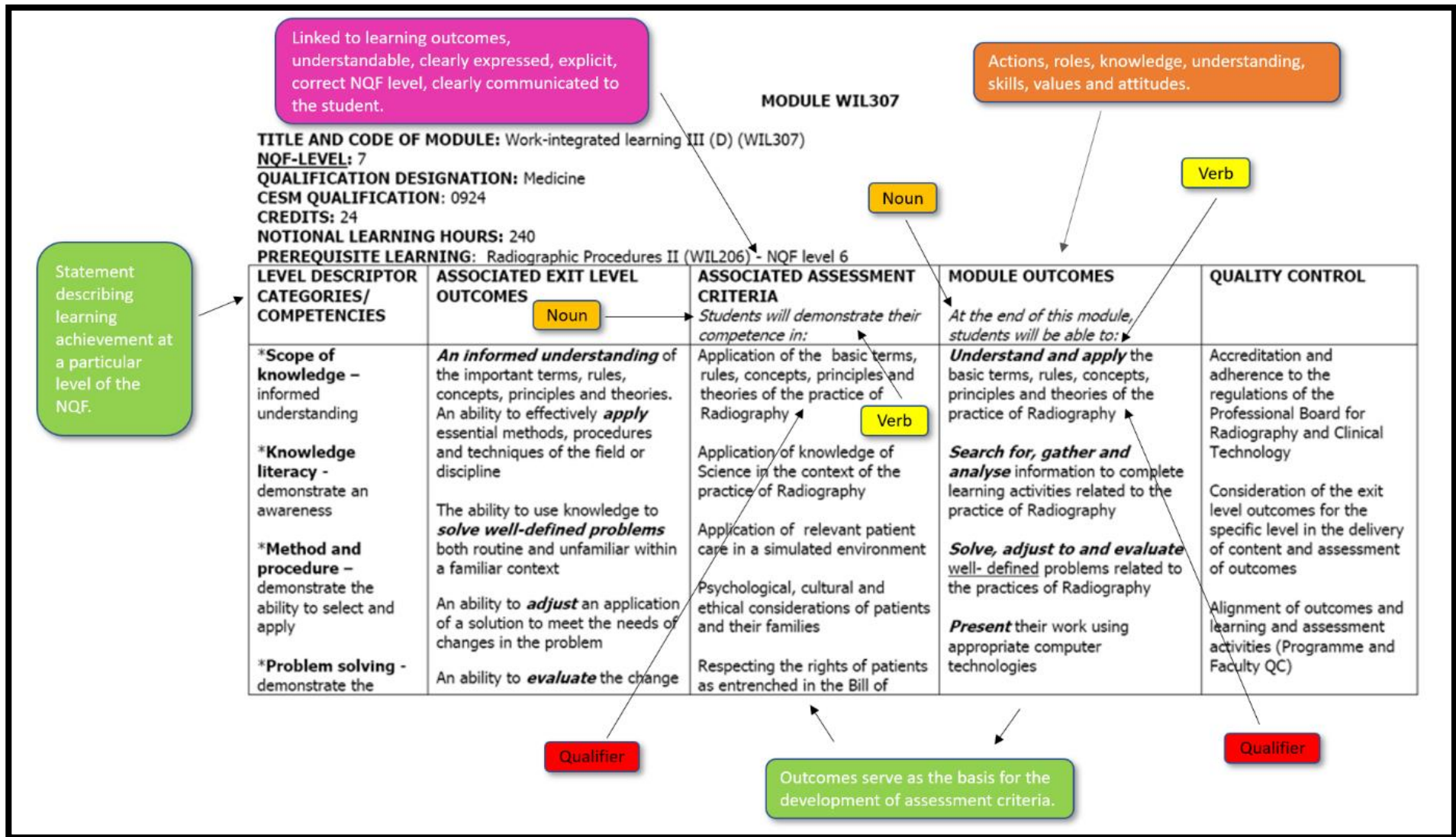


Figure 7.8: Learning outcome interpretation and structure (adapted by the researcher, Nell 2021 from du Plessis 2015:220)

Implement the Emergency Medical Preparatory Programme module-specific guidelines by:

- Ensuring that **EMPP learning outcomes** have a **defined purpose** (cf. 5.4.4);
- Ensuring that the EMPP learning outcomes provide **applied competence** and a **foundation for further learning** (cf. 5.4.9);
- Going beyond subject knowledge and emphasising developing **more profound levels of learning competence** (cf. 5.4.7);
- Specifying **appropriate assessment criteria** (cf. 5.4.7);
- Ensuring that **learning outcomes** are **educationally sound** (cf. 5.4.7);
- **Describing** students' **acquisition of knowledge, skills, and competencies** through learning (cf. 5.4.7);
- Arranging the learning outcomes in a **recognisable and logical sequence** (cf. 5.4.7);
- Ensuring the success of teaching and learning on the EMPP by set outcomes aligned with programme level descriptors and ELOs (cf. 5.4.7);
- Providing **clear outcomes** to ensure successful planning and delivery of the EMPP (cf. 5.4.7);
- Providing **well-formulated** learning outcomes (cf. 5.4.7);
- Learning objectives should describe measurable outcomes (cf. 5.4.7);
- Ensuring all learning **pertinent to learning outcomes** should be considered when **notional learning times are estimated** (cf. 5.4.7);
- Ensuring the **correct level** of learning is implemented to deliver learning effectively (cf. 5.4.74);
- Ensuring that the **breakdown** of the **time allocation** on each EMPP module is clearly defined (cf. 2.2.1.4; 2.2.5; 4.3.3; 5.4.5);
- Providing **adequate physical resources**, like libraries, consistent with the intended learning outcomes of the EMPP (cf. 5.4.7);
- Ensuring that the learning outcomes provide a **framework for further education** (cf. 5.4.7);
- Ensuring that the learning outcomes **go beyond subject knowledge** and reach into the promotion of deeper-level learning competencies (cf. 5.4.7);
- Ensuring that the EMPP learning outcomes are specified with **appropriate assessment criteria** (cf. 5.4.7);
- Informing students about the learning outcomes and their relationship to assessment criteria and judgments for the EMPP and specific modules (cf. 5.4.7);

- Providing the students with **timely, constructive, and fair feedback** on their progress (cf. 5.4.)7; and
- Providing the students with a **clear breakdown of the total notional hours** (cf. 5.4.4).

Implementation of these guidelines aims to assist with developing clear learning outcomes for the EMPP (CHE 2016:5, 2.2.1.3; 2.2.1.5; 4.3.1; 5.4.4; 6.5.2).

Bloom's Taxonomy

According to Dwyer, Hogan, and Stewart (2014:43), Bloom's Taxonomy's critical idea is for the facilitator to establish the student's required knowledge and be included in the educational outcomes. Bloom's Taxonomy in a preparatory programme, such as the EMPP, can help stimulate a change in the students' behaviour from being detached observers to being involved in their learning (Forehand 2005:41; cf. 2.2.1.6 & 6.5.6). Bloom's Taxonomy is a multi-tiered classification system for thinking based on six cognitive degrees of complexity, as shown in Figure 7.9.

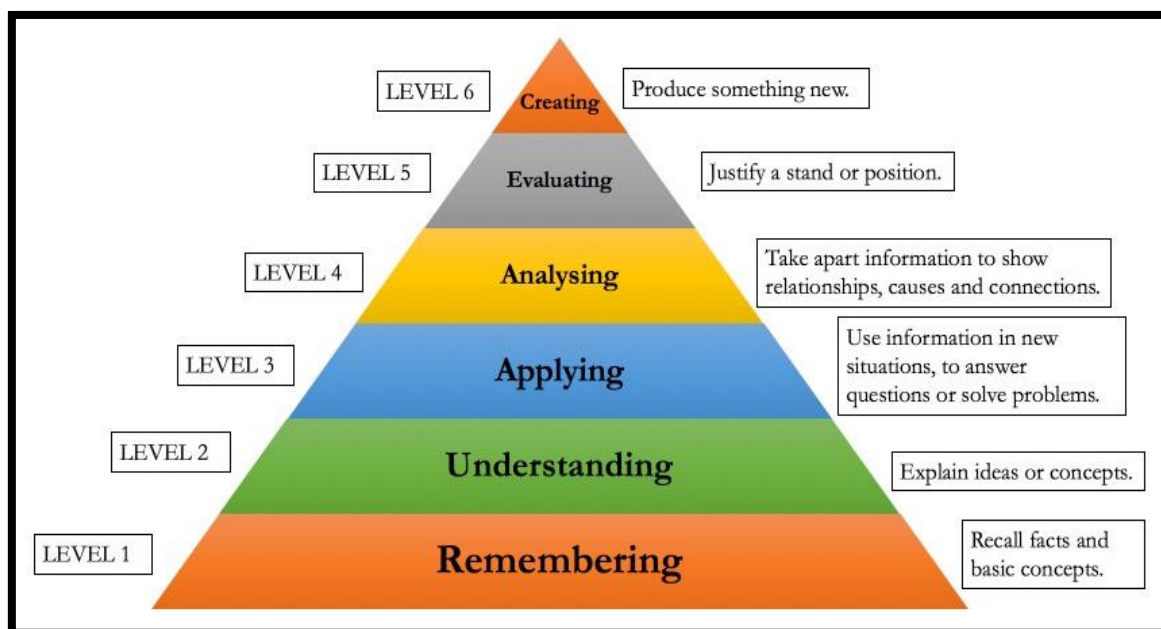


Figure 7.9: Revised Bloom's Taxonomy (Preville 2021:online)

A working knowledge of Bloom's Taxonomy and applying it to HE enables facilitators to easily define learning objectives, adapt technology, and design classroom activities for every programme (Preville 2021:online). Furthermore, Bloom's Taxonomy assists EMPP

facilitators to be clear about what students will learn, the information they will acquire, and the ability to manage it. Applying Bloom's Taxonomy will assist EMPP facilitators in designing effective assessment outcomes and aligning these assessments with the learning outcomes of the EMPP (cf. Chapter 2, 5 & 6), thus probing the extent of each student's mastery of the programme content.

Constructive alignment

"Alignment in constructive alignment reflects the fact that the learning activity in the intended outcomes, expressed as a verb, to be activated in the teaching of the outcome is to be achieved and in the assessment task to verify that the outcome is achieved" (Biggs & Tang 2011:147).

The intended learning outcomes, teaching and learning activities, and assessment tasks of the EMPP should be aligned (Biggs & Tang 2011:113, 5.4.2 & 6.5.3). Consequently, to facilitate that, EMPP students can apply learning activities that promote their knowledge, behaviour, and skills, and the acquired outcomes can be assessed (Biggs & Tang 2011:81 & cf. 5.4.2). The EMPP curriculum should be constructively aligned with EMC education regarding comprehension and understanding of EMC concepts. The EMPP student should be prepared for entering a HE environment. However, the student must be guided to understand the concept of what pre-hospital emergency medicine entails. It is vital that a general understanding of the key terms, concepts, facts, general principles, rules, and theories of EMC education should have been obtained by the students after completing the EMPP (cf. 5.4.2). Research has shown that once a student can understand how one module and its learning outcomes align with professional abilities (knowledge and skills), they pay more attention to meeting those outcomes (cf. 5.4.2).

The EMPP should develop foundational knowledge, skills, and attributes necessary to form the foundation for further study in the fields of pre-hospital EMC to promote access during first-time application at HEIs (cf. 5.4.4). The EMPP should include basic concepts of writing coherently, paraphrasing, and approaching the writing of EMS documentation. It should be noted that even though the before mentioned cannot entirely be aligned to healthcare treatments, the mathematical concepts of conversions, such as grams to milligrams and the dilution, could form part of an introduction. Actual drug or medication information should not form part of the EMPP's curriculum and should be taught on specific EMC educational programmes (cf. 5.4.4 & 6.5.3).

Important to note is that the EMPP should only provide the foundational knowledge and assist the student to realise how participating in Mathematics will finally assist on EMC educational programmes and eventually as an EMC professional. EMPP modules, such as the Physical Science module, need to bridge the gap between grade 12 and the lower APS score for the student to engage with Physical Sciences in the first-year EMC programmes (cf. 5.4.9 & 6.5.4). Additionally, the Numeracy module should be closely aligned to Mathematics, with more discipline-specific scenarios included in the assessments. All EMPP modules should be designed and structured as complementing components of the programme (cf. 5.4.2). It is also recommended that EMPP modules, such as Basic Sciences, Mathematics, and Numeracy, be aligned to the learning outcomes of the EMC modules (cf. 5.4.2 & 6.5.1). End-user computing is also one of the areas requiring focus in the EMPP and should be completed as one of the first modules on the EMPP to prepare students for the online phase of the programme.

7.3.3.3 *Emergency Medical Preparatory Programme learning facilitation*

To ensure that EMPP teaching and learning methods are appropriate to the subject matter, student profile, and delivery method, they should be carefully examined and theoretically justified. Innovative teaching and learning methods should be used and deliberate efforts to encourage and develop deep (versus surface-level) learning approaches in students (CHE 2004:72).

Guidelines

The EMPP should employ various facilitation methods, where appropriate, to optimise the learning process and experience of the student (cf. Chapter 2; 5.4.6 & 6.5.2). EMPP learning activities should assist students in meeting module outcomes learning (cf. 5.4.6).

Implement the Emergency Medical Preparatory Programme learning facilitation guidelines by:

- Ensuring that the **learning materials and technology** are appropriate for **the design and implementation of instructional materials** (cf. 4.3.5 & 5.4.6);
- Encouraging the **understanding** of the relationship between the **concepts presented and real-life application** (cf. 6.5.2);

- Ensuring that **module-specific outcomes** are concise and designed to **enable the students to achieve the module outcomes** (cf. 5.4.6);
- **Linking** the specific module outcomes to provide **maximum opportunity** for the students' **success** (cf. 5.4.4 & 5.4.6);
- Adult students are also **flexible in learning** and often have overarching learning styles (cf. 5.4.6 & Chapter 6); and
- Ensuring that students **first complete** the **Computer Literacy module** to assist the students with **managing the online learning platform** (cf. 6.5.4).

Learning guides

Learning guides should always be up to date and neatly designed, while EMPP learning guides should be designed using the same layout (cf. 4.5). EMPP learning guides should be formatted appropriately and neatly presented to the students to assist them in achieving the module's outcomes more effectively.

The EMPP learning guides should:

- Be **appropriately formatted and neatly presented** to the students to assist them in achieving the module's outcomes more effectively (cf. 4.3.5 & 5.4.6);
- Maintain a **consistent format** for all EMPP modules (cf. 4.3.5 & 5.4.6);
- Maintain consistency and precision in all student **support activities** (cf. 5.4.6);
- Include a **detailed work schedule** that outlines what the student may expect from the module (cf. 5.4.6); and
- Provide a **clear link** where the student will **find the ELOs** (cf. 5.4.6).

Lesson planning

Lesson planning plays a vital role in the successful planning of a module or subject. Academic staff should be upskilled to develop learning materials that promote the needs of the students. Thorough lesson planning should be consistently based on the student's needs, and there should be continuous guidance available to students regarding the use of resources, e.g., online resources like Blackboard (cf. 6.5.5).

Blended learning

The EMPP should employ a blended learning approach, as COVID 19 is acknowledged and

plays a role in transforming education into a more online platform. (cf. 5.4.6 & 6.5.2). As Tucker, Wycoff, and Green (2017:8) mention, blended learning education does not happen to the student, but the student is the driver of their education. Figure 7.10 illustrates the alignment of classroom and online learning.

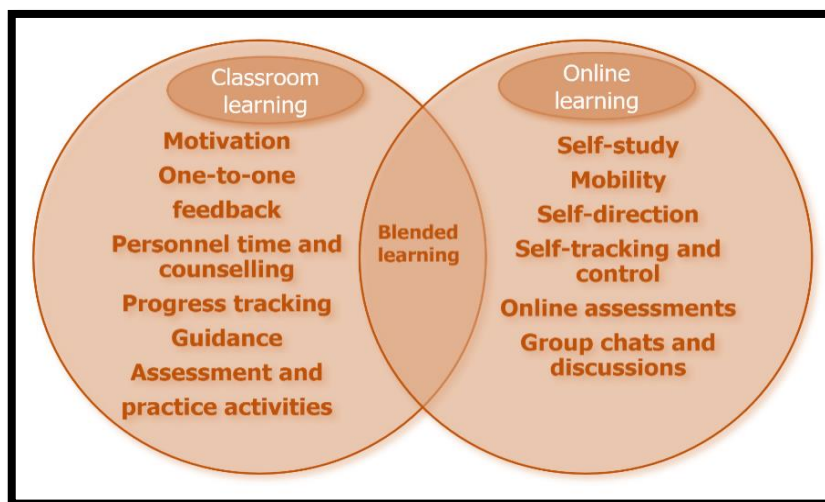


Figure 7.10: Blended learning (Calderon, Ginsberg, Patraha & Ciabocchi 2021:online)

Learning becomes meaningful in blended learning environments when the student takes control over the method, but this does not mean that facilitators are not involved. A student assumes ownership of the learning process when they become an active participant through self-directing, self-sourcing, self-correcting, and self-reflecting. In this manner, the student is an ongoing contributor to the conversation of their learning. Ideally, as students mature, they assume an increasing role in this process. With well-integrated technology, facilitators can provide instruction without the restrictions of traditional classrooms or facilitators guidance. Through the use and availability of technology tools, students can learn anywhere, at any time, and at the pace and mode that fits their unique needs. This is a new paradigm of learning that requires a shift in the mindset of both the facilitator, from lecturer to facilitator, and the student, from passive receiver to active owner (Tucker *et al.* 2017:33).

Implement the Emergency Medical Preparatory Programme learning facilitation guidelines by:

- Guiding the student on how **different components** of the EMPP (assessment, subjects) **contribute** to the programme's **learning outcomes** (cf. 5.4.6);
- Proving a mechanism to **ensure the appropriateness** of teaching and learning

- methods** (cf. 5.4.6);
- Ensuring that lecturers **continuously upgrade** their **facilitation methods** on the EMPP (cf. 5.4.6);
 - Assisting academic staff to be **upskilled** in the **developing of learning materials** (cf. 5.4.6);
 - Ensuring that the **teaching methods** in the delivery of the EMPP **promote active learning** (cf. 5.4.6);
 - Ensuring that the **design and implementation** of the EMPP **learning materials and instructional technology** are **appropriate** (cf. 5.4.6);
 - Ensuring that the **facilitation methods** encourage the **understanding** of the **relationship between the concepts** presented and their **application in real life** (cf. 5.4.6);
 - Selecting **appropriate facilitation methods** to ensure effective teaching and learning results (cf. 5.4.6);
 - Ensuring that the **methods of facilitation** are concise and designed to enable the student to **achieve the module outcomes** (cf. 5.4.6);
 - Ensuring that a **mixture of delivery methods** is used, where appropriate, to **optimise the learning** process and experience (cf. 5.4.6. & 6.5.2);
 - Ensuring that the students have a **clear understanding** of how the lesson will be **facilitated** (cf. 5.4.6);
 - Ensuring that the **EMPP facilitation methods** are **linked** to the **specific module's outcomes** to provide maximum **opportunity for the students' success** (cf. 5.4.6);
 - Ensuring that **appropriate learning opportunities** are provided for students to acquire the knowledge and skills **specified in EMPP outcomes** within the stipulated **timeframe** (cf. 5.4.6);
 - Ensuring that the **EMPP learning material** is **aligned** to **EMC theory modules** (cf. 5.4.6 & 6.5.2);
 - Financial support as it plays a role in the success of students (cf. 5.4.6);
 - Ensuring that services for **student psychological** support are **accessible and available** (cf. 5.4.6);
 - Ensuring that, when needed, **additional academic support** is provided to **students** (cf. 5.4.6);
 - Ensuring that **continuous guidance** is available to students regarding the **use of resources**, e.g., online resources like Blackboard (cf. 5.4.6);
 - Ensuring that the EMPP students' **existing knowledge** is **explored** (cf. 5.4.6); and

- Recognising the **individual student's attributes, preferences, and needs** (cf. 5.4.6).

The implementation of these guidelines are to assist the facilitation of the EMPP curriculum.

7.3.3.4 *Emergency Medical Preparatory Programme assessment*

SAQA (2012:6) defines assessment as a process that identifies, gathers, and interprets information and evidence related to their functional competencies to assess a student's performance. Therefore, assessment is a comprehensive process that involves a range of measures that help judge performance. As part of the assessment process, the content and standard of assessment, types of assessment, and assessment principles are considered (SAQA 2012:37).

Guidelines

EMPP assessors need to plan for assessments to achieve their goals adequately, and they must be familiar with the EMPP and the learning outcomes against which students will be assessed (cf. 6.5.6).

Principles of assessment

It is essential to be aware of the following principles when designing assessments for the EMPP, which are aligned with the Higher Education Act and the NQF Act:

- Assessment should be a key component of curriculum development and must be linked to learning objectives.
- Assessment must be outcome-driven and incorporated into curriculum development;
- The assessment is carried out as part of a system and must be organised accordingly;
- Assessments should be designed to cover all assessment areas;
- Because the assessment takes place within a system, it must be properly designed;
- Each of these assessments should meet the requirements for validity, reliability, transparency, fairness, and practicability to be deemed a quality assessment;
- In both overall and individual evaluations, moderation should be emphasised; and
- There should be accountability for each assessment, with evidence that the assessment

was moderated (Brits *et al.* 2020:6).

Assessment activities

Assessment activities should be designed with clear assessment criteria that provide proper guidance regarding the feedback students receive. Furthermore, the EMPP learning process should be structured appropriately, providing a definite structure for every part of the process in which all information about the student will be communicated to the lecturer. This will provide structure and allow the facilitators to understand the common aims and objectives within each module or subject, whereas this structure will guide the students.

The overall assessment process of the EMPP needs to be:

- Systematic: The overall process ensures assessment is fair, adequate, repeatable, and manageable;
- Open: The process is transparent, i.e., assessment candidates understand the assessment process and the criteria that apply and contribute to planning and accumulating evidence; and
- Reliable and Consistent: The same assessor would make the same judgement again in similar circumstances, and judgements match judgements made on similar evidence (SAQA:2013).

Assessment methods

Assessment methods are tools that an assessor uses to gather evidence of a student's performance. The EMPP should use assessment opportunities that integrate students' foundational knowledge and skills, for example, Mathematics and academic writing. Consequently, assessment outcomes must be logical and fit for purpose (ref). It is recommended that the EMPP implements a continuous assessment strategy, as this could reduce the anxiety of failing assessments. It is further recommended that a clear daily schedule be kept monitoring the students' progress continuously. The EMPP assessment method should also be robust and at the correct NQF level to ensure that a sufficient standard is maintained throughout. This will ensure that those students who pass are indeed well prepared. Assessment must prepare the in-service personnel to the same level as a school-leaver (cf. Chapter 6). Also, a variety of assessment methods should be used

(cf. 5.4.6 & 6.5.1). The components of well-written assessment criteria are depicted in Figure 7.11.

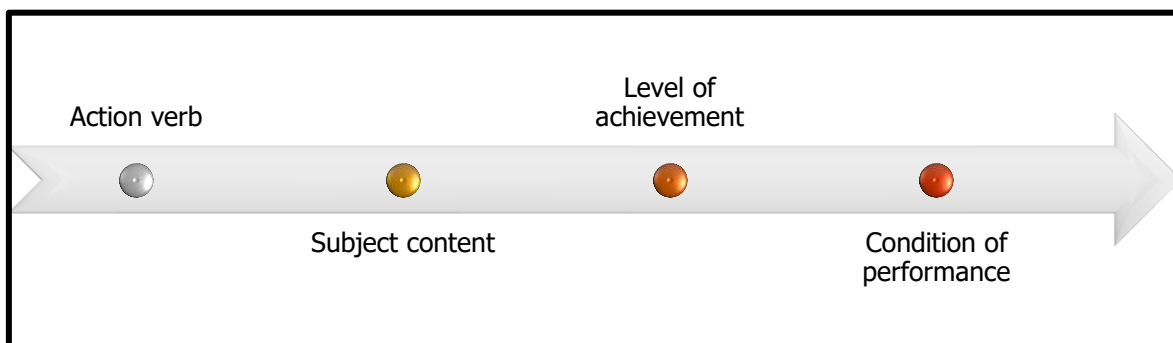


Figure 7.11: Well-written assessment criteria (CHE 2016:10)

Assessment methods should be:

- **Appropriate:** The assessment method is suited to the outcome being assessed, i.e., capable of gathering evidence concerning the intended outcome;
- **Fair:** The assessment method does not present any barriers to achievements, which are not related to the achievement of the outcome at hand;
- **Manageable:** The methods used make for easily arranged, cost-effective assessments that do not unduly interfere with learning; and
- **Integrated into work or learning:** Evidence collection is integrated into the work or learning process to be appropriate and feasible. Often referred to as naturally occurring evidence (Brits *et al.* 2020:6).

The following approach may be used to select effective assessment methods using Bloom's Taxonomy (cf. 2.2.1.6):

- Define an actionable learning objective;
- Determine an action verb relevant to that learning outcome;
- Determine the cognitive level in which this verb falls; and
- Select an appropriate assessment method (Preville 2021:online & cf. 2.2.2).

Table 7.4: Selection of effective assessment methods (Adapted from Preville 2021:online)

	REMEMBERING	UNDERSTANDING	APPLYING	ANALYSING	EVALUATING	CREATING
MULTIPLE CHOICE QUESTIONS	✓	✓	✓			
TRUE/FALSE QUESTIONS	✓	✓				
MATCHING	✓	✓				
SHORT ANSWER	✓	✓	✓			
DISCUSSION OR ESSAY				✓	✓	✓
ORAL				✓	✓	✓
ANECDOTAL, COMMENTS						✓

Implement the Emergency Medical Preparatory Programme assessment guidelines by:

- Explaining to the students what the **EMPP assessment requirements** are and **how they will be assessed** (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Employing **well-designed assessments**, generating data, **informing teaching and learning** (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Ensuring that **assessment criteria are of a suitably high standard and aligned with the learning outcomes** of the EMPP (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Ensuring that **assessment criteria are robust and at the correct level** (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Ensuring that students **receive feedback of assessments** before submitting **further tasks for assessment**, by clearly explaining receiving, recording, processing, and returning assignments (cf. 5.4.7);
- **Monitoring the student's progress** on the EMPP (cf. 5.4.7);
- Ensuring that **internal moderation checks are done** with **summative assessments involving more than one assessor** to guarantee the validity of the assessment processes (cf. 5.4.7 & 6.5.6);
- Ensuring that **external moderators are appropriately qualified** to moderate the assessment of **student learning achievements** by the academic staff responsible for lecturing a module (cf. 5.4.7 & 6.5.6);
- Ensuring that **external moderators and examiners** are appointed based on **clear criteria and administrative procedures** and that they **conduct their responsibilities under these guidelines**. It is recommended that these criteria and

procedures align with the institution's policies (cf. 5.4.7);

- Ensuring that **assessment results** are **recorded securely and reliably** (cf. 5.4.7 & 6.5.3);
- Ensuring that EMPP lecturers and the programme coordinator receive **completed reports from external moderators**. The EMPP coordinator should monitor the implementation of agreed improvements and discuss issues with the lecturer concerned (cf. 5.4.7);
- Ensuring that **student disputes** over assessment results are **settled fairly and effectively, and students should know how such a procedure works**. It is crucial to act promptly and effectively when assessment rules are violated (cf. 5.4.7);
- Ensuring that **assessment competency** is developed among the **EMPP lecturers** (cf. 5.4.7 & 6.5.3);
- Ensuring that **criteria for assessment** are in line with **SAQA and CHE requirements** and **professional bodies**, where applicable, and should be **clearly communicated to students and lecturers** (cf. 5.4.7);
- Ensuring that **learning activities** and the **required assessment performances** are both **aligned** with the **learning outcomes of the EMPP** and specific modules (cf. 5.4.7);
- Ensuring that lecturers assess EMPP students' academic achievement internally (cf. 5.4.7);
- Monitoring student progress throughout the EMPP (cf. 5.4.7);
- Ensuring that the **assessment system** is **secure, particularly in terms of plagiarism** (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- **Developing** the **assessment skills** of EMPP lecturers (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Ensuring that **EMPP lecturers** are up to date with **current changes in HE** (cf. 5.4.7);
- Ensuring that **EMPP lecturers** are formally **trained in the principles of assessment** (cf. 5.4.7);
- Ensuring that **assessment** is a **learning experience** for students and lecturers (cf. 5.4.7);
- Using assessment to **identify areas** where **adjustments** in teaching and learning could be made (cf. 5.4.7);
- Ensuring that schedules, methods, and processes of assessment are communicated to students at the beginning of the EMPP (cf. 5.4.7);
- Ensuring that the **assessment methods aligned** with the **knowledge, skills, and outcomes** defined at the start of the specific EMPP module (cf. 5.4.7);

- Using **various teaching and assessment techniques**, e.g., lectures, journal reviews, seminar presentations, and examinations (cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3);
- Formulating **clear stated outcomes** as part of the construction of the assessment (cf. 5.4.7);
- Ensuring **integrated assessments** covering all aspects of the EMPP (cf. 5.4.7);
- Providing students with **sufficient opportunity to prepare for assessments** (cf. 5.4.7);
- Explaining to students how the **weight of assessments** is determined (cf. 5.4.7);
- **Explaining the learning content** that will be evaluated in the assessment to the students (cf. 5.4.7);
- Providing **procedures** to ensure the **reliability, validity, and trustworthiness** of an assessment (cf. 5.4.7);
- Using memorandums in all assessments (cf. 5.4.7);
- Ensuring that all **appropriately trained moderators moderate assessments** with specific expertise in the learning area (cf. 5.4.7);
- Using **predefined assessment purposes** to determine the **assessment methods** (cf. 5.4.7);
- Ensuring that **assessment criteria are developed** and used during the assessment (cf. 5.4.7);
- Ensuring that **students are informed** about the **goal and importance of feedback** (cf. 5.4.7);
- Providing a **clear process** to recognise the **at-risk student** (cf. 5.4.7); and
- Ensuring that **selected assessments** measure the **course learning objectives** (cf. 5.4.7).

Implementation of these guidelines aims to assist with the alignment of the assessment processes of the EMPP (CHE 2016, cf. 2.2.2, 4.3.6, 5.4.7 & 6.5.3).

7.3.3.5 *Emergency Medical Preparatory Programme physical preparedness*

Guidelines

Physical preparedness plays a vital role in EMC education and should form part of the EMPP. The significance of physical preparedness is emphasised by the SAQA exit level results and the PBEC minimum requirement documents (SAQA, 2015; PBEC, 2019). Currently, as part of EMC education and training, most programmes require EMC practitioners to swim,

making learning to swim a vital component of the curriculum of the EMPP. It is emphasised that being physically healthy is critical for EMC workers to perform routine daily tasks safely, independently, and without extreme fatigue (Muhlbauer *et al.* 2021:2). According to Muhlbauer *et al.* (2021:2), the individual student's levels of physical preparedness should be such that they can perform their work-related responsibilities comfortably and efficiently while still having enough energy for leisure activities and any unanticipated emergencies.

Students who are physically unfit and unable to execute the essential activities may find difficulties with academic achievement and development, and their overall health and wellness and providing an adequate level of patient care (Muhlbauer *et al.* 2021:2). Physical preparedness presented on the EMPP must be aligned to the relevant EMC programme. Consequently, the Physical Preparedness and Learn-To-Swim module outcomes should be logical and fit for purpose. It is further recommended that the Physical Preparedness module be scientifically developed and based on the individual student's needs.

The Physical Preparedness and Learn-To-Swim modules should not be credit-bearing but should form part of the EMPP as an informal programme. This does not take away the importance of being physically healthy and being able to swim as they are essential areas to be addressed on the EMPP, thus providing the student with a healthier lifestyle and preparing them for the EMC programmes. The earlier the students are taught to swim on the EMPP, the sooner the pass rate of Physical Preparedness modules on the specific EMC programmes could increase. Enhancing the physical preparedness levels of EMC personnel has been found to lower injury rates and the severity of injuries, and the health risks connected with operational duties (Muhlbauer *et al.* 2021:2).

It is suggested that a competency-based grading scale is used on the EMPP. The assessment criteria will thus be used as a motivational tool rather than a pass or fail criterion. Assessment criteria for physical preparedness, including swimming, on the EMPP, do not need to be at the same level as EMC HE. Having Physical Preparedness as a module in the EMPP should not be seen as punitive but rather an advantage, so when the candidate enters an EMC programme, physical preparedness is not a limitation on success. It is suggested that the Physical Preparedness and Learn-To-Swim modules are assessed continuously to monitor the students' progress closely. Another recommendation was that a scientific fitness programme should be developed for the EMPP student to provide the best opportunity to achieve the EMPP. Moreover, it is recommended that the EMPP assist

the candidates with learn-to-swim and with being physically fit, however, physical preparedness and swimming should not be exclusion criteria for obtaining access to EMC programmes.

The following points guide the implementation of the physical preparedness guidelines:

- **Physical preparedness plays a vital role in EMC education** and should form part of the EMPP (cf. 4.3.7, 5.4.8 & 6.5.4);
- Physical preparedness should not be a **formal module on the EMPP** but seen as a **lifestyle** (cf. 5.4.8 & 6.5.4);
- EMPP students should recognise that being **physically healthy is essential** (cf. 5.4.8);
- EMC practitioners should **recognise the need to learn to swim** (cf. 5.4.8; Chapter 6);
- **Learning to swim should not be a formal module** on the EMPP but should form part of the EMPP curriculum as **a life skill** (cf. 5.4.8 & 6.5.4);
- It is vitally important that the **EMPP students understand** what is **expected** regarding physical preparedness (cf. 5.4.8 & 6.5.4);
- It is recommended that the physical preparedness be based on EMS workers and not EMC rescuers (cf. 5.4.8 & 6.5.4);
- It is recommended that the Physical Preparedness and Learn-To-Swim requirements **align with EMC education modules** (cf. 5.4.8 & 6.5.4);
- Physical preparedness and swimming assessment criteria should be scientifically developed and validated;
- Physical preparedness and swimming outcomes should be clear to the students;
- It is recommended that **facilitators of Physical Preparedness and Learn-To-Swim should be adequately trained** and have a certain level of fitness (cf. 5.4.8 & 6.5.4); and
- A student on the EMPP should obtain basic swim skills since the goal of the EMPP is to provide students with essential foundational knowledge and skills (cf. 5.4.8 & 6.5.4).

Implementation of these guidelines aims to assist with the facilitation of physical preparedness and learning to swim (cf. 4.3.7; 5.4.8; 6.5.4).

7.3.3.6 Emergency Medical Preparatory Programme generic skills and competencies

The primary focus of the EMPP should not be to teach physical skills (cf. 5.4.1 & 6.5.1), as mentioned in 7.3.5.3. The EMPP modules should be aligned to EMC but focus on the theory component. Additionally, the EMPP should assist the in-service personnel with Life Sciences, Mathematics, and Chemistry (cf. Chapter 5 & Chapter 6). These subjects should be aligned and purpose-built for EMC (cf. Chapter 5 & Chapter 6).

Graduate attributes

Graduate attributes have been recognised as an outcome of HE. However, due to the changing nature of the workplace, it is becoming increasingly difficult to identify which attributes will make graduates employable (De la Harpe & David, 2012). According to Coetzee (2014:119), graduate attributes strongly predict students' career-related employability attributes. Some of the attributes which are understood to be transferable include interactive skills, problem-solving and decision-making skills, continuous learning orientation, presenting and applying information skills, goal-directed behaviour, ethical and responsible behaviour, and analytical skills (cf. 6.5.5). Coetzee (2014:121) focuses on eight core attributes: problem-solving and decision-making skills, analytical thinking skills, enterprising skills, ethical and responsible behaviour, interactive skills, presenting and applying information skills, goal-directed behaviour, and a continuous-learning orientation. See Table 7.5 for a definition of each.

Table 7.5: Graduate skills and attributes definitions (Coetzee 2014:35)

ATTRIBUTES	DEFINITION OF THE ATTRIBUTES
Problem-solving and decision-making skills	Problem-solving and decision-making skills are related to a graduate's ability to consider various complexities associated with the larger economic, business, and cultural reality when approaching a problem and to offer insight into problems and ideas that are novel and unique.
Analytical thinking skills	Analytical thinking skills are characterised by higher-order skills based on the ability to explain information and data accurately.
Enterprising skills	Enterprising skills require graduates to be adventurous, and in so doing, be able to apply critical thinking skills, initiative, and proactivity when engaging in various activities.
Ethical and responsible behaviour	Demonstrating ethical and responsible behaviour requires individuals to be accountable and responsible for their actions and decisions.
Presenting and applying	Involves a graduate's ability to present knowledge, facts, and opinions clearly and convincingly.

ATTRIBUTES	DEFINITION OF THE ATTRIBUTES
information skills	
Interactive skills	The effective and efficient use of language, communicating and interacting with people from diverse cultures and backgrounds.
Goal-directed behaviour	Goal-directed behaviour means setting realistic goals and making plans to achieve the relevant goals.
Continuous learning orientation	Graduates who have a continuous learning orientation are open regarding their learning and willing to proactively acquire new knowledge, skills, and abilities.

The EMPP should indicate clear attributes that all EMPP graduates should have on completing the EMPP. Graduate attributes are important because they:

- Enhance student learning. Working on them will help students become better and more successful;
- Help to prepare the student for future and lifelong learning given the changing nature of society; and
- Enhance the student's employability as they obtained the highly desired skills needed by employers (Trinity 2021:online).

Lifelong learning

Lifelong learning denotes a student's position towards themselves. To further their understanding of the world and their place in it, graduates must be committed to and adept at continuous learning (cf. 6.5.5).

Implement the Emergency Medical Preparatory Programme generic skills and competencies guidelines by:

- Equipping the students with **basic research skills, referencing skills, and academic writing**, which all play vital roles in HE (cf. 5.4.9 & 6.5.5);
- The EMPP should also instil **graduate attributes**;
- Furthermore, it is important that the EMPP not only assists with preparing students for EMC HE but also plays a role in **ensuring lifelong learning** (cf. 5.4.1, 5.4.9 & 6.5.5); and
- Ensuring that the focus of the **EMPP modules** is on the areas students will be engaging in the **upcoming EMC HE programmes** (cf. 5.4.1 & 5.4.9).

These guidelines give direction regarding generic skills and competencies on the EMPP.

7.3.3.7 Emergency Medical Preparatory Programme quality assurance

The International Network for Quality Assurance Agencies in Higher Education (INQAAHE 2020:online) states that QA in HE establishes stakeholder confidence that provision (input, process, and outcomes) fulfils expectations or measures up to threshold minimum requirements. Additionally, UNESCO (2020:online) defines QA as “the systematic review of educational programs to ensure that standards of education, scholarship, and infrastructure remain acceptable”.

Guidelines

The following points are recommended about QA of the EMPP:

- The EMPP should be **registered with relevant bodies**, for example, the relevant senate, CHE, or HPCSA (cf. 6.5.6);
- There should be a partnership in place for institutions wanting to present the EMPP jointly under an HEI (cf. 6.5.6);
- **Institutional policies and procedures** should **guide the QA process** of the EMPP (cf. 6.5.6);
- The EMPP should be **internally and externally moderated** (cf. 6.5.6);
- **EMPP lecturers** should continuously be **upskilled regarding teaching and learning** to keep abreast with the **latest developments in HE** (cf. 5.4.10 & 6.5.6);
- **Lectures** should be part of **curriculum development** and understand the process (cf. 5.4.2);
- **Lecturers** should be **appropriately qualified** (cf. 5.4.10 & cf. 6.5.6); and
- **Continuous moderation** should be an **essential element** in ensuring and maintaining the **quality** of the EMPP (cf. 5.4.10 & 6.5.6).

Moderation

The following aspects should inform the moderation processes of the EMPP:

- Moderators should be selected according to defined guidelines and appointed after a thorough screening process (cf. 1.3, 2.2.2.1, 4.3.6.1, 5.4.7, 5.4.10 & 6.5.6);
- It is recommended that EMPP graduates should be monitored on EMC programmes to

- establish the success of the EMPP (cf. 6.5.6); and
- The aim of moderation should be to ensure that the assessment is fair, valid, and reliable (cf. 2.2.2.1).

Short-learning programmes

Considering the implementation of SLP recording, SAQA enabled SLP providers to fully participate in the standards-setting and QA processes governing education and training programmes (SAQA 2004:7). HEQC specifications for delegating the quality management of SLPs clearly state that providers should develop “an integrated institutional strategic planning framework and process for the provision of both whole qualifications and short courses” (CHE 2008:13). While planning, institutions should consider the factors identified in their QA activities. The QA process must feed into planning at all levels within the institution. This includes assessing the capacity of staff for developing and offering programmes: “...the impact of offering short courses and the quality of the services provided to students as well as the administrative capacity at all levels” (CHE 2008:13; cf. Chapter 4 & 5).

The QA of the EMPP should be well documented according to institutional policies and mechanisms (CHE 2008:13). The HEQC (CHE 2008:13) requires institutions to have precise arrangements to approve the offering of a SLP. The EMPP should be approved in the same manner as other institutional academic programmes (CHE 2008:13).

SLPs have a very particular place in the NQF and the achievement of its objectives. As depicted in Table 7.6, improving QA through provisioning can lead to the following benefits:

Table 7.6: Benefits of improving QA (SAQA 2004:31)

- | |
|---|
| <ul style="list-style-type: none"> i. The articulation of learning and mobility of students within education and training are enhanced. ii. Access to education and training is facilitated through flexible pathways to the achievement of qualifications. iii. Students who access education and training through skills programmes are protected through the QA processes of ETQAs. iv. The possibilities for RPL for thousands of students who completed non-credit-bearing programmes in the past are opened up. v. SLPs are developed and delivered with articulation possibilities in mind, thereby developing a seamless system of access and articulation. vi. The dynamic nature of SLPs could support standards and the development and review of qualifications meaningfully. Additionally, the accreditation of providers of SLPs does not differ substantially from the accreditation of providers of full qualifications, which removes the need for the establishment of different accreditation processes. |
|---|

Implement the Emergency Medical Preparatory Programme quality assurance guidelines by:

- **Moderation** should be an **essential element of ensuring and maintaining** the quality of the EMPP (cf. 5.4.7, 5.4.10 & 6.5.6);
- Ensuring that **moderators** are appointed based **on guidelines and criteria** as set out by the institution and **conduct their duties under these guidelines** (cf. 5.4.7, 5.4.10 & 6.5.6);
- Ensuring that **transparent monitoring, review processes, and procedures** are formulated for the EMPP and used consistently to ensure that **quality** is by no means compromised (cf. 5.4.10);
- Regularly **reviewing instructional materials** to ensure they match the programme's standards and remain current with the programme's content (cf. 5.4.10);
- Following **strict QA procedures** (cf. 5.4.10);
- Regularly **conducting lecturer evaluations** (cf. 5.4.10);
- Performing regular but not excessive **module reviews** and selecting module data judiciously for scrutiny (cf. 5.4.10);
- Ensuring that the **EMPP is adequately planned and designed** (cf. 5.4.10);
- Ensuring that planning and management of the EMPP are key focus areas of QA (cf. 5.4.10);
- Early **recognition of the at-risk student** (cf. 5.4.10);
- Ensuring that the institution's central **operating procedures and policies** reflect the importance of promoting student learning, including resource allocation, support services, marketing, and appointment and promotion processes (cf. 5.4.10);
- Ensuring that mechanisms are in place to ensure that the **EMPP's teaching and learning methods are appropriate** to the programme's design (cf. 5.4.10);
- Including staff **development opportunities** where staff can **update their methods of teaching** (cf. 5.4.10);
- Having systems in place for dealing with under-performing or inactive students (cf. 5.4.10);
- Having a strategy geared towards providing opportunities for the programme outcomes' realisation within the specified programme time (cf. 5.4.10);
- Conducting **systematic reviews** to ensure that the EMPP **effectively achieves its goals and objectives** (cf. 5.4.10);
- **Utilising the results of reviews and evaluations** in the planning process of the

EMPP (cf. 5.4.10);

- Conducting regular **surveys** with academics involved in the EMPP, for example, students, peers, external moderators, professional bodies, and employers, where appropriate, in order to determine whether the EMPP is achieving its intended outcomes (cf. 5.4.10);
- Conducting regular assessments of the EMPP's **effectiveness against comparable national and international reference points** to set goals to continuously improve the EMPP (cf. 5.4.10);
- Addressing **student and staff development initiatives**, including foundational and skills-oriented provision for students (cf. 5.4.10); and
- **Regularly monitoring the effectiveness of academic** development efforts (cf. 5.4.10).

The EMPP QA guidelines provide guidelines about the QA of the EMPP.

7.4 CONCLUSION

Chapter 7 presented the proposed QA and educational guidelines for an EMPP in SA. The guidelines are based on the literature review findings, EMPP document analysis, Delphi survey, and the expert panel discussion.

Implementation of these guidelines could address the quality and educational processes of an EMPP. This will assist institutions wanting to present an EMPP with the necessary guidelines regarding QA and managing important educational aspects of presenting a programme such as the EMPP. In the end, properly preparing EMC in-service personnel is successful and takes on the rigour of HE.

In Chapter 8, the study's conclusions, recommendations, and limitations will be presented and discussed.

CHAPTER 8

CONCLUSION, RECOMMENDATIONS, AND LIMITATIONS OF THE STUDY

8.1 INTRODUCTION

This study aimed to develop QA and educational guidelines for an EMPP in SA. To achieve this, four phases of data accumulation were undertaken to inform the development of the guidelines (cf. 1.8.3.1, 1.8.3.2, 1.8.3.3 & 1.8.3.4). In Chapter 7, the proposed QA and educational guidelines for an EMPP were presented and discussed regarding admission criteria, programme and curriculum design, learning facilitation, assessment, physical preparedness, generic skills and competencies, and QA (cf. Chapter 7).

This chapter aims to provide a brief overview of the study and offer comments and reflections on its findings. A short discussion of the study's various components, its contribution to knowledge, and the study's significance will also be mentioned. Conclusions will be drawn from the study, and the limitations of the study identified and summarised.

8.2 OVERVIEW OF THE STUDY

The problem statement (cf. 1.4) referred to the absence of formal, scientifically researched QA and relevant educational guidelines for an EMPP in SA. Chapter 1 provided an orientation to the study entitled **Quality assurance and educational guidelines for an EMPP in SA**. In Chapter 1, the background to the problem, problem statement, and research questions were briefly addressed. Furthermore, Chapter 1 stated the goal, aim, and objectives of the study. Chapter 1 also introduced the research design and methods and the value and implementation of the findings. In conclusion, Chapter 1 provided an outline of the thesis and chapters in this study.

In Chapter 2, the theoretical perspectives of the study were provided, focusing on the literature review to provide an in-depth background about the history of EMS and EMC education and training in SA. Discussion on the QA guidelines for HE qualifications in SA and the educational guidelines and criteria for (i) NQF Level 5 programmes, (ii) SLPs, and (iii) EMC education and training programmes were provided. Literature was also scrutinised for QA guidelines specific for SLPs and EMC education and training governed by a professional body.

In Chapter 3, the research design and methodology of the study were discussed. The research paradigm was provided first, followed by the research design, strategy of inquiry, and the description of the methods used in the study, namely, the literature study, document analysis, Delphi survey, and expert panel discussion. The survey population, sample selection, data collection, and analysis of both empirical methods were described. Chapter 3 concluded with an explanation of the quality of the study, which included credibility, transferability, dependability, and confirmability.

In Chapter 4, document analysis was conducted to evaluate the EMPP design concerning level descriptors, ELOs, notional hours, module outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme, and swimming and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1. The reporting of the results in Chapter 4, with cross-referencing to Chapter 2, verified the attainment of the overall goal and one of the study's objectives, namely: To analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in Objective 1 (cf. 1.4.1 & 1.4.3).

In Chapter 5, the results of the two rounds of the Delphi survey were summarised and discussed. Chapter 5 was dedicated to Phase 3 of the study (cf. 1.9.3.3), where the results obtained from Rounds 1 and 2 of the Delphi survey were discussed, in line with the aim (cf. 1.6.2) and objectives (cf. 1.6.2) as stated in Chapter 1. Chapter 5 presented an overview of the Delphi survey process and feedback, followed by a summarised outcome of the Delphi survey. The participants' biographical information was presented, followed by an interpretation and discussion of the Delphi survey's findings, including the participants' free-text comments. Finally, the draft QA and educational guidelines for an EMPP (cf. Appendix S) were presented, followed by a conclusion of the chapter.

In Chapter 6, the results of the expert panel discussion conducted for this study was presented. This chapter provided an overview of the research team and reflexivity, followed by an explanation of the expert panel discussion environment. A breakdown of the participants' demographics, duration of the discussion, participant selection, data collection, and data analysis were provided, and then a discussion of the expert panel's findings was presented. The overall goal of the expert panel discussion was to refine and finalise the QA and educational guidelines for an EMPP. This chapter discussed the results of the expert panel discussion and an exposition of the findings from the data.

Chapter 7 presented the proposed QA and educational guidelines for an EMPP in SA. The guidelines were based on the literature review findings, EMPP document analysis, Delphi survey, and the expert panel discussion.

Chapter 1 (cf. 1.1) discussed the factors that influenced the creation of the research question and its outline. Four objectives were pursued to answer the research question and accomplish the study's objectives (cf. 1.5.3). Section 8.3 provides a summary of how the aim of the study, which was to develop guidelines for an EMPP in SA, the research question, and the four objectives of the study were reached.

8.3 DEVELOPMENT OF GUIDELINES

The development of the guidelines for an EMPP in SA, the study's goal, was guided by the main research question, **Which QA and educational guidelines can be used to enhance quality in an EMPP in SA?** The following research questions and objectives guided the study, which was conducted and concluded between August 2019 and July 2021.

Research questions and objectives

The research findings of this study aided in achieving the study's aim of developing QA and educational guidelines, including instructional recommendations, for an EMPP in SA (cf. Chapter 7).

The following four research objectives were pursued to answer the research question. Phase 1 of the study aimed to achieve the following objective (cf. 1.8.3.1):

To analyse literature and existing documentation on (i) QA guidelines for HE qualifications in SA, and (ii) the educational guidelines and criteria for (i) NQF Level 5 programmes, (ii) short learning programmes, and (iii) EMC education and training programmes.

This objective was pursued and achieved by conducting a literature review on **QA guidelines for HE qualifications in SA, educational guidelines, and criteria for NQF Level 5 programmes and SLPs** by analysing CHE, PBEC, and SAQA documentation (cf. 2.2). The literature review provided the theoretical background to the study and insight into criteria for QA and educational guidelines.

Furthermore, the literature review also provided perspective on some major issues relevant to QA and educational guidelines regarding EMC education. The literature review also set the foundation for identifying statements for the Delphi survey and the expert panel discussion in Phases 3 and 4 of the study (cf. Chapter 5 & 6). The outcomes derived from the literature study were presented and discussed in Chapter 2.

Phase 2 of the study aimed to achieve Objective 2, which was (cf. 1.8.3.2):

To analyse EMPP documentation to determine alignment with the guidelines and criteria set out in Objective 1.

The above objective was pursued and achieved by employing a document analysis of the current EMPP documentation (cf. Chapter 4; Appendix E). The document analysis revealed that some of the EMPP content and outcomes were not adequately aligned to the guidelines and criteria set out in Phase 1 of the study. The objective was thus achieved and provided answers in respect of the research question.

Phase 3 of the study was aimed at Objective 3, which was to develop and refine QA and educational guidelines for an EMPP by integrating data from Phases 1 and 2 of the research study (cf. 1.8.3.3):

To develop and refine draft QA and educational guidelines for the EMPP.

This objective was pursued and achieved by employing a Delphi survey involving experts from the field of EMC education (cf. 3.5.3.3). The purpose of using the Delphi survey in this study was to achieve consensus from experts and develop the drafted QA and educational guidelines and criteria for an EMPP in SA. In Round 2 of the survey, saturation was reached, and consensus was reached on most of the statements (cf. 3.5.4.5 & 5.3.3). The statements on which consensus was reached were included in the QA and educational guidelines for an EMPP in SA. A detailed explanation of the Delphi survey and its results have been given in Chapter 5, and the draft guidelines were developed (Appendix S). A 100% response rate from the Delphi survey for each of the three rounds was deemed highly satisfactory and can be considered to have contributed to the reliability and validity of the results.

Phase 4 of the study aimed at addressing Objective 4, which was to finalise the QA and

educational guidelines for an EMPP using inputs from an expert panel discussion (cf. 1.8.3.4):

To finalise the QA and educational guidelines for the EMPP.

This objective was pursued and achieved employing an expert panel discussion (cf. Chapter 6). Consensus was reached on all the statements presented to the expert panel members. Saturation had been declared when no new information was presented (cf. 3.5.4.5). The draft QA and educational guidelines were refined and finalised through the expert panel discussion (cf. Chapter 6 & 7). The recommendations are aligned with the current policies and procedures of UFS, the Department of Education, the Department of Health, and the HPCSA. Recommendations have further been made after considering the relevant role-players and how they interact with the programme.

8.4 CONCLUSION

With the alignment of EMC education to HE, the lack of EMC personnel meeting HE admission criteria was realised (cf. 1.1 & 1.2.3). Moreover, EMC personnel mostly held EMC short course qualifications and needed to migrate into the EMC HE programmes. This study originated from the realisation that no formal research has been conducted into specific QA and educational guidelines for an EMPP in SA.

A study of the literature and a document analysis of EMPP documentation highlighted several shortcomings (cf. Chapter 4 & 7) of the EMPP. The literature review elaborated on QA guidelines for HE qualifications in SA. Another important part of the literature review focused on educational guidelines and criteria for (i) NQF Level 5 programmes, (ii) SLPs, and (iii) EMC education and training programmes. Literature was also scrutinised for QA guidelines specific to SLPs and EMC education and training governed by a professional body (cf. 2.2 & 2.3). The information obtained from the literature review were presented in Chapter 2.

The analysis of the EMPP programme design regarding level descriptors, ELOs, notional hours, module or unit outcomes, learning facilitation, development of generic skills and competencies, EMPP assessment, and physical preparedness determined alignment with the guidelines and criteria presented in the literature review. The EMPP documents analysis raised several important aspects such as: "The relationship between the level outcomes,

learning objectives, and the module outcomes need to be detailed and specific”, “modules should not be isolated units and be elements of the same programme”, “EMPP lesson plans are not available or not sufficiently designed”, “facilitation methods should be designed to engage students optimally in the performance of the task”, “learning guides should be up to date and neat”, “EMPP assessment criteria need to be redesigned”, “Learn-To-Swim and Physical Preparedness should have defined outcomes” (cf. 4.5). The lack of QA and educational guidelines for an EMPP necessitated the development of these guidelines, which was the aim of the research.

A Delphi survey was conducted with lecturers involved with EMC education, EMPP lecturers, and an expert involved with QA in HE (cf. 3.5.3.3). The results of the Delphi survey revealed that the EMPP should be presented at an NQF Level 4 and that the duration of the EMPP should be equal to one academic year (cf. 5.4.1). Additionally, the Delphi survey provided valuable insight regarding the admission criteria of the EMPP and indicated that the EMPP should specifically focus on the HE EMC qualifications the candidates are preparing for, keeping the three-tiered ECQF in mind. Through consensus opinion, the Delphi survey determined that the EMPP should cater for those in-service EMC candidates with the correct subject combination but without the correct symbols (cf. 5.4.1 & 6.5.1). The results further indicated that Physical Preparedness and Learn-To-Swim should form part of the admission criteria of the EMPP but should not be seen as exclusion criteria (cf. 5.4.1).

The results further indicated that Physical Preparedness and Learn-To-Swim should not be formal modules but seen as informal modules with the main focus of developing lifelong learning skills (cf. 5.4.1 & 6.5.4). However, the results have indicated unequivocally that physical preparedness and learning to swim should be part of an EMPP (cf. 5.4.1 & 6.5.1). As indicated by the Delphi results, students must be provided with clear guidelines of what is expected of them at the beginning of the EMPP regarding physical preparedness and learning to swim. Moreover, the level of physical preparedness required from HE EMC programmes should inform the level of physical fitness taught for the EMPP. The results and conclusions of the analysed data of the Delphi survey were presented in Chapter 5.

The expert panel initiated a discussion to finalise the QA and educational guidelines for an EMPP (cf. 3.5.4), and they elucidated that the admission criteria of the EMPP should filter out those candidates who would not be successful and those who would be able to use different routes to access HE programmes (cf. 6.5.1). A pre-test should also be included to establish the academic level of the EMPP candidate. All expert panel members

acknowledged the need for the EMPP but indicated that the EMPP should be for in-service EMC personnel by preparing them for the rigour of HE as adult students (cf. 6.5.4).

According to the expert panel discussion results, EMPP candidates must be medically cleared through a basic medical assessment to identify at-risk candidates as soon as possible (cf. 6.5.2), and that a scientific approach must be taken concerning physical preparedness. The proper facilitation of physical preparedness was emphasised, and it was stated that a thorough risk assessment should be done to mitigate the student's risk of injury. According to the Delphi survey results and the expert panel discussion, the basic medical assessment and pre-test should not be exclusion criteria for admission to the EMPP (cf. 6.5.4). Moreover, the results indicated that facilitators presenting the Physical Preparedness module in an EMPP should have the necessary background to facilitate these modules in the programme (cf. 6.5.4). The results also indicated that it is essential to establish the expected fitness level required for EMS workers compared to rescue workers (cf. 6.5.4).

The results of the expert panel discussion indicated that the EMPP should be constructively aligned and that a blended learning approach should be used (cf. 6.5.2). Additionally, the EMPP should employ a continuous assessment approach as the results indicated that this approach would provide the student with a less stressful learning environment (cf. Chapter 6). The use of various assessment methods was deemed essential, and those assessment methods should speak to well-constructed learning outcomes (cf. Chapter 5 & 6). As indicated by the expert panel results, the EMPP should enable the student to deal with HE studies and fill the gaps regarding Life sciences, Mathematics, Physical Sciences, academic writing, Physical Preparedness, and Learn-To-Swim (cf. 6.5.2).

The EMPP should equip the students with basic information search skills (literature searches) and referencing skills which all play vital roles in HE. The expert panel results emphasised that Computer Literacy should also form part of the EMPP curriculum and be presented as one of the first modules to assist students in following a blended learning approach (cf. 6.5.2). Also, as derived from the expert panel discussion, the EMPP modules should be aligned to first-year EMC module learning outcomes with more discipline-specific scenarios included in the assessments (cf. 6.5.2). The results recommend that the EMPP may use theory examples to link content with EMC. Important to notice is that the EMPP should not include generic EMC skills, and the primary focus of the EMPP should not be on EMC-specific outcomes (cf. 5.4.2 & 6.5.2).

QA procedures must be in place and strictly adhered to on the EMPP (cf. 6.5.3). It is further recommended that the EMPP have mechanisms in place to ensure that teaching and learning methods are appropriate for the programme's design (cf. 6.5.2). Moderation should not focus purely on assessment but should be broadened to programme moderation (cf. 5.4.7, 5.4.10 & 6.5.6). The QA practices of the EMPP should be aligned with the applicable prescriptions of the professional body governing EMC education. The EMPP should be continuously monitored to ensure that it achieves what it is intended to. Also, important and indicated by the results was that lecturers should continuously upgrade teaching and learning methods and be involved with curriculum design and development of the EMPP (cf. 5.4.7 & 6.5.6).

8.5 CONTRIBUTION

The overall value of this study lies in the provision of QA and educational guidelines for a more structured and standardised EMPP to be offered to current EMC staff in SA. Moreover, this study makes a unique contribution to EMC education by providing the first formal, research-based QA and educational guidelines for an EMPP in SA. A thorough research approach and methodology assured the credibility, transferability, dependability and confirmability of the research (cf. 3.6). A qualitative approach to collect information for this study was most appropriate, as the emphasis is placed on understanding the problem and developing a solution in association with the individuals involved (cf. 3.4). A combination of methods was used to generate and analyse the collected data (cf. 3.5).

Providing guidelines to answer the research question and resolve the research problem will enable HE institutions in SA to present an EMPP with a standardised approach. Consequently, such a programme will empower EMC students with the knowledge, skills, and a proper perspective regarding EMC HE. The researcher believes that the research results presented contribute to the research topic in various ways by providing clear QA and educational guidelines for an EMPP to HE institutions who wish to present an EMPP in the future.

The study contributes primarily to the current body of knowledge by presenting guidelines for an EMPP to manage the QA and educational processes aligned with those applicable to the offering of SLPs in SA. As the guidelines are generic, other EMC educational programmes may also benefit from using the guidelines. The guidelines are far-reaching in their

implications as it moves beyond only QA and educational guidance to the fundamental need to develop responsible and adaptable EMC practitioners. The researcher believes that providing guidelines for an EMPP will assist in facilitating the development of valuable, lifelong learning and reflective abilities. Additionally, engaging in authentic and contextually relevant content for an EMPP will assist in developing students with attributes to be successful regarding HE studies and be sufficient in their daily functions as EMC personnel. The study was a comprehensive investigation of QA and educational guidelines for an EMPP in SA. The research contributes to new knowledge regarding the apparent lack of specific QA and educational guidelines for an EMPP in SA. The overall value of this study lies in the provision of guidelines for an EMPP to improve academic outcomes or academic performance of EMC personnel regarding EMC HE programmes.

The guidelines aim to assist in offering an EMPP and other related programmes to maintain QA and effective educational processes. Successful implementation of the guidelines could assist EMC personnel to be adequately prepared for the rigour of EMC HE programmes.

8.6 RECOMMENDATIONS

For this study to yield significant value and contribute to HE and health professions education, the following recommendations are made:

- Further studies should be conducted regarding physical preparedness and swimming criteria for EMC personnel. As seen from the literature, the current assessment criteria of physical preparedness, including swimming, are not based on scientifically research criteria. Moreover, assessment criteria should be valid and aligned with the outcomes of the programme. As mentioned, failing a student based on assessment criteria that is not validate or informed by evidence, may be seen as unfair towards the student (cf.). Further research is needed to establish physical fitness and swimming assessment criteria for EMC HE programmes (cf.)
- RPL should form part of the structure of the EMPP. As mentioned in the guidelines, the RPL have a role to play in the migration plan of EMC personnel without the necessary admission requirements for HE. If RPL are used to obtain access, it should be backup by adequately preparing the candidate for HE as well (cf.). It is recommended that the CHE be consulted regarding increasing the 10% RPL criteria to assist EMC personnel with access if at all possible. ;
- Further discussion and consultations by EMC professional bodies should be held

regarding the EMPP having two streams of in-service EMC candidates. Those with the correct subject combinations but without the correct symbols and those without the correct subject combination. The subject combination of in-service EMC personnel should not be the only criteria to determine admission to the EMPP. Access pathways together with programmes such as the EMPP could potentially assist EMC in-service personnel to obtain access and with proper preparatory support successful on the EM HE programmes (cf.). It is recommended that access and success should be equality important, in other words, providing the candidate with sufficient academic support and preparation for the best possible opportunity to be successful in EMC HE (cf.);

- The performance of graduates from the EMPP should be monitored on EMC programmes to establish the success of the EMPP. Obtaining feedback from EMPP graduates after completing EMC HE programmes could provide valuable information if the objectives of the EMPP was reached;
- The impact of these guidelines should be assessed after implementation, to establish if the guidelines are adequate and efficiently assisting the EMPP with improving not only facilitation but also ensuring the quality of the programme The researcher plans to assess the impact of the guidelines with action research. The most important recommendation is that the guidelines should be implemented and re-evaluated for reliability and validity after implementation;
- EMPP lecturers should be upskilled regarding teaching and learning and be involved with curriculum design and development. It is recommended that facilitators of EMC HE programmes be assisted with basic facilitation training. It could be beneficial for EMC HE facilitators to obtain formal teaching qualifications, for example a post graduate diploma in higher education, as this could assist in improving the quality of facilitation on EMC HE programmes;
- Further research on adapting the guidelines in different contexts and disciplines is recommended. The QA and educational guidelines could be formatted to assist other programmes in preparing students for HE. The guidelines could also be adapted to provided academic support similar to the underbuilt of extended curriculum programmes;
- The guidelines can be customised for EMC educational programmes at SA universities presenting EMC education. The QA and educational guidelines could be adapted to fit the individual institutions educational requirements;
- The research results should be presented at national and international congresses;
- The results should be disseminated through the submission of articles to accredited HE

journals;

- The need to investigate the success rate of in-service EMC personnel on the NSC amended could provide valuable information and should be further investigated.
- Further research is recommended on more specific, newer, current teaching and learning strategies and methods and assessment methods and criteria, especially for SLPs;
- More consultations are needed with all stakeholders and national and international regulatory and professional bodies; and
- The study's findings should be made available to the Department of Health and HEI institutions presenting EMC educational programmes.

8.7 LIMITATIONS OF THE STUDY

The researcher identified the following limitations that should be considered before generalising the findings:

- Although an extensive literature search was performed, few research studies were identified that concentrated exclusively on QA and educational guidelines for EMC preparatory programmes;
- The NECET policy does not fully unpack how EMC personnel should be migrated into HE;
- One of the universities presenting EMC educational programmes did not partake in the study. The researcher believes that input from all the HEIs would have been valuable to the study;
- The phrases 'Preparatory programme' and 'Access programme' needed to be well defined (cf. 5.4.1 & 6.5.1). "Access versus preparation", despite providing clear information, was still a problem for some of the participants and resulted in a few non-applicable answers;
- Inputs from public EMC training colleges not partnered with HEI at the time of conducting this study were not included in the scope of this study. The researcher believes that further research should be conducted to obtain the opinions and views of these institutions;
- The online Delphi survey using the EvaSys survey management software was a problem for one of the participants, who claimed that they did not have the necessary knowledge about EvaSys to complete the online questionnaire. The participant did, however, complete an emailed version of the Delphi questionnaire;

- Unnecessarily long and, at times, complex Delphi statements could have hindered Delphi panel members in their responses;
- In addition to the possible misinterpretation of data obtained from the Delphi survey, little justification was provided by some panel members for their option choices and comments;
- Due to the COVID-19 pandemic, the expert panel discussion was held online. As an expert panel discussion was a new undertaking for the researcher, and with little literature available on an online expert panel discussion, it was a daunting task to complete. The supervisors provided guidelines and assistance to conduct the expert panel discussion successfully;
- Inputs from EMPP graduates were not included in the scope of this study, and the researcher believes that it could add valuable data to improve the QA of the EMPP further;
- Inputs from EMS management were not included in the scope of this study, and
- Finally, the amount of data generated limited the researcher's ability to discuss all aspects in full. Specific elements that may have been briefly discussed here can be expanded upon and considered in detail in publications following this research.

8.8 CONCLUDING REMARKS

The changes in EMC education from the non-credit bearing short courses to HE was a revelation to the researcher, and it served as encouragement for the development of QA and educational guidelines for an EMPP. The research done during this project has strengthened my belief that EMC in SA has its unique challenges to consider when providing a successful migration pathway for EMC personnel. The before-mentioned will require considerable time and commitment between the different HE institutions presenting EMC education, EMC colleges, and the Department of Health to assist EMC personnel to progress career-wise and not be left behind.

The future of EMC in this country depends on the quality of the students trained by us, the trainers of EMC personnel. Moreover, to not forget that EMC personnel are the backbone of EMS but are now unable to academically progress due to not meeting HE admission criteria. The researcher's wish is that this QA and educational guidelines may play a role in improving the quality and educational guidance of EMPPs, thereby ensuring EMC personnel can gain access to HE EMC programmes and mitigating the attrition for

these personnel. Despite the challenges of most EMC personnel not meeting HE admission criteria and the absence of clear guidelines for how personnel will be assisted to migrate, the researcher believes that it has been neglected for way too long.

Despite the study's focus on providing QA assurance and educational guidelines, the researcher is determined to use the knowledge acquired to elicit discussion to improve the lifelong learning skills and the overall well-being of EMC personnel, which will hopefully lead to the development of a more positive and goal-driven EMC workforce.

The researcher's journey taught him that pursuing a doctorate is a personal endeavour that contributes to a scientific body of information and academic growth. All the strenuous efforts should lead to a solution to a problem by contributing knowledge in frameworks or guidelines that shape practice. The researcher's promoters and seasoned researchers, and colleagues provided great support and encouragement as he stepped into the unknown of a PhD study. The difficulties and flaws he encountered along the way forced the researcher to go back to the drawing board, contemplate, and rethink his options, all of which contributed to his personal development. Furthermore, QA and the legitimacy of the information provided were aided by quality improvement processes implemented throughout the researcher's PhD journey. The researcher realised that commitment, sacrifice, organisation, and effective time management was critical to the journey's overall success, despite how difficult it was.

This chapter concludes this thesis. A credible and contextualised guideline was developed to guide and optimise the EMPP. The researcher believes that implementing these guidelines will assist the EMPP in effectively aligning and facilitating quality education and, ultimately, the migration of EMC personnel into EMC HE.

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APPENDICES

- Appendix A: Ethical approval obtained from the Health Sciences Research Ethics Committee at University of the Free State
- Appendix B: Continuation ethical approval obtained from the Health Sciences Research Ethics Committee at University of the Free State
- Appendix C: Ethical approval obtained from the Health Sciences Research Ethics Committee at Nelson Mandela University
- Appendix D: Institutional Planning and Quality Enhancement approval at the Central University of Technology
- Appendix E: Document analysis guide
- Appendix F: Information document for participation in the Delphi survey
- Appendix G: Invitation letter Delphi survey
- Appendix H: Letter to obtain consent from participants willing to participate in the Delphi survey
- Appendix I: Delphi survey Round 1 questionnaire
- Appendix J: Delphi survey Round 2 questionnaire
- Appendix K: Delphi survey Round 1 results
- Appendix L: Delphi survey Round 2 results
- Appendix M: Feedback Delphi survey Round 1
- Appendix N: Communication letter for Round 2 of the Delphi survey
- Appendix O: Feedback for Delphi survey Round 2
- Appendix P: Information document for participation in the expert panel discussion
- Appendix Q: Invitation letter expert panel discussion
- Appendix R: Letter to obtain consent from the participants willing to participate in the expert panel discussion
- Appendix S: Draft quality assurance and educational guidelines for an EMPP
- Appendix T: Expert panel interview guide
- Appendix U: Expert panel transcription
- Appendix V: Letter to the Dean of Health Sciences at the Central University of Technology
- Appendix W: Letter to the Director, Human Resource management, Free State Department of Health
- Appendix X: Letter to the Head of Department at the Durban University of Technology
- Appendix Y: Letter to the Head of Department at the University of Johannesburg
- Appendix Z: Letter to the Head of Department at the Nelson Mandela University

Appendix AA: Letter to the Chairperson of the Professional Board of Emergency Care, PBEC

Appendix BB: Letter to the Principal of the Free State College of Emergency Care

Appendix CC: Letter from language editor

Appendix DD: Turnitin report

Appendix EE: Document analysis matrix

Appendix FF: EMC admission criteria

Appendix GG: Delphi survey code network

Appendix HH: Expert panel code network

Appendix A:

**Ethical approval obtained from the Health Sciences Research Ethics Committee
at University of the Free State**



Health Sciences Research Ethics Committee

15-Aug-2019

Dear **Mr Eduard Nell**

Ethics Clearance: **Quality assurance and educational guidelines for an emergency medical care preparation programme in South Africa**

Principal Investigator: **Mr Eduard Nell**

Department: **Office of the Dean: Health Sciences Department (Bloemfontein Campus)**

APPLICATION APPROVED

Please ensure that you read the whole document

With reference to your application for ethical clearance with the Faculty of Health Sciences, I am pleased to inform you on behalf of the Health Sciences Research Ethics Committee that you have been granted ethical clearance for your project.

Your ethical clearance number, to be used in all correspondence is: **UFS-HSD2019/1095/2708**

The ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the HSREC for approval to ensure we are kept up to date with your progress and any ethical implications that may arise. This includes any serious adverse events and/or termination of the study.

A progress report should be submitted within one year of approval, and annually for long term studies. A final report should be submitted at the completion of the study.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'SM Le Grange'.

Dr. SM Le Grange

Chair: Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee

Office of the Dean: Health Sciences

T: +27 (0)51 401 7795/7794 | E: ethicsfhs@ufs.ac.za

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Appendix B:

**Continuation ethical approval obtained from the Health Sciences Research
Ethics Committee at University of the Free State**



Health Sciences Research Ethics Committee

11-Sep-2020

Dear **Mr Eduard Nell**

Ethics Number: UFS-HSD2019/1095/270801

Ethics Clearance: **Quality assurance and educational guidelines for an emergency medical care preparation programme in South Africa**

Principal Investigator: **Mr Eduard Nell**

Department: **Office of the Dean: Health Sciences Department (Bloemfontein Campus)**

SUBSEQUENT SUBMISSION APPROVED

With reference to your recent submission for ethical clearance from the Health Sciences Research Ethics Committee. I am pleased to inform you on behalf of the HSREC that you have been granted ethical clearance for your request as stipulated below:

- Continuation report and annual re-approval until 14 Aug 2021.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za. Thank

you for submitting this request for ethical clearance and we wish you continued success with your research.

Yours Sincerely

Dr. SM Le Grange

Chair : Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee

Office of the Dean: Health Sciences

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Appendix C:

**Ethical approval obtained from the Health Sciences Research Ethics Committee
at Nelson Mandela University**

NELSON MANDELA
UNIVERSITY

PO Box 77000, Nelson Mandela University, Port Elizabeth, 6031, South Africa mandela.ac.za

Chairperson: Research Ethics Committee (Human)
Tel: +27 (0)41 504 2347
Sharlene.Govender@mandela.ac.za

NHREC registration nr: REC-042508-025

Ref: [H20-HEA-EMC-EAP-002]

17 December 2020

Dr Jama

TITLE: QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA

PRP: Dr MP Jama

PI: Mr EN Nell

Your application for ethics approval to conduct research at Nelson Mandela University has been considered by the REC-H on the basis that the study has been duly vetted and approved by the University of the Free State Ethics Committee.


Kindly use the following ethics reference number **H20-HEA-EMC-EAP-002** together with your University's ethics clearance number in any correspondence with gatekeepers and participants at the University. Ethics clearance is valid for one year.

Please inform the REC-H, of any changes that may arise during the execution of the study, particularly to the methodology.

It must be noted that the Nelson Mandela University assumes that the Research Ethics Committee responsible for providing the original ethics approval/clearance has undertaken both ethics and scientific review of the protocol according to the National Health Research Ethics Committee (2015) Guidelines, and assumes primary responsibility for oversight with regard to any ethical issues that may arise in the course of the study. The Nelson Mandela University would also wish to be provided with an executive summary of the findings from the research.

We wish you well with the project.

Yours sincerely



Dr S Govender
Chairperson: Research Ethics Committee (Human)

cc: Department of Research Development

Appendix D:

**Institutional Planning and Quality Enhancement approval at the Central
University of Technology**



Central University of
Technology, Free State

■ INSTITUTIONAL PLANNING AND QUALITY ENHANCEMENT

MR E. N. Nell

NellEN@fshealth.gov.za

PERMISSION TO MR E.N. NELL TO CONDUCT RESEARCH AT CUT CAMPUS FOR HIS PHO STUDY ENTITLED "QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA"

Dear Mr E. N. Nell

This is to confirm that you have been granted permission to conduct research at the Central University of Technology campus for your PhD study entitled "Quality Assurance and Educational Guidelines for an Emergency Medical Care Preparation Programme in South Africa"

The conditions of the conditional permission are:

- The survey will not interrupt any of the official activities at the CUT;
- You will supply us with the copy of your report;
- The cost of all related activities will be covered by yourself;
- Recruitment of participants is the sole responsibility of yourself;
- Voluntary nature of the potential participant's decision to consent to participate should be strictly observed;
- You should not disclose a potential participant's decision to participate or otherwise to any other party;
- Permission does not compel, in any sense, participation of staff members or students in your survey.

ACTING DIRECTOR· INSTITUTIONAL PLANNING AND QUALITY ENHANCEMENT

Prof. A Szubarga

10 September 2019

Appendix E:

Document analysis guide

DOCUMENT ANALYSIS GUIDE

DATE: _____

TITLE OF THE RESEARCH STUDY: DEVELOPEMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA

Theme	Sub-theme	Source of evidence	Yes	No	N/A
1. EXIT LEVEL OUTCOMES	Are the exit level outcomes of the EMPP reached as indicated in programme documents?	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans	✓		
	Notes: Evidence of programme meetings not available. Lesson plans also not available. Mostly exit level outcomes are linked to SAQA NQF level 5.				
	Are the EMPP exit level outcomes aligned with the EMC diploma programme?	Learning guides, lesson plans, programmes policies and programme meeting documents		-	
	Notes: The Physical fitness module is aligned with the UJ, mostly with regards to assessment and not how the modules are presented. No evidence that any EMC related modules are aligned with EMC subjects. Lesson plans and meeting documents not available.				
	Each unit of learning in a module/subject have its own specific outcomes to be achieved.	Learning guides, lesson plans, programmes policies and programme meeting documents	✓		
Notes: Lesson plans and meeting documents are not available. All subjects have specific outcomes.					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
2. LEARNING FACILITATION	Importance of the promotion of student learning are reflected in the operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions	Strategic Plan, minutes of programme meetings,			
	<p>Notes: No evidence of marketing for the EMPP programme at the time of this analysis. Some of the proposed curriculum changes was not yet implemented, for example. EMC practical session, No evidence of a specific strategic plan for the EMPP. No evidence of minutes of meetings and agendas was available.</p>				
	Are the learning strategies (e.g. theoretical classes, simulations, practical sessions, group work, problem-based learning, demonstrations, e-learning activities, etc.) used aligned with the intended module/unit outcomes to be achieved for a learning unit and ultimately for the qualification?)	Learning guides, Lesson plans			
<p>Notes: Mostly modules with practical session were done. Some content for example patient report forms was not implemented as planned. Lesson plan not available. Specific modules aligned with the outcomes although overall the EMPP was not aligned with EMC specific modules, for example the EMPP curriculum needs to be compared with EMC programmes.</p>					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Staff development opportunities for staff to upgrade their teaching methods	Programme design and development plans and policies		-	
<p>Notes: No evidence of staff development, for example registers for courses done was not available. The CUT does use the CILT programme, but evidence could not be provided.</p>					
	Contains targets, plans for implementation, ways of monitoring progress and evaluating impact and mechanisms for feedback and improvement.	Programme design and development plans and policies, assessment policies, progress reports, mark sheets, Student feedback reports and programme meeting documents		-	
<p>Notes: Individual student feedback reports was not available. Daily/weekly course feedback available. Meeting documents not available. Course reports (2) was used for this analysis, but feedback report from staff with regards to modules or reports from the coordinator was not available.</p>					
	Students are provided with guidance on how the different components of the course e.g. subjects' skills and practical training and/or modules) contribute to the learning outcomes of the course.			-	
<p>Notes: The learn to swim learning guide is very limiting, the learning guide is contracted by using separate documents with information. Could not be a learning guide. Mostly learning guides are provided, with some being in draft form.</p>					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	There is an appropriate balance between, and mix of, different teaching and learning methods.	Learning guides, lesson plans, programmes policies	✓		
<p>Notes: No lesson plans. No EMPP SOP. A generic style of assessment can be seen across all modules, only the physical preparedness and computers include a practical component.</p>					
	Teaching and learning methods are appropriate to the design and use of the learning materials and instructional and learning technology.	Learning guides, lesson plans, programmes policies		-	
<p>Notes: No lesson plans. Planned changes to the curriculum was not done. Not aligned/compared with EMC programmes (EMC specific outcomes).</p>					
	Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the course outcomes and within the stipulated time.	Learning guides, lesson plans, programmes policies		-	
<p>Notes: Limited registers was available during the analysis, making it very difficult to see if all educational opportunities were utilised. The EMPP timetable was appropriate but need to be validated with class registers.</p>					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	The staff have opportunities to upgrade their teaching methods and there is facilitation of suitable learning opportunities.	Strategic Plan; programme design and development plans and policies, minutes of programme meetings		-	
	Notes:	During the analysis, no proof was available to validate if EMPP staff received development in any way.			
	The effectiveness of teaching and learning interactions are regularly monitored and the results are used for improvement.	Assessment policies, progress reports, mark sheets, Student feedback reports		-	
	Notes:	No lecturer evaluations, either peer, self or supervisor, was available during the document analysis. Some module had a moderators report, but this was not complete as it was merely a word document and not the template of the moderators' report to be used for moderation.			
	Are learning guides available and content link to exit level outcomes	Learning guides, programmes policies			
	Notes:	Learner guides are available for most modules, some are still in draft format, and with some, it is not clear if it is a learner guide, for example, the Physical Preparedness module, even though it is not a credit-bearing module, it should have a clear learner guide.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Are lesson plans available and provide the Student with a clear impression of what is expected	Lesson plans, programmes policies		-	
	Notes: No specific lesson plans available. The mathematics draft learning guide had a lesson outline in the learning guide.				
	Subject content is link to the exit level outcomes	Learning guides, lesson plans, programmes policies and programme meeting documents	✓		
	Notes: No programme specific policies, for example, EMPP SOP. No lesson plans. Mostly content is linked with exit level outcomes.				

Theme	Sub-theme	Source of evidence	Yes	No	N/A
3. ASSESSMENT IN THE PROGRAMME	Are assessment policies available and linked to the EMPP	Programme design and development plans and policies, assessment policies	✓		
	Notes: CUT assessment policy are used.				
	What type of QA measures are in place to ensure the quality of delivery of learning and assessment in the programme?			-	
	Notes: Quality assurance of the EMPP is currently a problem. Moderators reports are not completed on the correct template as given by the CUT. Question papers are signed off by signing on the question paper, and no pre-moderation form is completed for question papers. No evidence of peer assessment of exams before it is given to students.				
	Are the generic skills and competencies, as required by SAQA, incorporated into the curriculum and assessed?	Programme design and development plans and policies, assessment policies			
Notes: Mostly, aligned with SAQA NQF level 5. see chapter 5 for more detail.					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Aligned with the learning strategies and module/unit outcomes to ultimately achieve the exit level outcome?	Programme design and development plans and policies, assessment policies		-	
<p>Notes: No development plans. A specific programme design (how the EMPP was designed) also not available.</p>					
	What type of assessment is used and why? (formative, summative, or both)	Programme design and development plans and policies, assessment policies			
<p>Notes: All modules used a similar structure for all assessment, only practical assessment was included in some of the modules. Some learning guides do not clearly identify why specific assessment methods were used. The following methods was used, Presentations, Discussion groups, directed self-learning, self-directed learning, internet searched, case studies, scenario analysis. Proof of the above was not available during the document analysis. Also, these assessment strategies were not used in all modules, as per learning guides.</p>					
	How is assessment done to make it fair, transparent, valid, etc. (assessment principles)	Programme design and development plans and policies, assessment policies	✓		
<p>Notes: CUT assessment policy is used for assessments</p>					

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Are policies and assessment documents for internal assessment; internal and external moderation; monitoring of student progress explicitness, validity and reliability of assessment practices; recording of assessment results; settling of disputes; the rigor and security of the assessment system and for the development of staff competence in assessment available and clear with regards to the EMPP.	Programme design and development plans and policies, assessment policies		—	
	Notes:	Student progress reports not available, limited internal moderation forms available. Proof of staff development not available, for example, moderators and facilitators courses. No proof of lecturer evaluations. Assessment is not password protected.			
	Effective assessment practices which include internal (or external) assessment, as	Programme design and development plans and policies, assessment policies			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	well as internal and external moderation.				
	Notes:	Internal moderation only, only internal assessment, except for physical preparedness			
	Are Student progress monitored during the course (continuous formative assessment) and identifying the student-at-risk early.	Programme design and development plans and policies, assessment policies, progress reports	✓		
	Notes:	Only one at-risk student was identified in the report, not clear if any guidelines were followed, as per appeal policy as. No documented proof was available.			
	Are the assessment results recorded securely and reliably?	Assessment policy, student progress report, programme policies			
	Notes:	Stored on password protected computers, Individual assessments is not password protected			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Are process in place to settle student disputes regarding assessment results	Assessment policy, programme policies, appeal policy	✓		
	Notes:	CUT appeal policy (CUT calendar 2020)			
	Staff are developed in assessment practices.	Assessment policy, programme policies		-	
	Notes:	No proof			
	Assessment is an integral part of the teaching and learning process and is systematically and purposefully used to generate data for grading, ranking, selecting and predicting, and for providing timely feedback to inform teaching and learning and to improve the curriculum.	Assessment policy, programme policies, student progress report, appeal policy			
	Notes:	Student files with all academic documents, for example, individual mark sheets, assignment feedback was not available.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	The learning achievements of students are internally assessed by the academic staff responsible for teaching a course/module in terms of a system that includes internal moderation.	Assessment policy, programme policies, appeal policy		-	
	Notes:	Only internal moderation. No proof of supervisor assessment of lecturers (lecturer evaluation). Also, no proof of meeting between the lecturers and coordinator of the EMPP to discuss academic issues (academic). No EMPP SOP.			
	Academic staff who teach a course/module are responsible for designing, implementing and marking both formative and summative student assessments, for recording results and for feedback to students.	Assessment policy, programme policies, appeal policy, lesson plans, learning guides	✓		
	Notes:	No lesson plans, modules follow the same assessment layout.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	For summative assessment, especially where more than one marker is involved, internal moderation checks are undertaken to ensure the reliability of the assessment procedures.	Assessment policy, programme policies, appeal policy, lesson plans, learning guides		-	
	Notes:	No proof of pre moderation. Moderation template also not used for moderation of assessments.			
	Procedures are in place and are followed to receive, record, process, and turn around assignments within a time frame that allows students to benefit from feedback prior to the submission of further assessment tasks.	Assessment policy, programme policies, appeal policy, lesson plans, learning guides			
	Notes:	No proof of how record-keeping was done, this may be due to the EMPP SOP not being available.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	The institution provides information on the curriculum and on continuous assessment	Assessment policy, programme policies, appeal policy, lesson plans, learning guides	✓		
	Notes:	EMPP curriculum			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
4. PHYSICAL PREPAREDNESS	Are student progress reports with regards to physical preparedness available, showing the progress of the Student from start of course to completion of course	Student progress reports, programme policies and documents, lesson plan, learning guide	✓		
	Notes:	Mark sheet			
	Outcomes of the learn to swim programme are clear and achievable	Student progress reports, programme policies and documents, lesson plan, learning guide		–	
	Notes:	No specific learning guide for physical preparedness			
	Are the physical preparedness programme structured and implemented to reach the outcomes of the programme	Programme policies and documents, lesson plan, learning guide		–	
	Notes:	only timetable available to validate. The Physical preparedness module do not have a learning guide which would give structure to the module.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Are the goals of the physical preparedness aligned to the EMC HE programmes?	Programme policies and documents, lesson plan, learning guide	✓		
	Notes:	Aligned to the entry requirements of the UJ EMC. Not following the same training as the EMC UJ.			
	Are the outcomes of the physical preparedness programme clear and documented in the learning guides?	Programme policies and documents, lesson plan, learning guide		-	
	Notes:	No learning guide for learn to swim			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
5. PROGRAMME DESIGN	Are the programme consonant with the institution's mission and goals and was approved by the appropriate institutional structures, including Senate/equivalent structure. Provision is made for the programme in the institution's planning and resource allocation processes.	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans	✓		
	Notes:	No EMMP SOP. Application to the UJ and CUT senates.			
	Are the programme meeting the national requirements pertaining to programmes which are at present being developed within the context of the NQF.	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans			
	Notes:	No lesson plan, no minutes of meetings available. The EMPP strategic plan also not available.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	The design offers students learning and career pathways with opportunities for articulation with other programmes within and across institutions, where possible	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans	✓		
	Notes:				

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	Modules/units in the programme are coherently planned with regard to content, level, credits, purpose, outcomes, rules of combination, relative weight and delivery. Outsourcing of delivery is not permitted.	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans	✓		
	Notes:	Mostly			
	Programme outcomes meet national and/or regional labour market, knowledge or other socio-cultural needs. The requirements of professional bodies are taken into consideration, where applicable. Relevant stakeholders, including academic peers from outside the institution, and employers and professional bodies where applicable, are involved in the development of the programme	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans			
	Notes:	EMPP development plan used to build the EMPP; it is not clear who was involved in the planning and development of the EMPP. Were external inputs used in the planning of the EMPP.			

Theme	Sub-theme	Source of evidence	Yes	No	N/A
	The programme promotes the students' understanding of the specific occupation for which they are being trained.	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans			
	Notes:	Limited with regards to EMC specific modules.			
	What types of learner support is in place to ensure student success?				
	Notes:	CILT, CASD			
	Students master techniques and skills required for a specific profession or occupation	Strategic Plan; programme design and development plans and policies, minutes of programme meetings, Learning guides, Lesson plans		-	
	Notes:	Curriculum changes not implemented as planned, for example patient report form not included, EMC specific skills.			

Appendix F:

Information document for participation in the Delphi survey

Development of Quality Assurance and Educational guidelines for an Emergency Medical Care Preparation Programme in South Africa Delphi survey

Dear _____

I am engaged in a research study to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.**

My promotors are:

PROMOTOR

Dr M.P. Jama

Head: Division Student Learning and Development

Office of the Dean: Health Sciences JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis

Department of Clinical Sciences: Radiography
Faculty of Health and Environmental Science

Central University of Technology

duplesi@cut.ac.za

I want to invite you to participate in phase 3 of the study were your expertise will be appreciated as a member of the Delphi survey. If you are willing to participate will you kindly complete the attached consent form and send it back to me on or before 27/01/2021.

The research study was approved by the Health Science Research Ethics Committee (**UFS-HSD2019/1095/2708**) at the University of the Free State. The problem that will be addressed by this research is the absence of formal, scientifically researched quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa (SA). Such programme intends to assist emergency medical care (EMC) personnel, who do not meet higher education admission requirements, with entry into higher education programmes. Furthermore, this study will attempt to increase the limited literature available on EMPPs and quality assurance guidelines and criteria specifically for EMC educational programmes in SA. As the EMPP provides EMC personnel with the means to further their paramedic careers, it is of vital importance that high-quality education and training are maintained. The development of quality assurance and educational guidelines will play a vital role in ensuring the success of such a

programme. The study thus aims to develop quality assurance and educational guidelines for an EMPP in SA.

In Phase 1 of the study, a literature review and document analysis will be done to (i) analyse the quality assurance guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) National Qualifications Framework (NQF) level 5 programmes, (b) Short Learning Programmes (SLP`s) and (c) EMC education and training programmes. The literature will also be scrutinised for quality assurance guidelines specific for SLPs and EMC education and training, as governed by a professional body.

Phase 2 of the study will include the analysis of the EMPP course design with regards to, level descriptors, exit level outcomes, notional/unit hours, module/unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1.

Phase 3 will involve the development and refining of draft quality assurance and educational guidelines for an EMPP which will be guided by the integration of Phase 1 and Phase 2 data and refined using a Delphi survey.

In Phase 4 of the study, the quality assurance, and educational guidelines for an EMPP will be finalised using the inputs from an expert panel discussion.

The value of this research will be the provision of quality assurance and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC specific preparation programmes and EMC education quality assurance programmes in SA.

Yours faithfully

Mr EN Nell

EMS Coordinator/Lecturer

Free State College of Emergency Care, Department of Health, Bloemfontein, Free State

Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee) Tel: 051-4017794/5

Email: EthicsFHS@ufs.ac.za.

Appendix G:

Invitation letter Delphi survey

Development of Quality Assurance and Educational guidelines for an Emergency Medical Care Preparation Programme in South Africa

Invitation to participate in a Delphi survey.

Dear _____

I am engaged in a research study to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.**

My promotors are:

PROMOTOR

Dr M.P. Jama

Head: Division Student Learning and
Development

Office of the Dean: Health

Sciences JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis

Department of Clinical Sciences: Radiography

Faculty of Health and Environmental Science

Central University of Technology

duplesj@cut.ac.za

I want to invite you to participate in phase 3 of the study were your expertise will be appreciated as a member of the Delphi survey.

The research study was approved by the Health Science Research Ethics Committee (**UFS-HSD2019/1095/2708**) at the University of the Free State. The problem that will be addressed by this research is the absence of formal, scientifically researched quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa (SA). Such programme intends to assist emergency medical care (EMC) personnel, who do not meet higher education admission

requirements, with entry into higher education programmes. Furthermore, this study will attempt to increase the limited literature available on EMPPs and quality assurance guidelines and criteria specifically for EMC educational programmes in SA. As the EMPP provides EMC personnel with the means to further their paramedic careers, it is of vital importance that high-quality education and training are maintained. The development of quality assurance and educational guidelines will play a vital role in ensuring the success of such a programme. The study thus aims to develop quality assurance and educational guidelines for an EMPP in SA.

In Phase 1 of the study, a literature review and document analysis will be done to (i) analyse the quality assurance guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) National Qualifications Framework (NQF) level 5 programmes, (b) Short Learning Programmes (SLP`s) and (c) EMC education and training programmes. The literature will also be scrutinised for quality assurance guidelines specific for SLPs and EMC education and training, as governed by a professional body.

Phase 2 of the study will include the analysis of the EMPP course design with regards to, level descriptors, exit level outcomes, notional/unit hours, module/unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1.

Phase 3 will involve the development and refining of draft quality assurance and educational guidelines for an EMPP which will be guided by the integration of Phase 1 and Phase 2 data and refined using a Delphi survey.

In Phase 4 of the study, the quality assurance, and educational guidelines for an EMPP will be finalised using the inputs from an expert panel discussion.

The value of this research will be the provision of quality assurance and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC specific preparation programmes and EMC education quality assurance programmes in SA.

Yours faithfully

Mr EN Nell

EMS Coordinator/Lecturer

Free State College of Emergency Care, Department of Health, Bloemfontein, Free State

Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee) Tel: 051-4017794/5

Email: EthicsFHS@ufs.ac.za.

Appendix H:

Letter to obtain consent from participants willing to participate in the Delphi survey

CONSENT TO PARTICIPATE IN THE DELPHI SURVEY

Dear Delphi survey participant.

Regarding participation in the PhD (HPE) research study titled: **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.**

I, _____ (title and full names), hereby agree to be a participant in the Delphi survey as part of this PhD research study (**UFS-HSD2019/1095/2708**).

For any enquiries, you are welcome to contact Mr. EN Nell at telephone (051) 405 2782 or nellen@fshealth.gov.za / niekienell5@gmail.com or the promotor, Dr M. Jama at telephone (051) 401 7771, or co-promotor, Dr J. du Plessis (051) 507 3166 if you have any questions about the research. You may contact the Health Science Research Ethics Committee (HSREC), UFS at telephone number 051-4017794/5 if you have questions about your rights as a research participant.

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and Development
Office of the Dean: Health Sciences
JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences: Radiography
Faculty of Health and Environmental
Science Central University of Technology

To be completed if you are going to participate in the study:

- I have been fully informed about the research study and my participation in the study
- I freely agree to participate in this project and acknowledge that should I wish to withdraw my participation, due to unforeseen circumstances or personal choice, I am aloud to do so. I understand that this will not disadvantage me in any way.
- I understand that my identity and personal details will remain confidential
- I further acknowledge that I am aware that the findings in this study will be presented at appropriate congresses and forums and for publication purposes.
- I understand that I will be given a copy of the consent form to keep.
- I am aware that I can contact the researcher and/or promoters of the study at any time should I have a concern.

Full names: _____

Contact number: _____

Email address: _____

Date: _____

Signature of participant: _____

Please E-mail this form to: nellen@fshealth.gov.za or niekienell5@gmail.com

Mr. EN Nell
Lecturer, Free State College of Emergency Care.
Telephone: 051 4052782

Appendix I:

Delphi survey Round 1 questionnaire

QUALITY ASSURANCE AND EDUCATIONAL EN NELL
 DELPHI SURVEY ROUND 1



Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.

Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. INFORMATION AND CONSENT TO PARTICIPATE IN THE DELPHI SURVEY

Dear Delphi Participant

Thank you for agreeing to participate in the Delphi survey of this study and completing the consent form for the process. Attached you will find the first-round questionnaire for the Delphi survey. By completing the questionnaire you give consent for the information therein to form part of the data collection of this study.

STRUCTURE OF THE QUESTIONNAIRE

The questionnaire was developed after conducting a thorough literature survey and document analysis of the Emergency Medical Preparatory Programme (EMPP) documentation. From these, a large number of criteria were identified and listed under various sub-headings in the Delphi questionnaire. These criteria are envisaged to form the basis of the quality assurance and educational guidelines for an EMPP in South Africa (SA). The statements in the questionnaire provide you with the opportunity of offering an opinion on their relative importance. The questionnaire is subdivided into 10 sections from A through to G.

PROCEDURE OF THE DELPHI PROCESS

Your opinion as a participant is sought on the relative importance of each criterion listed in the survey. All information provided and opinions offered will be treated as strictly confidential. Please note that no respondent will know the identity of any other respondent. Only the researcher and his supervisors will have this knowledge. Please ensure that you keep all information pertaining to this research and questionnaire strictly confidential, both in this and subsequent rounds of the Delphi survey, as the research process may be thus contaminated. After each round feedback will be provided to the participants.

PLEASE COMPLETE THE QUESTIONNAIRE AS FOLLOWS

Evaluate each numbered statement, with regards to the EMPP and then indicate your opinion on the three-point scale. The specific points of the scale are defined as follows:

1. Agree (this criterion must definitely be included in the quality assurance and educational guidelines).
2. Not applicable (this criterion is not applicable to the quality assurance and educational guidelines).
3. Disagree (this criterion must definitely not be included in the quality assurance and educational guidelines). If you disagree, please specify your reason in the comment box at the end of the section, by indicating the question number followed by your comment. As part of the design of the questionnaire, I have also included space for comments which can be utilised for each item. The questionnaire should take you +/- 60 min to complete. Thank you for your efforts and helping me to complete this part of my study.

2. SECTION A: DEMOGRAPHIC DATA

2.1 Age group 20 - 30 years 31 - 40 years 41 - 50 years
 51 years and older

2.2 Gender Male Female

2.3 List your function(s) in the programme/school/department/ Faculty.
 Management Administration Lecturing
 Research Other (specify)



2. SECTION A: DEMOGRAPHIC DATA [Continue]

2.4 Please specify if other

2.5 What is your highest educational background? (Please select the applicable options)

 Doctorate Masters Degree Diploma Certificate Other

2.6 Please specify if other:

2.7 What is your highest professional qualification?

 ECA Dip EMC Btech EMC Prof Degree EMC Masters EMC Doctorate EMC Other

2.8 Please specify if other:

2.9 Please indicate the number of years involved with higher education. 3 - 5 years 6 -9 years 10 years or more**3. SECTION B: THE EMPP ADMISSION CRITERIA****Please indicate how important each of the following statements are according to the following scale:****1 = Agree****2 = Not Applicable****3 = Disagree**

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree...)

3.1 The number of students selected for the EMPP should not exceed the capacity available for offering good quality education. Agree Not Applicable Disagree

3. SECTION B: THE EMPP ADMISSION CRITERIA [Continue]

3.2 The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education. Agree Not Applicable Disagree

3.3 The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a national senior certificate or equivalent thereof. Agree Not Applicable Disagree

3.4 The EMPP should be accommodative to a national senior certificate or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria. Agree Not Applicable Disagree

3.5 It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols. Agree Not Applicable Disagree

3.6 The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa. Agree Not Applicable Disagree

3.7 A physical fitness assessment should form part of the entry criteria for the EMPP. Agree Not Applicable Disagree

3.8 Swimming should form part of the entry criteria for the EMPP. Agree Not Applicable Disagree

3.9 A basic medical assessment should form part of the entry criteria for the EMPP. Agree Not Applicable Disagree

3.10 Any further comments on the EMPP admission criteria:

4. SECTION C: EMPP CURRICULUM DESIGN

4. SECTION C: EMPP CURRICULUM DESIGN [Continue]

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

4.1 The EMPP curriculum design should maintain an appropriate balance of theoretical, practical and experiential knowledge and skills. Agree Not Applicable Disagree

4.2 Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake. Agree Not Applicable Disagree

4.3 The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy. Agree Not Applicable Disagree

4.4 Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design. Agree Not Applicable Disagree

4.5 Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme. Agree Not Applicable Disagree

4.6 Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth. Agree Not Applicable Disagree

4.7 Student diversity should be taken into account with the development of curricula (for example, students from rural background). Agree Not Applicable Disagree

4.8 The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes. Agree Not Applicable Disagree



4. SECTION C: EMPP CURRICULUM DESIGN [Continue]

4.9 The EMPP curriculum should be aligned with that of EMC education. Agree Not Applicable Disagree

4.10 The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA. Agree Not Applicable Disagree

4.11 The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC. Agree Not Applicable Disagree

4.12 The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment. Agree Not Applicable Disagree

4.13 Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations. Agree Not Applicable Disagree

4.14 The EMPP should be designed to support the achievement of the specified learning outcomes. Agree Not Applicable Disagree

4.15 The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained. Agree Not Applicable Disagree

4.16 After successfully completing the EMPP the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education. Agree Not Applicable Disagree

4.17 The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes. Agree Not Applicable Disagree

4.18 The EMPP should be guided by policies and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals. Agree Not Applicable Disagree

4.19 EMPP student should be prepared for basic medical techniques and skills required for EMC. Agree Not Applicable Disagree



4. SECTION C: EMPP CURRICULUM DESIGN [Continue]

4.20 EMPP students should be taught how to complete EMC documentation, for example patient report forms. Agree Not Applicable Disagree

4.21 The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education. Agree Not Applicable Disagree

4.22 Academic writing should form part of the EMPP curriculum. Agree Not Applicable Disagree

4.23 The EMPP should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally. Agree Not Applicable Disagree

4.24 All EMPP modules should be designed and structured as complementing components of the programme. Agree Not Applicable Disagree

4.25 The ability of EMPP students to function as adult learners and take responsibility for their learning is important. Agree Not Applicable Disagree

4.26 All students from the EMPP should be able to cope with the academic requirements of higher education. Agree Not Applicable Disagree

4.27 To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme. Agree Not Applicable Disagree

4.28 The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task. Agree Not Applicable Disagree

4.29 The EMPP student should be able to apply basic processes of analysis, synthesis and evaluation of collected information. Agree Not Applicable Disagree

4.30 The EMPP should be able to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC to promote access during first time application at HEI's. Agree Not Applicable Disagree



4. SECTION C: EMPP CURRICULUM DESIGN [Continue]

4.31 The EMPP should aim to bring about learning with understanding. Agree Not Applicable Disagree

4.32 EMPP learning content should be relevant, realistic, manageable and accessible. Agree Not Applicable Disagree

4.33 The EMPP should take the students existing knowledge into consideration. Agree Not Applicable Disagree

4.34 The EMPP should be current with regards to the needs of the student and society. Agree Not Applicable Disagree

4.35 The EMPP student should be able to work effectively as individuals and with others as members of a team. Agree Not Applicable Disagree

4.36 The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively. Agree Not Applicable Disagree

4.37 The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes. Agree Not Applicable Disagree

4.38 Lecturers teaching modules on the EMPP should be involved in the design of the curricula. Agree Not Applicable Disagree

4.39 Any other comments dealing with the EMPP curriculum design:



5. SECTION C1: EMPP LEVEL DESCRIPTORS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

5.1 The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5. Agree Not Applicable Disagree

5.2 The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements. Agree Not Applicable Disagree

5.3 EMPP level descriptors should be descriptive and not prescriptive. Agree Not Applicable Disagree

5.4 The Critical Cross-Field outcomes of SAQA should be embedded in the level descriptors of the EMPP. Agree Not Applicable Disagree

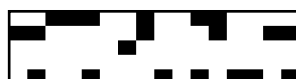
5.5 The EMPP outcomes should be aligned with the level descriptors and exit level outcomes. Agree Not Applicable Disagree

5.6 The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear. Agree Not Applicable Disagree

5.7 The EMPP student should be able to collect, analyse, organise, and critically evaluate information. Agree Not Applicable Disagree

5.8 The EMPP should use science and technology effectively and critically showing responsibility towards the environment and others' health. Agree Not Applicable Disagree

5.9 The EMPP should be able to demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation. Agree Not Applicable Disagree



5. SECTION C1: EMPP LEVEL DESCRIPTORS [Continue]

5.10 The EMPP student should be able to work effectively as individuals and with others as members of a team. Agree Not Applicable Disagree

5.11 The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in oral and written presentation modes, mainly through reports and the handover of patients to other services. Agree Not Applicable Disagree

5.12 The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services. Agree Not Applicable Disagree

5.13 Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment. Agree Not Applicable Disagree

5.14 Any other comments dealing with the EMPP level descriptors:

6. SECTION C2: EMPP LEARNING OUTCOMES

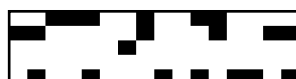
Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)



6. SECTION C2: EMPP LEARNING OUTCOMES [Continue]

6.1 EMPP learning outcomes should have a defined purpose. Agree Not Applicable Disagree

6.2 The EMPP learning outcomes should provide applied competence and a basis for further learning. Agree Not Applicable Disagree

6.3 The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies. Agree Not Applicable Disagree

6.4 EMPP learning outcomes should be specified with appropriate assessment criteria. Agree Not Applicable Disagree

6.5 Facilitators in the EMPP should ensure that learning outcomes are educationally sound. Agree Not Applicable Disagree

6.6 Statements of intended learning outcomes should clearly describe the knowledge, skills and competencies that students should obtain from learning. Agree Not Applicable Disagree

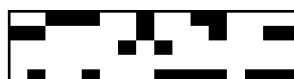
6.7 The learning outcomes should be arranged in a recognisable and logical sequence. Agree Not Applicable Disagree

6.8 Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme. Agree Not Applicable Disagree

6.9 The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear. Agree Not Applicable Disagree

6.10 Learning outcomes should be well formulated. Agree Not Applicable Disagree

6.11 Learning objectives should describe measurable outcomes. Agree Not Applicable Disagree



6. SECTION C2: EMPP LEARNING OUTCOMES [Continue]

6.12 Adequate physical resources, consistent with the intended learning outcomes of the EMPP should be available to the students (library etc.). Agree Not Applicable Disagree

6.13 The EMPP curriculum should contain more EMC specific outcomes. For example, basic drug calculations. Agree Not Applicable Disagree

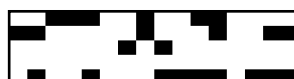
6.14 Learning outcomes should provide applied competence and a basis for further learning. Agree Not Applicable Disagree

6.15 Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies. Agree Not Applicable Disagree

6.16 EMPP learning outcomes should be specified with appropriate assessment criteria. Agree Not Applicable Disagree

6.17 Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students. Agree Not Applicable Disagree

6.18 About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress. Agree Not Applicable Disagree



6. SECTION C2: EMPP LEARNING OUTCOMES [Continue]

6.19 Any further comments dealing with the EMPP learning outcomes.

7. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

7.1 The EMPP modules should provide the student with a clear breakdown of the total notional hours. Agree Not Applicable Disagree

7.2 The EMPP should be a credit-bearing short learning programme. Agree Not Applicable Disagree

7.3 The EMPP should be presented at an NQF level 5. Agree Not Applicable Disagree

7.4 All learning relevant to the learning outcomes should be considered when notional learning time is being estimated. Agree Not Applicable Disagree

7.5 Consideration should be given to the level at which the learning is being offered. Agree Not Applicable Disagree



7. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS [Continue]

7.6 Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards. Agree Not Applicable Disagree

7.7 The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF. Agree Not Applicable Disagree

7.8 The breakdown of the time allocation on each EMPP module should be clearly defined. Agree Not Applicable Disagree

7.9 Any further comments dealing with the EMPP credits and notional hours.

8. SECTION C4: EMPP LEARNING FACILITATION

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

8.1 Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the programme's learning outcomes. Agree Not Applicable Disagree

8.2 A mechanism should be in place to ensure the appropriateness of teaching and learning methods. Agree Not Applicable Disagree

8.3 Lecturers should continuously upgrade teaching and learning methods on the EMPP. Agree Not Applicable Disagree

8.4 The most preferred teaching methods in the delivery of the EMPP are those that promote active learning. Agree Not Applicable Disagree



8. SECTION C4: EMPP LEARNING FACILITATION [Continue]

8.5 Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology. Agree Not Applicable Disagree

8.6 Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life. Agree Not Applicable Disagree

8.7 Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results. Agree Not Applicable Disagree

8.8 Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes. Agree Not Applicable Disagree

8.9 A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience. Agree Not Applicable Disagree

8.10 The student should have a clear understanding of how the lesson will be facilitated. Agree Not Applicable Disagree

8.11 EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success Agree Not Applicable Disagree

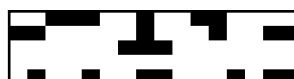
8.12 Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time. Agree Not Applicable Disagree

8.13 EMPP learning material should be focused on EMC. Agree Not Applicable Disagree

8.14 EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively. Agree Not Applicable Disagree

8.15 EMPP learning guides should be in a standard format for all modules. Agree Not Applicable Disagree

8.16 EMPP learning guides should be consistent and specific with regards to student support initiatives. Agree Not Applicable Disagree



8. SECTION C4: EMPP LEARNING FACILITATION [Continue]

8.17 The EMPP learning guides should include a descriptive work scheme providing the student with clear guidelines on what to expect from the module. Agree Not Applicable Disagree

8.18 The learning guides should provide a clear link where the student will find the exit level outcomes. Agree Not Applicable Disagree

8.19 Lesson planning plays a vital role in the successful planning of a module/subject. Agree Not Applicable Disagree

8.20 Thorough lesson planning should be consistently based on the learner's needs. Agree Not Applicable Disagree

8.21 Financial support plays a role in the success of students. Agree Not Applicable Disagree

8.22 Student psychological support services are should be available and accessible. Agree Not Applicable Disagree

8.23 Additional student academic support is should be offered where necessary. Agree Not Applicable Disagree

8.24 There should be continuous guidance available to students with regards to the use of resources, e.g. online resources Blackboard Agree Not Applicable Disagree

8.25 Academic staff should be trained to develop learning materials. Agree Not Applicable Disagree

8.26 EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment Agree Not Applicable Disagree

8.27 The EMPP student's existing knowledge should be explored. Agree Not Applicable Disagree

8.28 The individual student's attributes, preferences and needs should be accommodated. Agree Not Applicable Disagree

8.29 The teaching and learning strategy are should be appropriate for the institutional type as reflected in its mode of delivery and student composition. Agree Not Applicable Disagree



8. SECTION C4: EMPP LEARNING FACILITATION [Continue]

8.30 Any further comments dealing with EMPP learning facilitation.

9. SECTION D: EMPP ASSESSMENT

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

9.1 Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies. Agree Not Applicable Disagree

9.2 Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum. Agree Not Applicable Disagree

9.3 Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP. Agree Not Applicable Disagree

9.4 Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks. Agree Not Applicable Disagree

9.5 Student progress should be monitored. Agree Not Applicable Disagree



9. SECTION D: EMPP ASSESSMENT [Continue]

9.6 For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures. Agree Not Applicable Disagree

9.7 The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics. Agree Not Applicable Disagree

9.8 Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy. Agree Not Applicable Disagree

9.9 Measures should be taken to ensure the reliability, rigour and security of the assessment system. Assessment results are recorded securely and reliably. Agree Not Applicable Disagree

9.10 Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented. Agree Not Applicable Disagree

9.11 Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements. Agree Not Applicable Disagree

9.12 There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously. Agree Not Applicable Disagree

9.13 Provision should be made for the development of staff competence in assessment. Agree Not Applicable Disagree

9.14 Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students. Agree Not Applicable Disagree



9. SECTION D: EMPP ASSESSMENT [Continue]

9.15 Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level. Agree Not Applicable Disagree

9.16 Students' assessment records should be reliable and secure. Agree Not Applicable Disagree

9.17 Internal assessment of student learning achievements by academic staff should be important. Agree Not Applicable Disagree

9.18 Monitoring student progress in the course of the programme should be important. Agree Not Applicable Disagree

9.19 Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanors should be important Agree Not Applicable Disagree

9.20 Development of staff competence in assessment should be important. Agree Not Applicable Disagree

9.21 An assessor should know about current changes in higher education. Agree Not Applicable Disagree

9.22 Assessors should be formally trained in the principles of assessment. Agree Not Applicable Disagree

9.23 Assessment should be a learning experience for both students and assessors. Agree Not Applicable Disagree

9.24 Assessment should identify areas where adjustments in teaching and learning could be made. Agree Not Applicable Disagree

9.25 Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP. Agree Not Applicable Disagree

9.26 The assessment methods should include a wide range of approaches. Agree Not Applicable Disagree

9.27 The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module. Agree Not Applicable Disagree



9. SECTION D: EMPP ASSESSMENT [Continue]

9.28 The EMPP should make use a variety of teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc. Agree Not Applicable Disagree

9.29 Clear stated outcomes must be formulated as part of the construction of assessment. Agree Not Applicable Disagree

9.30 Assessment should be integrated and must therefore cover all aspects of the EMPP. Agree Not Applicable Disagree

9.31 Students must have sufficient opportunity to prepare for assessments. Agree Not Applicable Disagree

9.32 Students should know how the weight of assessments is determined. Agree Not Applicable Disagree

9.33 The learning content that will be evaluated in the assessment, should be explained to the students. Agree Not Applicable Disagree

9.34 Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment. Agree Not Applicable Disagree

9.35 Memorandums should form part of all assessments. Agree Not Applicable Disagree

9.36 Assessment should be moderated by appropriately trained moderators with specific expertise in the learning area. Agree Not Applicable Disagree

9.37 The pre-defined assessment purposes should determine the assessment methods Agree Not Applicable Disagree

9.38 Assessment criteria must be developed and used during the assessment. Agree Not Applicable Disagree

9.39 Students should be informed about the goal and importance of feedback. Agree Not Applicable Disagree

9.40 A clear process should be available to recognise the at-risk student. Agree Not Applicable Disagree



9. SECTION D: EMPP ASSESSMENT [Continue]

9.41 Selected assessments measure the course learning objectives. Agree Not Applicable Disagree

9.42 Any further comments dealing with EMPP assessment.

10. SECTION E: EMPP PHYSICAL PREPAREDNESS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

10.1 Physical preparedness plays a vital role in EMC education and should form part of the EMPP. Agree Not Applicable Disagree

10.2 Physical preparedness should be a formal credit bearing module on the EMPP. Agree Not Applicable Disagree

10.3 The EMPP Physical Preparedness module should have formal assessment criteria. Agree Not Applicable Disagree

10.4 Being physically healthy is essential for EMC training. Agree Not Applicable Disagree

10.5 EMC practitioners need to learn to swim. Agree Not Applicable Disagree

10.6 Learning to swim should be a formal credit bearing module on the EMPP. Agree Not Applicable Disagree

10.7 Learning to swim should have formal assessment criteria. Agree Not Applicable Disagree



10. SECTION E: EMPP PHYSICAL PREPAREDNESS [Continue]

10.8 Physical preparedness plays a vital role in EMC education and should form part of the EMPP. Agree Not Applicable Disagree

10.9 Any further comments dealing with the EMPP physical preparedness.

11. SECTION F: EMPP GENERAL SKILLS AND COMPETENCIES

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

11.1 The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education. Agree Not Applicable Disagree

11.2 The student should have insight into quality assurance processes as practitioners. Agree Not Applicable Disagree

11.3 Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module. Agree Not Applicable Disagree



11. SECTION F: EMPP GENERAL SKILLS AND COMPETENCIES [Continue]

11.4 The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments. Agree Not Applicable Disagree

11.5 Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes. Agree Not Applicable Disagree

11.6 The EMPP should include an introduction to patient report forms. Agree Not Applicable Disagree

11.7 Any further comments dealing with the EMPP generic skills and competencies.

12. SECTION G: EMPP QUALITY ASSURANCE

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

12.1 Moderation should be an essential element of ensuring and maintaining the quality of the EMPP. Agree Not Applicable Disagree



12. SECTION G: EMPP QUALITY ASSURANCE [Continue]

12.2 Moderators should be appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines. Agree Not Applicable Disagree

12.3 Clear monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised. Agree Not Applicable Disagree

12.4 Instructional materials should be reviewed periodically to ensure they meet program standards, and that course information is up to date and relevant. Agree Not Applicable Disagree

12.5 Quality assurance procedures should be in place and must be strictly adhered to on the EMPP. Agree Not Applicable Disagree

12.6 Lecturer evaluations should be done. Agree Not Applicable Disagree

12.7 The EMPP should be review in a clustered process. Agree Not Applicable Disagree

12.8 EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review. Agree Not Applicable Disagree

12.9 Planning and programme design of the EMPP should be done adequately. Agree Not Applicable Disagree

12.10 Planning and management of the EMPP should be a key focus area of quality assurance. Agree Not Applicable Disagree

12.11 The EMPP should have processes in place to recognise the at-risk student. Agree Not Applicable Disagree

12.12 Recognition of the importance of the promotion of student learning should be reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments, and promotions. Agree Not Applicable Disagree

12.13 The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme. Agree Not Applicable Disagree



12. SECTION G: EMPP QUALITY ASSURANCE [Continue]

12.14 The EMPPP should provide for staff development opportunities where staff can upgrade their teaching methods. Agree Not Applicable Disagree

12.15 The EMPP should have systems in place to deal with under-performing or inactive students in the programme. Agree Not Applicable Disagree

12.16 The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time. Agree Not Applicable Disagree

12.17 The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives. Agree Not Applicable Disagree

12.18 The results of reviews and evaluations should be utilised in the planning process of the EMPP. Agree Not Applicable Disagree

12.19 User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes. Agree Not Applicable Disagree

12.20 There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme. Agree Not Applicable Disagree

12.21 The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments). Agree Not Applicable Disagree

12.22 The EMPP curricula should be based on the students' needs and differences within that institution. Agree Not Applicable Disagree

12.23 Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students. Agree Not Applicable Disagree



12. SECTION G: EMPP QUALITY ASSURANCE [Continue]

12.24 The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.

 Agree Not Applicable Disagree

12.25 Any other comments dealing with the EMPP quality assurance.

Thank you for your time



Appendix J:

Delphi survey Round 2 questionnaire

QUALITY ASSURANCE AND EDUCATIONAL
DELPHI SURVEYEN NELL
ROUND TWO

Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.

Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. INFORMATION AND CONSENT TO PARTICIPATE IN THE DELPHI SURVEY.

Dear Delphi participant,

Thank you once again for your participation in the Delphi process and for the feedback given during Round One of the survey. By completing the questionnaire you give consent for the information therein to form part of the data collection of this study.

PURPOSE OF THE ROUND TWO QUESTIONNAIRE

In Round Two of the questionnaire you are provided with all the statements (criteria) on which consensus was not reached during Round One. Consensus was pre-defined according to the literature as the state where 75% of the participants vote on a specific item with the same value on the three-point scale. All the questions on which consensus were reached, have been removed from this questionnaire as explained in the feedback letter sent to you on the 22 of February 2021. In this round of the Delphi process you are given the opportunity to reconsider your opinion on the statements that are left, taking into account the anonymous feedback that was provided by your fellow participants and some clarifications made by the researcher.

INSTRUCTIONS FOR COMPLETION OF THE SECOND ROUND

As mentioned above, the Round Two questionnaire only contains the statements on which no consensus could be reached in Round One. During this round, you are allowed to change your opinion if you want to and you can make new comments in the spaces provided.

Please use the following scale again:

1. Agree (this criterion must definitely be included in the quality assurance and educational guidelines).
2. Not applicable (this criterion is not applicable to the quality assurance and educational guidelines).
3. Disagree (this criterion must definitely not be included in the quality assurance and educational).

2. SECTION B: THE EMPP ADMISSION CRITERIA

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree...)

- 2.1 The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a national senior certificate or equivalent thereof. Agree Not Applicable Disagree

2. SECTION B: THE EMPP ADMISSION CRITERIA [Continue]

2.2 The EMPP should be accommodative to a national senior certificate or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria. Agree Not Applicable Disagree

2.3 The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa. Agree Not Applicable Disagree

2.4 Swimming should form part of the entry criteria for the EMPP. Agree Not Applicable Disagree

2.5 A basic medical assessment should form part of the entry criteria for the EMPP. Agree Not Applicable Disagree

2.6 Any further comments on the EMPP admission criteria:

3. SECTION C: EMPP CURRICULUM DESIGN

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.)

3.1 The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA. Agree Not Applicable Disagree

3.2 The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC. Agree Not Applicable Disagree

3. SECTION C: EMPP CURRICULUM DESIGN [Continue]

3.3 EMPP student should be prepared for basic medical techniques and skills required for EMC. Agree Not Applicable Disagree

3.4 EMPP students should be taught how to complete EMC documentation, for example patient report forms. Agree Not Applicable Disagree

3.5 The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education. Agree Not Applicable Disagree

3.6 To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme. Agree Not Applicable Disagree

3.7 Any other comments dealing with the EMPP curriculum design:

4. SECTION C1: EMPP LEVEL DESCRIPTORS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

4. SECTION C1: EMPP LEVEL DESCRIPTORS [Continue]

- 4.1 The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services. Agree Not Applicable Disagree

- 4.2 Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment. Agree Not Applicable Disagree

- 4.3 Any other comments dealing with the EMPP level descriptors:

5. SECTION C2: EMPP LEARNING OUTCOMES

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

- 5.1 The EMPP curriculum should contain more EMC specific outcomes. Agree Not Applicable Disagree

5. SECTION C2: EMPP LEARNING OUTCOMES [Continue]

5.2 Any further comments dealing with the EMPP learning outcomes.

6. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

6.1 The EMPP should be presented at an NQF level 5. Agree Not Applicable Disagree

6.2 The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF Agree Not Applicable Disagree

6.3 Any further comments dealing EMPP credits and notional hours.

7. SECTION C4: EMPP LEARNING FACILITATION

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.)

7.1 EMPP learning material should be focused on EMC. Agree Not Applicable Disagree

7.2 EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment Agree Not Applicable Disagree

8. SECTION D: EMPP PHYSICAL PREPAREDNESS

Please indicate how important each of the following statements are according to the following scale:

1 = Agree

2 = Not Applicable

3 = Disagree

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.)

8.1 Physical preparedness should be a formal credit bearing module on the EMPP. Agree Not Applicable Disagree

8.2 The EMPP Physical Preparedness module should have formal assessment criteria. Agree Not Applicable Disagree

8.3 Learning to swim should be a formal credit bearing module on the EMPP. Agree Not Applicable Disagree

8.4 Learning to swim should have formal assessment criteria. Agree Not Applicable Disagree

8. SECTION D: EMPP PHYSICAL PREPAREDNESS [Continue]

8.5 Any further comments dealing with the EMPP physical preparedness.

9. SECTION E: EMPP GENERIC SKILLS AND COMPETENCIES**Please indicate how important each of the following statements are according to the following scale:****1 = Agree****2 = Not Applicable****3 = Disagree**

Please check the appropriate tick box (Agree, Not Applicable, Disagree). Please add your comments where you feel that it is necessary. Extra comments can be added at the end of the section by indicating the question number followed by your comment (for example 2.1 I disagree.....)

9.1	Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.	<input type="checkbox"/> Agree	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Disagree
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9.2	The EMPP should include an introduction to patient report forms.	<input type="checkbox"/> Agree	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Disagree
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9.3	The student should have insight into quality assurance processes as practitioners	<input type="checkbox"/> Agree	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Disagree
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9. SECTION E: EMPP GENERIC SKILLS AND COMPETENCIES [Continue]

9.4 Any further comments dealing with the EMPP generic skills and competencies.

Thank you very much for your participation.

Appendix K:

Delphi survey Round 1 results

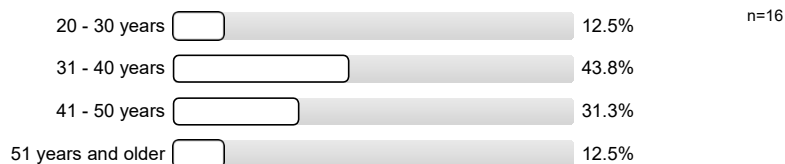
Eduard Nico Nell

EMPPQAG (8031)
No. of responses = 16

Survey Results

2. SECTION A: DEMOGRAPHIC DATA

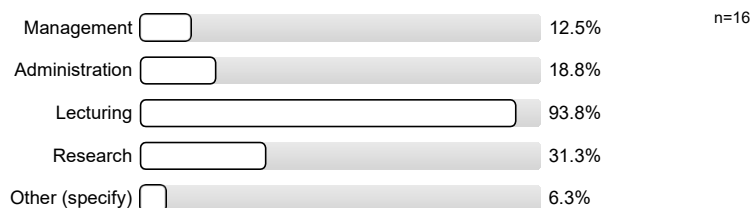
2.1) Age group



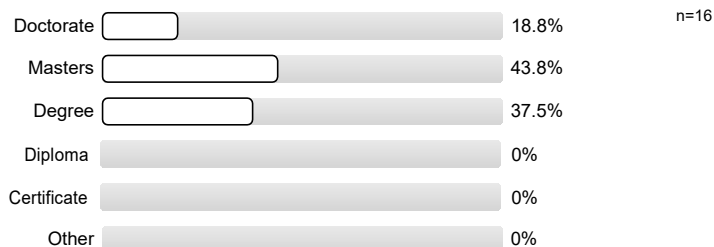
2.2) Gender



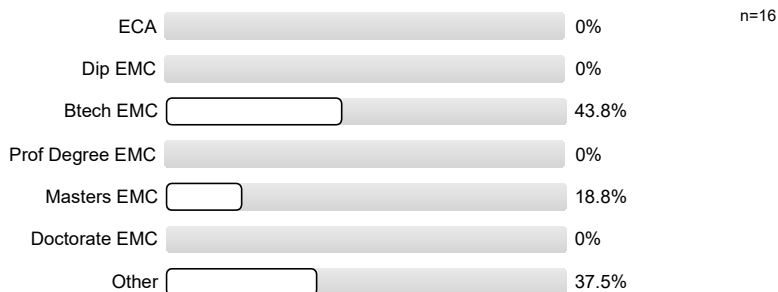
2.3) List your function(s) in the programme/school/department/ Faculty.



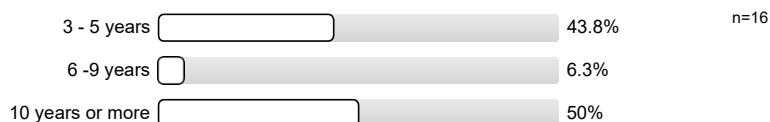
2.5) What is your highest educational background? (Please select the applicable options)



2.7) What is your highest professional qualification?

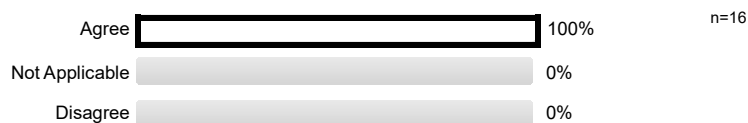


2.9) Please indicate the number of years involved with higher education.



3. SECTION B: THE EMPP ADMISSION CRITERIA

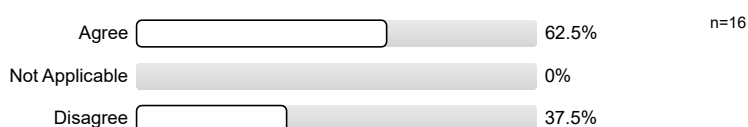
3.1) The number of students selected for the EMPP should not exceed the capacity available for offering good quality education.



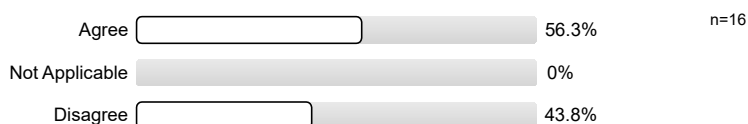
3.2) The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.



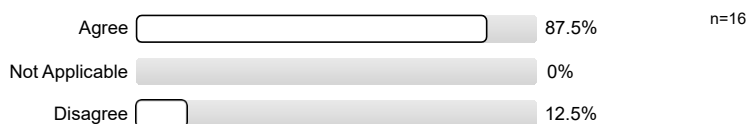
3.3) The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a national senior certificate or equivalent thereof.



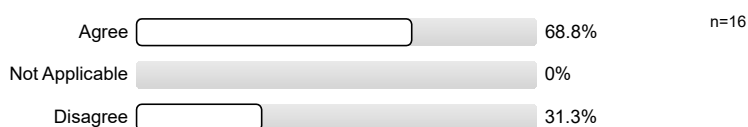
3.4) The EMPP should be accommodative to a national senior certificate or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.



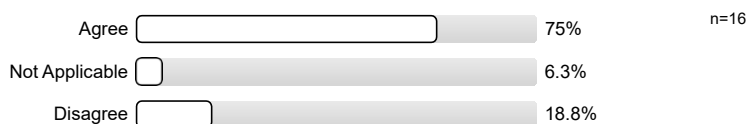
3.5) It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.



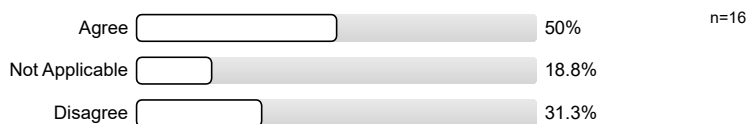
3.6) The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa.



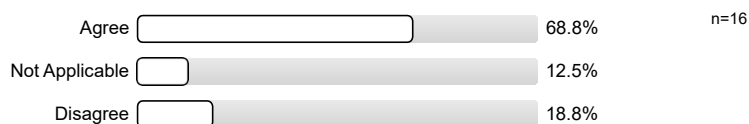
3.7) A physical fitness assessment should form part of the entry criteria for the EMPP.



3.8) Swimming should form part of the entry criteria for the EMPP.

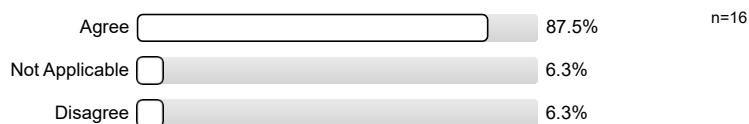


3.9) A basic medical assessment should form part of the entry criteria for the EMPP.

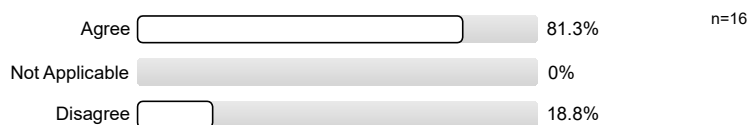


4. SECTION C: EMPP CURRICULUM DESIGN

4.1) The EMPP curriculum design should maintain an appropriate balance of theoretical, practical and experiential knowledge and skills.



4.2) Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake.



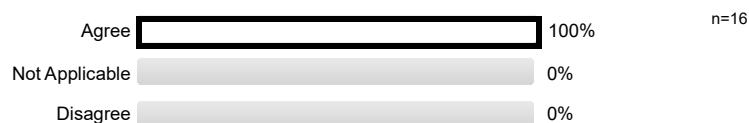
4.3) The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy.



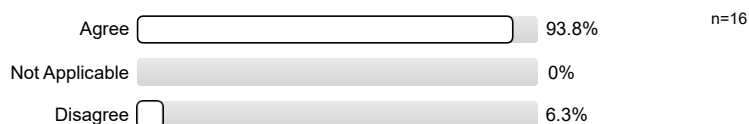
4.4) Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design.



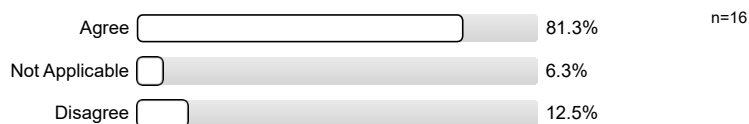
4.5) Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme.



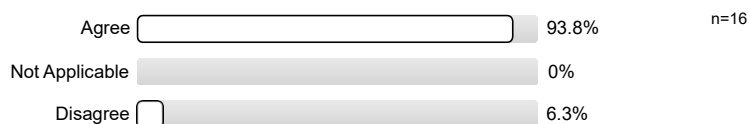
4.6) Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.



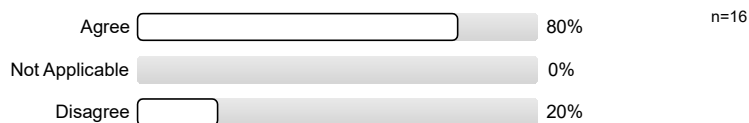
4.7) Student diversity should be taken into account with the development of curricula (for example, students from rural background).



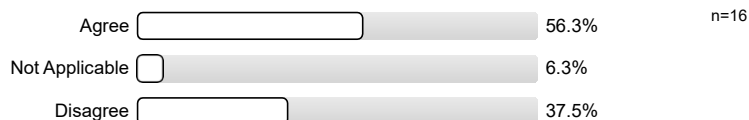
4.8) The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes.



4.9) The EMPP curriculum should be aligned with that of EMC education.



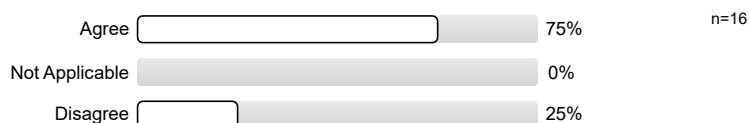
4.10) The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.



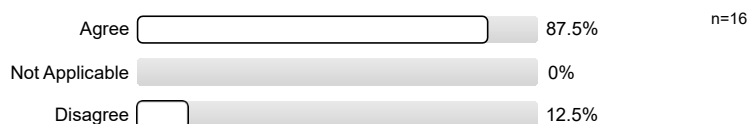
4.11) The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.



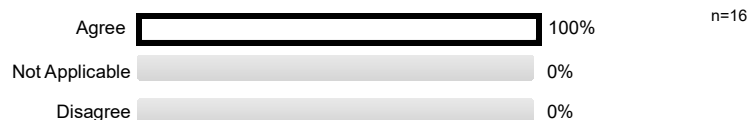
4.12) The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment.



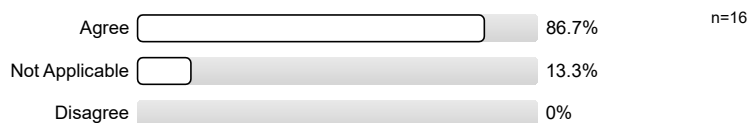
4.13) Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations.



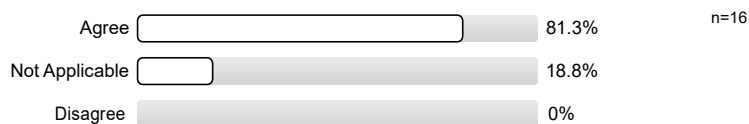
4.14) The EMPP should be designed to support the achievement of the specified learning outcomes.



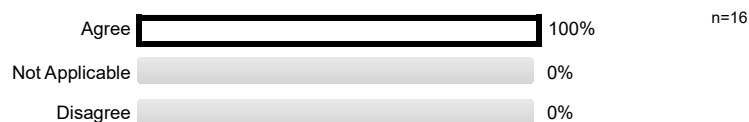
4.15) The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained.



- 4.16) After successfully completing the EMPP the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education.



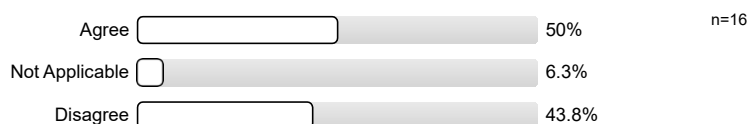
- 4.17) The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes.



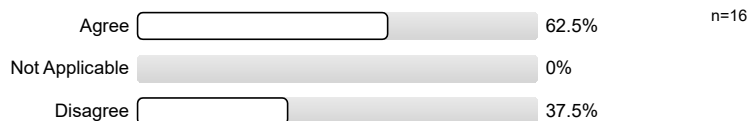
- 4.18) The EMPP should be guided by policies and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals.



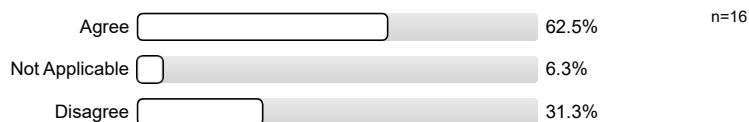
- 4.19) EMPP student should be prepared for basic medical techniques and skills required for EMC.



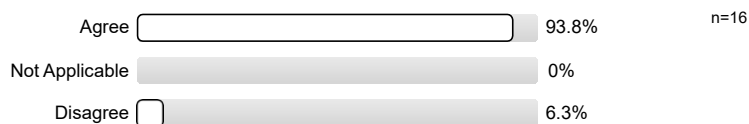
- 4.20) EMPP students should be taught how to complete EMC documentation, for example patient report forms.



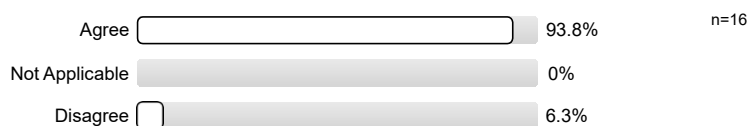
- 4.21) The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.



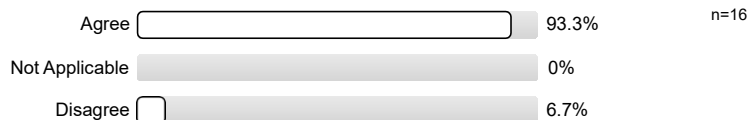
- 4.22) Academic writing should form part of the EMPP curriculum.



- 4.23) The EMPP should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally.



4.24) All EMPP modules should be designed and structured as complementing components of the programme.



n=16

4.25) The ability of EMPP students to function as adult learners and take responsibility for their learning is important.



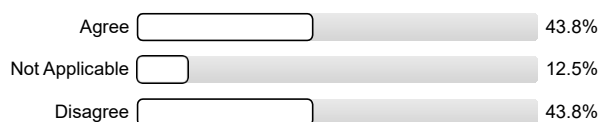
n=16

4.26) All students from the EMPP should be able to cope with the academic requirements of higher education.



n=16

4.27) To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme.



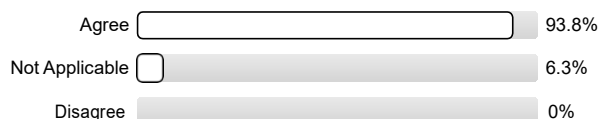
n=16

4.28) The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task.



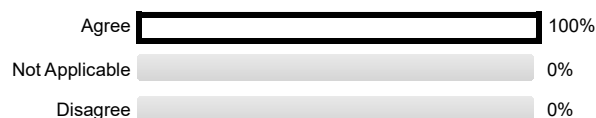
n=16

4.29) The EMPP student should be able to apply basic processes of analysis, synthesis and evaluation of collected information.



n=16

4.30) The EMPP should be able to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC to promote access during first time application at HEI's.



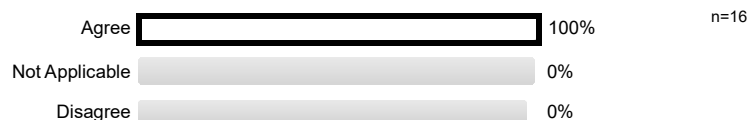
n=16

4.31) The EMPP should aim to bring about learning with understanding.

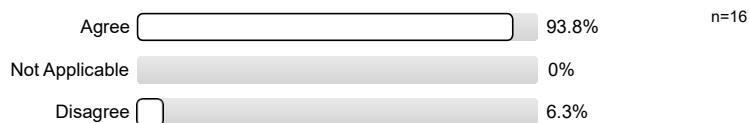


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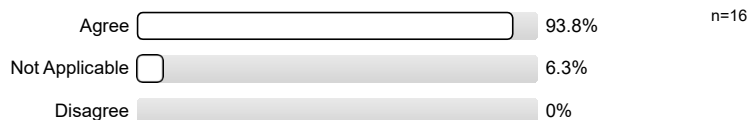
4.32) EMPP learning content should be relevant, realistic, manageable and accessible.



4.33) The EMPP should take the students existing knowledge into consideration.



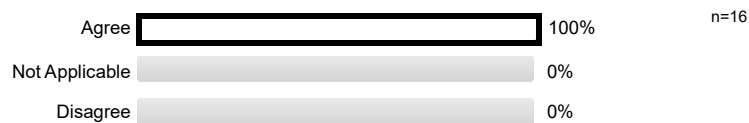
4.34) The EMPP should be current with regards to the needs of the student and society.



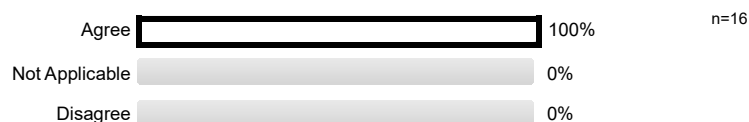
4.35) The EMPP student should be able to work effectively as individuals and with others as members of a team.



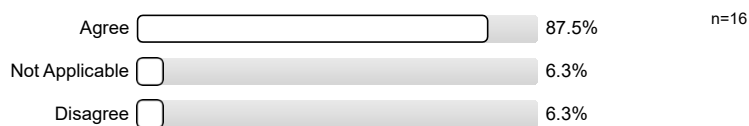
4.36) The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively.



4.37) The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes.

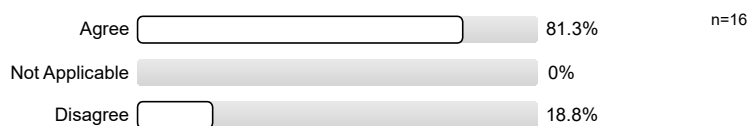


4.38) Lecturers teaching modules on the EMPP should be involved in the design of the curricula.

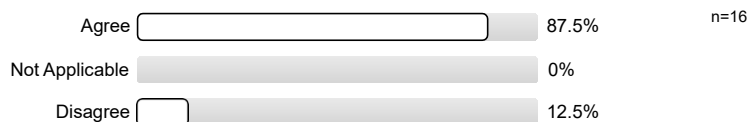


5. SECTION C1: EMPP LEVEL DESCRIPTORS

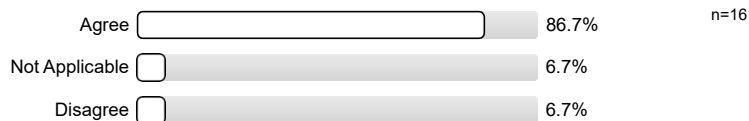
5.1) The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.



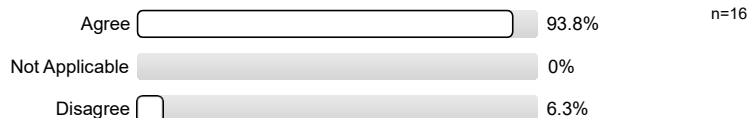
5.2) The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.



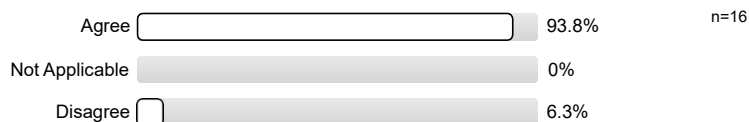
5.3) EMPP level descriptors should be descriptive and not prescriptive.



5.4) The Critical Cross-Field outcomes of SAQA should be embedded in the level descriptors of the EMPP.



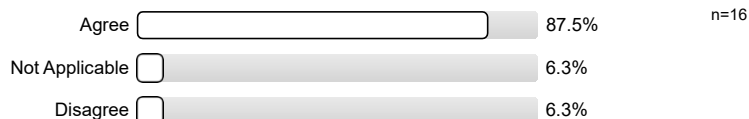
5.5) The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.



5.6) The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.



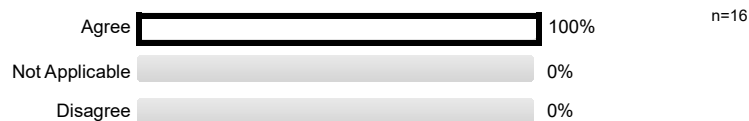
5.7) The EMPP student should be able to collect, analyse, organise, and critically evaluate information.



5.8) The EMPP should use science and technology effectively and critically showing responsibility towards the environment and others' health.



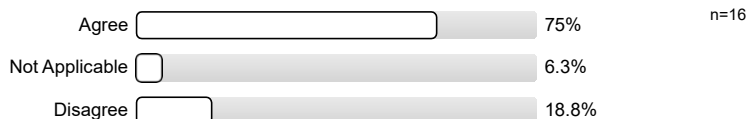
5.9) The EMPP should be able to demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.



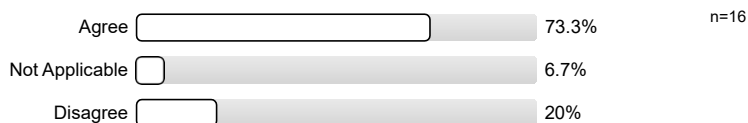
5.10) The EMPP student should be able to work effectively as individuals and with others as members of a team.



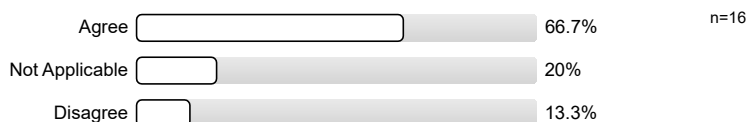
5.11) The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in oral and written presentation modes, mainly through reports and the handover of patients to other services.



5.12) The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services.

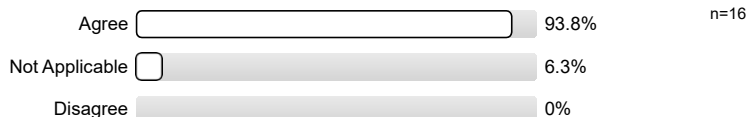


5.13) Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.



6. SECTION C2: EMPP LEARNING OUTCOMES

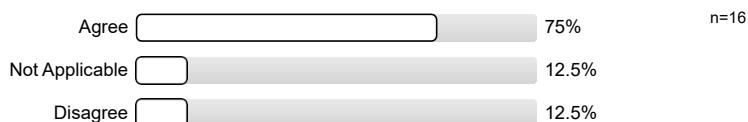
6.1) EMPP learning outcomes should have a defined purpose.



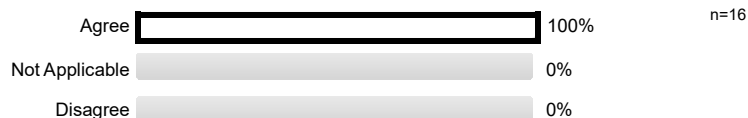
6.2) The EMPP learning outcomes should provide applied competence and a basis for further learning.



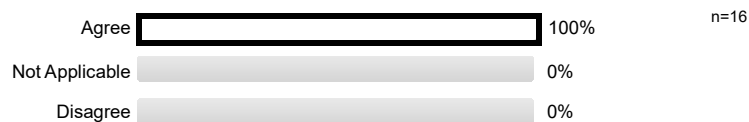
6.3) The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.



6.4) EMPP learning outcomes should be specified with appropriate assessment criteria.



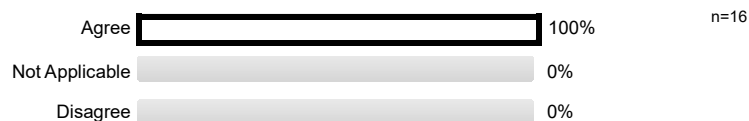
6.5) Facilitators in the EMPP should ensure that learning outcomes are educationally sound.



6.6) Statements of intended learning outcomes should clearly describe the knowledge, skills and competencies that students should obtain from learning.



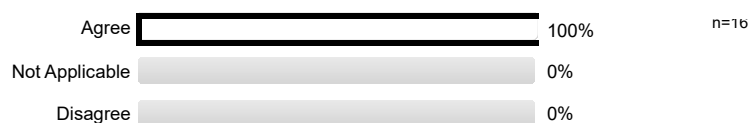
6.7) The learning outcomes should be arranged in a recognisable and logical sequence.



6.8) Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme.



6.9) The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear.



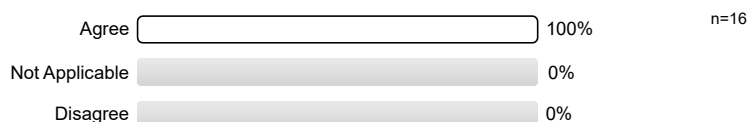
6.10) Learning outcomes should be well formulated.



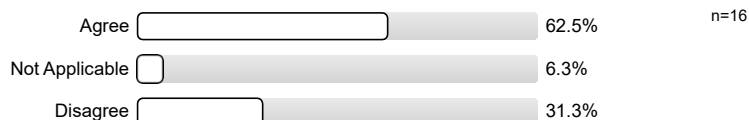
6.11) Learning objectives should describe measurable outcomes.



6.12) Adequate physical resources, consistent with the intended learning outcomes of the EMPP should be available to the students (library etc.).



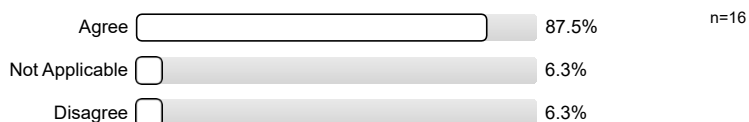
6.13) The EMPP curriculum should contain more EMC specific outcomes.



6.14) Learning outcomes should provide applied competence and a basis for further learning.



6.15) Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.



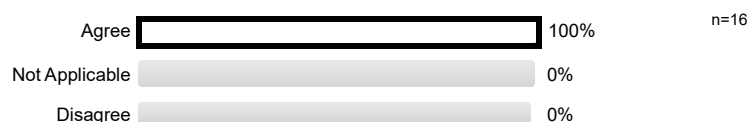
6.16) EMPP learning outcomes should be specified with appropriate assessment criteria.



6.17) Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students.

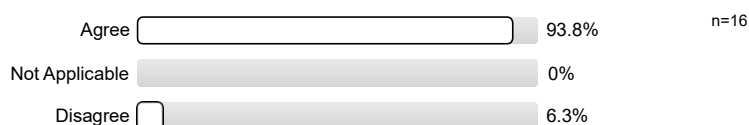


6.18) About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress.

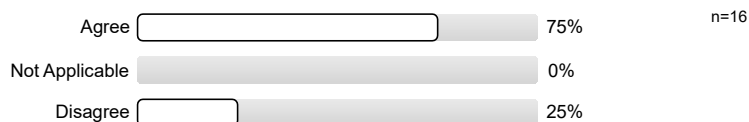


7. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

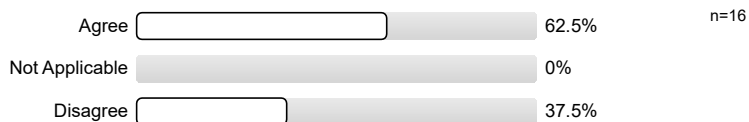
7.1) The EMPP modules should provide the student with a clear breakdown of the total notional hours.



7.2) The EMPP should be a credit-bearing short learning programme.



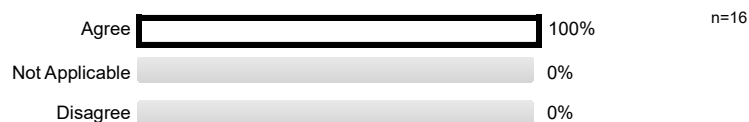
7.3) The EMPP should be presented at an NQF level 5.



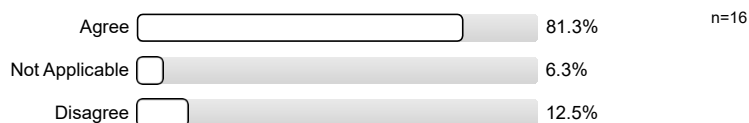
7.4) All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.



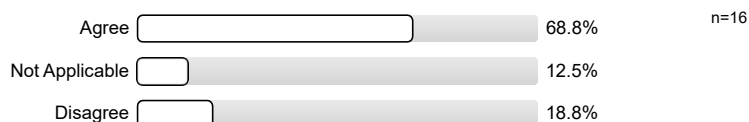
7.5) Consideration should be given to the level at which the learning is being offered.



7.6) Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.



7.7) The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF.

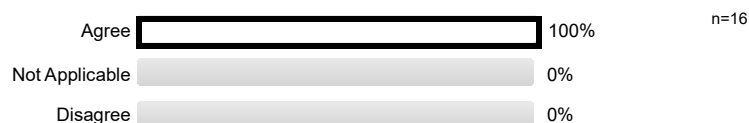


7.8) The breakdown of the time allocation on each EMPP module should be clearly defined.

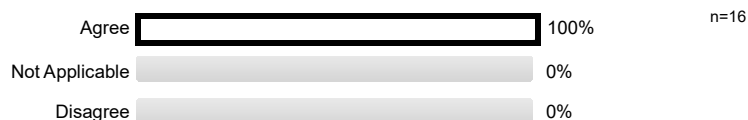


8. SECTION C4: EMPP LEARNING FACILITATION

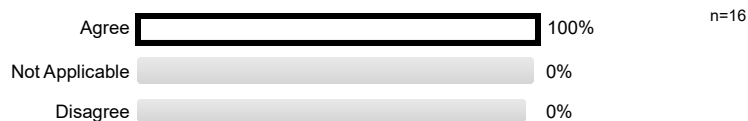
8.1) Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the programme's learning outcomes.



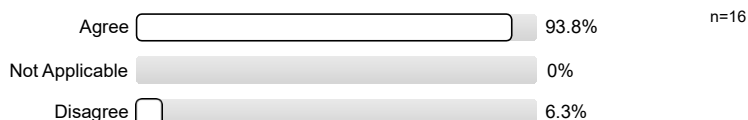
8.2) A mechanism should be in place to ensure the appropriateness of teaching and learning methods.



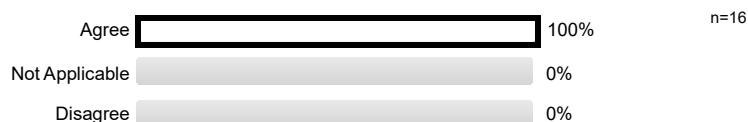
8.3) Lecturers should continuously upgrade teaching and learning methods on the EMPP.



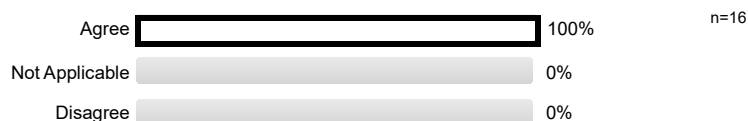
8.4) The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.



8.5) Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology.



8.6) Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life.



8.7) Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results.



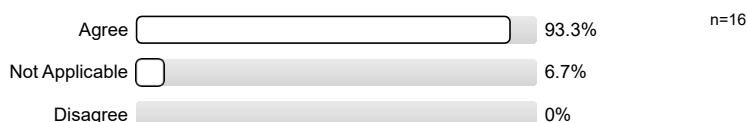
8.8) Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes.



8.9) A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience.



8.10) The student should have a clear understanding of how the lesson will be facilitated.



8.11) EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success



8.12) Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time.



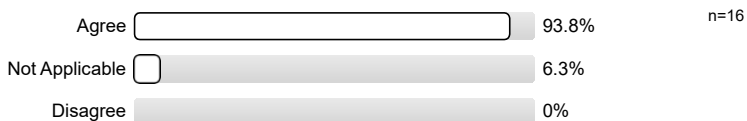
8.13) EMPP learning material should be focused on EMC.



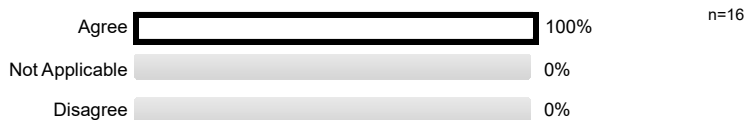
8.14) EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.



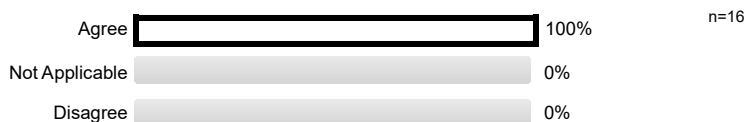
8.15) EMPP learning guides should be in a standard format for all modules.



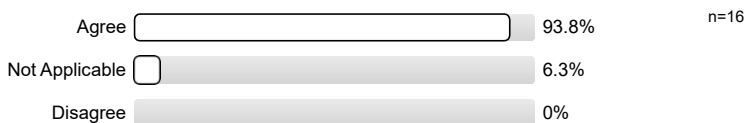
8.16) EMPP learning guides should be consistent and specific with regards to student support initiatives.



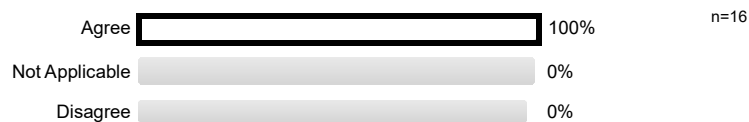
8.17) The EMPP learning guides should include a descriptive work scheme providing the student with clear guidelines on what to expect from the module.



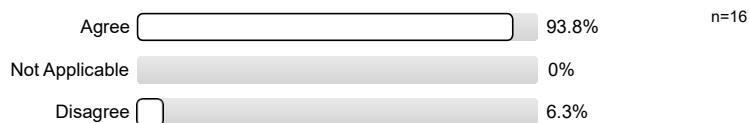
8.18) The learning guides should provide a clear link where the student will find the exit level outcomes.



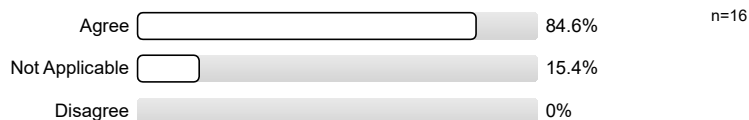
8.19) Lesson planning plays a vital role in the successful planning of a module/subject.



8.20) Thorough lesson planning should be consistently based on the learner's needs.



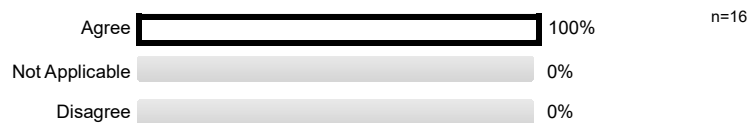
8.21) Financial support plays a role in the success of students.



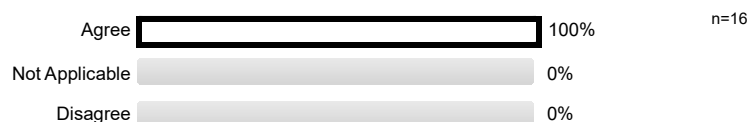
8.22) Student psychological support services are should be available and accessible.



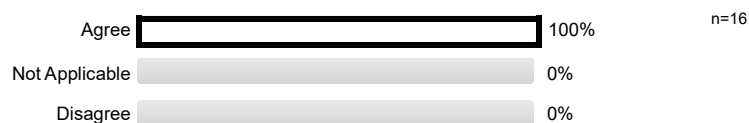
8.23) Additional student academic support is should be offered where necessary.



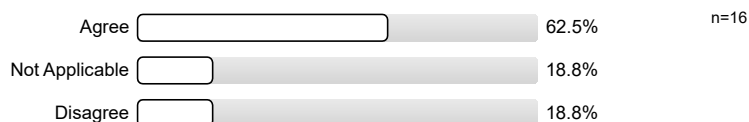
8.24) There should be continuous guidance available to students with regards to the use of resources, e.g. online resources Blackboard



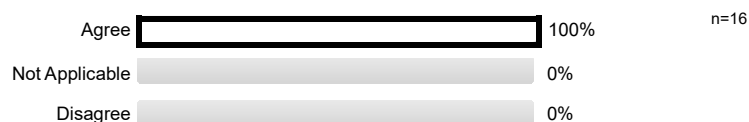
8.25) Academic staff should be trained to develop learning materials.



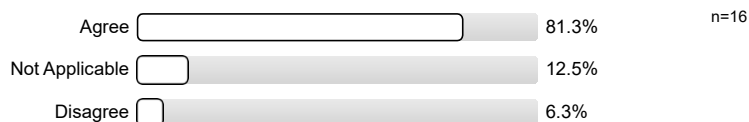
8.26) EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment



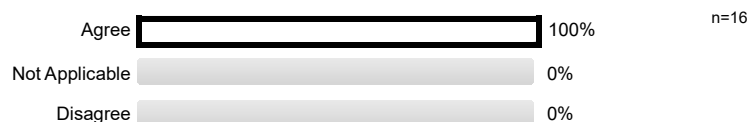
8.27) The EMPP student's existing knowledge should be explored.



8.28) The individual student's attributes, preferences and needs should be accommodated.

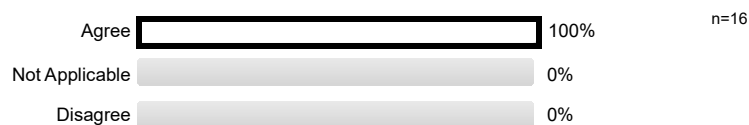


8.29) The teaching and learning strategy are should be appropriate for the institutional type as reflected in its mode of delivery and student composition.

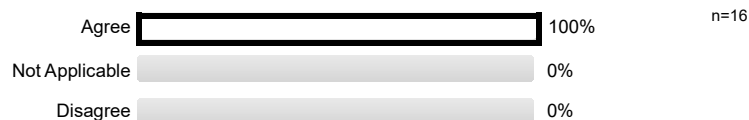


9. SECTION D: EMPP ASSESSMENT

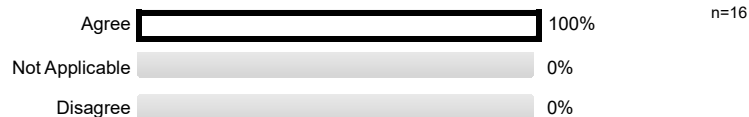
9.1) Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies.



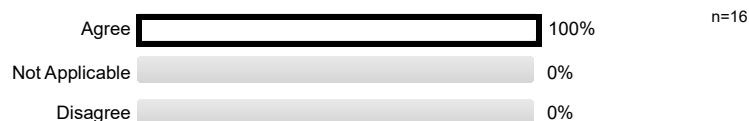
9.2) Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum.



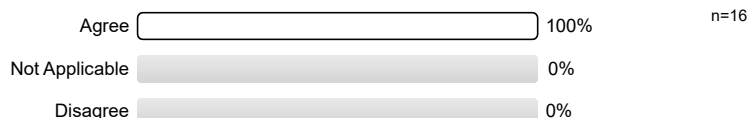
9.3) Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP.



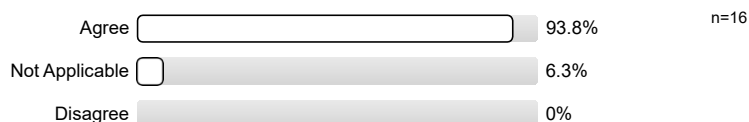
9.4) Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks.



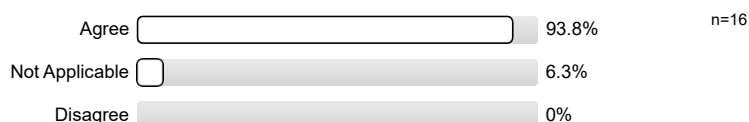
9.5) Student progress should be monitored.



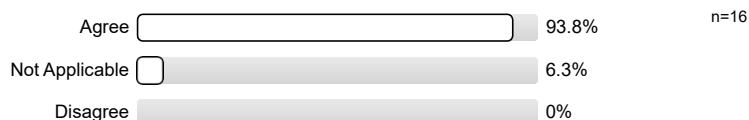
9.6) For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures.



- 9.7) The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics.



- 9.8) Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy.



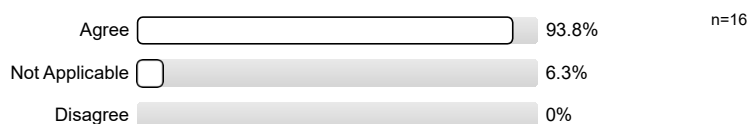
- 9.9) Measures should be taken to ensure the reliability, rigour and security of the assessment system. Assessment results are recorded securely and reliably.



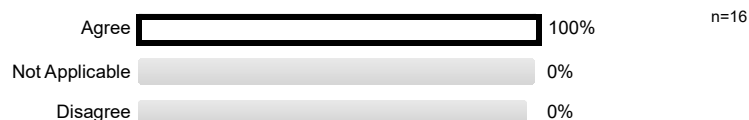
- 9.10) Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented.



- 9.11) Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements.



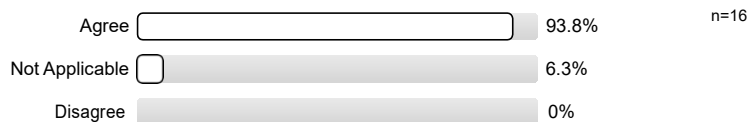
- 9.12) There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously.



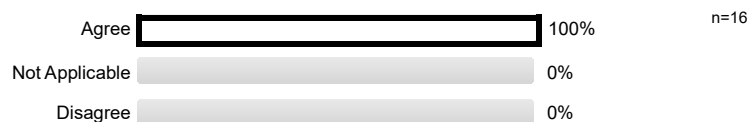
- 9.13) Provision should be made for the development of staff competence in assessment.



9.14) Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students.



9.15) Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level.



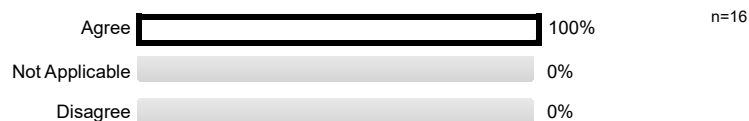
9.16) Students' assessment records should be reliable and secure.



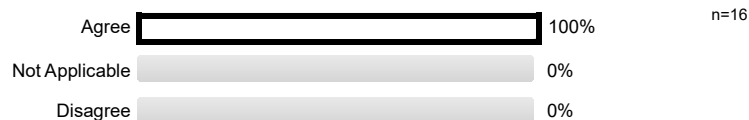
9.17) Internal assessment of student learning achievements by academic staff should be important.



9.18) Monitoring student progress in the course of the programme should be important.



9.19) Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanors should be important



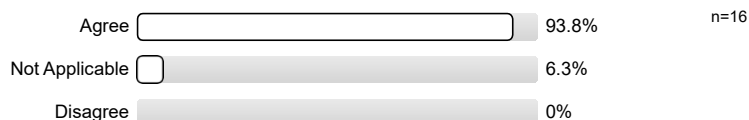
9.20) Development of staff competence in assessment should be important.



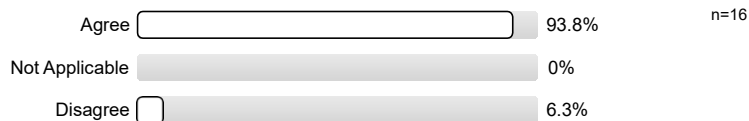
9.21) An assessor should know about current changes in higher education.



9.22) Assessors should be formally trained in the principles of assessment.



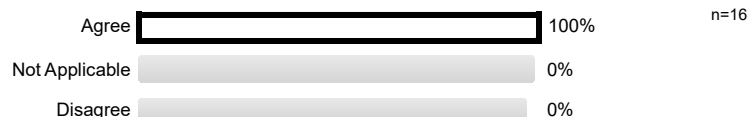
9.23) Assessment should be a learning experience for both students and assessors.



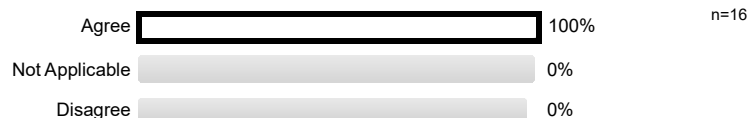
9.24) Assessment should identify areas where adjustments in teaching and learning could be made.



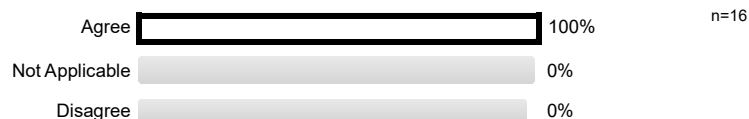
9.25) Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP.



9.26) The assessment methods should include a wide range of approaches.



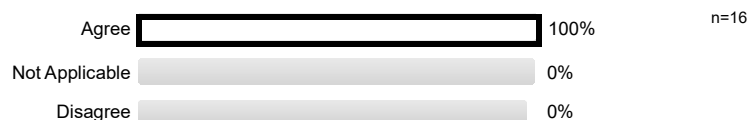
9.27) The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module.



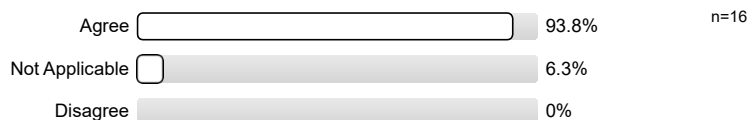
9.28) The EMPP should make use a variety of teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc.



9.29) Clear stated outcomes must be formulated as part of the construction of assessment.



9.30) Assessment should be integrated and must therefore cover all aspects of the EMPP.



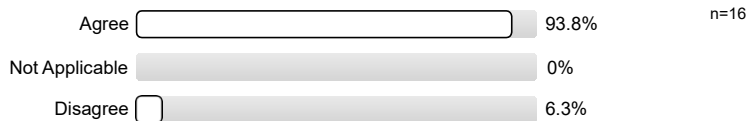
9.31) Students must have sufficient opportunity to prepare for assessments.



9.32) Students should know how the weight of assessments is determined.



9.33) The learning content that will be evaluated in the assessment, should be explained to the students.



9.34) Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment.



9.35) Memorandums should form part of all assessments.



9.36) Assessment should be moderated by appropriately trained moderators with specific expertise in the learning area.



9.37) The pre-defined assessment purposes should determine the assessment methods



9.38) Assessment criteria must be developed and used during the assessment.



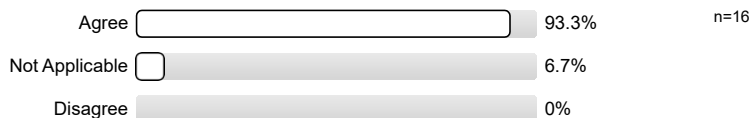
9.39) Students should be informed about the goal and importance of feedback.



9.40) A clear process should be available to recognise the at-risk student.

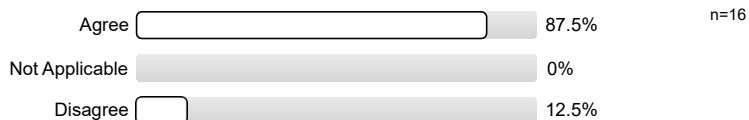


9.41) Selected assessments measure the course learning objectives.

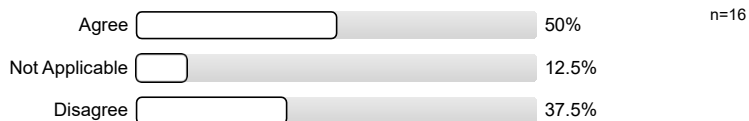


10. SECTION E: EMPP PHYSICAL PREPAREDNESS

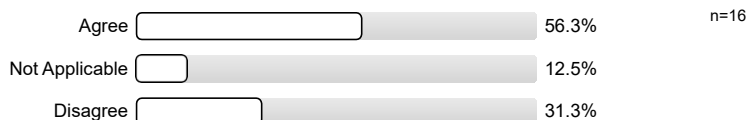
10.1) Physical preparedness plays a vital role in EMC education and should form part of the EMPP.



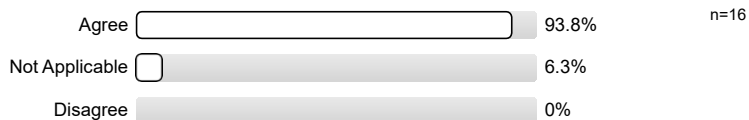
10.2) Physical preparedness should be a formal module on the EMPP.



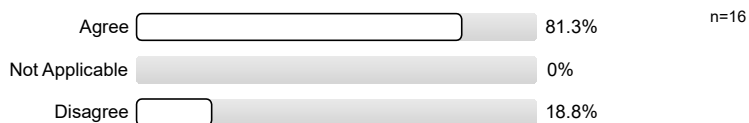
10.3) The EMPP Physical Preparedness module should have formal assessment criteria.



10.4) Being physically healthy is essential for EMC training.



10.5) EMC practitioners need to learn to swim.



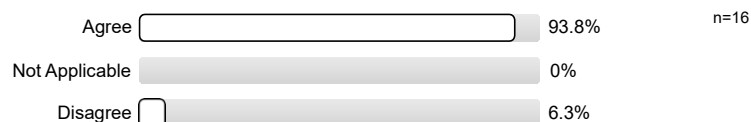
10.6) Learning to swim should be a formal credit bearing module on the EMPP.



10.7) Learning to swim should have formal assessment criteria.

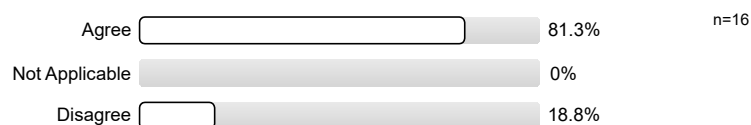


10.8) Physical preparedness plays a vital role in EMC education and should form part of the EMPP.

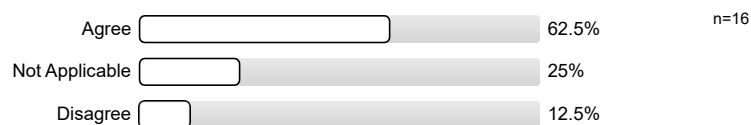


11. SECTION F: EMPP GENERAL SKILLS AND COMPETENCIES

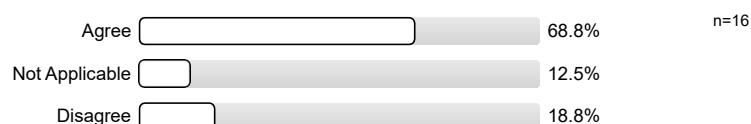
11.1) The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education.



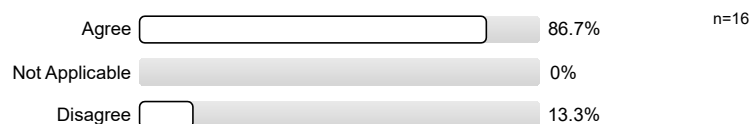
11.2) The student should have insight into quality assurance processes as practitioners.



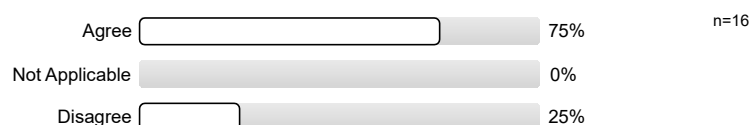
11.3) Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.



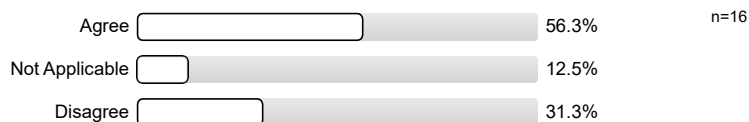
11.4) The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments.



11.5) Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes.



11.6) The EMPP should include an introduction to patient report forms.

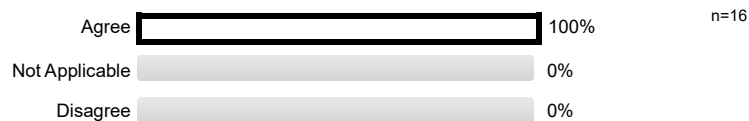


12. SECTION G: EMPP QUALITY ASSURANCE

12.1) Moderation should be an essential element of ensuring and maintaining the quality of the EMPP.



12.2) Moderators should be appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.



12.3) Clear monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised.



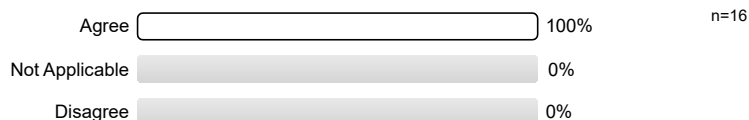
12.4) Instructional materials should be reviewed periodically to ensure they meet program standards, and that course information is up to date and relevant.



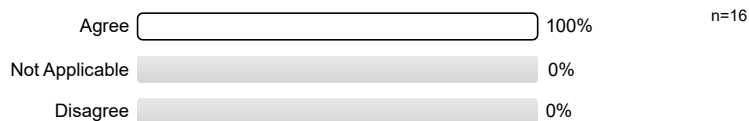
12.5) Quality assurance procedures should be in place and must be strictly adhered to on the EMPP.



12.6) Lecturer evaluations should be done.



12.7) The EMPP should be review in a clustered process.



12.8) EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review.



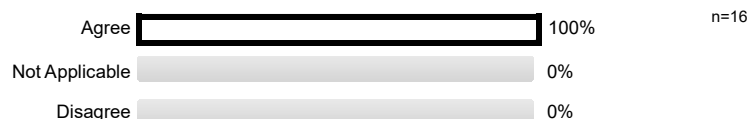
12.9) Planning and programme design of the EMPP should be done adequately.



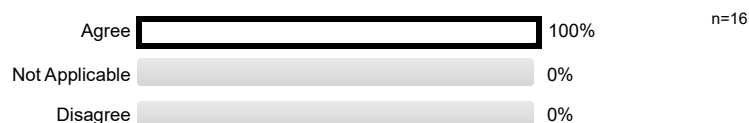
12.10) Planning and management of the EMPP should be a key focus area of quality assurance.



12.11) The EMPP should have processes in place to recognise the at-risk student.



12.12) Recognition of the importance of the promotion of student learning should be reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments, and promotions.



12.13) The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme.



12.14) The EMPPP should provide for staff development opportunities where staff can upgrade their teaching methods.



12.15) The EMPP should have systems in place to deal with under-performing or inactive students in the programme.



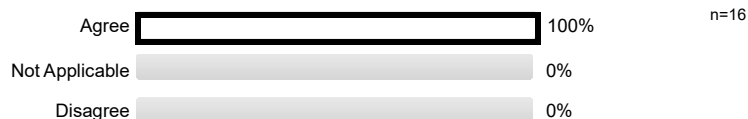
12.16) The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time.



12.17) The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives.



12.18) The results of reviews and evaluations should be utilised in the planning process of the EMPP.



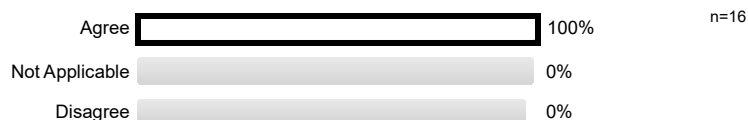
12.19) User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes.



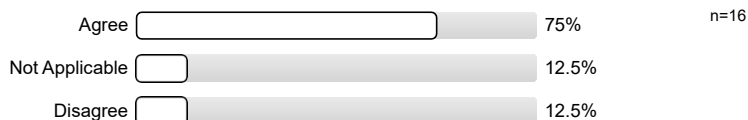
12.20) There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme.



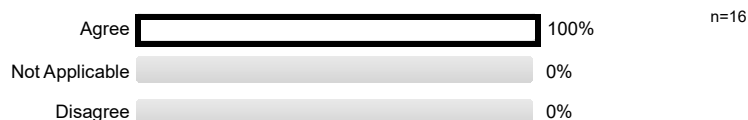
12.21) The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments).



12.22) The EMPP curricula should be based on the students' needs and differences within that institution.



12.23) Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students.



12.24) The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.



Comments Report

2. SECTION A: DEMOGRAPHIC DATA

2.4) Please specify if other

- Subject Coordinator Physics

2.8) Please specify if other:

- Doctorate Chemistry
- Masters in Health Science

3. SECTION B: THE EMPP ADMISSION CRITERIA

3.10) Any further comments on the EMPP admission criteria:

- 3.3 A national senior certificate is NQF aligned, What about vocational EMS such as the AEA/CCA who wish to enter higher education?
3.4 & 3.5 I am unsure of programme contents so unable to answer honestly, would NQF 4 mathematics (for example) be sufficient for the candidate to successfully complete the level of the course? and if the candidate does the subject yet fails at NQF 4 will they have sufficient foundational knowledge for that level of course? I am unsure of what level the EMPP is rated at.
3.6 Could this EMPP not assist with those who qualified many years back and therefore retention of theoretical knowledge is lacking - depending on curriculum this programme may assist to upskill those who have not maintained personal professional development in preparation for an NQF qualification.
- 3.3 & 3.4 In my experience, the EMPP programme should be for applicants who have the necessary subjects from school at a Grade 12 level but fall short on the APS score. Students who do not have the necessary subjects such as Mathematics, Life Sciences and/or Physical Sciences struggle with the content of the programme.

3.6 Again based on my years experience, previous short course qualifications are not an academic advantage for applicants to HEI EMC programmes. NSC results & modules are far more important for success.

3.8 Swimming as part of an entry assessment to a programme is exclusionary and this is a skill which is quite easily taught once a student has been selected. Applicants just need to be made aware of the fact that they will be required to learn to swim so that they are aware of this component prior to commencing with the programme.
- 3.3 The initial purpose of the EMPP served as a transformational tool. This being that, historically the SA EMS landscape used to have short course holder qualifications, as an example the Basic Life Support (BLS) practitioner. A student who wished to participate/ enroll in a BLS short course (EMS entry level qualification) could do so without having a national senior certificate. The EMPP was designed specifically for those healthcare professionals who holds one of the short course qualifications, which is now phased out, as such, are sort of left between a rock and a hard place having to obtain a higher education EMC qualification. There are currently thousands of short course holders who are unable to meet the necessary requirements i.e. national senior certificate or equivalent thereof (never mind the other specific entry criteria) to gain access to HE. With the EMPP these candidates are not 'left behind'/ forgotten if you may. This is one of several reasons why the EMPP is not only targeting 'school leavers' or those having been exposed to some formal education previously.

3.6 I disagree, as I feel it should not only be focused on them only, as mentioned the EMPP is also a transformational tool. Where it can also be used for other school leavers who do not hold the necessary subject combination. If we look at the SA context, there is still socio economic and educational injustice that majority of South Africans are exposed to. A student who obtained his national senior certificate from a rural area might not necessarily have had the same exposure to education (even if the subjects were the same) as a student who attended lets say school at a top private school in the city. Alternatively, the career guidance might not have been the same either, this career guidance allows the student to carefully think of what subjects he/ she should continue with from grade 10. So first, those students who do not have the correct subject combination are faced with attending the 'second attempt' subjects which is an additional year after matriculating. As a higher education institution we commonly refer to the articulation gap, the knowledge and skills gap that exists after having completed basic education i.e. the knowledge and skills that HE preempts 'matriculants' have when they enter HE. This also affects how HE designs their first year level programme, which often disadvantages those very students coming from socially disadvantaged background. If the EMPP can be designed in such a way that it can be accommodative to those candidates in those positions, it can be a method for HE to start closing that gap. As an example if a student did not take the subject of math's, but now does it in the EMPP at least we can design it in such a way that the Math's constructively aligns to the EMC discipline. One example of what I mean by this is in providing mathematics assessments which is inline with the discipline field of EMC where the student uses the principles and concepts of mathematics and having to calculate the medication/ drug dosage and having to then draw up and dilute the medication. Anyways just a thought.

3.7 and 3.8 although I stated that I agree to how the question was phrased, I do not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the programme. the same for swimming, many people of color are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice

3.7 The main focus of a preparation programme should be on academic content and preparing the candidate for higher education. 3.8 Swimming should be a life skill, this should also form part of the EMC programmes rather. On the EMPP a non formal fitness programmes could be more suitable. 3.9 This could be done at the end of the EMPP for entry in EMC education.

- 3.7 and 3.8 I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access.
- Answer 3.4 - Accepting learners that do not have the correct subjects might be problematic. Educating learners on a new subject focussing on NQF 4 outcomes, without the required progression as per basic education Grade 6-12, could set the learner up for failure. A pre-test might be required to gauge the level of understanding that these learners have on the required subjects prior to them being accepted on the EMPP programme.
Answer 3.6 - Opening up the possibilities for school leavers to enter an EMPP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds.
Answer 3.7 & 3.8 - Physical fitness, including swimming, should be started as early as possible. Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme.
- EMPP admission criteria needs to be specific for the qualification which the candidate is preparing, especially taking the three tiered ECQF into account. Is the learner completing EMPP for HCert or Degree for example? The requirements will be drastically different and I do not believe that we can limit EMPP candidates to a lower level qualification/s - If they perform on the EMPP programme, will they be allowed to apply for Degree entry? The job of EMPP is not to teach subjects which the candidate never had. The role of the EMPP is to improve symbols where necessary - this for matriculants. There needs to be a timeline attached to the matriculant entering such a programme, as matriculants from, for e.g. 1988 are often using such systems/programmes to their advantage with no real benefit. Why have they previously not attempted to further/develop themselves? Physical fitness should not be a requirement for such a programme. What is the role of TVET colleges if we are creating a specific programme - Modules can be taken independently at these colleges - these are generic matric modules which require additional attention. As an emerging profession, the question remains, why are we the only "healthcare profession" going out of the way to assist applicants in meeting criteria? This going as far as to potentially develop a specialised programme.
- Firstly, I think and in my opinion, the focus of any EMPP program to accommodate candidates with the intention to pursue a HE degree, diploma or certificate, is that they need to meet the minimum University Criteria. In my experience, the majority (8 out of 10) RPL candidates just do not perform up to standards when entering the HE system. I would recommend, candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enroll for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs.

The reason why I disagree with 3.3 to 3.5, is that the outcome criteria for HE be it degree, diploma, or certificate, requires the current competency levels of NQF4 including, for example, English, Maths, and Sciences. If a senior candidate, who has not studied at HE, but completed his/her matric 10 or more years ago, the candidate is likely to be not fit to study at HE without prior learning and assessment experience - meaning to complete some sort of NQF 4 or higher program or qualification prior to applying for HE Emergency Medical Care programs. I know this is a vague and unsustainable statement, but I'm merely giving my opinion.

Secondly, regarding physical preparedness, referring to 3.7 that physical fitness assessment should form part of the criteria for EMPP. The reason being, higher levels of physical fitness and being healthier, in general, are associated with better-perceived health for academic performance AND professional performance in the workplace.
- The reason swimming should not be made a criteria is because majority of candidate who are currently on EMS employment have no ability to swim, and the swimming resources in areas they live in are scarce, the fundamental aspect of EMPP is to prepare the cadre of EMS to be ready for the work that will be presented in higher education qualification. This will assist them to meet the demands required by the course.
The focus of the EMPP must be based on evaluating the students ability to cope with the work that will be given in higher education qualification, so as to adequately prepare the students not just preparing them to meet the criteria.

4. SECTION C: EMPP CURRICULUM DESIGN

4.39) Any other comments dealing with the EMPP curriculum design:

- 4.1 Experiential learning should not be part of the preparation programme. Maybe a theoretical approach to EMC documentation. 4.9 A more generic approach may provide the candidate with wider access to Higher Education. 4.11 The EMPP should focus on the ECA as an entry level programme into EMC education. 4.19 The EMPP should not be focused on specific skills as this will be the function of EMC specific programmes.
- 4.10-4.12 The EMPP programme should attract the students based on their NSC modules and scores and students should then be directed accordingly as to whether based on that they are attending the EMPP for the HCert, Diploma or Degree. I think we need to move away from the historical trend where you did BAA, then AEA and then CCA. This HEI system is not the same and was not designed to follow that pathway.

4.19 These students will not hold a student registration with the HPCSA, and therefore I don't feel that any specific EMC content should be included in the programme. The focus needs to rather be on getting the student ready to deal with studies at an HEI level and fill the gaps with Life Sciences, Maths and Physical Science.
- 4.2 I partially agree with 4.2, however, it is important that the course caters for student learning needs, but these must be considered within the curriculum that is being proposed.
4.7 Again, I partially agree. I don't think that student background should drive the curriculum, rather it should drive the pedagogical principles that drive the delivery of the curriculum. The curriculum should remain an independent variable that seeks to achieve the aims of the EMPP.
4.10 and 4.11 Again, partial agreement. This is dependant on what the EMPP actually aims to achieve. If the EMPP is aimed at 'bridging the gap' for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. In other words, the question would be whether or not the ultimate goal is to prepare students for the course or to give the students access to the course. The two are not the same in my mind.
4.12 My question here is what the EMPP is aiming to achieve. If it is for access, then indirectly, this would be a valid statement due to an extrapolative way of thinking that by granting a person access, one would be enabling students to pursue further personal and

professional development within the Emergency Medical Care environment, but would this be a direct aim of the EMPP.

4.13 The EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations. This statement seems to ignore the fact that the course is designed to meet a specific curriculum need. Whilst it is important to involve role-players, their needs needs to come second to the primary need that the course is designed to meet.

4.19, 4.20 and 4.21 I disagree with these statements because this is not the aim of the course- this is the job of the course that the students would ultimately enrol for. In my mind (and I may be wrong) the EMPP is designed around access to the HEI qualification as opposed to actually teaching them the principles of emergency medical care.

- 4.2. Learning styles are dynamic therefore can change depending on cohort. Adult learners are also flexible in learning and often have over arching learning styles
4.9 and the community needs. perhaps management as well?
4.10 & 4.11 Is there any reason why they cannot enter any higher education undergraduate course of their choosing?
4.13 is that not directive teaching. What about community/African/South African needs?
4.23 Difficult to answer - perhaps an analysis of the gaps between ANT and undergraduate can lead the EMPP
- 4.27 I disagree, most of the students that enrolls for the EMPP are adult learners, whom already have other responsibilities such as raising kids etc. Because the EMPP introduces the student to HE culture, it might be best to have a full time programme so that they can learn how to adapt to HE life and what it would be like once they get entry into an EMC qualification. previously from what i have witnessed many adult learners quit EMC programmes in their first year of study due to family commitments and their unfamiliarity to the exposure, pressure, and time management obligations that a full time programme entails. at least if a student does the EMPP he / she and their families already have an idea of what life will be like in EMC and can from there make an informed decision of whether they would like to continue onto a year or two year qualification.
- 4.9 "The EMPP curriculum should be aligned with that of EMC education" - What defines EMC education? If the definition includes comprehension and understanding, then yes, I agree. Meaning that to some level, EMC education should also include components of non-technical skills. For example, Non-technical skills such as decision-making, situation awareness, leadership, and teamworking are essential skills needed in EMC as a profession and should be included in EMC education.
- Answer 4.2 - Limiting the curriculum to cater purely of EMC learner intakes places a restraint on the capability of the learner. My opinion is that the curriculum outcomes should be guided by the CAPS documents used in basic education, thus broadening the acceptance possibilities for these learners.
Answer 4.6 - For three growth to be achieved, the learners should not be limited in only progressing towards EMC higher education acceptance.
Answer 4.8 - Minimum entry criteria for higher educational institutions should still be enforced using the minimum "M" score count. Lowering the acceptance criteria for these learners might set them up for failure in the higher education environment.
Answer 4.9 - I refer to my explanation on answer 4.2.
Answer 4.10 - If the EMPP curriculum and outcomes are structured at improving acceptance criteria, the learner should be able to enter any higher education programme and not limit the learner to purely have access to lower prehospital medical qualifications.
Answer 4.11 - Please see my reasoning in answer 4.10.
Answer 4.16 - The learner should be prepared for entering a higher educational environment, however, the learner must be guided to understand the concept of what prehospital emergency medicine entails. Selling the programme to the learner will result in an increased intake for that academic year.
Answer 4.19, 4.20, 4.21, 4.24 - The learner should purely be prepared for the higher education environment. Medical concepts and others can be included within the EMC programme curriculum.
Answer 4.27 - Limited contact is a higher educational concept of adult learning. Preparing these learners to achieve competence in obtaining an NQF4 qualification might require more contact time.
Answer 4.33 - Are you indicating current grade 12 knowledge or EMC knowledge? EMC knowledge would be beneficial, yes, but preparing the learner for any higher education programme in improving their M-scores might be more worthwhile.

Overall remark: The EMPP should focus on improving the learner's possibility of being accepted within a higher education institution and programme. If the EMPP focusses on improving intake into an EMC programme, then the towards the end of the curriculum the focus can shift towards preparing the learner for a health professions educational environment. Naming the programme EMPP might not be the correct description of how we want to prepare a learner to enter a higher education environment.

- The structure of the course should allow for learners to have time for themselves to espouse information given to them, this will assist learners to understand that in higher education training you need to push yourself in order to gain better understanding. The structure of the EMPP should allow for enough time for practical aspect of the program so as to adequately prepare the learner for the up and coming challenge in the higher education qualification. The program must be able to adequately cater for diverse group whom socio-economical status will vary as they will be coming from different backgrounds. The use of technology in the program must be encouraged, this will assist the learners to be independent thinkers as technology is considered to be the necessity for learning environment. The EMPP must allow students enough time to be prepared with the pressures of being called back to work, this will relieve the strain in the students brain and they will be in a better space to perform well in the program.
- With regards to the development of curriculum; the curriculum may be disseminated via means of distance learning platform - digital platforms. This will allow applicable candidates to continue with primary jobs. My questions remains - What is the role of TVET colleges and/or redoing the necessary subjects at a matric (NQF4) level in their private capacity? We are the only emerging healthcare profession who is willing to "spoon feed" potential candidates for professionalisation and redress of historical injustices. The goal of such a programme, should it be implemented, should aim to orientate the learner to generic requirements and skills required within higher education. This should be a generic qualification that will allow for progression into various programmes within the healthcare domain.

5. SECTION C1: EMPP LEVEL DESCRIPTORS

5.14) Any other comments dealing with the EMPP level descriptors:

- 5.1 The EMPP should be focusing on NQF level 4 as the ECA is NQF level 5. 6.11 Should be part of EMC education.

- 5.12 and 5.13 Again, this would depend on the core focus of the EMPP. Would these not be taught on the qualification?
- 5.2 As mentioned previously, I see the EMPP as getting the student academically ready to engage with HEI learning, and therefore don't see the occupational link
- Answer 5.1 & 5.4 - The focus of the EMPP is to improve symbols of the learner to be able to gain entry into a higher education programme. Maintaining competence in reaching an NQF 4 qualification might be more appropriate as guided by HEI acceptance criteria.
Answer 5.11 - The learner must be prepared to communicate effectively in the instructional language, but not focussing on patient handover or anything specific.
Answer 5.12 - Behaviour specific interventions should not focus purely on healthcare interaction.
- I am not sure if EMPP should include any content of EMC. I should rather focus on bridging the gap identified from the entry-level criteria of EMC requirements, for example, appropriate school subjects and symbols.
- The caliber of learner who will potentially be applying for such a programme will require very specific level descriptors - this allowing for a prescriptive approach in outcomes. The learner would have sought other approaches to entering such a programme should they have had the means or cognitive drive/ability. The goal of such a programme is to improve symbols of modules, not run a mini emergency medical care programme. The profession specific content will be dealt with in the applicable programme should the candidate be successful in completing the preparatory programme. Focus on generic higher education skills and development. With the above mentioned, the programme's goal is to improve symbols - How can this be offered at an NQF5 qualification when the individual "failed" at his/her NQF4 qualification? This should not allow for a higher NQF level qualification - but should open up doors into the various healthcare professions. The NQF level will not require the individual to be able to critically evaluate/appraise data, collect, analyse, etc. This is not the role of such a programme pegged at the suggested NQF level.

6. SECTION C2: EMPP LEARNING OUTCOMES

6.27) Any further comments dealing with the EMPP learning outcomes.

- 6.13 As previously mentioned, I see the EMPP programme preparing the student to engage with HEI teaching, learning and assessment. I don't see any EMC content being addressed on this programme. This would be reserved for the HCert, Diploma or Degree.
- 6.18 Whilst we can use assessment opportunities that integrates the foundational level of knowledge and skills such as mathematics, and let's say academic writing etc these cannot entirely be aligned to healthcare treatments per se. We can teach the mathematical concepts of conversions such as grams to mg, and explain dilution, but we cannot teach them the actual drug / medication (EMC / healthcare knowledge). These will be taught on the EMC programme. Same with academic writing, we can teach them the basic concepts of how to write coherently and how to paraphrase, but we cannot assess any healthcare matters discussed or mentioned in let's say a patient report document, for reasons that that was not the intended purpose of the assessment, since students are not taught about for example taking of vital signs or doing a patient assessment and documenting their findings (if that is what is needed to write in the patient report document). The EMPP provides the basic knowledge and skills of how to approach it as a starting point whereas the EMC learning outcomes would be looking at it holistically i.e. writing coherently and correctly documenting vital signs and other clinical findings, same with drug calculations, i.e. correctly selecting the appropriate drug/ medication, calculating the dosage and the actual administration of that drug, reassessment of the patient and the continuation of the drug/ medication as applicable.
- 6.3 & 6.22 not sure if the level of this course (NQF) would allow for deeper thinking
- 6.20 Not too sure of the context of 'short'
- 6.3 Would these outcomes not be embedded in the course that the student is hoping to access?
6.15 Again, this would depend on the core outcomes of the EMPP. If it is a course designed to facilitate access, then no, if it is a course designed around building credits, then yes. The two are technically mutually exclusive, although it is possible that a hybrid model may exist, but this would then be a EMPP-type course on its own.
- 6.21 Why would the EMPP be presented at an NQF level 5 when it aims to plug the gaps in the fourth tier of the NQF? This would also open up the debate about completing an NQF level 5 qualification to access a NQF level 5 qualification. I understand that if one of the aims may be to build credits, but then how would the course in its entirety be registered as an NQF level five qualification with the relevant notional hours etc and how would these integrate into the qualifications for which access is being sought?

Answer 6.18 - EMPP curriculum should only focus on improving symbols for entry into a higher education institution and programme.
Answer 6.21 - Should be presented on NQF 4.
- This should be offered as an independent SLP. The level should be offered as an NQF4 programme, as this is only to improve symbols and prepare the candidate for higher education with generic skills, how to learn, basic technologies, etc. This is not an EMC specific qualification. Resources available to the learner need to be technology based, otherwise we are not advancing with times.
- Consultation/guidance as a physical resource is extremely important to the caliber of learner expected on such a programme.

7. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

7.9) Any further comments dealing with the EMPP credits and notional hours.

- 7.2 not sure of context of 'short'. Too many connotations with short courses
- 7.7 This relates to my previous comment related to the NQF level of the EMPP. If it is a SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?
-

- 7.3 Should be presented at NQF level 4
- 7.6 I see this as a whole qualification, and therefore don't feel that unit standards apply.
- 7.7 This is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores.
- Answer 7.3 - Should be presented at NQF 4.
- The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested.

8. SECTION C4: EMPP LEARNING FACILITATION

8.30) Any further comments dealing with EMPP learning facilitation.

- *Where disagreed, see previous section comments for rationale.
- 8.13 Again, this relates to my comments around what the core outcomes for the EMPP are. If it is access, credit building or both- this is contextual.
8.26 Technically the student's working environment will only be apparent once they register for the qualification. Again, contextual within the core outcomes for the EMPP.
- 8.13 EMC links may be brought in at times, but I don't see EMC being a focus on the EMPP
- 8.13 Should be more generic.
- 8.21 the issue of financial support is key especially for individuals who are having family, who have debts to pay. the issue of financial support will help take the burden of sharing the money for two household as it will assist them to be able to focus purely on academics, as a result it will help the mental state of the student in the EMPP course.
8.23 the issue of additional educational support is key, the EMS education system needs to have a tutor system or a mentor mentee system that could be initiated, this will assist those in EMPP to have some sort of educational support.
- 8.4 What about passive learning? and the other types of learning?
8.13 What about some form of management, or introduction thereof?
8.20 & 8.26 How do you meet each learner's needs? and then relate each of these to the learning outcomes?
8.26 Will these students be working at the same time?
- Answer 9.26 - The EMPP should focus purely on improving the acceptance criteria of the learner.

9. SECTION D: EMPP ASSESSMENT

9.42) Any further comments dealing with EMPP assessment.

- 9.23 The lecturers should receive training prior to the setting of an assessment. I think receiving training whilst setting an assessment may impact the quality of the assessment.
9.33 The word "Scope" when it comes to assessments has become a dirty word in HEI. I see students being informed of what study units the test will cover, and the total mark allocation, etc but I don't see there being any more detail than this.
- CE should be adopted with such a programme. Less emphasis placed on grading, but more placed on evidence of learning and applied knowledge. Moderation in the EMPP should not focus purely on assessment but can be broadened to programme moderation. This continues moderation process will build on formative assessment periods to improve the overall feedback and response of the learners. The EMPP must not focus purely on preparing the learner for any specific medical programme or qualification, but rather focus on improving acceptance possibilities within a higher education programme.

10. SECTION E: EMPP PHYSICAL PREPAREDNESS

10.9) Any further comments dealing with the EMPP physical preparedness.

- 10.1 Although physical preparedness is very important it should form part of the EMPP as an informal programme. 10.2 Should not be credit bearing, should rather be a life style. 10.3 see answer in 10.2.
- 10.2 & 10.6 If the institutional policies allow for it, Physical Prep should be a non-credit bearing module. The swim forms part of Physical Prep and should not be separated out of the module.

This is an important area to address on the EMPP as it will improve the pass rate in 1st year of the HCert, Diploma or Degree as they would have already learnt to swim and work on the other areas of physical prep prior to entry into the EMC programme.
- 10.2 Physical preparedness is key for all EMS practitioners but it cannot have credit bearing as it may hinder progress of learners, and swimming is very key but it can never be made a failing criteria. Swimming is necessary as a life skill and it has no role in EMPP as there are life techniques being taught in its current form, therefore it should be taught to prepare the students for the courses in higher education.
- 10.2 and 10.6 Although I agree, it is important to provide contextual comment.

The challenge with making physical preparedness credit-bearing is that it potentially disadvantages certain students. Unlike a subject like Anatomy, where all students are on a reasonably even footing from day one, a student who cannot swim can suffer significant disadvantage based on the fact that they could not swim on day one. Conversely, not allocating credits to the subject may mean that students underestimate its importance; the whole "If it is not for marks..." debacle. This ties in directly with 10.6 where learning to swim can be assessed and constitute a mark. This could be a single assessment at the end of the year with a Yes/No result.

It is perhaps also important to acknowledge that there are other outcomes related to EMC education that can be achieved within physical preparedness interactions and that merely seeing it as an obstacle to progression (both by lecturers and students) diminishes its role within the wider qualifications and profession.

- 10.3 I disagree because, whilst it can be assessed it should not be compulsory to pass the fitness component in order to gain a certificate of completing the EMPP. as long as the student participates in the physical fitness module and there is constant improvement that is ok. as mentioned earlier, we cannot treat all people the same, we all come from different backgrounds, it should be the responsibility of the university where they do EMC to further their confidence and competence in the physical fitness components.
- The topic of physical preparedness within any EMC programme is very controversial. Yes, prehospital practitioners should maintain some level of physical fitness, but being assessed on this level of fitness is not required. Using the ECA programme as an example; the programme has no formal education on any rescue elements, but maintaining and passing physical fitness is still a requirement. The learners should be encouraged to live a positive and healthy lifestyle while enrolled in the programme, but the course credits dedicated to rescue subject course work and physical preparedness, that includes swimming, can much rather be used to include preparedness for medical education and enhance the clinical reasoning of these learners with the goal of professionalising the prehospital environment. This is not the function of such a programme. Physical preparedness is a personal journey. Swimming is a good life skill, not the job an academic programme.

11. SECTION F: EMPP GENERAL SKILLS AND COMPETENCIES

11.7) Any further comments dealing with the EMPP generic skills and competencies.

- 11.1 I disagree with the question because I only partly agree with it, I agree that it should equip them with referencing skills, and academic writing, but what is the definition of research skills? research to search for literature online definitely, but basic research to do a literature review requires more time, which would mean the programme would need to be extended?
 - 11.3 I have agreed, based on my earlier comment, we teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e. administration of medication once they are on the EMC programme
- 11.2 Not sure if I am reading the question right - do you mean the same insight as practitioners - then no, I feel they are too junior for this.
 - 11.5 I feel this programme to be more the orientation and foundation laying. I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course
- 11.3 I agree that these should be included, but there should be caution exercised not to turn the mathematics module into a drug calculation module.
 - 11.6 This makes it assumptive that the EMPP is not really for access or credits, but rather that it is incorporating an external curriculum into its content. Whilst I agree that this may be beneficial once the student enters the qualification, should this not rather only be included in a relevant curriculum where the aim is to teach EMC as opposed to access EMC?
- 11.3 the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs
 - 11.5 the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes.
 - 11.7 The focus should rather be on writing skills, and not specific to a patient report form.
- As stated previously, the EMPP should focus on improving the learner's symbols or grades to be able to get into a higher education institution or programme. Also previously noted, with the removal of none essential modules within the EMC curriculum, the enhancement of the learners, specifically related to this section, can be implemented as a standard curriculum in achieving competence. The goal of the programme is to improve NQF4 academic symbols. The above mentioned points are not the role of such a programme as these will be taught in the actual clinical qualification, this depending on the credits and exit level NQF. The EMPP needs to understand why it exists, it cannot fix and attend to all areas.

12. SECTION G: EMPP QUALITY ASSURANCE

12.25) Any other comments dealing with the EMPP quality assurance.

- 12.22 the curriculum should talk to the core outcomes and aims of the EMPP, not be based on student needs and differences within an institution. These are addressed at the curriculum delivery level using appropriate pedagogical techniques to deliver the curriculum.
- 12.22 I definitely agree with this statement, and just to add, this is why the sentiment of physical fitness not being treated as a compulsory module. We would not be very willing to be addressing students needs and differences if this were the case.
- 12.22 What about industry and patient needs?
- 13.6 Lecturers should be evaluated on a regular basis, for example quarterly.

Appendix L:

Delphi survey Round 2 results

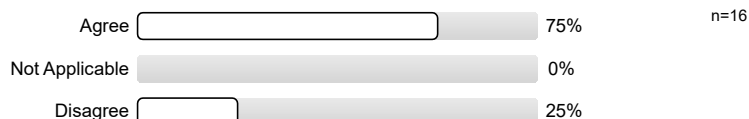
Eduard Nico Nell

EMPPQAG (8031)
No. of responses = 16

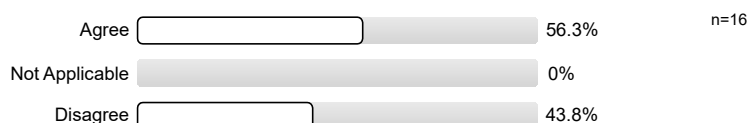
Survey Results

2. SECTION B: THE EMPP ADMISSION CRITERIA

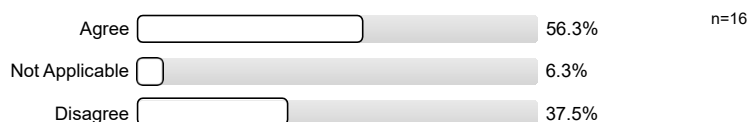
- 2.1) The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a national senior certificate or equivalent thereof.



- 2.2) The EMPP should be accommodative to a national senior certificate or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.



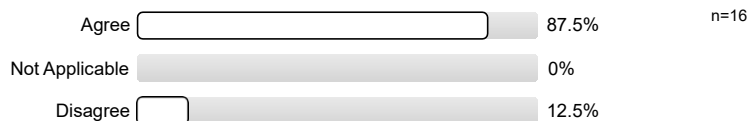
- 2.3) The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa.



- 2.4) Swimming should form part of the entry criteria for the EMPP.

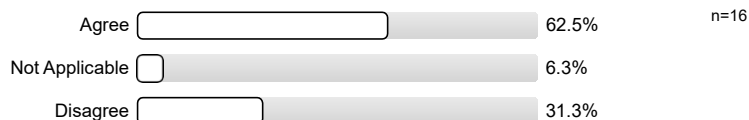


- 2.5) A basic medical assessment should form part of the entry criteria for the EMPP.

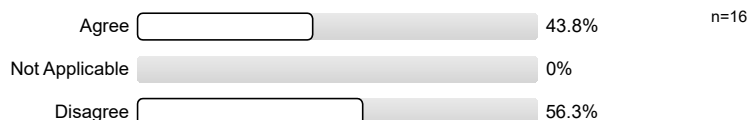


3. SECTION C: EMPP CURRICULUM DESIGN

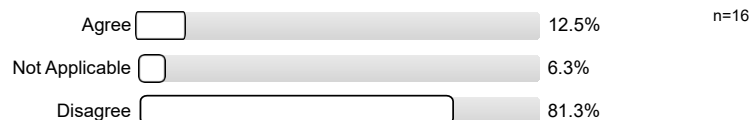
- 3.1) The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.



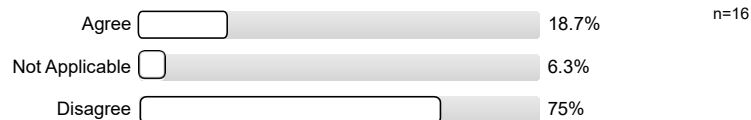
- 3.2) The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.



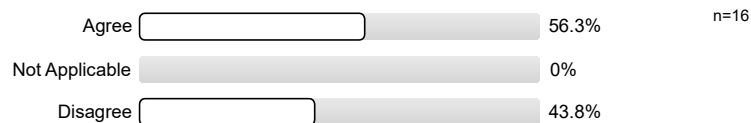
3.3) EMPP student should be prepared for basic medical techniques and skills required for EMC.



3.4) EMPP students should be taught how to complete EMC documentation, for example patient report forms.



3.5) The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.

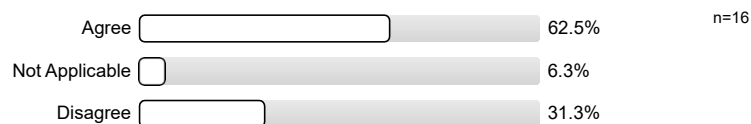


3.6) To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme.



4. SECTION C1: EMPP LEVEL DESCRIPTORS

4.1) The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services.



4.2) Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.



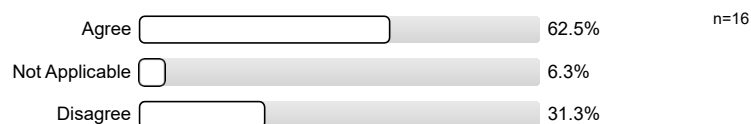
5. SECTION C2: EMPP LEARNING OUTCOMES

5.1) The EMPP curriculum should contain more EMC specific outcomes.

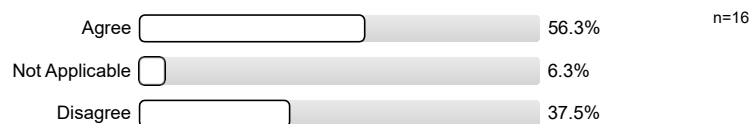


6. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

6.1) The EMPP should be presented at an NQF level 5.



6.2) The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF

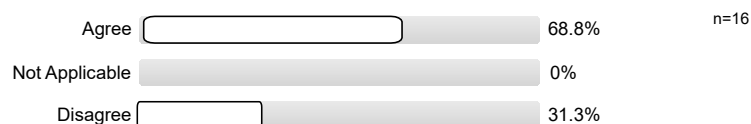


7. SECTION C4: EMPP LEARNING FACILITATION

7.1) EMPP learning material should be focused on EMC.



7.2) EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment

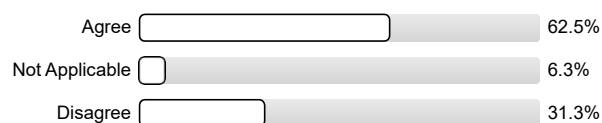


8. SECTION D: EMPP PHYSICAL PREPAREDNESS

8.1) Physical preparedness should be a formal credit bearing module on the EMPP.



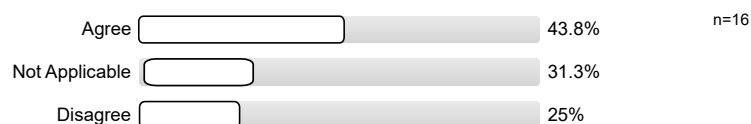
8.2) The EMPP Physical Preparedness module should have formal assessment criteria.



8.3) Learning to swim should be a formal credit bearing module on the EMPP.

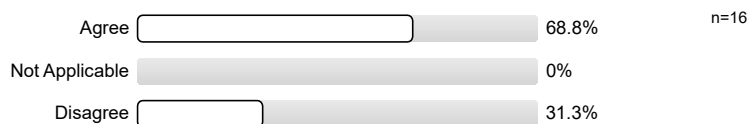


8.4) Learning to swim should have formal assessment criteria.

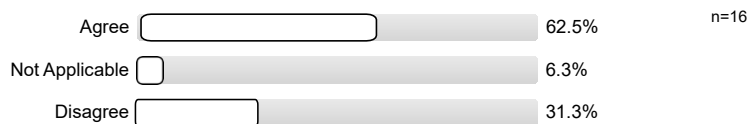


9. SECTION E: EMPP GENERIC SKILLS AND COMPETENCIES

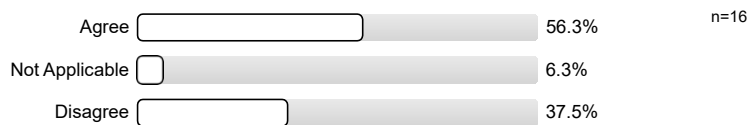
9.1) Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.



9.2) The EMPP should include an introduction to patient report forms.



9.3) The student should have insight into quality assurance processes as practitioners



Comments Report

2. SECTION B: THE EMPP ADMISSION CRITERIA

2.6) Any further comments on the EMPP admission criteria:

- 2.1 - That is the responsibility of the individual learner. Should the candidate wish to pursue the profession of EMS, they can go improve their results and/or subject choice at a TVET college.
- 2.3 - They will not be erased from the PBEC register. Should they wish to articulate into HEI, they can do so at their own discretion. The can still be upgraded to align with the CPGs, this done via short course training model.
- 2.4 - We need to adopt an evidence informed curriculum model.

- 2.5 - I agree as this may deter the candidate at a later stage once he/she gains access to a formal qualification. One needs to be medically fit to practice. I would place further emphasis on candidates undergoing a psychometric test prior to enrollment in any of the healthcare professions.

- 2.2 I am concerned that those without foundational knowledge will flounder on the course, and fail. So allowing them in may set them up for failure
- 2.3. I feel that they should be considered but not as a focus

- 2.3 Although the EMPP should not be discounted, I am of the opinion that the EMPP has value in its genericity and that it provides access. Making the focus on persons with short course qualifications will make the course overly specific and perhaps even exclusionary.
- 2.4 Making swimming competency a prerequisite does not cater for the students who have never had access to a swimming pool or swimming training. This would be exclusionary. It should be made clear to students, however, that they will be required to learn to swim whilst on the course.

- 2.4 Swimming and physical fitness should definitely form part of the EMPP, but not as an entry requirement. 2.5 A basic medical assessment should form part of the entry criteria for EMC programmes.

- I still feel that the EMPP should be there to fill the gap between the NQF4 Gr 12 and the HEI qualification, it should not be there to replace Gr12. Candidates on the EMPP should have the relevant subjects from Gr12 but their APS score is too low, and the EMPP fills the gap. It is unreasonable to expect the EMPP to "wave a wand" over a non-NQF aligned short course in an individual who is of mature age and magically now give them entry into a Degree. That is fundamentally flawed and not found in any other entry processes to HE.

- I also feel that the medical is important as putting someone on the EMPP who has a medical condition that would exclude them from any of the EMC programmes, would be a wasted opportunity.

- The course should accommodate all individuals who do not meet entry requirements of the diploma and Bhsc, this allow access to those individuals who are in EMS who are currently in service and need to be developed. The aim of this EMPP should be about facilitating access.

- 2.4 Swimming will cause a burden on those who do not have access to swimming facilities and it should not be made a criteria.

3. SECTION C: EMPP CURRICULUM DESIGN

3.7) Any other comments dealing with the EMPP curriculum design:

- 3.1 & 3.2 - or any other EMS qualification?
- 3.4 Perhaps not as primary completion, but as involved in patient treatment they should be able to look over and agree to contents; this to protect them legally as well
- 3.4 - The learner can save such specific content for actual course work on the applicable programme which he/she gets access to. 3.5
- 3.6 - This will depend on the academic and employment setting. Generally andragogy concepts will come into play as we are dealing with adult learners who are often in these situations.

- 3.1 and 3.2 These are a bit of a "same-same but different". I would assume that as a course focussed on access, that the EMPP would be a generic access course and would therefore allow access to both qualifications.
- 3.4 Same as above.
- 3.5 Same as above. Why would a student wishing to enter a course be required to demonstrate an informed understanding of the core areas of EMC education. This would imply that there would need to be some form of evaluation of their knowledge prior to their admission. I think that this deviates from the primary aim of the EMPP. To paraphrase, preparation is not competence.

- 3.2 EMPP students do not meet minimum requirements for EMC higher education, hence the need for the EMPP. Thus, even once EMPP is successfully completed, the likelihood of the student being prepared for anything more than ECA (higher certificate) is low. Allowing access onto the diploma programme seems to be a far leap. I would suggest ECA first, which could later articulate into a diploma

3.3, 3.4 These are beyond the scope of EMPP and will be taught in EMC higher education.

3.6 Limited contact programme can be an option, however, I would hesitate to say it SHOULD be done this way

- 3.3 EMC documents may be used as a baseline for teaching the candidate basic skills on completing documentation, not only EMC documentation.
- I don't see the content of the EMPP being the same for the HCert, Diploma and Degree. An applicant must enrol and apply for the EMPP based on their Grade 12 results and modules, and the content of the EMPP must cater for those varied applicants. The type of applicant applying for the HCert is very different to the type of applicant applying for the Degree, as is the method in which the programme content is presented across these three HEI programmes. I don't personally believe that one can have a one size fits all EMPP.

As alluded to previously, the EMPP must fill the gaps between the NQF4 Gr12 to ensure that the applicant is ready to engage with HE learning at NQF5 level. I don't feel that any EMC content needs to be covered in the EMPP but rather the Basic Sciences and Academic Literacy, etc,

- The EMPP should prepare the students to be able to access any of the courses offered in EMC, it should be able to allow students time so that can be fully functional while they are on the preparatory course. The course can have basic and intermediate knowledge that is assessed, but no limited to the clinical, it should contain all aspects that govern EMS, this will be able to completely prepare the student holistically.

4. SECTION C1: EMPP LEVEL DESCRIPTORS

4.3) Any other comments dealing with the EMPP level descriptors:

- 4.1, 4.2 These are beyond the scope of EMPP and will be taught in EMC higher education.
- 4.2 - These are high-level cognitive functions which will be developed later on in his/her educational journey. Focus on the basics...
- I think the proposed programme should focus on addressing the gap identified from entry requirements, rather than dealing with profession specific content which will be covered in the EMC programmes anyway.
- Part of the EMPP should be about professionalism, but again, I don't see the need for any specific EMC content.

5. SECTION C2: EMPP LEARNING OUTCOMES

5.2) Any further comments dealing with the EMPP learning outcomes.

- 5.1 - This should be an introductory programme to higher education and focused on generic skill development which will aid academic pathway.
- 5.1 Perhaps I am the only one who feels this way, but it would appear as if there is a theme here that students should be taught course content whilst completing a course aimed at access. I fail to understand the logic behind this and would question the educational motivation for teaching content from a course for which access is being sought. That said, unless there is a concern for pass rates of the actual course and that the EMPP is being used as a preparatory system with the aim of improving pass marks once students access the course?
- 5.1 Perhaps the curriculum should include EMC related outcomes and activities, but these may not necessarily be specific to EMC
- EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC specific content will be covered in the EMC programmes.

6. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

6.3) Any further comments dealing EMPP credits and notional hours.

- 6.1 - Majority of candidates would partake in such a course due to the failure or non-success of an NQF4 qualification (matric). "We need to fix the foundation before trying to put the roof on the building".
- 6.1 NQF 4 may be more appropriate as at that level many minimum entry criteria to EMC higher education are already lacking. NQF 5 may be too high and can be saved for ECA.
- 6.2 EMPP should not offer credits. It is simply a preparatory course
- Credit bearing course will benefit the students, and it make it easier for them to access university qualification.

8. SECTION D: EMPP PHYSICAL PREPAREDNESS

^{8.5)} Any further comments dealing with the EMPP physical preparedness.

- 8.1 - Physical preparedness should be a life skill/characteristic. What is the role of higher education?

8.4 - If it is going to form part of the programme structure and bear credits, it will need to be formally assessed. Competency-based grading scale is advocated here...

- All physical activity must be taken as a form of fitness in a course which aims to keep students/learners fit and healthy, it should not be about assessment. Physical preparedness should have a criteria in rescue oriented courses where students will be required to use their strengths and energy. In the EMPP there is no need for a structured programme especially if students will be doing only ECA and Diploma where there is no intense rescue. Swimming can be made a criteria for the modules that will have technical rescue such as swift water rescue.
physical preparedness should be an ongoing exercise without making it to carry any credits as they will not be reflecting on the certificate as is not on SAQA requirement for all EMC modules.

- Assessment criteria for physical preparedness, including swimming, on EMPP does not need to be at the same level as that of EMC higher education, however, it is a critical component to introduce in the EMPP.

- I dont see swimming as separate from one being physically prepared for the EMC programmes. So I see swimming forming part of the physical prep module which should be non-credit bearing.

Having this module in the EMPP could not be seen as punitive but rather a massive advantage so as that when the candidate enters whichever EMC programme, the physical preparedness component is not a limitation on success.

- Swimming skills is a necessity in today's society. If not an assessable module, there will be no intrinsic drive

9. SECTION E: EMPP GENERIC SKILLS AND COMPETENCIES

^{9.4)} Any further comments dealing with the EMPP generic skills and competencies.

- 9.1 - This is a practical manner in which to teach and aid learning... Not so much because it is a "drug calculation", but it is a practical example which is applicable to everyday life of majority of the candidates. Candidates need to understand the value of a taught skill to learn it in an effective manner.

9.2 - That is EMS specific - not required.

9.3 - Higher Education needs to be transparent.

- 9.1 Basic calculations, only theory.

- 9.1, 9.2, 9.3 Again, if the focus is on access, then why are EMC-specific outcomes part of the curriculum. If the goal is to ensure that students are able to grasp the principles of any concept, then appropriate EMC examples can be used to provide context. But, in my mind, to make them formally part of the curriculum means that you are teaching EMC to students who are not registered for an EMC qualification.

- 9.2, 9.3 These are beyond the scope of the EMPP and will be taught in EMC higher education

- 9.3, although I have agreed to this I feel that this should be an overview with the focus on professionalism and ethics. Perhaps at this level QA is too complex a concept for NQF5

- The focus should be on developing the Basic Sciences (Physics, Chemistry, Anatomy, Physiology), Mathematics relevant to the profession, academic writing, etc not on set EMC content but rather the skills needed to do drug calculation or to complete PRFs.

Appendix M:

Feedback Delphi survey Round 1

DELPHI ROUND 1, FEEDBACK WITH COMMENTS FROM PARTICIPANTS

Study title: DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.

Dear Delphi Participant,

Thank you once again for agreeing to participate in the Delphi process. Attached you will find the results of the first round of the Delphi process. I am sending you this feedback with the sole purpose of providing you with the results and information regarding the first round. You do not need to do anything with it.

In the attached feedback you will note that all the statements on which consensus had been reached have been shaded and comments from participants are included. In a number of instances, I have made comments to help clarify some of the issues raised by participants. These are indicated below the participant's comment as "**Comment EN Nell**" "**Answer EN Nell**" in bold. Thanks to the degree of consensus reached, Round Two, which will reach you soon, will be much shorter.

Delphi Questionnaire: This Delphi questionnaire is anonymous and you are requested not to discuss your responses with anyone. Participant anonymity is one of the strengths of the Delphi technique. Below are some of the comments from the rest of the panellists. NB: No part of this questionnaire may be copied, stored in a retrievable format for re-use or used without consent from the author. Note that because of the rounding-off of percentages, the totals do not always add up to 100%.

Kind Regards

EN Nell

FEEDBACK DELPHI ROUND ONE

No part of this questionnaire may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without written consent of the author.

SECTION B: THE EMPP ADMISSION CRITERIA					
This section deals with the EMPP admission criteria.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
1.	The number of students selected for the programme should not exceed the capacity available for offering good quality education.	100%			Round one
2.	The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.	100%			Round one
3.	The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a matric certificate or equivalent thereof.	62.5%		37.5%	Round one
4.	The EMPP should be accommodative to NSC or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.	56.3%		43.8%	Round one
5.	It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.	87.5%		12.5%	Round one
6.	The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa should be able to apply for credits for modules presented on the EMPP.	68.8%		31.3%	Round one
7.	A physical fitness assessment should form part of the entry criteria for the EMPP.	75%	6.3%	18.8%	Round one
8.	Swimming should form part of the entry criteria for the EMPP	50%	18.8%	31.3%	Round one
9.	A basic medical assessment should form part of the entry criteria for the EMPP.	67%	13%	20%	Round one
ANY FURTHER COMMENTS:					

3.3 A national senior certificate is NQF aligned, What about vocational EMS such as the AEA/CCA who wish to enter higher education?

3.4 & 3.5 I am unsure of programme contents so unable to answer honestly, would NQF 4 mathematics (for example) be sufficient for the candidate to successfully complete the level of the course? and if the candidate does the subject yet fails at NQF 4 will they have sufficient foundational knowledge for that level of course? I am unsure of what level the EMPP is rated at. **Answer EN Nell: The EMPP is not credit-bearing and is presented as a short learning programme at NQF level 5. The EMPP programme curriculum consists of Physical science: Physics and Chemistry, Mathematics, Life science, Numeracy, Basic digital literacy / Computer skills, Academic literacy, Communication studies, Physical preparedness and Learn to swim.**

3.6 Could this EMPP not assist with those who qualified many years back and therefore retention of theoretical knowledge is lacking - depending on curriculum this programme may assist to upskill those who have not maintained personal professional development in preparation for an NQF qualification.

3.3 I Disagree. This means that any student with a senior certificate or an equivalent thereof might as well be placed on the ECP. The initial purpose of the EMPP served as a transformational tool. This being that, historically the SA EMS landscape used to have short course holder qualifications, as an example the Basic Life Support (BLS) practitioner. A student who wished to participate/ enroll in a BLS short course (EMS entry level qualification) could do so without having a national senior certificate. The EMPP was designed specifically for those healthcare professionals who holds one of the short course qualifications, which is now phased out, as such, are sort of left between a rock and a hard place having to obtain a higher education EMC qualification. There are currently thousands of short course holders who are unable to meet the necessary requirements i.e. national senior certificate or equivalent thereof (never mind the other specific entry criteria) to gain access to HE. With the EMPP these candidates are not 'left behind'/ forgotten if you may. This is one of several reasons why the EMPP is not only targeting 'school leavers' or those having been exposed to some formal education previously.

3.6 I disagree, as I feel it should not only be focused on them only, as mentioned the EMPP is also a transformational tool. Where it can also be used for other school leavers who do not hold the necessary subject combination. If we look at the SA context, there is still socio economic and educational injustice that majority of South Africans are exposed to. A student who obtained his national senior certificate from a rural area might not necessarily have had the same exposure to education (even if the subjects were the same) as a student who attended lets say school at a top private school in the city. Alternatively, the career guidance might not have been the same either, this career guidance allows the student to carefully think of what subjects he/ she should continue with from grade 10. So first, those students who do not have the correct subject combination are faced with attending the 'second attempt' subjects which is an additional year after matriculating. As a higher education institution we commonly refer to the articulation gap, the knowledge and skills gap that exists after having completed basic education i.e. the knowledge and skills that HE preempts 'matriculants' have when they enter HE. This also affects how HE designs their first year level programme, which often disadvantages those very students coming from socially disadvantaged background. If the EMPP can be designed in such a way that it can be accommodative to those candidates in those positions, it can be a method for HE to start closing that gap. As an example if a student did not take the subject of math's, but now does it in the EMPP at least we can design it in such a way that the Math's constructively aligns to the EMC discipline. One example of what I mean by this is in providing mathematics assessments which is inline with the discipline field of EMC where the student uses the principles and concepts of mathematics and having to calculate the medication/ drug dosage and having to then draw up and dilute the medication. Anyways just a thought. **Comment EN Nell: Currently the EMPP target audience, Emergency medical care short-courses certificate holders and school leavers with a grade 12 matric national senior certificate.**

3.7 and 3.8 although I stated that I agree to how the question was phrased, I do not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the

programme. the same for swimming, many people of color are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice.

3.7 The main focus of a preparation programme should be on academic content and preparing the candidate for higher education.

3.8 Swimming should be a life skill, this should also form part of the EMC programmes rather. On the EMPP a non formal fitness programmes could be more suitable.

3.9 This could be done at the end of the EMPP for entry in EMC education.

3.7 and 3.8 I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access.

Answer 3.4 - Accepting learners that do not have the correct subjects might be problematic. Educating learners on a new subject focussing on NQF 4 outcomes, without the required progression as per basic education Grade 6-12, could set the learner up for failure. A pre-test might be required to gauge the level of understanding that these learners have on the required subjects prior to them being accepted on the EMPP programme.

Answer 3.6 - Opening up the possibilities for school leavers to enter an EMPP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds.

Answer 3.7 & 3.8 - Physical fitness, including swimming, should be started as early as possible. Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme. EMPP admission criteria needs to be specific for the qualification which the candidate is preparing, especially taking the three tiered ECQF into account. Is the learner completing EMPP for HCert or Degree for example? The requirements will be drastically different and I do not believe that we can limit EMPP candidates to a lower level qualification/s - If they perform on the EMPP programme, will they be allowed to apply for Degree entry?

The job of EMPP is not to teach subjects which the candidate never had. The role of the EMPP is to improve symbols where necessary - this for matriculants. There needs to be a timeline attached to the matriculant entering such a programme, as matriculants from, for e.g. 1988 are often using such systems/programmes to their advantage with no real benefit. Why have they previously not attempted to further/develop themselves? Physical fitness should not be a requirement for such a programme. What is the role of TVET colleges if we are creating a specific programme - Modules can be taken independently at these colleges - these are generic matric modules which require additional attention. As an emerging profession, the question remains, why are we the only "healthcare profession" going out of the way to assist applicants in meeting criteria? This going as far as to potentially develop a specialised programme.

Firstly, I think and in my opinion, the focus of any EMPP program to accommodate candidates with the intention to pursue a HE degree, diploma or certificate, is that they need to meet the minimum University Criteria. In my experience, the majority (8 out of 10) RPL candidates just do not perform up to standards when entering the HE system. I would recommend, candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enroll for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs. The reason why I disagree with 3.3 to 3.5, is that the outcome criteria for HE be it degree, diploma, or certificate, requires the current competency levels of NQF4 including, for example, English, Maths, and Sciences. If a senior candidate, who has not studied at HE, but completed his/her matric 10 or more years ago, the candidate is likely to be not fit to study at HE without prior learning and assessment experience - meaning to complete some sort of NQF 4 or higher program or qualification prior to applying for HE

Emergency Medical Care programs. I know this is a vague and unsustainable statement, but I'm merely giving my opinion. Secondly, regarding physical preparedness, referring to 3.7 that physical fitness assessment should form part of the criteria for EMPP. The reason being,

higher levels of physical fitness and being healthier, in general, are associated with better-perceived health for academic performance AND professional performance in the workplace. The reason swimming should not be made a criteria is because majority of candidate who are currently on EMS employment have no ability to swim, and the swimming resources in areas they live in are scarce, the fundamental aspect of EMPP is to prepare the cadre of EMS to be ready for the work that will be presented in higher education qualification. This will assist them to meet the demands required by the course.

The focus of the EMPP must be based on evaluating the students ability to cope with the work that will be given in higher education qualification, so as to adequately prepare the students not just preparing them to meet the criteria.

3.3 & 3.4 In my experience, the EMPP programme should be for applicants who have the necessary subjects from school at a Grade 12 level but fall short on the APS score. Students who do not have the necessary subjects such as Mathematics, Life Sciences and/or Physical Sciences struggle with the content of the programme.

3.6 Again based on my years experience, previous short course qualifications are not an academic advantage for applicants to HEI EMC programmes. NSC results & modules are far more important for success.

3.8 Swimming as part of an entry assessment to a programme is exclusionary and this is a skill which is quite easily taught once a student has been selected. Applicants just need to be made aware of the fact that they will be required to learn to swim so that they are aware of this component prior to commencing with the programme.

3.4 I disagree because without the correct subjects the jump to this course's subjects will be too big.

3.8 I disagree because water rescue should be a subspecialty or special training course and then swimming can be entry criteria for this.

SECTION C: THE EMPP CURRICULUM DESIGN

This section deals with the EMPP programme design					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	The EMPP curriculum design should maintain an appropriate balance of theoretical, practical and experiential knowledge and skills.	87.5%	6.3%	6.3%	Round one
2.	Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake.	81.3%		18.8%	Round one
3.	The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy.	100%			Round one
4.	Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	
5.	Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme.	100%			Round one
6.	Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.	93.8%		6.3%	Round one
7.	Student diversity should be taken into account with the development of curricula (for example, students from rural background).	81.3%	6.3%	12.5%	Round one
8.	The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes.	93.8%		6.3%	Round one
9.	The EMPP curriculum should be aligned with that of EMC education.	80%		20%	Round one
10.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.	56.3%	6.3%	37.5%	Round one
11.	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.	43.8%	12.5%	43.8%	Round one
12.	The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment.	75%		25%	Round one
13.	Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations.	87.5%		12.5%	Round one
14.	The EMPP should be designed to support the achievement of the specified learning outcomes.	100%			Round one
15.	The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained.	86.7%	13.3%		Round one
16.	After successfully completing the EMPP the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education.	81.3%	18.8%		Round one
17.	The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	
18.	The EMPP should be guided by policies and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals.	100%			Round one
19.	EMPP student should be prepared for basic medical techniques and skills required for EMC.	50%	6.3%	43.8%	Round one
20.	EMPP students should be taught how to complete EMC documentation, for example patient report forms.	62.5%		37.5%	Round one
21.	The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.	62.5%	6.3%	31.3%	Round one
22.	Academic writing should form part of the EMPP curriculum.	93.8%		6.3%	Round one
23.	The EMPP should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally.	93.8%		6.3%	Round one
24.	All EMPP modules should be designed and structured as complementing components of the programme.	93.3%		6.7%	Round one
25.	The ability of EMPP students to function as adult learners and take responsibility for their learning is important.	100%			Round one
26.	All students from the EMPP should be able to cope with the academic requirements of higher education.	100%			Round one
27.	To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme.	43.8%	12.5%	43.8%	Round one
28.	The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task.	100%			Round one
29.	The EMPP student should be able to apply basic processes of analysis, synthesis and evaluation of collected information	93.8%	6.3%		Round one
30.	The EMPP should be able to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC to promote access during first time application at HEI's.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	
31.	The EMPP should aim to bring about learning with understanding.	100%			Round one
32.	EMPP learning content should be relevant, realistic, manageable and accessible.	100%			Round one
33.	The EMPP should take the students existing knowledge into consideration.	93.8%		6.3%	Round one
34.	The EMPP should be current with regards to the needs of the student and society.	93.8%	6.3%		Round one
35.	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Round one
36.	The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively.	100%			Round one
37.	The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes.	100%			Round one
38.	Lecturers teaching modules on the EMPP should be involved in the design of the curricula.	87.5%	6.3%	6.3%	Round one
ANY FURTHER COMMENTS:					
<p>4.1 Experiential learning should not be part of the preparation programme. Maybe a theoretical approach to EMC documentation. 4.9 A more generic approach may provide the candidate with wider access to Higher Education. 4.11 The EMPP should focus on the ECA as an entry level programme into EMC education.4.19 The EMPP should not be focused on specific skills as this will be the function of EMC specific programmes.</p> <p>The structure of the course should allow for learners to have time for themselves to espouse information given to them, this will assist learners to understand that in higher education training you need to push yourself in order to gain better understanding. The structure of the EMPP should allow for enough time for practical aspect of the program so as to adequately prepare the learner for the up and coming challenge in the higher education qualification. The program must be able to adequately cater for diverse group whom socio-economical status will vary as they will be coming from different backgrounds. The use of technology in the program must be encouraged, this will assist the learners to be independent thinkers as technology is considered to be the necessity for learning environment. The EMPP must allow students enough time to be prepared with the pressures of being called back to work, this will relieve the strain in the students brain and they will be in a better space to perform well in the program.</p> <p>Answer 4.2 - Limiting the curriculum to cater purely of EMC learner intakes places a restraint on the capability of the learner. My opinion is that the curriculum outcomes should be guided by the CAPS documents used in basic education, thus broadening the acceptance possibilities for these learners.</p> <p>Answer 4.6 - For three growth to be achieved, the learners should not be limited in only progressing towards EMC higher education acceptance.</p>					

Answer 4.8 - To what depth are you directing the programme outcomes on. Minimum entry criteria for higher educational institutions should still be enforced using the minimum "M" score count. Lowering the acceptance criteria for these learners might set them up for failure in the higher education environment.

Answer 4.9 - I refer to my explanation on answer 4.2.

Answer 4.10 - If the EMPP curriculum and outcomes are structured at improving acceptance criteria, the learner should be able to enter any higher education programme and not limit the learner to purely have access to lower prehospital medical qualifications.

Answer 4.11 - Please see my reasoning in answer 4.10.

Answer 4.16 - The learner should be prepared for entering a higher educational environment, however, the learner must be guided to understand the concept of what prehospital emergency medicine entails. Selling the programme to the learner will result in an increased intake for that academic year.

Answer 4.19, 4.20, 4.21, 4.24 - The learner should purely be prepared for the higher education environment. Medical concepts and others can be included within the EMC programme curriculum.

Answer 4.27 - Limited contact is a higher educational concept of adult learning. Preparing these learners to achieve competence in obtaining an NQF4 qualification might require more contact time.

Answer 4.33 - Are you indicating current grade 12 knowledge or EMC knowledge? EMC knowledge would be beneficial, yes, but preparing the learner for any higher education programme in improving their M-scores might be more worthwhile

Overall remark: The EMPP should focus on improving the learner's possibility of being accepted within a higher education institution and programme. If the EMPP focusses on improving intake into an EMC programme, then towards the end of the curriculum the focus can shift towards preparing the learner for a health professions educational environment. Naming the programme EMPP might not be the correct description of how we want to prepare a learner to enter a higher education environment.

With regards to the development of curriculum; the curriculum may be disseminated via means of distance learning platform - digital platforms. This will allow applicable candidates to continue with primary jobs. My questions remains - What is the role of TVET colleges and/or redoing the necessary subjects at a matric (NQF4) level in their private capacity? We are the only emerging healthcare profession who is willing to "spoon feed" potential candidates for professionalisation and redress of historical injustices. The goal of such a programme, should it be implemented, should aim to orientate the learner to generic requirements and skills required within higher education. This should be a generic qualification that will allow for progression into various programmes within the healthcare domain.

4.9 "The EMPP curriculum should be aligned with that of EMC education" - What defines EMC education? If the definition includes comprehension and understanding, then yes, I agree. Meaning that to some level, EMC education should also include components of non-technical skills. For example, Non-technical skills such as decision-making, situation awareness, leadership, and teamworking are essential skills needed in EMC as a profession and should be included in EMC education.

4.2 I partially agree with 4.2, however, it is important that the course caters for student learning needs, but these must be considered within the curriculum that is being proposed.

4.7 Again, I partially agree. I don't think that student background should drive the curriculum, rather it should drive the pedagogical principles that drive the delivery of the curriculum. The curriculum should remain an independent variable that seeks to achieve the aims of the EMPP.

4.10 and 4.11 Again, partial agreement. This is dependant on what the EMPP actually aims to achieve. If the EMPP is aimed at 'bridging the gap' for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. In other words, the question would be whether or not the ultimate goal is to prepare students for the course or to give the students access to the course. The two are not the same in my mind.

4.12 My question here is what the EMPP is aiming to achieve. If it is for access, then indirectly, this would be a valid statement due to an extrapolative way of thinking that by

granting a person access, one would be enabling students to pursue further personal and professional development within the Emergency Medical Care environment, but would this be a direct aim of the EMPP.

4.13 The EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations. This statement seems to ignore the fact that the course is designed to meet a specific curriculum need. Whilst it is important to involve role-players, their needs needs to come second to the primary need that the course is designed to meet.

4.19, 4.20 and 4.21 I disagree with these statements because this is not the aim of the course- this is the job of the course that the students would ultimately enrol for. In my mind (and I may be wrong) the EMPP is designed around access to the HEI qualification as opposed to actually teaching them the principles of emergency medical care.

4.27 I disagree, most of the students that enrolls for the EMPP are adult learners, whom already have other responsibilities such as raising kids etc. Because the EMPP introduces the student to HE culture, it might be best to have a full time programme so that they can learn how to adapt to HE life and what it would be like once they get entry into an EMC qualification. previously from what i have witnessed many adult learners quit EMC programmes in their first year of study due to family commitments and their unfamiliarity to the exposure, pressure, and time management obligations that a full time programme entails. at least if a student does the EMPP he / she and their families already have an idea of what life will be like in EMC and can from there make an informed decision of whether they would like to continue onto a year or two year qualification.

4.2. Learning styles are dynamic therefore can change depending on cohort. Adult learners are also flexible in learning and often have over arching learning styles

4.9 and the community needs. perhaps management as well?

4.10 & 4.11 Is there any reason why they cannot enter any higher education undergraduate course of their choosing?

4.13 is that not directive teaching. What about community/African/South African needs?

4.23 Difficult to answer - perhaps an analysis of the gaps between ANT and undergraduate can lead the EMPP

4.10-4.12 The EMPP programme should attract the students based on their NSC modules and scores and students should then be directed accordingly as to whether based on that they are attending the EMPP for the HCert, Diploma or Degree. I think we need to move away from the historical trend where you did BAA, then AEA and then CCA. This HEI system is not the same and was not designed to follow that pathway.

4.19 These students will not hold a student registration with the HPCSA, and therefore I don't feel that any specific EMC content should be included in the programme. The focus needs to rather be on getting the student ready to deal with studies at an HEI level and fill the gaps with Life Sciences, Maths and Physical Science.

4.19 I disagree in the way that I am concerned that the EMPP becomes overloaded. What does this preparation entails- if its just 1/2 sessions then it is fine.

4.20 I disagree again- the EMPP should not be a duplicate of an EMC course- content overload.

4.22 I disagree- my understanding is this is just a preparation course.

4.27 I disagree- time is understandably limited but as preparation course contact sessions are specifically important to help these students get to the required level.

4.28 I disagree- the students must be shown/taught in the EMPP how to gather information from sources.

4.2 To an extent, learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake as this is part of the purpose of EMPP.

However, it must be noted these items should not cater purely to the target student intake, but also the requirements of future studies in EMC higher education.

4.7 It is unclear in the EMPP what the "taking into account" of student diversity would look like. On the one hand, it would be beneficial for the EMPP to take into account those students from rural backgrounds and grant them assistance where needed (i.e. WiFi connectivity).

	<p>However, on the other hand, taking student diversity into account should not result in a changing of EMPP course requirements.</p> <p>4.11 The DipEMC course is difficult even for students who do meet minimum entry requirements. I believe the ECA programme would be a more beneficial starting point for those EMPP students wishing to enter higher education in EMC. My concern is that transitioning students directly into the DipEMC course may be setting them up for failure.</p> <p>4.13 The EMPP should rather be designed and developed to meet entry requirement needs for EMC higher education. In this sense, student expectations, etc. are irrelevant.</p> <p>4.20 This seems beyond the scope of the EMPP programme. Documentation completion is taught in EMC higher education.</p> <p>4.27 I do not think this course SHOULD be offered as minimal contact as that would not prepare students for the full contact of EMC higher education. However, I think it MAY be offered as minimal contact as an option for particular candidates.</p> <p>4.33 The EMPP should focus on preparing students for EMC higher education. The EMPP is not a RPL programme that takes students existing knowledge into consideration. Furthermore, this would not be practically feasible as the EMPP would then need to be tailor made for each individual student.</p> <p>4.34 The EMPP should rather be current with the needs of EMC higher education entry requirements. It is not a qualification in itself.</p>
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SECTION C1: EMPP LEVEL DESCRIPTORS

This section deals with the EMPP level descriptors.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.	81.3%		18.8%	Round one
2.	The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.	87.5%		12.5%	Round one
3.	EMPP level descriptors should be descriptive and not prescriptive.	86.7%	6.7%	6.7%	Round one
4.	The Critical Cross-Field Outcomes of SAQA should be embedded in the level descriptors of the EMPP.	93.8%		6.3%	Round one
5.	The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.	93.8%		6.3%	Round one
6.	The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
7.	The EMPP student should be able to collect, analyse, organise, and critically evaluate information.	87.5%	6.3%	6.3%	Round one
8.	The EMPP should use science and technology effectively and critically showing responsibility towards the environment and others` health	100%			Round one
9.	The EMPP should be able to demonstrate and understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.	100%			Round one
10.	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Round one
11.	The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in verbal and written presentation modes, mainly through reports and the handover of patients to other services.	75%	6.3%	18.8%	Round one
12.	The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services.	73.3%	6.7%	20%	Round one
13.	Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.	66.7%	20%	13.3%	Round one
ANY FURTHER COMMENTS:					
<p>I am not sure if EMPP should include any content of EMC. I should rather focus on bridging the gap identified from the entry-level criteria of EMC requirements, for example, appropriate school subjects and symbols.</p> <p>5.1 The EMPP should be focusing on NQF level 4 as the ECA is NQF level 5. 6.11 Should be part of EMC education.</p> <p>Answer 5.1 & 5.4 - The focus of the EMPP is to improve symbols of the learner to be able to gain entry into a higher education programme. Maintaining competence in reaching an NQF 4 qualification might be more appropriate as guided by HEI acceptance criteria.</p> <p>Answer 5.11 - The learner must be prepared to communicate effectively in the instructional language, but not focussing on patient handover or anything specific.</p> <p>Answer 5.12 - Behaviour specific interventions should not focus purely on healthcare interaction.</p> <p>The caliber of learner who will potentially be applying for such a programme will require very specific level descriptors - this allowing for a prescriptive approach in outcomes. The learner would have sought other approaches to entering such a programme should they have had the means or cognitive drive/ability. The goal of such a programme is to improve symbols of modules, not run a mini emergency medical care programme. The profession specific content</p>					

will be dealt with in the applicable programme should the candidate be successful in completing the preparatory programme. Focus on generic higher education skills and development. With the above mentioned, the programmes goal is to improve symbols - How can this be offered at an NQF5 qualification when the individual "failed" at his/her NQF4 qualification? This should not allow for a higher NQF level qualification - but should open up doors into the various healthcare professions. The NQF level will not require the individual to be able to critically evaluate/appraise data, collect, analyse, etc. This is not the role of such a programme pegged at the suggested NQF level. **Comment EN Nell: The EMPP aim to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC and provide access to qualifications within the Higher Education Qualification Sub-Framework (HEQSF). It is ultimately designed to enable students to pursue further personal and professional development within the Emergency Medical Care environment and to promote lifelong learning.**

5.12 and 5.13 Again, this would depend on the core focus of the EMPP. Would these not be taught on the qualification?

5.2 As mentioned previously, I see the EMPP as getting the student academically ready to engage with HEI learning, and therefore dont see the occupational link.

5.1 The EMPP should not be presented at NQF 5. NQF 4 may be more appropriate should the course be developed to gain entrance to ECA.

5.3 Prescriptive would be preferable for this course as the EMPP is aiming to meet particular standards (i.e. minimum requirements in preparation for EMC higher education).

5.9 This seems beyond the scope of even the ECA qualification.

5.11 While I agree the EMPP student should demonstrate effectual communication I do not necessarily think this must be done using reports and patient handovers. These items will be taught in EMC higher education.

5.13 Again, I agree the EMPP student should be prepared for critical and creative thinking, however, it does not necessarily need to be in the context of patient assessment/treatment as knowledge in these areas will be limited to non-existent.

SECTION C2: EMPP LEARNING OUTCOMES

This section deals with the EMPP learning outcomes.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	EMPP learning outcomes should have a defined purpose.	93.8%	6.3%		Round one
2.	The EMPP learning outcomes should provide applied competence and a basis for further learning.	100%			Round one
3.	The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	75%	12.5%	12.5%	Round one
4.	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
5.	Facilitators in the EMPP should ensure that learning outcomes are educationally sound.	100%			Round one
6.	Statements of intended learning outcomes should clearly describe the knowledge, skills and competencies that students should obtain from learning.	100%			Round one
7.	The learning outcomes should be arranged in a recognisable and logical sequence.	100%			Round one
8.	Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme.	100%			Round one
9.	The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear.	100%			Round one
10.	Learning outcomes should be well formulated.	100%			Round one
11.	Learning objectives should describe measurable outcomes.	100%			Round one
12.	Adequate physical resources, consistent with the intended learning outcomes of the EMPP should be available to the students (library etc.).	100%			Round one
13.	The EMPP curriculum should contain more EMC specific outcomes. For example, basic drug calculations.	62.5%	6.3%	31.3%	Round one
14.	Learning outcomes should provide applied competence and a basis for further learning.	100%			Round one
15.	Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	87.5%	6.3%	6.3%	Round one
16.	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Round one
17.	Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
18.	About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress.	100%			Round one
ANY FURTHER COMMENTS:					
<p>Answer 6.18 - EMPP curriculum should only focus on improving symbols for entry into a higher education institution and programme.</p> <p>Answer 6.21 - Should be presented on NQF 4.</p> <p>This should be offered as an independent SLP. The level should be offered as an NQF4 programme, as this is only to improve symbols and prepare the candidate for higher education with generic skills, how to learn, basic technologies, etc. This is not an EMC specific qualification. Resources available to the learner need to be technology based, otherwise we are not advancing with times. Consultation/guidance as a physical resource is extremely important to the caliber of learner expected on such a programme.</p> <p>6.3 Would these outcomes not be embedded in the course that the student is hoping to access?</p> <p>6.15 Again, this would depend on the core outcomes of the EMPP. If it is a course designed to facilitate access, then no, if it is a course designed around building credits, then yes. The two are technically mutually exclusive, although it possible that a hybrid model may exist, but this would then be a EMPP-type course on its own.</p> <p>6.21 Why would the EMPP be presented at an NQF level 5 when it aims to plug the gaps in the fourth tier of the NQF? this would also open up the debate about completing an NQF level 5 qualification to access a NQF level 5 qualification. I understand that if one of the aims may be to build credits, but then how would the course in its entirety be registered as an NQF level five qualification with the relevant notional hours etc and how would these integrate into the qualifications for which access is being sought?</p> <p>6.18 I disagree mostly because the question is very broad especially with the example given. Whilst we can use assessment opportunities that integrates the foundational level of knowledge and skills such mathematics, and lets say academic writing etc these cannot entirely be aligned to healthcare treatments per se. We can teach the mathematical concepts of conversions such as grams to mg, and explain dilution, but we cannot teach them the actual drug / medication (EMC / healthcare knowledge). these will be taught on the EMC programme. same with academic writing, we can teach them the basic concepts of how to write coherently and how to paraphrase, but we cannot assess any healthcare matters discussed or mentioned in lets say a patient report document, for reasons that that was not the intended purpose of the assessment, since students are not taught about for example taking of vital signs or doing a patient assessment an documenting their findings (if that is what is needed to write in the patient report document). the EMPP provides the basic knowledge and skills of how to approach it as a starting point whereas the EMC learning outcomes would be looking at it holistically i.e. writing coherently and correctly documenting vital signs and other clinical findings, same with drug calculations, i.e. correctly selecting the appropriate drug/ medication, calculating the dosage and the actual administration of that drug, reassessment of the patient and the continuation of the drug/ medication as applicable.</p> <p>6.3 & 6.22 not sure if the level of this course (NQF) would allow for deeper thinking</p> <p>6.20 Not too sure of the context of 'short'</p> <p>6.21 Unable to answer as no insight to course, but a programme is needed to articulate into higher education</p>					

	<p>6.13 As previously mentioned, I see the EMPP programme preparing the student to engage with HEI teaching, learning and assessment. I dont see any EMC content being addressed on this programme. This would be reserved for the HCert, Diploma or Degree.</p> <p>6.3 I disagree- do not think this is necessary yet in a preparation course.</p> <p>6.22 I disagree- deeper learning competencies can be address in the EMC programmes, not suited in a preparation programme.</p> <p>6.3, 6.22 As a basic course, the EMPP should prepare students for the deeper level of learning that will occur in higher EMC education, however, the deeper level learning seems beyond the scope of the EMPP.</p> <p>6.8 While alignment of outcomes and descriptors may be preferable, it is difficult to say how essential this is.</p> <p>6.14, 6.15, 6.20 The EMPP should not act as an RPL programme or as a course to gain credits, but rather as a preparatory course for higher education.</p> <p>6.21 The EMPP should not be presented at NQF 5. NQF 4 may be more appropriate should the course be developed to gain entrance to ECA.</p>
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SECTION C3: EMPP CREDITS AND NOTIONAL LEARNING HOURS

This section deals with the EMPP learning outcomes.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	The EMPP modules should provide the student with a clear breakdown of the total notional hours.	93.8%		6.3%	Round one
2.	The EMPP should be a credit-bearing short learning programme.	75%		25%	Round one
3.	The EMPP should be presented at an NQF level 5.	62.5%		37.5%	Round one
4.	All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.	100%			Round one
5.	Consideration should be given to the level at which the learning is being offered.	100%			Round one
6.	Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.	81.3%	6.3%	12.5%	Round one
7.	The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF.	73.3%	6.7%	20%	Round one
8.	The breakdown of the time allocation on each EMPP module should be clearly defined.	100%			Round one
ANY FURTHER COMMENTS:					
7.3 Should be presented at NQF level 4 Answer 7.3 - Should be presented at NQF 4.					

	<p>The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested.</p> <p>7.7 This relates to my previous comment related to the NQF level of the EMPP. If it is a SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?</p> <p>7.2 not sure of context of 'short'. Too many connotations with short courses</p> <p>7.3 cannot comment as do not know course/curriculum etc Comment EN Nell: see previous comment.</p> <p>7.6 I see this as a whole qualification, and therefore dont feel that unit standards apply.</p> <p>7.7 This is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores.</p> <p>7.2, 7.6, 7.7 The EMPP should not act as an RPL programme or as a course to gain credits, but rather as a preparatory course for higher education.</p> <p>7.3 The EMPP should not be presented at NQF 5. NQF 4 may be more appropriate should the course be developed to gain entrance to ECA.</p>
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SECTION C4: EMPP LEARNING FACILITATION

This section deals with the EMPP learning facilitation.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme.	100%			Round one
2.	A mechanism should be in place to ensure the appropriateness of teaching and learning methods.	100%			Round one
3.	Lecturers should continuously upgrade teaching and learning methods on the EMPP.	100%			Round one
4.	The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.	93.8%		6.3%	Round one
5.	Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology.	100%			Round one
6.	Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life.	100%			Round one
7.	Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
8.	Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes.	100%			Round one
9.	A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience.	100%			Round one
10.	The student should have a clear understanding of how the lesson will be facilitated.	93.3%	6.7%		Round one
11.	EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success	100%			Round one
12.	Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time.	100%			Round one
13.	EMPP learning material should be focused on EMC.	43.8%	12.5%	43.8%	Round one
14.	EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.	100%			Round one
15.	EMPP learning guides should be in a standard format for all modules.	93.8%	6.3%		Round one
16.	EMPP learning guides should be consistent and specific with regards to student support initiatives.	100%			Round one
17.	The EMPP learning guides should include a descriptive work scheme descriptive providing the student with clear guidelines on what to expect from the module.	100%			Round one
18.	The learning guides should provide a clear link where the student will find the exit level outcomes.	93.8%	6.3%		Round one
19.	Lesson planning plays a vital role in the successful planning of a module/subject.	100%			Round one
20.	Thorough lesson planning should be consistently based on the learner's needs.	93.8%		6.3%	Round one
21.	Financial support plays a role in the success of students.	84.6%	15.4%		Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
22.	Student psychological support services are available and accessible.	100%			Round one
23.	Additional student academic support is offered where necessary.	100%			Round one
24.	There should be continuous guidance available to students with regards the use of resources, e.g. online resources Blackboard.	100%			Round one
25.	Academic staff should be trained to develop learning materials.	100%			Round one
26.	EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment.	62.5%	18.8%	18.8%	Round one
27.	The EMPP student's existing knowledge should be explored.	100%			Round one
28.	The individual student's attributes, preferences and needs should be accommodated.	81.3%	12.5%		Round one
29.	The teaching and learning strategy should be appropriate for the institutional type as reflected in its mode of delivery and composition.	100%			Round one
ANY FURTHER COMMENTS:					
<p>8.13 Should be more generic.</p> <p>8.21 the issue of financial support is key especially for individuals who are having family, who have debts to pay. the issue of financial support will help take the burden of sharing the money for two household as it will assist them to be able to focus purely on academics, as a result it will help the mental state of the student in the EMPP course.</p> <p>8.23 the issue of additional educational support is key, the EMS education system needs to have a tutor system or a mentor mentee system that could be initiated, this will assist those in EMPP to have some sort of educational support.</p> <p>Answer 9.26 - The EMPP should focus purely on improving the acceptance criteria of the learner.</p> <p>*Where disagreed, see previous section comments for rationale.</p> <p>8.13 Again, this relates to my comments around what the core outcomes for the EMPP are. If it is access, credit building or both- this is contextual.</p> <p>8.26 Ditto above. Technically the student's working environment will only be apparent once they register for the qualification. Again, contextual within the core outcomes for the EMPP.</p> <p>8.4 What about passive learning? and the other types of learning?</p> <p>8.13 What about some form of management, or introduction thereof?</p> <p>8.20 & 8.26 How do you meet each learner's needs? and then relate each of these to the learning outcomes?</p> <p>8.26 Will these students be working at the same time?</p> <p>8.13 EMC links may be brought in at times, but I dont see EMC being a focus on the EMPP</p> <p>8.15 I disagree- the nature of the different modules may not lend itself to have the same format.</p>					

	<p>8.26 I disagree- is this possible? Do all students have the same working environment- is an objective of the course not to help student achieve higher level of working environment?</p> <p>8.20 Lesson planning should primarily be based on the required outcomes of the course.</p> <p>8.26 Not necessarily as the students are being prepared for future higher education.</p> <p>8.27 Not necessarily, although this may be helpful in particular instances.</p> <p>8.28 Students' attributes, preferences and needs may conflict with required outcomes. In these instances they should not be accommodated. The students should rather be taught to adjust.</p> <p>8.29 The teaching and learning strategy are should be appropriate for the industry of the EMS.</p>
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SECTION D: EMPP ASSESSMENT

This section deals with the EMPP learning facilitation.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies.	100%			Round one
2.	Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum.	100%			Round one
3.	Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP.	100%			Round one
4.	Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks.	100%			Round one
5.	Student progress should be monitored.	100%			Round one
6.	For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures.	93.8%	6.3%		Round one
7.	The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics.	93.8%	6.3%		Round one
8.	Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy.	93.8%	6.3%		Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
9.	Measures should be taken to ensure the reliability, rigour and security of the assessment system. Assessment results are recorded securely and reliably.	100%			Round one
10.	Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented.	100%			Round one
11.	Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements.	93.8%	6.3%		Round one
12.	There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously.	100%			Round one
13.	Provision should be made for the development of staff competence in assessment.	100%			Round one
14.	Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students.	93.8%	6.3%		Round one
15.	Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level.	100%			Round one
16.	Students' assessment records should be reliable and secure.	100%			Round one
17.	Internal assessment of student learning achievements by academic staff should be important.	100%			Round one
18.	Monitoring student progress in the course of the programme should be important.	100%			Round one
19.	Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanors should be important.	100%			Round one
20.	Development of staff competence in assessment should be important.	100%			Round one
21.	An assessor should know about current changes in higher education.	100%			Round one

		AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
22.	Assessors should be formally trained in the principles of assessment.	93.8%	6.3%		Round one
23.	Assessment should be a learning experience for both students and assessors.	93.8%		6.3%	Round one
24.	Assessment should identify areas where adjustments in teaching and learning could be made.	100%			Round one
25.	Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP.	100%			Round one
26.	The assessment methods should include a wide range of approaches.	100%			Round one
27.	The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module.	100%			Round one
28.	The EMPP should make use a variety of teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc.	100%			Round one
29.	Clear stated outcomes must be formulated as part of the construction of assessment.	100%			Round one
30.	Assessment should be integrated and must therefore cover all aspects of the EMPP.	93.8%	6.3%		Round one
31.	Students must have sufficient opportunity to prepare for assessments.	100%			Round one
32.	Students should know how the weight of assessments is determined.	100%			Round one
33.	The learning content that will be evaluated in the assessment, should be explained to the students.	93.8%		6.3%	Round one
34.	Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment.	100%			Round one
35.	Memorandums should form part of all assessments.	100%			Round one
36.	Assessment should be moderated by appropriately trained moderators with specific expertise in the learning area.	100%			Round one
37.	The pre-defined assessment purposes should determine the assessment methods.	100%			Round one
38.	Assessment criteria must be developed and used during the assessment.	100%			Round one

39.	Students should be informed about the goal and importance of feedback.	100%			Round one
40.	A clear process should be available to recognise the at-risk student.	100%			Round one
41.	Selected assessments measure the course learning objectives.	93.8%	6.7%		Round one
ANY FURTHER COMMENTS:					
<p>CE should be adopted with such a programme. Less emphasis placed on grading, but more placed on evidence of learning and applied knowledge. Moderation in the EMPP should not focus purely on assessment but can be broadened to programme moderation. This continues moderation process will build on formative assessment periods to improve the overall feedback and response of the learners. The EMPP must not focus purely on preparing the learner for any specific medical programme or qualification, but rather focus on improving acceptance possibilities within a higher education programme.</p> <p>9.23 The lecturers should received training prior to the setting of an assessment. I think receiving training whilst setting an assessment may impact the quality of the assessment.</p> <p>9.33 The word "Scope" when it comes to assessments has become a dirty word in HEI. I see students being informed of what study units the test will cover, and the total mark allocation, etc but I dont see there being any more detail than this.</p> <p>9.21 I disagree- assessors should receive refresher courses in changes in higher education, most assessors are not just teachers but work in the field and would not have time to stay abreast of changes.</p> <p>9.28 I disagree- yes variety is good, but again this is just a preparation course, and must be careful not to just duplicate other courses.</p> <p>9.10 Successful completion of the EMPP should not be awarded with a qualification. It is a preparatory course for potential future study.</p>					

SECTION E: EMPP PHYSICAL PREPAREDNESS

This section deals with the EMPP learning facilitation.

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	Responses
		1	2	3	
1.	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	87.5%		12.5%	Round one
2.	Physical preparedness should be a formal module on the EMPP.	50%	12.5%	37.5%	Round one
3.	The EMPP Physical Preparedness module should have formal assessment criteria.	56.3%	12.5%	31.3%	Round one
4.	Being physically healthy is essential.	93.6%	6.3%		Round one
5.	EMC practitioners need to learn to swim.	81.3%		18.8%	Round one
6.	Learning to swim should be a formal credit bearing module on the EMPP.	37.5%	18.8%	43.8%	Round one
7.	Learning to swim should have formal assessment criteria.	40%	26.7%	33.3%	Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
8.	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	93.8%		6.3%	Round one
ANY FURTHER COMMENTS:					
<p>10.1 Although physical preparedness is very important it should form part of the EMPP as an informal programme. 10.2 Should not be credit bearing, should rather be a life style. 10.3 see answer in 10.2.</p> <p>10.2 Physical preparedness is key for all EMS practitioners but it cannot have credit bearing as it may hinder progress of learners, and swimming is very key but it can never be made a failing criteria. Swimming is necessary as a life skill and it has no role in EMPP as there are life techniques being taught in its current form, therefore it should be taught to prepare the students for the courses in higher education.</p> <p>The topic of physical preparedness within any EMC programme is very controversial. Yes, prehospital practitioners should maintain some level of physical fitness, but being assessed on this level of fitness is not required. Using the ECA programme as an example; the programme has no formal education on any rescue elements, but maintaining and passing physical fitness is still a requirement. The learners should be encouraged to live a positive and healthy lifestyle while enrolled in the programme, but the course credits dedicated to rescue subject course work and physical preparedness, that includes swimming, can much rather be used to include preparedness for medical education and enhance the clinical reasoning of these learners with the goal of professionalising the prehospital environment. This is not the function of such a programme. Physical preparedness is a personal journey. Swimming is a good life skill, not the job an academic programme.</p> <p>10.2 and 10.6 Although I agree, it is important to provide contextual comment.</p> <p>The challenge with making physical preparedness credit-bearing is that it potentially disadvantages certain students. Unlike a subject like Anatomy, where all students are on a reasonably even footing from day one, a student who cannot swim can suffer significant disadvantage based on the fact that they could not swim on day one. Conversely, not allocating credits to the subject may mean that students underestimate its importance; the whole "If it is not for marks..." debacle. This ties in directly with 10.6 where learning to swim can be assessed and constitute a mark. This could be a single assessment at the end of the year with a Yes/No result. It is perhaps also important to acknowledge that there are other outcomes related to EMC education that can be achieved within physical preparedness interactions and that merely seeing it as an obstacle to progression (both by lecturers and students) diminishes its role within the wider qualifications and profession.</p> <p>10.3 i disagree because, whilst it can be assessed it should not be compulsory to pass the fitness component in order to gain a certificate of completing the EMPP. as longs as the student participates in the physical fitness module and there is constant improvement that is ok. as mentioned earlier, we cannot treat all people the same, we all come from different backgrounds, it should be the responsibility of the university where they do EMC to further their confidence and competence in the physical fitness components.</p> <p>10.2 & 10.6 If the institutional policies allow for it, Physical Prep should be a non-credit bearing module. The swim forms part of Physical Prep and should not be separated out of the module.</p> <p>This is an important area to address on the EMPP as it will improve the pass rate in 1st year of the HCert, Diploma or Degree as they would have already learnt to swim and work on the other areas of physical prep prior to entry into the EMC programme.</p>					

	<p>10.2 I disagree- if it is credited, it must be assessed and very difficult to assess physical preparedness- who decide what is really 'fit'.</p> <p>10.3 I disagree- same answer as before. If a student can't run a certain distance in a certain time- will it influence their ability to help a patient? There is difference between physical fitness and being healthy.</p> <p>10.5 I disagree- is water rescue in their scope of practice? Water rescue should be a subspecialty or speciality training course and then swimming can be a prerequisite.</p> <p>10.6 I disagree- I had students who achieved distinctions in difficult theory courses, but failed the 'swim' course and hence failed their year. Do not know if that makes sense.</p> <p>10.7 I disagree- same answer as before- are EMC practitioners thus also 'life guards' as on a beach?</p> <p>10.8 I disagree- all of the above and again: is physical preparedness the same as physical health?</p> <p>10.6 Swimming may form a part of physical preparedness and thus it is unnecessary for it to represent a distinct module.</p> <p>10.7 Swimming as part of physical preparedness should have formal assessment criteria.</p>
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SECTION F: EMPP GENERIC SKILLS AND COMPETENCIES					
This section deals with the EMPP development of generic skills and competencies.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
1.	The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education.	81.3%		18.8%	Round one
2.	The student should have insight into quality assurance processes as practitioners.	62.5%	25%	12.5%	Round one
3.	Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.	68.8%	12.5%	18.8%	Round one
4.	The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments.	86.7%		13.3%	Round one
5.	Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes.	75%		25%	Round one
6.	The EMPP should include an introduction to patient report forms.	56.3%	12.5%	31.3%	Round one
ANY FURTHER COMMENTS:					
	As stated previously, the EMPP should focus on improving the learner's symbols or grades to be able to get into a higher education institution or programme. Also previously noted, with the removal of none essential modules within the EMC curriculum, the enhancement of the learners, specifically related to this section, can be implemented as a standard curriculum in achieving competence. The goal of the programme is to improve NQF4 academic symbols.				

	<p>The above mentioned points are not the role of such a programme as these will be taught in the actual clinical qualification, this depending on the credits and exit level NQF. The EMPP needs to understand why it exists, it cannot fix and attend to all areas.</p> <p>11.3 I agree that these should be included, but there should be caution exercised not to turn the mathematics module into a drug calculation module.</p> <p>11.6 This makes it assumptive that the EMPP is not really for access or credits, but rather that it is incorporating and external curriculum into its content. Whilst I agree that this may be beneficial once the student enters the qualification, should this not rather only be included in a relevant curriculum where the aim is to teach EMC as opposed to access EMC?</p> <p>11.1 I disagree with the question because i only partly agree with it, I agree that it should equip them with referencing skills, and academic writing, but what is the definition of research skills? research to search for literature online definitely, but basic research to do a literature review requires more time, which would mean the programme would need to be extended?</p> <p>11.3 I have agreed, based on my earlier comment, we teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e. administration of medication once they are on the EMC programme</p> <p>11.2 Not sure if I am reading the question right - do you mean the same insight as practitioners - then no, I feel they are too junior for this.</p> <p>11.5 I feel this programme to be more the orientation and foundation laying. I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course</p> <p>11.3 the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs</p> <p>11.5 the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes.</p> <p>11.7 The focus should rather be on writing skills, and not specific to a patient report form.</p> <p>11.1 I disagree – as was said previously in 4 section C: I am concerned that the EMPP becomes overloaded.</p> <p>11.6 I disagree again- as was said previously in 4 section C: the EMPP should not be a duplicate of an EMC course- content overload.</p> <p>11.2, 11.6 These seem beyond the scope of a basic preparatory course such as EMPP.</p>
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SECTION G: EMPP QUALITY ASSURANCE					
This section deals with the EMPP quality assurance.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
1.	Moderation should be an essential element of ensuring and maintaining the quality of the EMPP.	100%			Round one
2.	Moderators are appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.	100%			Round one
3.	Clear monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	
4.	Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant	100%			Round one
5.	Quality assurance procedures must be in place and must be strictly adhered to on the EMPP.	100%			Round one
6.	Lecturer evaluations should be done.	100%			Round one
7.	The EMPP should be review in a clustered process.	100%			Round one
8.	EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review.	100%			Round one
9.	Planning and programme design of the EMPP should be done adequately.	100%			Round one
10.	Planning and management of the EMPP should be a key focus area of quality assurance.	100%			Round one
11.	Early recognition of the at-risk student.	100%			Round one
12.	Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions.	100%			Round one
13.	The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme.	100%			Round one
14.	The EMPPP should provide for staff development opportunities where staff can upgrade their teaching methods.	100%			Round one
15.	The EMPP should have systems in place to deal with under-performing or inactive students in the programme.	100%			Round one
16.	The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time.	100%			Round one
17.	The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives.	100%			Round one
18.	The results of reviews and evaluations should be utilised in the planning process of the EMPP.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	
19.	User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes.	100%			Round one
20.	There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme.	100%			Round one
21.	The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments).	100%			Round one
22.	The EMPP curricula should be based on the students' needs and differences within that institution.	75%	12.5%	12.5%	
23.	Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students.	100%			Round one
24.	The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.	100%			Round one
ANY FURTHER COMMENTS:					
<p>12.6 Lecturers should be evaluated on a regular basis, for example quarterly.</p> <p>12.22 As per one of my previous comments, the curriculum should talk to the core outcomes and aims of the EMPP, not be based on student needs and differences within an institution. These are addressed at the curriculum delivery level using appropriate pedagogical techniques to deliver the curriculum.</p> <p>12.22 I definitely agree with this statement, and just to add, this is why the sentiment of physical fitness not being treated as a compulsory module. We would not be very willing to be addressing students needs and differences if this were the case.</p> <p>12.22 What about industry and patient needs? How will you meet each student's needs?</p> <p>12.7, 12.8 Not necessarily. Some flexibility may be allowed here.</p> <p>12.22 Curricula should be based on meeting the requirements for entry into EMC higher education.</p>					

Appendix N:

Communication letter for Round 2 of the Delphi survey

DELPHI ROUND 1, FEEDBACK WITH COMMENTS FROM PARTICIPANTS

Study title: DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.

Dear Delphi Participant,

Thank you once again for agreeing to participate in the Delphi process. Attached you will find the results of the first round of the Delphi process. I am sending you this feedback with the sole purpose of providing you with the results and information regarding the first round. You do not need to do anything with it.

In the attached feedback you will note that all the statements on which consensus had been reached have been shaded and comments from participants are included. In a number of instances, I have made comments to help clarify some of the issues raised by participants. These are indicated below the participant's comment as "Comment EN Nell" "Answer EN Nell" in bold. Thanks to the degree of consensus reached, Round Two, which will reach you soon, will be much shorter.

Delphi Questionnaire: This Delphi questionnaire is anonymous and you are requested not to discuss your responses with anyone. Participant anonymity is one of the strengths of the Delphi technique. Below are some of the comments from the rest of the panellists. NB: No part of this questionnaire may be copied, stored in a retrievable format for re-use or used without consent from the author. Note that because of the rounding-off of percentages, the totals do not always add up to 100%.

Kind Regards

EN Nell

Appendix O:

Feedback for Delphi survey Round 2

QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL PREPERATION PROGRAMME IN SOUTH AFRICA

Expert panel discussion



EN Nell
05 April 2021

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1. OVERVIEW OF THE EMERGENCY MEDICAL PREPERATION PROGRAMME

The overall goal of the EMPP is to empower eligible candidates for selection into the HCert EMC and the Diploma in EMC. These students are mature individuals who have already demonstrated to have the ability to engage in higher education programmes. The EMPP also aims to establish a platform to prepare candidates for the academic rigour associated with tertiary studies, especially in the medical emergency field. Furthermore, this programme is ultimately designed to enable students to pursue further personal and professional development within the Emergency Medical Care environment and to promote lifelong learning.

The EMPP thus aims to assist applicants in gaining access to the new NQF aligned EMC programmes that has been introduced for the upgrade of the qualifications of the current EMC personnel in South Africa, namely:

- Those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa.
- Those who do not comply with the necessary entry requirements for the new NQF qualification but who hold a matric certificate or equivalent thereof.
- Those with the correct modules/subjects but not with the required grades (e.g., matric).

However, the EMPP is not credit-bearing and is presented as a short learning programme at an NQF level 5.

EMPP entry requirements.

For physical fitness, no entry requirements to the assessment, however a basic medical will be required prior to enrollment into the programme.

Emergency Medical Preparatory Programme Level 1

- Matric or National Qualifications Framework (NQF) level 4 qualification with the following subjects:
 - Mathematics

- Life Sciences
- Physical Science

For theory subjects: a minimum of 40% average for formative assessments.

EMPP Modules.

Table 1, provide the modules presented on the EMPP, including the NQF level of each module.

TABLE 1: EMPP MODULE BREAKDOWN AND CREDITS

TITLE OF MODULE:	TITLE AS PER LEARNING GUIDE	NQF-LEVEL:	PROGRAMME DOMICILIUM OF THE MODULE:	DISCIPLINE:
PHYSICAL SCIENCE: PHYSICS	PHYSICAL SCIENCE	4	Health Professions	Emergency Medical Care
PHYSICAL SCIENCE: CHEMISTRY		4	Health Professions	Emergency Medical Care
MATHEMATICS	MATHEMATICS	4	Health Professions	Emergency Medical Care
LIFE SCIENCE	LIFE SCIENCE	5	Health Professions	Emergency Medical Care
NUMERACY	NUMERACY	5	Health Professions	Emergency Medical Care
BASIC DIGITAL LITERACY / COMPUTER SKILLS	BASIC DIGITAL LITERACY	5	Health Professions	Emergency Medical Care
ACADEMIC LITERACY AND COMMUNICATION STUDIES	ACADEMIC LITERACY AND COMMUNICATION STUDIES	5	Health Professions	Emergency Medical Care

2. EXPERT PANEL OBJECTIVES

The objectives of the Expert panel discussion are presented in Table 2, followed by questions/statements derived from the Delphi survey responses for discussion by the panel.

TABLE 2: EXPERT PANEL DISCUSSION OBJECTIVES.

	OBJECTIVES
1.	To refine and finalise the quality assurance and educational guidelines by objectively scrutinising the content.
2.	Identifying and prioritising gaps in the guidelines proposed during the Delphi survey.
3.	Providing feedback and making recommendations to further enhance the guidelines.
4.	Recommend and provide feedback on the proposed quality assurance and educational guidelines as to whether it is sufficiently all-encompassing.

Questions/statements for discussion (please feel free to add to the below mentioned list):

- What should the admission criteria for an EMPP consist of?
- What should the core focus of an EMPP be?
- What should an EMPP curriculum consist of?
 - Level descriptors.
 - Learning outcomes.
 - Credits and notional learning hours.
 - Learning facilitation.
 - Assessment.
 - Quality assurance.
- What should the duration of an EMPP be?

- What would be the most appropriate way to offer an EMPP? For example, face to face, E-learning, blended learning.
- Should physical preparedness and learn to swim be part of an EMPP?

3. SECTION B: EMPP ADMISSION CRITERIA

In this section the EMPP admission criteria were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP admission criteria. Please note that because of the rounding-off of percentages, the totals do not always add up to 100%.

TABLE 3: EMPP ADMISSION CRITERIA

SECTION B: THE EMPP ADMISSION CRITERIA					
This section deals with the EMPP admission criteria.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
3.1	The number of students selected for the programme should not exceed the capacity available for offering good quality education.	100%			Round one
3.2	The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.	100%			Round one
3.3	The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a matric certificate or equivalent thereof.	62.5% 70.6%		37.5% 29.4%	Round one Round two
3.4	The EMPP should be accommodative to NSC or equivalent holders, who do not have the necessary grades or subjects per NQF 4 criteria.	56.3% 58.8%		43.8% 41.2%	Round one Round two

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
3.5	It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.	87.5%		12.5%	Round one
3.6	The focus of the EMPP should be on those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa should be able to apply for credits for modules presented on the EMPP.	68.8% 35.3%		31.3% 58.8%	Round one Round two
3.7	A physical fitness assessment should form part of the entry criteria for the EMPP.	75%	6.3%	18.8%	Round one
3.8	Swimming should form part of the entry criteria for the EMPP	50% 29.4%	18.8%	31.3% 70.6%	Round one Round two
3.9	A basic medical assessment should form part of the entry criteria for the EMPP.	67% 82.4%	13%	20% 17.6%	Round one Round two

Participants were required to motivate their answers. These were the motivations:

3.2 "EMPP admission criteria needs to be specific for the qualification which the candidate is preparing, especially taking the three tiered ECQF into account. Is the learner completing EMPP for HCert or Degree for example? The requirements will be drastically different and I do not believe that we can limit EMPP candidates to a lower level qualification/s - If they perform on the EMPP programme, will they be allowed to apply for Degree entry? The job of EMPP is not to teach subjects which the candidate never had. The role of the EMPP is to improve symbols where necessary - this for matriculants. There needs to be a timeline attached to the matriculant entering such a programme, as matriculants from, for e.g. 1988 are often using such systems/programmes to their advantage with no real benefit. Why have they previously not attempted to further/develop themselves? Physical fitness should not be a requirement for such a programme. What is the role of TVET colleges if we are creating a specific programme - Modules can be taken independently at these colleges - these are generic matric modules which require additional attention. As an emerging profession, the question remains, why are

we the only "healthcare profession" going out of the way to assist applicants in meeting criteria? This going as far as to potentially develop a specialised programme."

3.3 "The initial purpose of the EMPP served as a transformational tool. This being that, historically the SA EMS landscape used to have short course holder qualifications, as an example the Basic Life Support (BLS) practitioner. A student who wished to participate/ enroll in a BLS short course (EMS entry level qualification) could do so without having a national senior certificate. The EMPP was designed specifically for those healthcare professionals who holds one of the short course qualifications, which is now phased out, as such, are sort of left between a rock and a hard place having to obtain a higher education EMC qualification. There are currently thousands of short course holders who are unable to meet the necessary requirements i.e. national senior certificate or equivalent thereof (never mind the other specific entry criteria) to gain access to HE. With the EMPP these candidates are not 'left behind'/ forgotten if you may. This is one of several reasons why the EMPP is not only targeting 'school leavers' or those having been exposed to some formal education previously."

3.3 "A national senior certificate is NQF aligned, What about vocational EMS such as the AEA/CCA who wish to enter higher education?"

3.3 & 3.4 "In my experience, the EMPP programme should be for applicants who have the necessary subjects from school at a Grade 12 level but fall short on the APS score. Students who do not have the necessary subjects such as Mathematics, Life Sciences and/or Physical Sciences struggle with the content of the programme."

3.4 "Accepting learners that do not have the correct subjects might be problematic. Educating learners on a new subject focussing on NQF 4 outcomes, without the required progression as per basic education Grade 6-12, could set the learner up for failure. A pre-test might be required to gauge the level of understanding that these learners have on the required subjects prior to them being accepted on the EMPP programme."

3.4 & 3.5 "I am unsure of programme contents so unable to answer honestly, would NQF 4 mathematics (for example) be sufficient for the candidate to successfully complete the level of the course? and if the candidate does the subject yet fails at NQF 4 will they have sufficient

foundational knowledge for that level of course? I am unsure of what level the EMPP is rated at.”

3.3 & 3.5 “The reason why I disagree with 3.3 to 3.5, is that the outcome criteria for HE be it degree, diploma, or certificate, requires the current competency levels of NQF4 including, for example, English, Maths, and Sciences. If a senior candidate, who has not studied at HE, but completed his/her matric 10 or more years ago, the candidate is likely to be not fit to study at HE without prior learning and assessment experience - meaning to complete some sort of NQF 4 or higher program or qualification prior to applying for HE Emergency Medical Care programs. I know this is a vague and unsustained statement, but I'm merely giving my opinion.”

3.6 “Opening up the possibilities for school leavers to enter an EMPP programme might have a positive effect on the healthcare industry, where change can be instilled from early on using young and willing minds.

3.6 Again based on my years’ experience, previous short course qualifications are not an academic advantage for applicants to HEI EMC programmes. NSC results & modules are far more important for success.”

3.6 “Could this EMPP not assist with those who qualified many years back and therefore retention of theoretical knowledge is lacking - depending on curriculum this programme may assist to upskill those who have not maintained personal professional development in preparation for an NQF qualification.”

3.6 “I disagree, as I feel it should not only be focused on them only, as mentioned the EMPP is also a transformational tool. Where it can also be used for other school leavers who do not hold the necessary subject combination. If we look at the SA context, there is still socio economic and educational injustice that majority of South Africans are exposed to. A student who obtained his national senior certificate from a rural area might not necessarily have had the same exposure to education (even if the subjects were the same) as a student who attended lets say school at a top private school in the city. Alternatively, the career guidance might not have been the same either, this career guidance allows the student to carefully think of what subjects he/ she should continue with from grade 10. So first, those students who do not have the correct subject combination are faced with attending the 'second attempt' subjects

which is an additional year after matriculating. As a higher education institution we commonly refer to the articulation gap, the knowledge and skills gap that exists after having completed basic education i.e. the knowledge and skills that HE preempts 'matriculants' have when they enter HE. This also affects how HE designs their first year level programme, which often disadvantages those very students coming from socially disadvantaged background. If the EMPP can be designed in such a way that it can be accommodative to those candidates in those positions, it can be a method for HE to start closing that gap. As an example if a student did not take the subject of math's, but now does it in the EMPP at least we can design it in such a way that the Math's constructively aligns to the EMC discipline. One example of what I mean by this is in providing mathematics assessments which is inline with the discipline field of EMC where the student uses the principles and concepts of mathematics and having to calculate the medication/ drug dosage and having to then draw up and dilute the medication. Anyways just a thought."

3.7 "The main focus of a preparation programme should be on academic content and preparing the candidate for higher education."

3.7 "The focus of the EMPP must be based on evaluating the student's ability to cope with the work that will be given in higher education qualification, so as to adequately prepare the students not just preparing them to meet the criteria."

3.7 "Firstly, I think and in my opinion, the focus of any EMPP program to accommodate candidates with the intention to pursue a HE degree, diploma or certificate, is that they need to meet the minimum University Criteria. In my experience, the majority (8 out of 10) RPL candidates just do not perform up to standards when entering the HE system. I would recommend, candidates, who do not meet the minimum requirements for HE entry, go back to Umalusi, enroll for the subjects required, study and complete the necessary exams and obtain the National Certificate, with the correct modules and correct symbols required for HE programs."

3.7 "Secondly, regarding physical preparedness, referring to 3.7 that physical fitness assessment should form part of the criteria for EMPP. The reason being, higher levels of

physical fitness and being healthier, in general, are associated with better-perceived health for academic performance AND professional performance in the workplace.”

3.7 & 3.8 “although I stated that I agree to how the question was phrased, I do not agree that it should be compulsory to pass the fitness assessment to be allowed entry onto the programme. the same for swimming, many people of color are not able to swim, we cannot allow that to be a barrier to access, it would not be a means to redress social injustice.”

3.7 & 3.8 “Physical fitness, including swimming, should be started as early as possible. Fitness requirements on any EMC programme have a large weighting towards being successfully accepted into a programme.”

3.7 & 3.8 “I do not think that a physical fitness nor swimming assessment should be exclusionary characteristics for the EMPP. This does not mean that they should not be taken into account. Rather, I would suggest that they form components of a selection calculation. To make these two components exclusionary criteria would not cater for the different backgrounds from which students may come. This said, it does not exclude swimming and fitness from the EMPP, but it is important that students are made aware that it will be compulsory for students to pass the physical prior to being able to enter whichever course they are using the EMPP to access.”

3.8 “Swimming should be a life skill, this should also form part of the EMC programmes rather. On the EMPP a non formal fitness programmes could be more suitable.”

3.8 “The reason swimming should not be made a criteria is because majority of candidate who are currently on EMS employment have no ability to swim, and the swimming resources in areas they live in are scarce, the fundamental aspect of EMPP is to prepare the cadre of EMS to be ready for the work that will be presented in higher education qualification. This will assist them to meet the demands required by the course.”

3.8 “Swimming as part of an entry assessment to a programme is exclusionary and this is a skill which is quite easily taught once a student has been selected. Applicants just need to be made aware of the fact that they will be required to learn to swim so that they are aware of this component prior to commencing with the programme.”

3.9 "This could be done at the end of the EMPP for entry in EMC education.

Round two

3.3 "It should not only be available to students who hold a national senior certificate or equivalent. If it should, then candidates may rather participate in the extended curricula programme which is already running at universities. The EMPP should recognize short course holders who perhaps do not hold a matric certificate or equivalent NQF 4 formal qualification, there are currently thousands of EMS workers who are in such a position, they stagnate because they do not have an access to Higher education option available to them."

"I still feel that the EMPP should be there to fill the gap between the NQF4 Gr 12 and the HEI qualification, it should not be there to replace Gr12. Candidates on the EMPP should have the relevant subjects from Gr12 but their APS score is too low, and the EMPP fills the gap. It is unreasonable to expect the EMPP to "wave a wand" over a non-NQF aligned short course in an individual who is of mature age and magically now give them entry into a Degree. That is fundamentally flawed and not found in any other entry processes to HE."

3.3 "Whilst it should be focused on this cohort of applicants/ students, the sole focus should not only be on them. An NQF 4 qualification still contributes to the success of a student at Higher education. Therefore the focus should also be on those students who holds an NQF 4 but cannot access an EMC programme. Although the extended curricula programme is available and offered at Higher education for this very reason (subgroup of students), it too, has its own entry requirements. Currently, many school leavers are unable to access even the ECP and are turned away to go and enroll for second attempt school. I believe as a higher education institution we have the mandate to be transformational, we cannot continue sending students away, we need to see how best to accommodate such students as well because most of the time their inability to access Higher Education is attributed to social-economic disadvantages."

3.3 "I feel that they should be considered but not as a focus."

3.3 "There seems to be some ambiguity related to what the EMPP will actually do. You cannot eat your cake and have it. Although the EMPP should not be discounted, I am of the opinion that the EMPP has value in its genericity and that it provides access. Making the focus on

persons with short course qualifications will make the course overly specific and perhaps even exclusionary.”

3.4 “I am concerned that those without foundational knowledge will flounder on the course, and fail. So allowing them in may set them up for failure.”

3.8 “Making swimming competency a prerequisite does not cater for the students who have never had access to a swimming pool or swimming training. This would be exclusionary. It should be made clear to students, however, that they will be required to learn to swim whilst on the course.”

3.8 “We need to adopt an evidence informed curriculum model. This does not talk to anything that the EMPP wishes to address.”

3.8 “Swimming and physical fitness should definitely form part of the EMPP, but not as an entry requirement.”

3.8 “Swimming will cause a burden on those who do not have access to swimming facilities and it should not be made a criteria.”

3.8 “Swimming should form part of a baseline assessment when enrolling for the EMPP, but it should not be used as a compulsory criterion that will grant someone access onto the programme. Many South Africans, especially people of color are unable to swim, this would be an unfair (exclusionary) assessment to most. Furthermore, a student participating on the EMPP should be able to gain the basic learn to swim skills whilst on the programme, since the function/ role of the EMPP would be used as an educational tool which provides students with basic foundational knowledge and skills necessary to be successful on an EMC programme fitness i.e. swimming, being one of them.”

3.9 “I agree as this may deter the candidate at a later stage once he/she gains access to a formal qualification. One needs to be medically fit to practice. I would place further emphasis on candidates undergoing a psychometric test prior to enrollment in any of the healthcare professions.”

3.9 "A basic medical assessment should form part of the entry criteria for EMC programmes."

3.9 "I also feel that the medical is important as putting someone on the EMPP who has a medical condition that would exclude them from any of the EMC programmes, would be a wasted opportunity. The course should accommodate all individuals who do not meet entry requirements of the diploma and Bhsc, this allow access to those individuals who are in EMS who are currently in service and need to be developed. The aim of this EMPP should be about facilitating access."

3.9 "I am somewhat reluctant to say yes, because what constitutes as a basic medical? if it is medical / disability characteristics which will make it difficult for a prospective EMC holder to one day register at the HPCSA and practice, for example, eyesight, or hearing test, then yes a basic medical may be appropriate as you do not want to put a student through all the years of training only to find that he will never be able to register. But stating that an elevated blood pressure might forfeit you an opportunity to access an EMC programme one day seems a bit exclusionary. So I am a bit in two minds with this criteria."

4. SECTION C: THE EMPP CURRICULUM DESIGN

In this section the EMPP curriculum design were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP curriculum.

TABLE 4: EMPP CURRICULUM DESIGN.

SECTION C: THE EMPP CURRICULUM DESIGN					
This section deals with the EMPP programme design					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
4.1	The EMPP curriculum design should maintain an appropriate balance of theoretical, practical and experiential knowledge and skills.	87.5%	6.3%	6.3%	Round one
4.2	Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake.	81.3%		18.8%	Round one
4.3	The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy.	100%			Round one
4.4	Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design.	100%			Round one
4.5	Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme.	100%			Round one
4.6	Pedagogy should contribute to transformation in the sense that it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.	93.8%		6.3%	Round one
4.7	Student diversity should be taken into account with the development of curricula (for example, students from rural background).	81.3%	6.3%	12.5%	Round one
4.8	The EMPP should have sufficient content and theoretical depth, at the appropriate level, to serve its educational purposes.	93.8%		6.3%	Round one
4.9	The EMPP curriculum should be aligned with that of EMC education.	80%		20%	Round one
4.10	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the ECA.	56.3% 64.7%	6.3% 5.9%	37.5% 58.8%	Round one Round two

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
4.11	The main aim of the EMPP should be to prepare the EMPP student to enter directly into the Diploma EMC.	43.8% 47.1%	12.5%	43.8% 52.9%	Round one Round two
4.12	The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment.	75%		25%	Round one
4.13	Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations.	87.5%		12.5%	Round one
4.14	The EMPP should be designed to support the achievement of the specified learning outcomes.	100%			Round one
4.15	The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained.	86.7%	13.3%		Round one
4.16	After successfully completing the EMPP the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education.	81.3%	18.8%		Round one
4.17	The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes.	100%			Round one
4.18	The EMPP should be guided by policies and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals.	100%			Round one
4.19	EMPP student should be prepared for basic medical techniques and skills required for EMC.	50% 35.3%	6.3%	43.8% 64.7%	Round one Round two
4.20	EMPP students should be taught how to complete EMC documentation, for example patient report forms.	62.5% 35.3%	5.9%	37.5% 58.8%	Round one Round two
4.21	The EMPP student should be able to demonstrate an informed understanding of the core areas of EMC education.	62.5% 58.8%	6.3%	31.3% 41.2%	Round one Round two
4.22	Academic writing should form part of the EMPP curriculum.	93.8%		6.3%	Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
4.23	The EMPP should be benchmarked against similar programmes that are already on offer at other higher education institutions, either locally or internationally.	93.8%		6.3%	Round one
4.24	All EMPP modules should be designed and structured as complementing components of the programme.	93.3%		6.7%	Round one
4.25	The ability of EMPP students to function as adult learners and take responsibility for their learning is important.	100%			Round one
4.26	All students from the EMPP should be able to cope with the academic requirements of higher education.	100%			Round one
4.27	To minimise the time candidates are away from work the EMPP should be offered as a limited contact programme.	43.8% 17.6%	12.5% 29.4%	43.8% 52.9%	Round one Round two
4.28	The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task.	100%			Round one
4.29	The EMPP student should be able to apply basic processes of analysis, synthesis and evaluation of collected information	93.8%	6.3%		Round one
4.30	The EMPP should be able to develop the necessary foundational knowledge; skills and attributes necessary to form the basis for further study in the fields of pre-hospital EMC to promote access during first time application at HEI's.	100%			Round one
4.31	The EMPP should aim to bring about learning with understanding.	100%			Round one
4.32	EMPP learning content should be relevant, realistic, manageable and accessible.	100%			Round one
4.33	The EMPP should take the students existing knowledge into consideration.	93.8%		6.3%	Round one
4.34	The EMPP should be current with regards to the needs of the student and society.	93.8%	6.3%		Round one
4.35	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
4.36	The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively.	100%			Round one
4.37	The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes.	100%			Round one
4.38	Lecturers teaching modules on the EMPP should be involved in the design of the curricula.	87.5%	6.3%	6.3%	Round one

Participants were required to motivate their answers. These were the motivations:

4.1 "Experiential learning should not be part of the preparation programme. Maybe a theoretical approach to EMC documentation."

4.1 "With regards to the development of curriculum; the curriculum may be disseminated via means of distance learning platform - digital platforms. This will allow applicable candidates to continue with primary jobs. My questions remains - What is the role of TVET colleges and/or redoing the necessary subjects at a matric (NQF4) level in their private capacity? We are the only emerging healthcare profession who is willing to "spoon feed" potential candidates for professionalisation and redress of historical injustices. The goal of such a programme, should it be implemented, should aim to orientate the learner to generic requirements and skills required within higher education. This should be a generic qualification that will allow for progression into various programmes within the healthcare domain."

4.1 "The structure of the course should allow for learners to have time for themselves to espouse information given to them, this will assist learners to understand that in higher education training you need to push yourself in order to gain better understanding. The structure of the EMPP should allow for enough time for practical aspect of the program so as to adequately prepare the learner for the up and coming challenge in the higher education qualification. The program must be able to adequately cater for diverse group whom socio-

economical status will vary as they will be coming from different backgrounds. The use of technology in the program must be encouraged, this will assist the learners to be independent thinkers as technology is considered to be the necessity for learning environment. The EMPP must allow students enough time to be prepared with the pressures of being called back to work, this will relieve the strain in the students brain and they will be in a better space to perform well in the program.”

4.2 “Limiting the curriculum to cater purely of EMC learner intakes places a restraint on the capability of the learner. My opinion is that the curriculum outcomes should be guided by the CAPS documents used in basic education, thus broadening the acceptance possibilities for these learners.”

4.2. “Learning styles are dynamic therefore can change depending on cohort. Adult learners are also flexible in learning and often have over arching learning styles.”

4.2 “I partially agree with 4.2, however, it is important that the course caters for student learning needs, but these must be considered within the curriculum that is being proposed.

4.6 For three growth to be achieved, the learners should not be limited in only progressing towards EMC higher education acceptance.”

4.7 “I partially agree. I don't think that student background should drive the curriculum, rather it should drive the pedagogical principles that drive the delivery of the curriculum. The curriculum should remain an independent variable that seeks to achieve the aims of the EMPP.”

4.8 “To what depth are you directing the programme outcomes on. Minimum entry criteria for higher educational institutions should still be enforced using the minimum "M" score count. Lowering the acceptance criteria for these learners might set them up for failure in the higher education environment.”

4.9 “A more generic approach may provide the candidate with wider access to Higher Education.”

4.9 "The EMPP curriculum should be aligned with that of EMC education" - What defines EMC education? If the definition includes comprehension and understanding, then yes, I agree. Meaning that to some level, EMC education should also include components of non-technical skills. For example, Non-technical skills such as decision-making, situation awareness, leadership, and teamworking are essential skills needed in EMC as a profession and should be included in EMC education."

4.9 and the community needs. perhaps management as well?

4.10 and 4.11 "This is dependant on what the EMPP actually aims to achieve. If the EMPP is aimed at 'bridging the gap' for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. In other words, the question would be whether or not the ultimate goal is to prepare students for the course or to give the students access to the course. The two are not the same in my mind."

4.10 "If the EMPP curriculum and outcomes are structured at improving acceptance criteria, the learner should be able to enter any higher education programme and not limit the learner to purely have access to lower prehospital medical qualifications."

4.11 "The EMPP should focus on the ECA as an entry level programme into EMC education."

4.10 & 4.11 "Is there any reason why they cannot enter any higher education undergraduate course of their choosing?"

4.10-4.12 "The EMPP programme should attract the students based on their NSC modules and scores and students should then be directed accordingly as to whether based on that they are attending the EMPP for the HCert, Diploma or Degree. I think we need to move away from the historical trend where you did BAA, then AEA and then CCA. This HEI system is not the same and was not designed to follow that pathway."

4.12 "My question here is what the EMPP is aiming to achieve. If it is for access, then indirectly, this would be a valid statement due to an extrapolative way of thinking that by granting a

person access, one would be enabling students to pursue further personal and professional development within the Emergency Medical Care environment, but would this be a direct aim of the EMPP.”

4.13 “The EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors and professional associations. This statement seems to ignore the fact that the course is designed to meet a specific curriculum need. Whilst it is important to involve role-players, their needs needs to come second to the primary need that the course is designed to meet.”

4.13 is that not directive teaching. What about community/African/South African needs?

4.16 “The learner should be prepared for entering a higher educational environment, however, the learner must be guided to understand the concept of what prehospital emergency medicine entails. Selling the programme to the learner will result in an increased intake for that academic year.”

4.19 “The EMPP should not be focused on specific skills as this will be the function of EMC specific programmes.”

4.19 “These students will not hold a student registration with the HPCSA, and therefore I don't feel that any specific EMC content should be included in the programme. The focus needs to rather be on getting the student ready to deal with studies at an HEI level and fill the gaps with Life Sciences, Maths and Physical Science.”

4.19, 4.20, 4.21, 4.24 “The learner should purely be prepared for the higher education environment. Medical concepts and others can be included within the EMC programme curriculum.”

4.19, 4.20 and 4.21” I disagree with these statements because this is not the aim of the course- this is the job of the course that the students would ultimately enrol for. In my mind (and I may be wrong) the EMPP is designed around access to the HEI qualification as opposed to actually teaching them the principles of emergency medical care.”

4.23 "Perhaps an analysis of the gaps between ANT and undergraduate can lead the EMPP."

4.27 "Limited contact is a higher educational concept of adult learning. Preparing these learners to achieve competence in obtaining an NQF4 qualification might require more contact time."

4.27 "most of the students that enrolls for the EMPP are adult learners, whom already have other responsibilities such as raising kids etc. Because the EMPP introduces the student to HE culture, it might be best to have a full time programme so that they can learn how to adapt to HE life and what it would be like once they get entry into an EMC qualification. previously from what i have witnessed many adult learners quit EMC programmes in their first year of study due to family commitments and their unfamiliarity to the exposure, pressure, and time management obligations that a full time programme entails. at least if a student does the EMPP he / she and their families already have an idea of what life will be like in EMC and can from there make an informed decision of whether they would like to continue onto a year or two year qualification."

4.33 "EMC knowledge would be beneficial, yes, but preparing the learner for any higher education programme in improving their M-scores might be more worthwhile."

"The EMPP should focus on improving the learner's possibility of being accepted within a higher education institution and programme. If the EMPP focusses on improving intake into an EMC programme, then the towards the end of the curriculum the focus can shift towards preparing the learner for a health professions educational environment. Naming the programme EMPP might not be the correct description of how we want to prepare a learner to enter a higher education environment."

Round two

4.10 "There are TVET colleges where candidates can go to improve their results or pursue the correct subjects. Spoon-feeding an often incapable individual is not a correct move to professionalise the emerging profession."

4.10 "the EMPP must fill the gaps between the NQF4 Gr12 to ensure that the applicant is ready to engage with HE learning at NQF5 level. I don't feel that any EMC content needs to be covered in the EMPP but rather the Basic Sciences and Academic Literacy, etc."

4.10 "EMPP students do not meet minimum requirements for EMC higher education, hence the need for the EMPP. Thus, even once EMPP is successfully completed, the likelihood of the student being prepared for anything more than ECA (higher certificate) is low. Allowing access onto the diploma programme seems to be a far leap. I would suggest ECA first, which could later articulate into a diploma."

4.10 & 4.11 "I don't see the content of the EMPP being the same for the HCert, Diploma and Degree. An applicant must enrol and apply for the EMPP based on their Grade 12 results and modules, and the content of the EMPP must cater for those varied applicants. The type of applicant applying for the HCert is very different to the type of applicant applying for the Degree, as is the method in which the programme content is presented across these three HEI programmes. I don't personally believe that one can have a one size fits all EMPP."

4.10 & 4.11 "or any other EMS qualification?"

4.10 & 4.11 "These are a bit of a "same-same but different". I would assume that as a course focussed on access, that the EMPP would be a generic access course and would therefore allow access to both qualifications."

4.19 "If the aim is access, then why would the course be focussing on the curriculum of the course for which access is being sought. This a bit of putting the cart before the horse."

4.19 "The EMPP should prepare the students to be able to access any of the courses offered in EMC, it should be able to allow students time so that can be fully functional while they are on the preparatory course. The course can have basic and intermediate knowledge that is assessed, but no limited to the clinical, it should contain all aspects that govern EMS, this will be able to completely prepare the student holistically."

4.19 "No medical knowledge and skills should be taught to students on the EMPP."

4.19 "EMC documents may be used as a baseline for teaching the candidate basic skills on completing documentation, not only EMC documentation."

4.19 "The programme cannot be a "fix-all" model. If the programme persists, this needs to have a clear understanding of why."

4.19 & 4.20 "These are beyond the scope of EMPP and will be taught in EMC higher education."

4.20 "The learner can save such specific content for actual course work on the applicable programme which he/she gets access to."

4.20 "With the focus on helping them to write a required report i.e. applying the principles of discipline specific academic literacy and communication (ALC). Whether it be an accident report, dispatcher report, electronic patient report or shift handover report etc. all these needs the foundational knowledge of ALC. Because the EMPP should not be focused on equipping the student with medical knowledge and skills, these should not necessarily form part of the outcomes of the report writing in this context."

4.20 "Perhaps not as primary completion, but as involved in patient treatment they should be able to look over and agree to contents; this to protect them legally as well."

4.21 "Why would a student wishing to enter a course be required to demonstrate an informed understanding of the core areas of EMC education. This would imply that there would need to be some form of evaluation of their knowledge prior to their admission. I think that this deviates from the primary aim of the EMPP. To paraphrase, preparation is not competence."

4.21 "We are trying to improve results of insufficient subjects and/or teaching subjects which the candidate never had - this should not be seen as a programme specific course."

4.27 "This will depend on the academic and employment setting. Generally andragogy concepts will come into play as we are dealing with adult learners who are often in these situations - Cannot provide a concrete answer here."

4.27 "Limited contact programme can be an option, however, I would hesitate to say it SHOULD be done this way"

4.27 "it may be very difficult for the adult learner to participate successfully in an EMPP if there is limited contact time. the EMPP should be focused on assisting the student in understanding his/ her commitments to being a full time student some day on the EMC programme."

5. SECTION C1: EMPP LEVEL DESCRIPTORS

In this section the EMPP level descriptors were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP level descriptors.

TABLE 5: EMPP LEVEL DESCRIPTORS.

SECTION C1: EMPP LEVEL DESCRIPTORS					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
5.1	The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.	81.3%		18.8%	Round one
5.2	The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.	87.5%		12.5%	Round one
5.3	EMPP level descriptors should be descriptive and not prescriptive.	86.7%	6.7%	6.7%	Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
5.4	The Critical Cross-Field Outcomes of SAQA should be embedded in the level descriptors of the EMPP.	93.8%		6.3%	Round one
5.5	The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.	93.8%		6.3%	Round one
5.6	The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.	100%			Round one
5.7	The EMPP student should be able to collect, analyse, organise, and critically evaluate information.	87.5%	6.3%	6.3%	Round one
5.8	The EMPP should use science and technology effectively and critically showing responsibility towards the environment and others' health.	100%			Round one
5.9	The EMPP should be able to demonstrate and understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.	100%			Round one
5.10	The EMPP student should be able to work effectively as individuals and with others as members of a team.	100%			Round one
5.11	The EMPP student should be able to communicate effectively using visual, mathematical, and language skills in verbal and written presentation modes, mainly through reports and the handover of patients to other services.	75%	6.3%	18.8%	Round one
5.12	The EMPP student should understand ethical and professional behaviour about personal conduct and interactions with patients, colleagues, and other services.	73.3% 58.8%	6.7% 5.9%	20% 35.3%	Round one Round two
5.13	Students on the EMPP should be able to solve problems using critical and creative thinking about patients' assessment and treatment.	66.7% 23.5%	20% 5.9%	13.3% 70.6%	Round one Round two

Participants were required to motivate their answers. These were the motivations:

"I am not sure if EMPP should include any content of EMC. I should rather focus on bridging the gap identified from the entry-level criteria of EMC requirements, for example, appropriate school subjects and symbols."

5.1 "The EMPP should be focusing on NQF level 4 as the ECA is NQF level 5."

5.2 "As mentioned previously, I see the EMPP as getting the student academically ready to engage with HEI learning, and therefore don't see the occupational link."

5.1 & 5.4 "The focus of the EMPP is to improve symbols of the learner to be able to gain entry into a higher education programme. Maintaining competence in reaching an NQF 4 qualification might be more appropriate as guided by HEI acceptance criteria."

5.11 "Should be part of EMC education."

5.11 "The learner must be prepared to communicate effectively in the instructional language, but not focussing on patient handover or anything specific."

5.12 "Behaviour specific interventions should not focus purely on healthcare interaction.

"The caliber of learner who will potentially be applying for such a programme will require very specific level descriptors - this allowing for a prescriptive approach in outcomes. The learner would have sought other approaches to entering such a programme should they have had the means or cognitive drive/ability. The goal of such a programme is to improve symbols of modules, not run a mini emergency medical care programme. The profession specific content will be dealt with in the applicable programme should the candidate be successful in completing the preparatory programme. Focus on generic higher education skills and development. With the above mentioned, the programmes goal is to improve symbols - How can this be offered at an NQF5 qualification when the individual "failed" at his/her NQF4 qualification? This should not allow for a higher NQF level qualification - but should open up doors into the various healthcare professions. The NQF level will not require the individual to be able to critically evaluate/appraise data, collect, analyse, etc. This is not the role of such a programme pegged at the suggested NQF level."

5.12 & 5.13 "this would depend on the core focus of the EMPP. Would these not be taught on the qualification?"

Round two.

"I think the proposed programme should focus on addressing the gap identified from entry requirements, rather than dealing with profession specific content which will be covered in the EMC programmes anyway."

5.12 "Because the EMPP should not focus on medical knowledge and skills, I do not think it is needed in the EMPP. These will in any case be taught in an EMC programme."

5.12 "These are beyond the scope of EMPP and will be taught in EMC higher education."

"Part of the EMPP should be about professionalism, but again, I dont see the need for any specific EMC content."

5.13 "These are high-level cognitive functions which will be developed later on in his/her educational journey. Focus on the basics..."

5.13 "No medical knowledge and skills should be taught on the EMPP, therefore patient assessment and treatment should not be a criteria. These will be covered in an EMC programme."

5.13 "What is the students' scope of practice? Are they ready to treat patients already?"

6. SECTION C2: EMPP LEARNING OUTCOMES.

In this section the EMPP learning outcomes were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP learning outcomes.

TABLE 6: EMPP LEARNING OUTCOMES.

SECTION C2: EMPP LEARNING OUTCOMES					
This section deals with the EMPP learning outcomes.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
6.1	EMPP learning outcomes should have a defined purpose.	93.8%	6.3%		Round one
6.2	The EMPP learning outcomes should provide applied competence and a basis for further learning.	100%			Round one
6.3	The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	75%	12.5%	12.5%	Round one
6.4	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Round one
6.5	Facilitators in the EMPP should ensure that learning outcomes are educationally sound.	100%			Round one
6.6	Statements of intended learning outcomes should clearly describe the knowledge, skills and competencies that students should obtain from learning.	100%			Round one
6.7	The learning outcomes should be arranged in a recognisable and logical sequence.	100%			Round one
6.8	Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme.	100%			Round one
6.9	The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear.	100%			Round one
6.10	Learning outcomes should be well formulated.	100%			Round one
6.11	Learning objectives should describe measurable outcomes.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
6.12	Adequate physical resources, consistent with the intended learning outcomes of the EMPP should be available to the students (library etc.).	100%			Round one
6.13	The EMPP curriculum should contain more EMC specific outcomes.	62.5% 29.4%	6.3%	31.3% 70.6%	Round one Round two
6.14	Learning outcomes should provide applied competence and a basis for further learning.	100%			Round one
6.15	Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.	87.5%	6.3%	6.3%	Round one
6.16	EMPP learning outcomes should be specified with appropriate assessment criteria.	100%			Round one
6.17	Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students.	100%			Round one
6.18	About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress.	100%			Round one

Participants were required to motivate their answers. These were the motivations:

6.3 "Would these outcomes not be embedded in the course that the student is hoping to access?"

6.13 "I see the EMPP programme preparing the student to engage with HEI teaching, learning and assessment. I dont see any EMC content being addressed on this programme. This would be reserved for the HCert, Diploma or Degree."

6.15 "this would depend on the core outcomes of the EMPP. If it is a course designed to facilitate access, then no, if it is a course designed around building credits, then yes. The two are technically mutually exclusive, although it possible that a hybrid model may exist, but this would then be a EMPP-type course on its own."

6.18 "EMPP curriculum should only focus on improving symbols for entry into a higher education institution and programme."

6.18 "Whilst we can use assessment opportunities that integrates the foundational level of knowledge and skills such mathematics, and lets say academic writing etc these cannot entirely be aligned to healthcare treatments per se. We can teach the mathematical concepts of conversions such as grams to mg, and explain dilution, but we cannot teach them the actual drug / medication (EMC / healthcare knowledge). these will be taught on the EMC programme. same with academic writing, we can teach them the basic concepts of how to write coherently and how to paraphrase, but we cannot assess any healthcare matters discussed or mentioned in lets say a patient report document, for reasons that that was not the intended purpose of the assessment, since students are not taught about for example taking of vital signs or doing a patient assessment an documenting their findings (if that is what is needed to write in the patient report document). the EMPP provides the basic knowledge and skills of how to approach it as a starting point whereas the EMC learning outcomes would be looking at it holistically i.e. writing coherently and correctly documenting vital signs and other clinical findings, same with drug calculations, i.e. correctly selecting the appropriate drug/ medication, calculating the dosage and the actual administration of that drug, reassessment of the patient and the continuation of the drug/ medication as applicable."

6.20 "Not too sure of the context of 'short'"

6.21 "Should be presented on NQF 4."

"This should be offered as an independent SLP. The level should be offered as an NQF4 programme, as this is only to improve symbols and prepare the candidate for higher education with generic skills, how to learn, basic technologies, etc. This is not an EMC specific qualification. Resources available to the learner need to be technology based, otherwise we

are not advancing with times. Consultation/guidance as a physical resource is extremely important to the caliber of learner expected on such a programme.”

6.21 “Why would the EMPP be presented at an NQF level 5 when it aims to plug the gaps in the fourth tier of the NQF? this would also open up the debate about completing an NQF level 5 qualification to access a NQF level 5 qualification. I understand that if one of the aims may be to build credits, but then how would the course in its entirety be registered as an NQF level five qualification with the relevant notional hours etc and how would these integrate into the qualifications for which access is being sought?”

Round two

6.12 EMPP should focus on bridging the gap identified from entry requirements of EMC. EMC specific content will be covered in the EMC programmes.

6.12 This should be an introductory programme to higher education and focused on generic skill development which will aid academic pathway.

6.12 Perhaps the curriculum should include EMC related outcomes and activities, but these may not necessarily be specific to EMC

6.12 Perhaps I am the only one who feels this way, but it would appear as if there is a theme here that students should be taught course content whilst completing a course aimed at access. I fail to understand the logic behind this and would question the educational motivation for teaching content from a course for which access is being sought. That said, unless there is a concern for pass rates of the actual course and that the EMPP is being used as a preparatory system with the aim of improving pass marks once students access the course?

6.12 focus on foundational knowledge which is aligned to EMC specific outcomes

7. SECTION C3: EMPP CREDITS AND NOTIONAL HOURS

In this section the EMPP Credits and notional hours were investigated. This section contained both statements and free-text comments. For the statement’s participants had to choose between “Agree” “Not applicable” “Disagree”, whilst the free-text comments asked for either a

motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP credits and notional hours.

TABLE 7: EMPP CREDITS AND NOTIONAL LEARNING HOURS.

SECTION C3: EMPP CREDITS AND NOTIONAL LEARNING HOURS					
This section deals with the EMPP learning outcomes.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
7.1	The EMPP modules should provide the student with a clear breakdown of the total notional hours.	93.8%		6.3%	Round one
7.2	The EMPP should be a credit-bearing short learning programme.	75%		25%	Round one
7.3	The EMPP should be presented at an NQF level 5.	62.5% 58.8%	5.9%	37.5% 35.3%	Round one Round two
7.4	All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.	100%			Round one
7.5	Consideration should be given to the level at which the learning is being offered.	100%			Round one
7.6	Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.	81.3%	6.3%	12.5%	Round one
7.7	The EMPP should be occupationally based and when completed constitute credits towards a qualification registered on the NQF.	73.3% 52.9%	6.7% 5.9%	20% 41.2%	Round one Round two
7.8	The breakdown of the time allocation on each EMPP module should be clearly defined.	100%			Round one

Participants were required to motivate their answers. These were the motivations:

7.2 "not sure of context of 'short'. Too many connotations with short courses"

7.3 "Should be presented at NQF level 4."

7.3 "Should be presented at NQF 4."

"The programme should be offered as a SLP at NQF4 level. This should be a generic qualification for higher education - maybe two or three electives for the specific field in which the candidate is interested."

7.6 "I see this as a whole qualification, and therefore dont feel that unit standards apply."

7.6 "This relates to my previous comment related to the NQF level of the EMPP. If it is a SLP aimed at building credits, which it seems to be (at least partially) then is it really necessary to register the EMPP at an NQF level?"

7.6 "This is not occupation specific, instead it caters to fill the gap in preparing an applicant who has the relevant subjects but lower than required APS scores."

Round two

7.3 "NQF 4 may be more appropriate as at that level many minimum entry criteria to EMC higher education are already lacking. NQF 5 may be too high and can be saved for ECA."

7.3 "What is the educational logic of presenting a course at the same NQF level as the course for which student are applying? This again raises the question of whether or not the EMPP is aimed at access or building credits. It cannot be both unless there is some form of hybrid model which is being considered."

7.3 "to be honest this is really open for discussion or debate, it may be on an NQF level 4 or 5. If we determine who the students are they will get access to the programme i.e. school leavers or short course holders with no matric?"

7.3 "Majority of candidates would partake in such a course due to the failure or non-success of an NQF4 qualification (matric). "We need to fix the foundation before trying to put the roof on the building".

7.6 "EMPP should not offer credits. It is simply a preparatory course."

“Credit bearing course will benefit the students, and it make it easier for them to access university qualification.”

7.6 “It appears the purpose of the EMPP is to partially help build credits, but it also equips the students with foundational knowledge and skills necessary for first time success once on an EMC programme. I do not think the learning outcomes of the EMPP would necessarily constitute credits toward a qualification, as only foundational knowledge is taught.”

8. SECTION C4: EMPP LEARNING FACILITATION.

In this section the EMPP learning facilitation were investigated. This section contained both statements and free-text comments. For the statement’s participants had to choose between “Agree” “Not applicable” “Disagree”, whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP learning facilitation.

TABLE 8: EMPP LEARNING FACILITATION.

SECTION C4: EMPP LEARNING FACILITATION					
This section deals with the EMPP learning facilitation.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
8.1	Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme.	100%			Round one
8.2	A mechanism should be in place to ensure the appropriateness of teaching and learning methods.	100%			Round one
8.3	Lecturers should continuously upgrade teaching and learning methods on the EMPP.	100%			Round one
8.4	The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.	93.8%		6.3%	Round one
8.5	Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology.	100%			Round one
8.6	Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life.	100%			Round one
8.7	Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results.	100%			Round one
8.8	Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes.	100%			Round one
8.9	A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience.	100%			Round one
8.10	The student should have a clear understanding of how the lesson will be facilitated.	93.3%	6.7%		Round one
8.11	EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
8.12	Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time.	100%			Round one
8.13	EMPP learning material should be focused on EMC.	43.8% 29.4%	12.5%	43.8% 70.6%	Round one Round two
8.14	EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.	100%			Round one
8.15	EMPP learning guides should be in a standard format for all modules.	93.8%	6.3%		Round one
8.16	EMPP learning guides should be consistent and specific with regards to student support initiatives.	100%			Round one
8.17	The EMPP learning guides should include a descriptive work scheme descriptive providing the student with clear guidelines on what to expect from the module.	100%			Round one
8.18	The learning guides should provide a clear link where the student will find the exit level outcomes.	93.8%	6.3%		Round one
8.19	Lesson planning plays a vital role in the successful planning of a module/subject.	100%			Round one
8.20	Thorough lesson planning should be consistently based on the learner's needs.	93.8%		6.3%	Round one
8.21	Financial support plays a role in the success of students.	84.6%	15.4%		Round one
8.22	Student psychological support services are available and accessible.	100%			Round one
8.23	Additional student academic support is offered where necessary.	100%			Round one
8.24	There should be continuous guidance available to students with regards the use of resources, e.g. online resources Blackboard.	100%			Round one
8.25	Academic staff should be trained to develop learning materials.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
8.26	EMPP curriculum content should provide immediacy, i.e. be immediately relevant to the student's current working environment.	62.5% 29.4%	18.8%	18.8% 70.6%	Round one Round two
8.27	The EMPP student's existing knowledge should be explored.	100%			Round one
8.28	The individual student's attributes, preferences and needs should be accommodated.	81.3%	12.5%		Round one
8.29	The teaching and learning strategy should be appropriate for the institutional type as reflected in its mode of delivery and composition.	100%			Round one

Participants were required to motivate their answers. These were the motivations:

8.4 "What about passive learning? and the other types of learning?"

8.13 "EMC links may be brought in at times, but I dont see EMC being a focus on the EMPP."

8.13 "What about some form of management, or introduction thereof?"

8.13 "this relates to my comments around what the core outcomes for the EMPP are. If it is access, credit building or both- this is contextual."

8.13 "Should be more generic."

8.20 & 8.26 "How do you meet each learner's needs? and then relate each of these to the learning outcomes?"

8.21 "the issue of financial support is key especially for individuals who are having family, who have debts to pay. the issue of financial support will help take the burden of sharing the money

for two household as it will assist them to be able to focus purely on academics, as a result it will help the mental state of the student in the EMPP course.”

8.23 “the issue of additional educational support is key, the EMS education system needs to have a tutor system or a mentor mentee system that could be initiated, this will assist those in EMPP to have some sort of educational support.”

9.26 “The EMPP should focus purely on improving the acceptance criteria of the learner.”

8.26 “Technically the student's working environment will only be apparent once they register for the qualification. Again, contextual within the core outcomes for the EMPP.”

8.26 “Will these students be working at the same time?”

9. SECTION D: EMPP ASSESSMENT

In this section the EMPP assessment were investigated. This section contained both statements and free-text comments. For the statement’s participants had to choose between “Agree” “Not applicable” “Disagree”, whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP assessment.

TABLE 9: EMPP ASSESSMENT.

SECTION D: EMPP ASSESSMENT					
This section deals with the EMPP learning facilitation.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
9.1	Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies.	100%			Round one
9.2	Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum.	100%			Round one
9.3	Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP.	100%			Round one
9.4	Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks.	100%			Round one
9.5	Student progress should be monitored.	100%			Round one
9.6	For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures.	93.8%	6.3%		Round one
9.7	The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics.	93.8%	6.3%		Round one
9.8	Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy.	93.8%	6.3%		Round one
9.9	Measures should be taken to ensure the reliability, rigour and security of the assessment system. Assessment results are recorded securely and reliably.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
9.10	Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented.	100%			Round one
9.11	Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements.	93.8%	6.3%		Round one
9.12	There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously.	100%			Round one
9.13	Provision should be made for the development of staff competence in assessment.	100%			Round one
9.14	Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students.	93.8%	6.3%		Round one
9.15	Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level.	100%			Round one
9.16	Students' assessment records should be reliable and secure.	100%			Round one
9.17	Internal assessment of student learning achievements by academic staff should be important.	100%			Round one
9.18	Monitoring student progress in the course of the programme should be important.	100%			Round one
9.19	Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanours should be important.	100%			Round one
9.20	Development of staff competence in assessment should be important.	100%			Round one
9.21	An assessor should know about current changes in higher education.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
9.22	Assessors should be formally trained in the principles of assessment.	93.8%	6.3%		Round one
9.23	Assessment should be a learning experience for both students and assessors.	93.8%		6.3%	Round one
9.24	Assessment should identify areas where adjustments in teaching and learning could be made.	100%			Round one
9.25	Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP.	100%			Round one
9.26	The assessment methods should include a wide range of approaches.	100%			Round one
9.27	The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module.	100%			Round one
9.28	The EMPP should make use a variety of teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc.	100%			Round one
9.29	Clear stated outcomes must be formulated as part of the construction of assessment.	100%			Round one
9.30	Assessment should be integrated and must therefore cover all aspects of the EMPP.	93.8%	6.3%		Round one
9.31	Students must have sufficient opportunity to prepare for assessments.	100%			Round one
9.32	Students should know how the weight of assessments is determined.	100%			Round one
9.33	The learning content that will be evaluated in the assessment, should be explained to the students.	93.8%		6.3%	Round one
9.34	Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment.	100%			Round one
9.35	Memorandums should form part of all assessments.	100%			Round one
9.36	Assessment should be moderated by appropriately trained moderators with specific expertise in the learning area.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
9.37	The pre-defined assessment purposes should determine the assessment methods.	100%			Round one
9.38	Assessment criteria must be developed and used during the assessment.	100%			Round one
9.39	Students should be informed about the goal and importance of feedback.	100%			Round one
9.40	A clear process should be available to recognise the at-risk student.	100%			Round one
9.41	Selected assessments measure the course learning objectives.	93.8%	6.7%		Round one

Participants were required to motivate their answers. These were the motivations:

“*CE should be adopted with such a programme. Less emphasis placed on grading, but more placed on evidence of learning and applied knowledge. Moderation in the EMPP should not focus purely on assessment but can be broadened to programme moderation. This continues moderation process will build on formative assessment periods to improve the overall feedback and response of the learners. The EMPP must not focus purely on preparing the learner for any specific medical programme or qualification, but rather focus on improving acceptance possibilities within a higher education programme.”

9.23 “The lecturers should received training prior to the setting of an assessment. I think receiving training whilst setting an assessment may impact the quality of the assessment.”

9.33 “The word "Scope" when it comes to assessments has become a dirty word in HEI. I see students being informed of what study units the test will cover, and the total mark allocation, etc but I dont see there being any more detail than this.”

10. SECTION E: EMPP PHYSICAL PREPAREDNESS

In this section the EMPP physical preparedness were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP physical preparedness.

TABLE 10: EMPP PHYSICAL PREPAREDNESS.

SECTION E: EMPP PHYSICAL PREPAREDNESS					
This section deals with the EMPP learning facilitation.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
10.1	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	87.5%		12.5%	Round one
10.2	Physical preparedness should be a formal module on the EMPP.	50% 35.3%	12.5%	37.5% 64.7%	Round one Round two
10.3	The EMPP Physical Preparedness module should have formal assessment criteria.	56.3% 58.8%	12.5% 5.9%	31.3% 35.3%	Round one Round two
10.4	Being physically healthy is essential.	93.6%	6.3%		Round one
10.5	EMC practitioners need to learn to swim.	81.3%		18.8%	Round one
10.6	Learning to swim should be a formal credit bearing module on the EMPP.	37.5% 29.4%	18.8% 5.9%	43.8% 64.7%	Round one Round two
10.7	Learning to swim should have formal assessment criteria.	40% 58.8%	26.7% 11.8%	33.3% 29.4%	Round one Round two
10.8	Physical preparedness plays a vital role in EMC education and should form part of the EMPP.	93.8%		6.3%	Round one

Participants were required to motivate their answers. These were the motivations:

10.1 "Although physical preparedness is very important it should form part of the EMPP as an informal programme."

10.2 "Should not be credit bearing, should rather be a life style."

10.2 "Physical preparedness is key for all EMS practitioners but it cannot have credit bearing as it may hinder progress of learners, and swimming is very key but it can never be made a failing criteria. Swimming is necessary as a life skill and it has no role in EMPP as there are life techniques being taught in its current form, therefore it should be taught to prepare the students for the courses in higher education.

"The topic of physical preparedness within any EMC programme is very controversial. Yes, prehospital practitioners should maintain some level of physical fitness, but being assessed on this level of fitness is not required. Using the ECA programme as an example; the programme has no formal education on any rescue elements, but maintaining and passing physical fitness is still a requirement. The learners should be encouraged to live a positive and healthy lifestyle while enrolled in the programme, but the course credits dedicated to rescue subject course work and physical preparedness, that includes swimming, can much rather be used to include preparedness for medical education and enhance the clinical reasoning of these learners with the goal of professionalising the prehospital environment. This is not the function of such a programme. Physical preparedness is a personal journey. Swimming is a good life skill, not the job an academic programme."

10.2 and 10.6 "Although I agree, it is important to provide contextual comment. The challenge with making physical preparedness credit-bearing is that it potentially disadvantages certain students. Unlike a subject like Anatomy, where all students are on a reasonably even footing from day one, a student who cannot swim can suffer significant disadvantage based on the fact that they could not swim on day one. Conversely, not allocating credits to the subject may mean that students underestimate its importance; the whole "If it is not for marks..." debacle. This ties in directly with 10.6 where learning to swim can be assessed and constitute a mark. This could be a single assessment at the end of the year with a Yes/No result. It is perhaps

also important to acknowledge that there are other outcomes related to EMC education that can be achieved within physical preparedness interactions and that merely seeing it as an obstacle to progression (both by lecturers and students) diminishes its role within the wider qualifications and profession.”

10.3 “i disagree because, whilst it can be assessed it should not be compulsory to pass the fitness component in order to gain a certificate of completing the EMPP. as long as the student participates in the physical fitness module and there is constant improvement that is ok. as mentioned earlier, we cannot treat all people the same, we all come from different backgrounds, it should be the responsibility of the university where they do EMC to further their confidence and competence in the physical fitness components.”

10.2 & 10.6 “If the institutional policies allow for it, Physical Prep should be a non-credit bearing module. The swim forms part of Physical Prep and should not be separated out of the module.”

“This is an important area to address on the EMPP as it will improve the pass rate in 1st year of the HCert, Diploma or Degree as they would have already learnt to swim and work on the other areas of physical prep prior to entry into the EMC programme.”

Round two

10.2 “It should not be at all. Physical preparedness should be a life skill/characteristic. What is the role of higher education?”

10.2 & 10.6 “It should not be credit bearing. in the context of the EMPP it would much rather be classed as a lifestyle skill that can be taught to student, that will hopefully be of good use (give him/ her the advantage) when participating in a formal EMC programme especially where rescue activities are concerned.”

10.2 & 10.7 “I also believe there should be assessment targets or goals set, so that the student and facilitators can monitor their physical fitness progress, these assessment criteria will thus be used as a motivational tool rather than an pass or fail criteria.”

10.7 "If it is going to form part of the programme structure and bear credits, it will need to be formally assessed. Competency-based grading scale is advocated here...

Assessment criteria for physical preparedness, including swimming, on EMPP does not need to be at the same level as that of EMC higher education, however, it is a critical component to introduce in the EMPP."

"I dont see swimming as separate from one being physically prepared for the EMC programmes. So I see swimming forming part of the physical prep module which should be non-credit bearing."

"Having this module in the EMPP sould not be seen as punitive but rather a massive advantage so as that when the candidate enters whichever EMC programme, the physical preparedness component is not a limitation on success."

"All physical activity must be taken as a form of fitness in a course which aims to keep students/learners fit and healthy, it should not be about assessment. Physical preparedness should have a criteria in rescue oriented courses where students will be required to use their strengths and energy. In the EMPP there is no need for a structured programme especially if students will be doing only ECA and Diploma where there is no intense rescue. Swimming can be made a criteria for the modules that will have technical rescue such as swift water rescue."

"physical prepadeness should be an ongoing exercise without making it to carry any credits as they will not be reflecting on the certificate as is not on SAQA requirement for all EMC modules."

"Swimming skills is a necessity in today's society. If not an assessable module, there will be no intrinsic drive"

11. SECTION F: EMPP GENERIC SKILLS AND COMPETENCIES

In this section the EMPP generic skills and competencies were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions

or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP generic skills and competencies. As seen in Table 5.9, three statements reach consensus during Round one.

TABLE 11: EMPP GENERIC SKILLS AND COMPETENCIES.

SECTION F: EMPP GENERIC SKILLS AND COMPETENCIES					
This section deals with the EMPP development of generic skills and competencies.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
11.1	The EMPP should equip the student with basic research skills, referencing skills and academic writing, which all play vital roles in higher education.	81.3%		18.8%	Round one
11.2	The student should have insight into quality assurance processes as practitioners.	62.5% 52.9%	25% 5.9%	12.5% 41.2%	Round one Round two
11.3	Basic drug calculations as a teaching and learning activity should be included within the EMPP mathematics module.	68.8% 70.6%	12.5%	18.8% 29.4%	Round one Round two
11.4	The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments.	86.7%		13.3%	Round one
11.5	Physical Sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes.	75%		25%	Round one
11.6	The EMPP should include an introduction to patient report forms.	56.3% 35.3%	12.5% 5.9%	31.3% 58.8%	Round one Round two

Participants were required to motivate their answers. These were the motivations:

11.1 "I disagree with the question because i only partly agree with it, I agree that it should equip them with referencing skills, and academic writing, but what is the definition of research skills? research to search for literature online definitely, but basic research to do a literature review requires more time, which would mean the programme would need to be extended?"

11.2 "Not sure if I am reading the question right - do you mean the same insight as practitioners - then no, I feel they are too junior for this."

11.3 "I have agreed, based on my earlier comment, we teach them the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e. administration of medication once they are on the EMC programme."

11.3 "the maths module can work on the mathematic skills needed to undertake drug calculations instead of actually doing drug calcs."

11.3 "I agree that these should be included, but there should be caution exercised not to turn the mathematics module into a drug calculation module."

11.5 "the physical science module needs to bridge the gap between Gr12 and the lower APS score in order for the student to be able to effectively engage with the PS in 1st year on EMC programmes."

11.5 "I feel this programme to be more the orientation and foundation laying. I feel concepts that explore foundational knowledge be taught here in preparation for the undergraduate course."

11.6 "This makes it assumptive that the EMPP is not really for access or credits, but rather that it is incorporating and external curriculum into its content. Whilst I agree that this may be beneficial once the student enters the qualification, should this not rather only be included in a relevant curriculum where the aim is to teach EMC as opposed to access EMC?"

11.7 "The focus should rather be on writing skills, and not specific to a patient report form."

Round two

11.3 "the foundational mathematical principles of drug calculations should be appropriate. However, it should not go too far into, was the correct drug drawn up or dosage given as these would be appropriate for an EMC programme. The EMPP only provides the foundational knowledge and helps the student to finally see how participating in Mathematics will help him

as an EMC professional one day. I don't think students should view an EMPP as merely a 'second attempt at mathematics' always wondering where the PIE equation fits into the profession. Instead, the student should look at the EMPP as a programme that will provide him/ her with the foundational knowledge to make a success of his/ her EMC studies and a success of his/ her EMC career. Research has shown that once a student is able to understand how one module and its learning outcomes aligns to the professional abilities (knowledge and skills) they actually pay more attention to meeting those outcomes."

11.3 "Basic calculations, only theory."

11.3 "This is a practical manner in which to teach and aid learning... Not so much because it is a "drug calculation", but it is a practical example which is applicable to everyday life of majority of the candidates. Candidates need to understand the value of a taught skill to learn it in an effective manner."

11.3, 11.6, 11.2 "if the focus is on access, then why are EMC-specific outcomes part of the curriculum. If the goal is to ensure that students are able to grasp the principles of any concept, then appropriate EMC examples can be used to provide context. But, in my mind, to make them formally part of the curriculum means that you are teaching EMC to students who are not registered for an EMC qualification."

11.6 "That is EMS specific - not required."

11.6 & 11.2 "These are beyond the scope of the EMPP and will be taught in EMC higher education. The focus should be on developing the Basic Sciences (Physics, Chemistry, Anatomy, Physiology), Mathematics relevant to the profession, academic writing, etc not on set EMC content but rather the skills needed to do drug calculation or to complete PRFs."

11.2 "Higher Education needs to be transparent."

11.2 "although I have agreed to this I feel that this should be an overview with the focus on professionalism and ethics. Perhaps at this level QA is too complex a concept for NQF5"

12. SECTION G: EMPP QUALITY ASSURANCE

In this section the EMPP generic skills and competencies were investigated. This section contained both statements and free-text comments. For the statement's participants had to choose between "Agree" "Not applicable" "Disagree", whilst the free-text comments asked for either a motivation for a choice made by participants, or that participants provide their opinions or facts regarding certain issues. The participants were asked to give input and their opinion about the EMPP generic skills and competencies.

TABLE 12: EMPP QUALITY ASSURANCE.

SECTION G: EMPP QUALITY ASSURANCE					
This section deals with the EMPP quality assurance.					
	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
12.1	Moderation should be an essential element of ensuring and maintaining the quality of the EMPP.	100%			Round one
12.2	Moderators are appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.	100%			Round one
12.3	Clear monitoring, review processes and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised.	100%			Round one
12.4	Instructional materials are reviewed periodically to ensure they meet program standards, and that course information is up to date and relevant	100%			Round one
12.5	Quality assurance procedures must be in place and must be strictly adhered to on the EMPP.	100%			Round one
12.6	Lecturer evaluations should be done.	100%			Round one
12.7	The EMPP should be review in a clustered process.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
12.8	EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review.	100%			Round one
12.9	Planning and programme design of the EMPP should be done adequately.	100%			Round one
12.10	Planning and management of the EMPP should be a key focus area of quality assurance.	100%			Round one
12.11	Early recognition of the at-risk student.	100%			Round one
12.12	Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions.	100%			Round one
12.13	The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme.	100%			Round one
12.14	The EMPPP should provide for staff development opportunities where staff can upgrade their teaching methods.	100%			Round one
12.15	The EMPP should have systems in place to deal with under-performing or inactive students in the programme.	100%			Round one
12.16	The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time.	100%			Round one
12.17	The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives.	100%			Round one
12.18	The results of reviews and evaluations should be utilised in the planning process of the EMPP.	100%			Round one
12.19	User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes.	100%			Round one

	STATEMENTS	AGREE	NOT APPLICABLE	DISAGREE	
		1	2	3	Responses
12.20	There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme.	100%			Round one
12.21	The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments).	100%			Round one
12.22	The EMPP curricula should be based on the students' needs and differences within that institution.	75%	12.5%	12.5%	
12.23	Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students.	100%			Round one
12.24	The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.	100%			Round one

Participants were required to motivate their answers. These were the motivations:

12.6 "Lecturers should be evaluated on a regular basis, for example quarterly.

12.22 "the curriculum should talk to the core outcomes and aims of the EMPP, not be based on student needs and differences within an institution. These are addressed at the curriculum delivery level using appropriate pedagogical techniques to deliver the curriculum."

12.22 "I definitely agree with this statement, and just to add, this is why the sentiment of physical fitness not being treated as a compulsory module. We would not be very willing to be addressing students needs and differences if this were the case."

12.22 "What about industry and patient needs? How will you meet each student's needs?"

Appendix P:

Information document for participation in the expert panel discussion

INFORMATION DOCUMENT FOR PARTICIPATION IN THE EXPERT PANEL DISCUSSION

Dear Participant,

I am a senior lecturer/course coordinator at the Free State College of Emergency Care in Bloemfontein and are currently enrolled at the University of the Free State (UFS) for doctoral studies.

To achieve a PhD in Health Professions Education I am doing a study in the development of quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa (SA). The title of my thesis is **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA** (Health Science Research Ethics Committee (HSREC) (UFS-HSD2019/1095/2708).

PROMOTOR

Dr M.P. Jama
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Development
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This study aims to develop quality assurance and educational guidelines for an EMPP in SA. The overall goal of the study is to conduct an in-depth investigation that will eventually provide quality assurance and educational guidelines for an EMPP programme to enhance quality training of Emergency Medical Care (EMC) personnel and possibly EMC education and training programmes as well as short learning programmes (SLPs). Subsequently, this investigation will expand the limited literature on EMPP and contribute towards quality assurance in EMC education in SA.

The expert panel discussion aims at gathering qualitative data in phase 4 of the study. Experts in the research topic are selected because they have been identified to make a meaningful contribution to the development of quality assurance and educational

guidelines for the EMPP. The expert panel discussion will aim to refine and finalise the quality assurance and educational guidelines by objectively scrutinising the content, identify and prioritise gaps in the guidelines proposed during the Delphi survey, provide feedback and make recommendations to further enhance the guidelines. The expert panel discussion will be held online at a date and time suitable to all the participants. The date and time will be communicated to you if you indicate your interest to participate in the study. The duration of the expert panel discussion will be 4 to 5 hours. There will be no cost payable by participants, and it should be noted that no remuneration would be received. The expert panel discussion will be conducted by a facilitator. The facilitator will be selected as an expert on the research topic. The results of this research project may be published and/or presented at forums and congresses.

To prepare the expert discussion panel the results from the Delphi survey will be sent to them beforehand. The expert discussion panel will be able to make recommendations and provide feedback on the proposed quality assurance and educational guidelines as to whether it is all-encompassing enough. The expert panelists will rate the appropriateness of the guidelines based on the literature and their experience with quality assurance and educational guidelines for EMC educational programmes and EMC preparation programmes.

There is no risk in being involved in the study. The value of this research will be the provision of quality assurance and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC-specific preparation programmes and EMC education programmes in SA.

Your participation in this research is voluntary, and you will not be penalised if you choose not to participate or decide to terminate participation. Every effort will be made to keep personal information confidential. The data will be used for research purposes only. Absolute confidentiality cannot, however, be guaranteed, as personal information may be disclosed if required by law. This will be for the sole purpose of quality assurance and data analysis.

Please note that the study has been approved by the Health Sciences Research Ethics Committee, **UFS-HSD2019/1095/2708**. You may contact the Secretariat of the HSREC at the telephone number (051) 4017794/5 if you have questions about your

rights as a research subject. Should you be willing to participate, a consent form will be made available to you. I sincerely hope that you will favourably consider my request.

Please contact me should you have any queries in this regard.

Thank you in advance for considering participation favourably.

Yours sincerely EN Nell

Contact details: EN Nell

Telephone: 051

4052782 Email:

nellen@fshealth.gov.za

Contact details: HSREC (Health Sciences Research Ethics
Committee) Tel: 051-4017794/5

Email: EthicsFHS@ufs.ac.za.

Appendix Q:

Invitation letter expert panel discussion

Development of Quality Assurance and Educational guidelines for an Emergency Medical Care Preparation Programme in South Africa

Invitation to participate in an expert panel discussion.

Dear _____

I am engaged in a research study to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.**

My promotors are:

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and
Development
Office of the Dean: Health
Sciences JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences: Radiography
Faculty of Health and Environmental Science
Central University of Technology
duplesj@cut.ac.za

I want to invite you to participate in phase 4 of the study were your expertise will be appreciated as a member of an expert panel discussion which will be conducted after completion of the Delphi survey. The expert panel discussion will be facilitated online. The date and time, as well as all the necessary information with regards to the discussion, will be communicated well in advance.

The research study was approved by the Health Science Research Ethics Committee (**UFS-HSD2019/1095/2708**) at the University of the Free State. The problem that will be addressed by this research is the absence of formal, scientifically

researched quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa (SA). Such programme intends to assist emergency medical care (EMC) personnel, who do not meet higher education admission requirements, with entry into higher education programmes. Furthermore, this study will attempt to increase the limited literature available on EMPPs and quality assurance guidelines and criteria specifically for EMC educational programmes in SA. As the EMPP provides EMC personnel with the means to further their paramedic careers, it is of vital importance that high-quality education and training are maintained. The development of quality assurance and educational guidelines will play a vital role in ensuring the success of such a programme. The study thus aims to develop quality assurance and educational guidelines for an EMPP in SA.

In Phase 1 of the study, a literature review and document analysis will be done to (i) analyse the quality assurance guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) National Qualifications Framework (NQF) level 5 programmes, (b) Short Learning Programmes (SLP`s) and (c) EMC education and training programmes. The literature will also be scrutinised for quality assurance guidelines specific for SLPs and EMC education and training, as governed by a professional body.

Phase 2 of the study will include the analysis of the EMPP course design with regards to, level descriptors, exit level outcomes, notional/unit hours, module/unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1.

Phase 3 will involve the development and refining of draft quality assurance and educational guidelines for an EMPP which will be guided by the integration of Phase 1 and Phase 2 data and refined using a Delphi survey.

In Phase 4 of the study, the quality assurance, and educational guidelines for an EMPP will be finalised using the inputs from an expert panel discussion.

The value of this research will be the provision of quality assurance and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC specific preparation programmes and EMC education quality assurance programmes in SA.

Yours faithfully

Mr EN Nell

EMS Coordinator/Lecturer

Free State College of Emergency Care, Department of Health, Bloemfontein, Free State

Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee) Tel: 051-4017794/5

Email: EthicsFHS@ufs.ac.za.

Appendix R:

Letter to obtain consent from the participants willing to participate in the expert panel discussion

CONSENT TO PARTICIPATE IN THE EXPERT PANEL DISCUSSION

Dear expert panel participant.

Regarding participation in the PhD (HPE) research study titled: **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA.**

I, _____ (title and full names), hereby agree to be a participant in the expert panel discussion as part of this PhD research study (**UFS-HSD2019/1095/2708**).

For any enquiries, you are welcome to contact Mr. EN Nell at telephone (051) 405 2782 or nellen@fshealth.gov.za or the promotor, Dr. M. Jama at telephone (051) 401 7771, or co-promotor, Dr. J. du Plessis (051) 507 3166 if you have any questions about the research. You may contact the Health Science Research Ethics Committee (HSREC), UFS at telephone number 051-4017794/5 if you have questions about your rights as a research participant.

Your participation is voluntary, and you will not be penalised or lose benefits if you choose not to participate or decide to terminate participation. If you agree to participate in the online expert panel discussion, you will receive a copy of this document for signature as well as the participant information sheet, which is a written summary of the research.

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and Development
Office of the Dean: Health Sciences
JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences: Radiography
Faculty of Health and Environmental
Science Central University of Technology

To be completed if you are going to participate in the study:

I have been informed of the study by Mr EN Nell. The date and time of the online expert panel discussion will be made available to me well in advanced. The research study, including the above information, has been described to me. I understand what my involvement in the study means and I voluntary agree to participate in the expert panel discussion. I agree that the expert panel discussion maybe a video, and voice recorded, and I understand that these recordings will be kept safe and confidential without any reference to names.

Full names: _____

Contact number: _____

Email address: _____

Date: _____

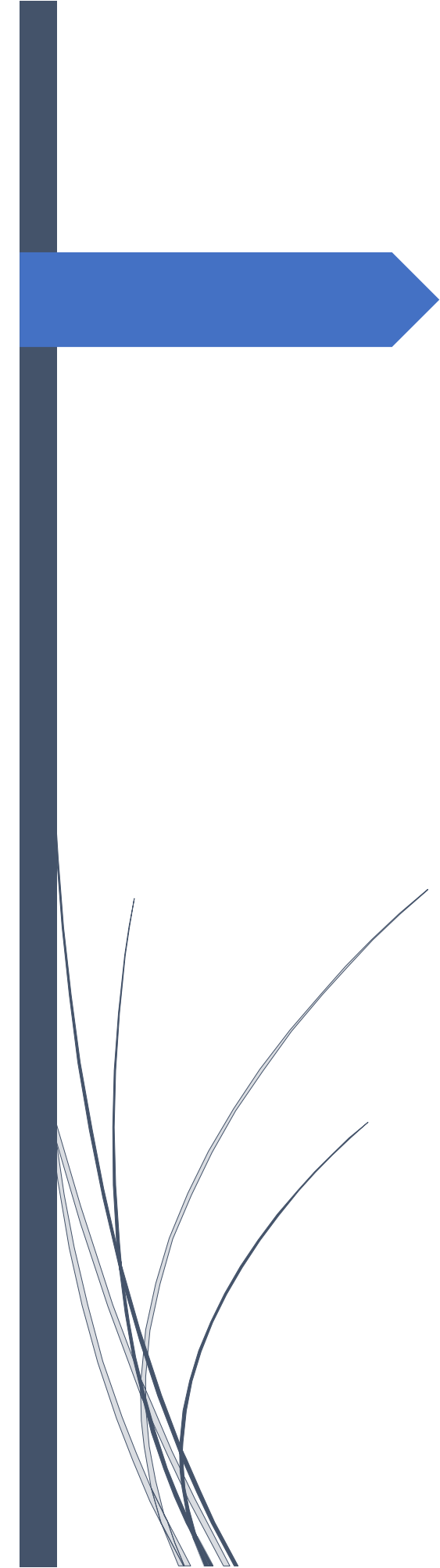
Signature of participant: _____

Please E-mail this form to: nellen@fshealth.gov.za or niekienell5@gmail.com

Mr. EN Nell
Lecturer, Free State College of Emergency Care.
Telephone: 051 4052782 / 0718721749

Appendix S:

Draft quality assurance and educational guidelines for an EMPP



EMPP quality assurance and educational guidelines (Draft)

Eduard Nico Nell

DRAFT QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPERATION PROGRAMME IN SOUTH AFRICA

1. Background

The goal of the EMPP is to develop the foundational knowledge, skills and attributes necessary to form the basis for further study in prehospital EMC and provide access to qualifications within the ECQF aligned with the HEQSF. Furthermore, the EMPP is ultimately designed to enable students to pursue further personal and professional development within the EMC environment and to promote lifelong learning.

Overall, the EMPP intent to assist applicants to be successful with regards to the new NQF aligned EMC programmes and, therefore qualifications, that has been introduced for the upgrade in the qualification of current EMC personnel in South Africa, namely:

- Those who hold one of the three EMC short course qualifications and are currently registered with the Health Professions Council of South Africa.
- Those who do not comply with the necessary entry requirements for the new NQF qualification but who hold a matric certificate or equivalent thereof i.e.
- Those with the correct modules/subjects but not with the required grade (EMPP 2019:5).

Figure 1, indicate how these guidelines have been developed from evidence from those three aspects.

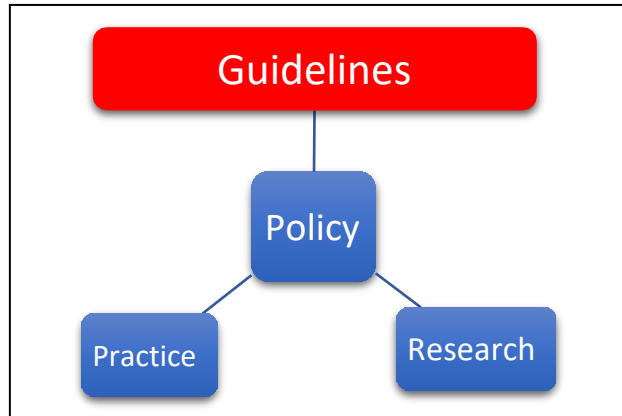


Figure 1: Relationship of these Guidelines to Research, Policy and Practice

2. Purpose of the guidelines

The purpose of these guidelines is to provide QA and educational guidelines for an EMPP, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. The QA and educational guidelines were produced in relation to the objectives of the NECET policy, which is to establish a national framework for EMC education and training. The purpose of the NECET policy is to facilitate access, mobility, and progression within EMC education, allow for career progression and amend the past's unfair discrimination (NECET 2017). Furthermore, these guidelines were developed according to the CHE accreditation guidelines.

The priority areas addressed by these guidelines include the following elements related to quality assurance and educational processes of the EMPP, namely:

- EMPP admission criteria.
- EMPP curriculum design
- EMPP level descriptors.
- EMPP learning outcomes.
- EMPP credits and notional hours.
- EMPP learning facilitation.
- EMPP assessment.

- EMPP physical preparedness.
- EMPP generic skills and competencies.
- EMPP quality assurance.

3. Structure and overview of these guidelines

The guidelines have been organised into ten sections, as shown in Figure. In each section, main findings from research, policy, and practice are identified, and recommendations are made. In Figure, a graphic overview of the guidelines to follow is presented.

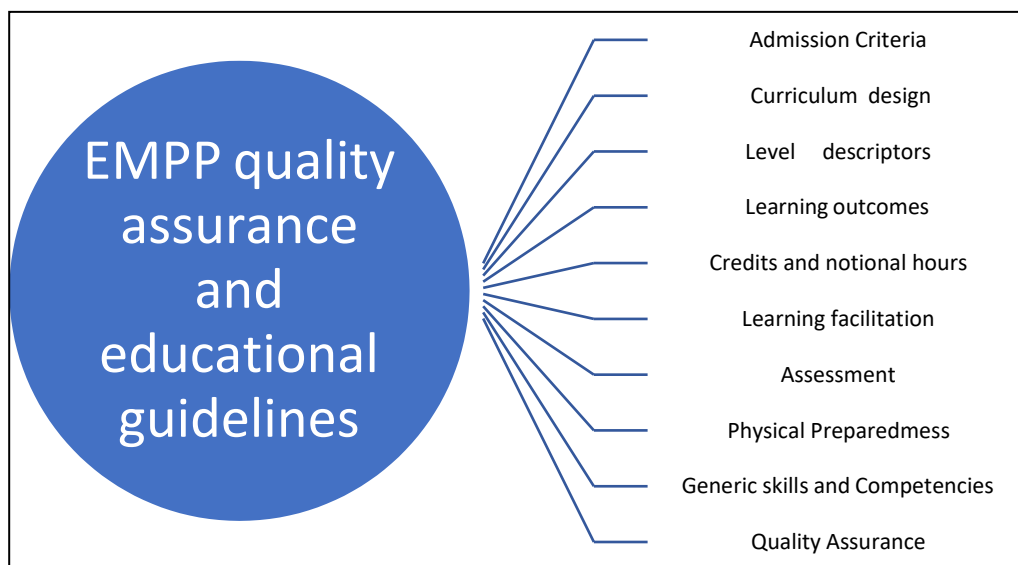


Figure 5.2 Structure and overview of the guidelines

3.1 EMPP admission criteria

Underpinning the direction with regards to short learning programme admission criteria, CHE (2016:10) states that "*Short course admission criteria should be appropriate, relevant, fair and non-discriminatory and they should be applied consistently in a transparent manner.*"

The requirements for admission to short courses are different from those for admission to programmes that lead to qualifications on the HEQSF. The former is focused more on determining the applicants' ability to complete the respective short courses successfully.

The EMPP applications should be evaluated against the stipulated admission criteria consistently, fair, transparent, and non-prejudicial by an Admissions Committee. Moreover, applicants accepted into an EMPP should be issued formal letters of admission, stipulating contractual obligations of the institution, the participants, and, where relevant, the sponsors. The successful applicants are also sent indemnity letters stating that they would indemnify the institution against any loss or harm they might suffer while attending the short course if such harm or loss is not due to its negligence (CHE 2016:11).

Guidelines:

The EMPP should be aimed at "bridging the gap" for potential entrants who are lacking in subjects or symbols, then the focus should be on filling these gaps and ensuring that students meet the entry criteria for the course. Moreover, the admission requirements for entry into higher education will still serve as per institutional policy. In addition, the EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education. Furthermore, the number of students selected for the EMPP should not exceed the capacity to offer good quality education.

It is recommended that a pre-test be done to gauge the level of understanding of possible EMPP candidates on the required subjects before them being accepted on the EMPP programme. This should also not be seen as an exclusion criterion (in-service staff with previous short course qualifications), but a benchmark to indicate the potential students' academic level.

A physical fitness assessment should form part of the entry criteria for the EMPP but should not be an exclusion criterion. It is recommended that physical preparedness form components of a selection calculation. The students must be aware that physical preparedness will be compulsory to pass before accessing EMC higher education programmes. Swimming should form part of the entry criteria for the EMPP but should not be an exclusion criterion and should be seen as a life skill. Moreover, swimming should form part of a baseline assessment when enrolling for the EMPP, but it should not be a critical criterion to grant someone access to the programme. Furthermore, a student on the EMPP should be able to gain the basic learn to swim skills on the programme, since the goal of the EMPP should be seen as an educational tool that provides students with

basic foundational knowledge and skills necessary to be successful with regards to being physically fit on an EMC programme.

A basic medical assessment should form part of the entry criteria for the EMPP. However, it is recommended that this could be done at the end of the EMPP for entry in EMC higher education. It should be noted that EMC practitioners should be medically fit to practice. Institutional and national guidelines or policies should be followed regarding recognition of prior learning for access and credit transfer.

Focus points:

- The number of students selected for the programme should not exceed the capacity to offer good quality education.
- The EMPP admission criteria should be clear and indicate how they contribute to assisting with access to Higher Education.
- The focus of the EMPP should be on candidates who do not comply with the necessary entry requirements for the EMC higher education qualifications but who hold a matric certificate or equivalent thereof.
- It would be reasonable to offer the EMPP to candidates with the correct subject combination but without the correct symbols.
- A physical fitness assessment should form part of the entry criteria for the EMPP but should not be seen as an exclusion criterion.
- Swimming should form part of the EMPP curriculum but should be taught as a life skill.
- A basic medical assessment should form part of the entry criteria for the EMPP.

3.2 EMPP curriculum design

Carl (2012:41) defines curriculum design as the phase where a new curriculum is planned, or an existing curriculum is reviewed after an evaluation phase.

Guidelines:

The following ten steps clarify the development of an effective curriculum in medical curriculum design:

- a) Identify the Need: A range of approaches can identify the curriculum need (Dunn, Hamilton & Harden 1985:15). Approaches in medical curriculum design vary from the "wise men" approach to consultation with stakeholders, making a study of errors in practice to identify problem areas, task analysis, a study of star performers and critical incident studies. All of these approaches, alone or in combination, has been used successfully.
- b) Establish the learning outcomes.
- c) Agreeing on the content of a curriculum.
- d) Organising the Content: Harden and Stamper (1999:141) state that the contents should be organized in such a way that topics are revisited throughout the course, at different levels of difficulty, and that new learning should also be related to previous learning so that the competence of the student increases with each revisit the topic.
- e) Deciding the educational strategy: The SPICES model offers a guide to planning and evaluating a curriculum (Harden, Sowden & Dunn 1984:284). Similarly, Sweet and Palazzi (2020:138) identified a six-step approach to curriculum development in order to provide "a practical, theoretically sound approach to developing, implementing, evaluating and continually improving educational experiences in medicine". The six steps are (i) problem identification and general needs assessment, (ii) targeted needs assessment, (iii) goals and objectives, (iv) educational strategies, (v) implementation and (vi) feedback and evaluation (Dent and Harden 2013:34).

The EMPP should compile an effective curriculum design plan, namely:

- a) Reflect on personal assumptions (e.g., philosophical, educational and curriculum-related) with regard to the aims and goals of a specific HEI.
- b) Consider the needs and aspirations of the students for which the curriculum is designed.
- c) Consider the components and their organisation in curriculum design.
- d) Align the curriculum design components to the institution's aims and goals.

- e) Review the curriculum design by sharing it with a colleague for critical feedback (Ornstein and Hunkins 2009:157).

With regards to the curriculum design of the EMPP, a "Design down, Deliver up" should be considered, as an approach that shifts attention from an examination of the qualification to unit standards, and eventually to a close inspection of the outcomes, the assessment benchmarks and other relevant information (SAQA 2014:online). Furthermore, it is vital to consider that the student achieves the outcomes as set by the objectives of unit standards and accomplishes unit standards that outline the objectives of the qualification.

The "design down" approach can be represented by addressing the following aspects:

- a) Determining the objective of the qualification.
- b) Determining whether the objective can be accomplished. Identifying what students need to be able to do and know in order to accomplish the objective.
- c) Determining the values presented in the objective.
- d) Considering the above-mentioned points and writing them as outcomes.
- e) Asking how one knows whether the students have accomplished the outcomes and the evidence to take into account. Basically, asking how the students are going to be assessed to determine whether they have achieved the outcomes; and
- f) Asking how the students are going to be prepared for the assessments. What learning and teaching activities will produce the skills, knowledge and values needed by the assessment activity? (SAQA 2014:online).

On completion of the "design down process", the deliver up approach should be followed. The latter will allow the facilitator to monitor if the learning activities adequately prepared the students for the assessment activities. Subsequently, these will, in turn, provide an indication of the outcomes have been met, and thereby, the purpose of the qualification has been achieved (SAQA 2013:6).

When the design down process is completed, one can then deliver up, by conducting learning activities that can prepare students for assessment activities (cf. 2.2.3). These assessment

activities provide evidence that the students have accomplished the outcomes and thus have achieved the purpose of the qualification.

EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments). Intended learning outcomes, teaching, and learning activities and assessment tasks ought to be aligned (Biggs & Tang 2007:50). It is recommended that the EMPP should focus on students' learning and complex social experiences which will improve their academic and professional competencies. Subsequently, students will be enabled to apply learning activities that promote the formation of their knowledge, behaviour, and skills and assess its outcomes (Biggs & Tang 2007:50).

"Alignment in constructive alignment reflects the fact that the learning activity in the intended outcomes, expressed as a verb, to be activated in the teaching of the outcome is to be achieved and in the assessment task to verify that the outcome is achieved." (Biggs & Tang 2007:52).

It is also recommended that the EMPP be presented as a full-time programme, to assist the student with adapting to the HE environment. In addition, instruction on the EMPP should contribute to the transformation and development of the individual students' personal enrichment, social development, and economic and employment growth requirements. Furthermore, the EMPP should consider student diversity with curricula development (for example, students from rural backgrounds).

Focus points:

- The EMPP curriculum design should maintain an appropriate balance of theoretical and practical knowledge and skills.
- Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time should cater to the learning needs of the target student intake.
- The purpose of the EMPP should inform the statement of applied competence, curriculum design and assessment strategy.

- Measures should be in place to ensure the programme's academic coherence and that all conditions for delivery of the programme are met in terms of programme design.
- Regular and effective communication should take place with the students. This includes providing reliable information on the various aspects of the programme.
- Pedagogy should contribute to transformation because it develops individual students' capabilities for personal enrichment and the requirements of social development and economic and employment growth.
- Student diversity should be considered with the development of curricula (for example, students from rural backgrounds).
- The EMPP should have sufficient content and theoretical depth at the appropriate level to serve its educational purposes.
- The EMPP curriculum should be aligned with that of EMC education but should not be the primary focus of the EMPP.
- The EMPP curriculum should be constructively aligned (outcomes, facilitation, and assessments).
- The EMPP curricula should be based on the students' needs and differences within that institution.
- The EMPP should enable students to pursue further personal and professional development within the Emergency Medical Care environment.
- Where applicable, the EMPP should be designed and developed to meet the needs and expectations of students, employers, sponsors, and professional associations.
- The EMPP should be designed to support the achievement of the specified learning outcomes.
- The design of the EMPP should promote the students' understanding of the specific occupation for which they are being trained.
- After completing the EMPP, the student should understand the key terms, concepts, facts, general principles, rules, and theories of EMC education.
- The programme design and development process of the EMPP should result in clear and concise written statements of intended learning outcomes.
- The EMPP should be guided by policies and procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals.
- Academic writing should form part of the EMPP curriculum.

- The EMPP should be benchmarked against similar programmes on offer at other higher education institutions, either locally or internationally.
- All EMPP modules should be designed and structured as complementing components of the programme.
- The ability of EMPP students to function as adult learners and take responsibility for their learning is essential.
- All students from the EMPP should be able to cope with the academic requirements of higher education.
- The EMPP student should be able to demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task.
- The EMPP student should be able to apply basic processes of analysis, synthesis, and evaluation of collected information.
- The EMPP should be able to develop the necessary foundational knowledge, skills and attributes necessary to form the basis for further study in the fields of prehospital EMC to promote access during first-time application at HEI's.
- The EMPP should aim to bring about learning with understanding.
- EMPP learning content should be relevant, realistic, manageable, and accessible.
- The EMPP should take the students existing knowledge into consideration.
- The EMPP should be current with regard to the needs of the student and society.
- The EMPP student should work effectively as individuals and with others as members of a team.
- The EMPP student should be able to organise and manage themselves and their activities responsibly and effectively.
- The EMPP student should be able to communicate effectively using visual, symbolic and/or language skills in various modes.
- Lecturers teaching modules on the EMPP should be involved in the design of the curricula.

The EMPP curriculum should be aligned with EMC education. However, the EMPP should not primarily focus on EMC content. Consequently, the EMPP should prepare the student for entering a higher education environment and guide the student in understanding the concepts of prehospital emergency medicine. EMPP should not be focused on specific skills as this will be the

function of EMC-specific programmes but could include some level components of non-technical skills. For example, non-technical skills such as decision-making, situation awareness, leadership, and teamwork are essential skills needed in EMC as a profession and should be included in EMC education. A theoretical approach should be used concerning EMC documentation on the EMPP.

Lecturers teaching modules on the EMPP should be involved in the design of the curricula. The use of technology on the EMPP must be encouraged to assist the students to be independent thinkers as technology is considered a necessity for the learning environment.

3.3 EMPP level descriptors

As defined by the CHE, a qualification descriptor specifies the exit level of the qualification type, its minimum credit rating, and its purpose and characteristics (SAQA 2008:8). Moreover, a qualification type must meet the generic competencies described in the level descriptor for the level concerned (SAQA 2012:8). Level descriptors and qualification descriptors are expressed in terms of learning outcomes. Additionally, level descriptors define the learning outcome at a specific level of the NQF, providing a broad indication of the learning outcomes suitable to a qualification at NQF Level 5 (SAQA 2012:9). Unit standards, level descriptors and qualifications are registered at specific levels of the NQF. Level descriptors should be comprehensive and generic but indicate what is required of a student at a particular level of a qualification (SAQA 2014:online).

Guidelines:

The NQF level and its level descriptor form the outer and most generic layer in terms of the knowledge and skills that students are required to acquire, integrate, and demonstrate (applied competence) at each level of cognitive complexity on the HEQSF. SAQA is responsible for the development of the content of the level descriptors for each level of the NQF in consultation with the three Quality Councils: CHE, the Council for Quality Assurance in General and Further Education and Training (Umalusi), and the Quality Council for Trades and Occupations (QCTO). The level descriptors provide universal standards for qualifications on the HEQSF in terms of predictable levels of complexity of knowledge and skills at each NQF level (SAQA 2012:5).

However, they do not provide a basis for distinguishing between the different purposes of qualifications in terms of their orientation towards conceptual and contextual knowledge. Implicit in the HEQSF are three broad qualification routes: vocational, professional, and general (HEQSF 2013:5).

A qualification descriptor specifies the exit level of the qualification type, its minimum credit rating and its purpose and characteristics in terms of the types of knowledge and skills that it is intended to develop (HEQC 2013:9). A qualification type must meet the generic competencies described in the level descriptor for the level concerned and be guided by the characteristics of the three qualification routes. The basic qualification types, namely certificates, diplomas, and degrees, are used as points of reference for the design of specialised qualifications and the programmes that deliver them (HEQC 2013:9). According to SAQA (2012:3), applied competence has three essential elements: 1) foundational competence, which embraces intellectual/academic knowledge together with analysis, synthesis and evaluation skills, which include information processing and problem-solving skills; 2) practical competence, which includes the concept of operational context; and 3) reflexive competence which incorporates student autonomy.

The following categories/competencies are applied to any NQF level (including NQF Level 5):

1. "Scope of knowledge.
2. Knowledge literacy.
3. Method and procedure.
4. Problem-solving.
5. Ethics and professional practice.
6. Accessing, processing, and managing information.
7. Producing and communicating information.
8. Context and systems; and
9. Management of learning (SAQA 2012:8-9)".

The following principles underpin the application of the level descriptors across the three sub frameworks of the NQF:

1. There is one standard set of level descriptors for the NQF to be used in different contexts.
2. The level descriptors incorporate ten competencies.
3. The level descriptors are designed to meet the needs of academic as well as occupational qualifications.
4. There must be a correlation between qualification levels and occupational levels in the world of work.
5. The Critical Cross-Field Outcomes of SAQA are embedded in the level descriptors.
6. Level descriptors are cumulative, i.e., there is a progression in the competencies from one level to the next.
7. Level descriptors are applicable to the Recognition of Prior Learning (RPL).
8. Level descriptors are descriptive and not prescriptive.
9. The nomenclature for qualifications is dealt with in the sub-frameworks of the NQF (SAQA 2012:04).

Level descriptors do not incorporate all the critical outcomes, although it is expected that students accomplish all the critical outcomes by the time they have finished the programme content and awarded the whole qualification. Below are prescribed critical outcomes that students should master. They must be able to:

- a) Detect and resolve problems.
- b) Work successfully with others in a team.
- c) Organise themselves efficiently.
- d) Gather, examine, organise and evaluate information.
- e) Communicate well through writing or speech.
- f) Become entrepreneurial.
- g) Explore education and career opportunities.
- h) Be culturally and aesthetically sensitive.
- i) Participate as responsible citizens in community life.
- j) Explore strategies to learn more effectively.
- k) Comprehend that the world is a set of correlated systems; and
- l) Use science and technology responsibly (SAQA 2014:online).

Critical outcomes of the stratified competency-based learning programme are therefore guided and grounded on the above descriptors. The design of a learning programme should continue successively through three key stages of analysis, namely,

- a) Analysing the qualification.
- b) Analysing the ELO or unit standard; and finally
- c) Analysing the outcome collectively with its assessment criteria and Associated information.

The level descriptors of the EMPP should provide a broad indication of the learning achievements or outcomes of the programmes. Also, the EMPP level descriptors should:

- Meet the needs of academic as well as occupational requirements.
- Be descriptive and not prescriptive.
- Critical Cross-Field Outcomes of SAQA should be embedded in the level descriptors of the EMPP.
- The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.
- The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.
- The EMPP student should be able to collect, analyse, organise, and critically evaluate information.

Focus points:

- The level descriptors of the EMPP at an NQF level 5 should provide a broad indication of the learning achievements or outcomes that are appropriate to a programme at NQF level 5.
- The EMPP level descriptors should be designed to meet the needs of academic as well as occupational requirements.
- EMPP level descriptors should be descriptive and not prescriptive.
- The Critical Cross-Field Outcomes of SAQA should be embedded in the level descriptors of the EMPP.
- The EMPP outcomes should be aligned with the level descriptors and exit level outcomes.

- The relationship between the exit level outcomes, learning strategies, and the module outcomes of the EMPP modules should be clear.
- The EMPP student should be able to collect, analyse, organise, and critically evaluate information.
- The EMPP should use science and technology effectively and critically, showing responsibility towards the environment and others` health.
- The EMPP should demonstrate and understand the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.
- The EMPP student should work effectively as individuals and with others as members of a team.
- The EMPP student should communicate effectively using visual, mathematical, and language skills in verbal and written presentation modes, mainly through reports and the handover of patients to other services.

3.4 EMPP learning outcomes

According to SAQA (2014:online), a qualification refers to an intended amalgamation of learning outcomes with distinct purposes and is expected to provide qualifying students with practical competence and a foundation for additional learning. The qualification also entails formal recognition of accomplishments at precise levels of the NQF, as might be determined by relevant bodies registered for such purposes by SAQA.

Guidelines:

The formulation of outcomes is fundamentally about the creation of knowledge. What knowledge, skills, and attitudes are the students required to have by the end of a module or programme? When we plan a module or programme, we identify certain "things" our students should learn and do. We need to tell them what these "things" are. Therefore, we formulate outcomes. Describing a module or program in terms of what students will do and what they will learn provides information upfront that helps to guide and direct the student's planning and the students' learning. Moreover, outcomes indicate what a lecturer see as essential and assists to

determine what to assess during or at the end of the course or program. Outcomes allow students to make judgments about whether they have learned what they needed to.

Exit level outcomes refer to the students' outcomes when leaving the programme and being awarded a qualification. This means that the student achieved all the outcomes in a learning programme (Directorate of Quality Assurance and Development 2013:Online). Learning and assessment activities are derived from the outcomes that make up the qualification. SAQA suggest a design down, deliver up approach allowing progression from the purpose of the qualification to the outcomes, its assessment criteria, and the learning activities (SAQA 2013:5) (cf. 2.2.2.1). The exit level outcomes should indicate what the qualified student would be able to do and know as a result of completing the qualification or part qualification. The exit level outcomes are framed against the level descriptors. Criteria indicating the nature and level of assessment must be set derived from the level descriptors (SAQA 2013:6).

The EMPP assessment should test and reward higher-order learning for encouraging deep learning and includes the following questions:

- a) What do the outcomes indicate that the student should be able to do and know?
- b) What would need to be examined in accordance with the assessment criteria for an outcome?
- c) What content will the student require?
- d) What activities will enable students to accomplish outcomes and meet the assessment criteria?
- e) What teaching approaches will be suitable to guide students to the point where they can produce evidence of the required learning (SAQA 2014:online)?

Module-specific outcomes

Learning outcomes are measurable achievements that the student will understand after the learning is complete, which helps students understand the importance of the information and what they will gain from their engagement with the learning activity. Gravet and Geysers (2004:94) further mention that outcomes are the demonstrable and observable end products of a learning process, and they go beyond the specification of subject content. Critical characteristics of learning outcomes include:

1. The intended achievement for the students must be meaningful.
2. The intended achievement for the students must be measurable.
3. The outcome should speak to the quality standards established for the programme.

Creating clear, actionable learning outcomes is an essential part of the creation of training programs in organisations. When developing these programs, both management and instructors need to be clear about what students should understand after completing their learning path. A well-written learning outcome will focus on how the student will be able to apply their new knowledge in a real-world context, rather than on a student being able to recite information (Valamus 2019:online).

According to the CHE (2016:10), well-written learning outcomes involve the following parts:

- Action verb
- Subject content
- Level of achievement
- Condition of performance (if applicable).

The CHE (2016:7), further mentions that intended learning outcomes should clearly describe the knowledge, skills and competencies that participants should expect to acquire from a short learning programme. Moreover, such statements should provide the focal points for instruction and learning. The learning outcomes should also be arranged in a recognisable and logical sequence from entry-level to exit levels so that students would gauge their progress towards achieving them in the process of learning. Learning outcomes and impacts should be the cornerstones on which sound short learning programmes are premised. Adequate physical resources, consistent with the intended learning outcomes of the respective short courses, are made available for the running of the short courses (CHE 2016:8).

Critical cross-field outcomes are overarching outcomes that all learning programmes work towards. They are essential for developing the capacity for lifelong learning. These outcomes are about the needs of society and the individual. Learning programmes have to offer students

opportunities to obtain critical outcomes. The ETQAs must consider how the critical outcomes have been assessed and learned in the programme delivery (SAQA 2014:online).

The focus of the EMPP learning outcomes should be on foundational knowledge aligned to EMC-specific outcomes. The EMPP should use assessment opportunities that integrate students' foundational knowledge and skills, for example, mathematics and academic writing. Moreover, the EMPP should include basic concepts of writing coherently, paraphrasing, and approaching the writing of EMS documentation. It should be noted that even though the before mentioned cannot entirely be aligned to healthcare treatments per se, the mathematical concepts of conversions such as grams to mg and the dilution could form part of an introduction. Moreover, actual drug/medication information should not form part of the curriculum of the EMPP and should be taught on specific EMC educational programmes.

The EMPP facilitators should ensure that learning outcomes are educationally sound and meet the following criteria, namely:

- Having a defined purpose.
- Provide applied competence and a basis for further learning.
- Going beyond subject knowledge and reach into the promotion of deeper-level learning competencies.
- Specify appropriate assessment criteria.
- Clearly describe students' knowledge, skills, and competencies from learning.
- They are arranged in a recognisable and logical sequence.

Focus points:

- EMPP learning outcomes should have a defined purpose.
- The EMPP learning outcomes should provide applied competence and a basis for further learning.
- The EMPP learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.
- EMPP learning outcomes should be specified with appropriate assessment criteria.

- Facilitators in the EMPP should ensure that learning outcomes are educationally sound.
- Statements of intended learning outcomes should clearly describe the knowledge, skills, and competencies students should obtain from learning.
- The learning outcomes should be arranged in a recognisable and logical sequence.
- Alignment of the set outcomes with the level descriptors and the exit level outcomes for the EMPP is essential to the success of teaching and learning on the programme.
- The successful planning and delivery of the EMPP are only possible when the desired learning outcomes are clear.
- Learning outcomes should be well formulated.
- Learning objectives should describe measurable outcomes.
- All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.
- Consideration should be given to the level at which the learning is being offered.
- Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.
- The EMPP should be occupationally based and, when completed constitute credits towards a qualification registered on the NQF.
- The breakdown of the time allocation on each EMPP module should be clearly defined.
- Adequate physical resources consistent with the intended learning outcomes of the EMPP should be available to the students (library etc.).
- The EMPP curriculum should not contain more EMC-specific outcomes.
- Learning outcomes should provide applied competence and a basis for further learning.
- Learning outcomes should provide applied competence and a basis for further learning.
- Learning outcomes should go beyond subject knowledge and reach into the promotion of deeper-level learning competencies.
- EMPP learning outcomes should be specified with appropriate assessment criteria.
- Learning outcomes for a programme and module and their link to assessment criteria and judgments are clearly stated and communicated to students.
- About the learning outcomes of the EMPP, students should be provided with timely, constructive and fair feedback on their progress.
- The EMPP modules should provide the student with a clear breakdown of the total notional hours.

3.5 EMPP credits and notional hours

It is essential to understand what and how credits work. In this section, a detailed understanding of credits is discussed concerning the stratified competency-based learning programme. Credits are described as a measure of the learning time and notional hours that it would take a typical student to achieve the programme's prescribed outcomes. Credits comprise structured learning, contact time, workplace learning, and self-study (for example -10 notional hours = 1 credit) (SAQA 2014:online).

The number of credits allocated to a unit qualification or standard can guide the average learning time in terms of credits dictating learning time. Students learn in different ways, some faster than others. Knowledgeable teachers can then adjust the learning programme in order to accommodate specific groups of students. It could mean that the educator prepares, in advance, additional material that the faster students can be challenged by or sets up peer groups that can help students that learn at a slower pace (SAQA 2014:online).

Focus points:

- The EMPP modules should provide the student with a clear breakdown of the total notional hours.
- The EMPP should be a credit-bearing short learning programme.
- All learning relevant to the learning outcomes should be considered when notional learning time is being estimated.
- Consideration should be given to the level at which the learning is being offered.
- Credits achieved through the EMPP should be articulated and have currency in terms of registered qualifications and unit standards.
- The breakdown of the time allocation on each EMPP module should be clearly defined.

3.6 EMPP learning facilitation

The preferred teaching methods in the delivery of the EMPP should promote active learning. Moreover, the EMPP facilitation methods should:

- Appropriate for designing and using learning materials and instructional and learning technology.
- Encourage understanding the relationship between the concepts presented and their application in real life.
- Concise and designed to enable the student to achieve the module outcomes.
- They are linked to the specific module's outcomes to provide maximum opportunity for the student's success.

Selecting appropriate facilitation methods is fundamental in ensuring effective teaching and learning results. Furthermore, a mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience. In addition, the teaching and learning strategy should be appropriate for the institutional type as reflected in its mode of delivery and composition. Students should be provided with guidance on how the different components of the programme (for example, subjects, courses, and modules) contribute to the program's learning outcomes. It is recommended that the EMPP learning material should not be focused, specifically on EMC. However, EMC links may be brought in at times, and the EMPP should be generically focused.

A mechanism should be in place to ensure the appropriateness of teaching and learning methods. The student should have a clear understanding of how the lesson will be facilitated. Suitable learning opportunities are provided to acquire the knowledge and skills specified in the programme outcomes and stipulated time. EMPP learning material should be focused on EMC.

The EMPP learning guides should be:

- They are formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.
- Have a standard format for all EMPP modules.
- Be consistent and specific regarding student support initiatives.
- Include a descriptive work scheme providing the student with clear guidelines on what to expect from the module.
- Provide a clear link where the student will find the exit level outcomes.

Financial support plays a role in the success of students. That financial support plays a role in the success of students. One of the participants mentions that the issue of financial support is vital, especially for individuals who are having family who have debts to pay. the issue of financial support will help take the burden of sharing the money for two households as it will assist them to be able to focus purely on academics. As a result, it will help the mental state of the student in the EMPP course.

Student psychological support services are available and accessible. Additional student academic support is offered where necessary. There should be continuous guidance available to students regarding resource use, e.g., online resources Blackboard. EMPP curriculum content should provide immediacy, i.e., be immediately relevant to the student's current working environment. The EMPP student's existing knowledge should be explored. The individual student's attributes, preferences, and needs should be accommodated.

Lesson planning plays a vital role in the successful planning of a module/subject. Lecturers should continuously upgrade teaching and learning methods on the EMPP. Furthermore, academic staff should be upskilled to develop learning materials to ensure that thorough lesson planning is based on the student's needs.

Focus points:

- Students should be provided with guidance on how the different components of the programme (for example, subjects, courses and/or modules) contribute to the learning outcomes of the programme.
- A mechanism should be in place to ensure the appropriateness of teaching and learning methods.
- Lecturers should continuously upgrade teaching and learning methods on the EMPP.
- The most preferred teaching methods in the delivery of the EMPP are those that promote active learning.
- Facilitation methods should be appropriate for the design and use of learning materials and instructional and learning technology.

- Facilitation methods should encourage an understanding of the relationship between the concepts presented and application in real life.
- Selecting appropriate facilitation methods are fundamental in ensuring effective teaching and learning results.
- Methods of facilitation should be concise and designed in a manner to enable the student to achieve the module outcomes.
- A mixture of delivery methods should be used, where appropriate, to optimise the learning process and experience.
- The student should have a clear understanding of how the lesson will be facilitated.
- EMPP facilitation methods should always be linked to the specific module's outcomes to provide maximum opportunity for the students' success.
- Suitable learning opportunities are provided to facilitate the acquisition of the knowledge and skills specified in the programme outcomes and within the stipulated time.
- EMPP learning material should be focused on EMC.
- EMPP learning guides should always be formatted appropriately and neatly presented to the students to assist the student in achieving the module's outcomes more effectively.
- EMPP learning guides should be in a standard format for all modules.
- EMPP learning guides should be consistent and specific with regards to student support initiatives.
- The EMPP learning guides should include a descriptive work scheme descriptive providing the student with clear guidelines on what to expect from the module.
- The learning guides should provide a clear link where the student will find the exit level outcomes.
- Lesson planning plays a vital role in the successful planning of a module/subject.
- Thorough lesson planning should be consistently based on the learner's needs.
- Financial support plays a role in the success of students.
- Student psychological support services are available and accessible.
- Additional student academic support is offered where necessary.
- There should be continuous guidance available to students with regards the use of resources, e.g., online resources Blackboard.
- Academic staff should be trained to develop learning materials.
- The EMPP student's existing knowledge should be explored.

- The individual student's attributes, preferences and needs should be accommodated.
- The teaching and learning strategy should be appropriate for the institutional type as reflected in its mode of delivery and composition.

3.7 EMPP assessment

SAQA defines assessment as 'a process used to identify, gather and interpret information and evidence against required competencies' in order to make a judgement about a student's achievement (SAQA 2012:6). Assessment can also be defined as the act or result of judging the value or worth of something or someone; in this research, assessment refers to the students, as opposed to something (Bath, Smith, Stein & Swann 2004:313). Assessment is, therefore, a thorough process and includes a range of measurements for judging performance. The content and standard of assessment, types of assessment, and assessment principles form part of the assessment process (SAQA 2012:37).

Facilitators are required to collect evidence throughout the learning unit over a period. Therefore, it is crucial to plan the assessments and design the types of assessments while developing a curriculum (Cumming 2009:90).

Guidelines:

The following principles which are aligned with the Higher Education Acts and the NQF Act should be taken into account with the design of assessment on the EMPP:

- a) Assessment should be an integral part of curriculum planning and must be aligned with outcomes.
- b) Assessment should be performed on the appropriate NQF level in accordance with programme registration.
- c) All assessments should be planned to cover all assessment domains.
- d) The assessment takes place in a system and must be planned accordingly.
- e) In order to be a quality assessment, each of these assessments should fulfil criteria for validity, reliability, transparency, fairness and practicability.

- f) Moderation should form part of overall, as well as individual, assessments.
- g) There should be accountability for each assessment, with evidence that the assessment was moderated (Brits *et al.* 2020:6).

Furthermore, an assessment can be considered credible if the criteria for fairness, validity, reliability and practicability have been met (Brits *et al.* 2020:6).

Focus points:

- Assessment criteria and/or an explicit understanding of coursework requirements should be communicated to the students on commencement of their studies.
- Assessment should be used to generate data for grading, ranking, selecting, predicting, and providing timely feedback to inform teaching and learning and improve the curriculum.
- Assessment criteria should be of a suitably high standard and are aligned with the learning outcomes of the EMPP.
- Procedures should be in place and followed to receive, record, process and return assignments within a specified time that allows students to benefit from feedback before the submission of further assessment tasks.
- Student progress should be monitored.
- For summative assessment where more than one assessor is involved, internal moderation checks should be undertaken to ensure the reliability of the assessment procedures.
- The assessment of student learning achievements by academic staff responsible for a lectured module should be subject to external moderation by appropriately qualified academics.
- Suitably qualified external moderators/examiners should be appointed in terms of clear criteria and administrative procedures and conduct their responsibilities in terms of clear guidelines. These criteria and procedures should be consistent with the institution's policy.
- Measures should be taken to ensure the reliability, rigour and security of the assessment system. Assessment results are recorded securely and reliably.
- Policies for ensuring the integrity of certification processes for the qualification obtained through the programme should be effectively implemented.

- Completed external moderator reports should be returned to the relevant academic staff and the programme coordinator. Problems should be discussed with the lecturer concerned and the programme co-coordinator monitors the implementation of agreed improvements.
- There should be a fair and effective procedure for settling student disputes regarding assessment results, and students are acquainted with this procedure. Breaches of assessment rules should be dealt with effectively and timeously.
- Provision should be made for the development of staff competence in assessment.
- Assessment criteria should be commensurate with the level of the qualification, the requirements of SAQA and, where appropriate, professional bodies, and should be made explicit to staff and students.
- Learning activities and the required assessment performances should be both aligned with learning outcomes at the programme and modular level.
- Students' assessment records should be reliable and secure.
- Internal assessment of student learning achievements by academic staff should be important.
- Monitoring student progress in the course of the programme should be important.
- Ensuring the security of the assessment system, especially concerning plagiarism and other misdemeanours should be important.
- Development of staff competence in assessment should be important.
- An assessor should know about current changes in higher education.
- Assessors should be formally trained in the principles of assessment.
- Assessment should be a learning experience for both students and assessors.
- Assessment should identify areas where adjustments in teaching and learning could be made.
- Schedules, methods and processes of assessment should be communicated to students at the beginning of the EMPP.
- The assessment methods should include a wide range of approaches.
- The assessment methods must be in line with the knowledge, skills, and outcomes defined at the start of the module.
- The EMPP should use various teaching and assessment techniques, e.g. lectures, journal reviews, seminar presentations, examinations, etc.

- Clear stated outcomes must be formulated as part of the construction of assessment.
- Assessment should be integrated and must therefore cover all aspects of the EMPP.
- Students must have sufficient opportunity to prepare for assessments.
- Students should know how the weight of assessments is determined.
- The learning content that will be evaluated in the assessment, should be explained to the students.
- Procedures should be in place to ensure the reliability, validity and trustworthiness of an assessment.
- Memorandums should form part of all assessments.
- Appropriately trained moderators should moderate assessment with specific expertise in the learning area.
- The pre-defined assessment purposes should determine the assessment methods.
- Assessment criteria must be developed and used during the assessment.
- Students should be informed about the goal and importance of feedback.
- A clear process should be available to recognise the at-risk student.
- Selected assessments measure the course learning objectives.

3.8 EMPP physical preparedness

Part of the training of emergency medical personnel includes rescue service at an operational level. Medical Rescue work is by nature physically taxing and places demands on the rescuer, both in terms of strength and endurance. For Emergency Care Personnel to perform effectively and safely in emergency medical and rescue environments, they need to set minimum physical strength and endurance levels. Emergency Care workers who are unfit are unable to perform as they should, which has a negative effect on the rescue operation and patient care (UJ 2017:6).

Guidelines:

Physical preparedness plays a vital role in EMC education and should form part of the EMPP. Although physical preparedness is essential, it should form part of the EMPP as an informal programme. It should not be credit-bearing. Instead, it should be instilled in the student as a change in lifestyle. Furthermore, physical preparedness should be a formal module on the EMPP,

and a competency-based grading scale is advocated. Physical preparedness is an important area to address on the EMPP as it will improve the pass rate on EMC programmes, as students will have a basic fitness level.

While physical preparedness can be assessed, it should not be compulsory to pass the fitness component to gain a certificate of completing the EMPP. It is essential that the student participates in the physical fitness module and that there is constant improvement.

The EMPP should have a learn to swim programme as part of the EMPP. Moreover, there should be assessment targets or goals set so that the student and facilitators can monitor the student's physical fitness and ability to swim progress. These assessment criteria should be used as a motivational tool rather than a pass or fail criteria. The students should be encouraged to live a positive and healthy lifestyle while enrolled on the EMPP. However, it is a critical component to introduce in the EMPP as swimming skills are necessary for the EMS environment.

Focus points:

- Physical preparedness plays a vital role in EMC education and should form part of the EMPP.
- Physical preparedness should not be a formal module on the EMPP but seen as a lifestyle.
- Being physically healthy is essential.
- EMC practitioners need to learn to swim.
- Learning to swim should not be a formal module on the EMPP but should form part of the EMPP curriculum as a life skill.
- Physical preparedness plays a vital role in EMC education and should form part of the EMPP.

3.19 EMPP generic skills and competencies

It is recommended that the EMPP teach the students to understand the value of a taught skill effectively. In addition, the EMPP should explore foundational knowledge in preparation for the undergraduate EMC programmes. With regards to modules such as mathematics, the students should be taught the basic concepts of how to go about doing calculations appropriate to the EMC discipline field. i.e., administration of medication once they are on the EMC programme. In addition, the role of the EMPP should be to explore foundational knowledge and guide the student to see how participating in Mathematics finally will assist on EMC programmes. The Numeracy module should be closely aligned to mathematics, with more discipline-specific scenarios included in the assessments. Also, the physical sciences module should be aligned to first-year EMC physics and Chemistry learning outcomes. The EMPP should equip the student with basic research skills, referencing skills, and academic writing, which all play vital roles in higher education.

Focus points:

- Physical preparedness plays a vital role in EMC education and should form part of the EMPP.
- Physical preparedness should not be a formal module on the EMPP.
- Being physically healthy is essential.
- EMC practitioners need to learn to swim.
- Learning to swim should not be a formal module on the EMPP.
- Physical preparedness plays a vital role in EMC education and should form part of the EMPP.

3.10 EMPP quality assurance

The International Network for Quality Assurance Agencies in Higher Education (INQAAHE 2020:online) states that assurance of quality in higher education establishes stakeholder confidence that provision (input, process and outcomes) fulfills expectations or measures up to threshold minimum requirements. Furthermore, the United Nations Educational, Scientific and Cultural Organization (UNESCO 2020:online), defines quality assurance as 'the systematic review

of educational programs to ensure that acceptable standards of education, scholarship and infrastructure are being maintained.

Guidelines:

In 2000, SAQA implemented SLP recording to enable SLP providers full access to the standards-setting and quality-assurance processes set up of education and training systems (SAQA 2004:7). The HEQC clearly states in their criteria document for delegation of the quality management of SLPs that "an integrated institutional strategic planning framework and process for the provision of both whole qualifications and short courses" is required from providers (CHE 2008:13). Therefore, institutions should consider the factors identified during an institution's quality assurance activities during planning. There should be an integration of information gathered during the quality assurance processes, which feeds into planning on all institutional levels. Data that are valuable quality management information includes the availability of staff capacity to develop and offer the courses; "the impact of offering short courses and the quality of the services provided to students as well as the administrative capacity at all levels" (CHE 2008:13).

The quality assurance of SLPs should be well documented according to institutional policies and mechanisms (CHE 2008:13). These mechanisms should include the development, implementation, monitoring and refinement of SLP policies and procedures. Gryna *et al.* (2007:256) agree that the purpose of the quality policy is to guide the quality assurance process. The HEQC (CHE 2008:13) requires institutions to have precise arrangements to approve the offering of an SLP. The approval processes should be on par with the approval of institutional academic programmes. This should be the responsibility of an appropriate unit or governance structure (such as the Senate) of the institution (CHE 2008:13).

Moderation should be an essential element of ensuring and maintaining the quality of the EMPP. Moreover, moderators should be appointed according to precise criteria and procedures and conduct their responsibilities in clear guidelines.

Focus points:

- Moderation should be an essential element of ensuring and maintaining the quality of the EMPP.
- Moderators are appointed to clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.
- Transparent monitoring, review processes, and procedures should be formulated for the EMPP and used consistently to ensure that quality is by no means compromised.
- Instructional materials are reviewed periodically to ensure they meet program standards, and that course information is up to date and relevant.
- Quality assurance procedures must be in place and must be strictly adhered to on the EMPP.
- Lecturer evaluations should be done.
- The EMPP should be review in a clustered process.
- EMPP modules should be reviewed regularly, but not excessively, and use a judicious selection of module data for review.
- Planning and programme design of the EMPP should be done adequately.
- Planning and management of the EMPP should be a key focus area of quality assurance.
- Early recognition of the at-risk student.
- Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions.
- The EMPP should have mechanisms in place to ensure that teaching and learning methods are appropriate for the design of the programme.
- The EMPPP should provide for staff development opportunities where staff can upgrade their teaching methods.
- The EMPP should have systems in place to deal with under-performing or inactive students in the programme.
- The EMPP should have a strategy geared towards providing opportunities for the realisation of the programme outcomes, within the specified programme time.
- The EMPP should have systematic reviews of its activities to determine its effectiveness in achieving its goals and objectives.

- The results of reviews and evaluations should be utilised in the planning process of the EMPP.
- User surveys should be undertaken at regular intervals for feedback from academics involved in the programme, students, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the EMPP is attaining its intended outcomes.
- There should be regular reviews of benchmarking effectiveness in the programme against equivalent national and international reference points, with a view to goal-setting and continuous self-improvement in the programme.
- Student and staff development initiatives should be responsive to the needs of the students and staff. This includes foundational and skills-oriented provision for students.
- The effectiveness of academic development initiatives should be regularly monitored, and feedback is used for improvement.

Appendix T:

Expert panel interview guide

AGENDA FOR EXPERT PANEL DISCUSSION:

I. Main research question:

Which quality assurance and educational guidelines can be used to enhance quality in an EMPP in South Africa?

II. Questions for participants:

Nr.	Topic	Time frame
1.	Welcome and introduction	10 - 15 min
2.	Admission criteria.	15 - 20 min
	<ul style="list-style-type: none"> • What should the admission criteria for an EMPP consist of? • Access vs preparation? 	
3.	Curriculum design.	15 - 20 min
	<ul style="list-style-type: none"> • What should an EMPP curriculum consist of? • What should the core focus of an EMPP be? • What should the duration of an EMPP be? • What would be the most appropriate way to offer an EMPP? For example, face to face, E-learning, blended learning. 	
4.	Assessment.	15 - 20 min
	<ul style="list-style-type: none"> • What methods of evaluation/assessment could be used in the evaluation/assessment process? 	
5.	Physical preparedness.	15 - 20 min
	<ul style="list-style-type: none"> • Should physical preparedness and learn to swim be part of an EMPP? • How should physical preparedness be facilitated on the EMPP? 	
6.	Generic skills and competencies.	15 - 20 min
	<ul style="list-style-type: none"> • Should the EMPP include any generic EMC skills and competencies? 	
7.	Quality assurance.	15 - 20 min
	<ul style="list-style-type: none"> • What should be included in quality assurance practices for an EMPP? 	
8.	General discussion (any additional comments)	15 - 20 min
	<ul style="list-style-type: none"> • Suggestions to improve the EMPP? 	
9.	Conclusion and closure.	10 min

EXPERT PANEL DISCUSSION SCHEDULE

DATE: _____

Facilitator: _____

Welcome: Introduce facilitator

The purpose of the study is to develop quality assurance and educational guidelines for an Emergency Medical Care Preparation Programme in South Africa.

The topic is: *"Development of Quality Assurance and Educational guidelines for an Emergency Medical Care Preparation Programme in South Africa"*.

You have been selected because you are considered to be an expert in the fields of EMC training and education, higher education, and quality assurance.

Guidelines:

- I understand that my identity and personal details will remain confidential.
- I understand that the expert panel discussion may be video, and voice recorded, and I understand that these recordings will be kept safe and confidential without any reference to names.
- No right or wrong answers, only different points of view.
- The expert panel discussion will be recorded (Microsoft Teams platform).
- A participant number will be allocated to each participant to identify you; mention your number when you speak, for the sake of confidentiality and to distinguish voices in the recordings.
- You do not need to agree with others, but you must listen respectfully while others share their views.
- The role of the facilitator is to guide the discussion.
- Talk to each other.

Appendix U:

Expert panel transcription

1 **EXPERT PANEL DISCUSSION TRANSCRIPTION**

2

3 **DATE: 05/04/2021**

4

5 **DURATION: 09H00 – 11h01.**

6

7 **[1:24] Facilitator**

8

9 Right, lovely. Thank you very much. Alright, gentleman, so this discussion is going to be an
10 open discussion so we not going to do, really formalise everything so much, we just having an
11 open discussion about these (p) and I would just want to remind you about the confidentiality.
12 Your confidentiality will be guaranteed throughout this process as you all are aware of how
13 research is done and the confidentiality clauses which you are part to. So, we can be open and
14 frank about our discussion and be assured that our confidentiality will be protected. Right, so
15 gentlemen, if we can start, the first item on the agenda is the admission criteria. So, the first
16 question is. What should the admission criteria for an EMP be consist of? I will open the platform
17 so you can start discussing this.

18

19 **[email] Number seven**

20

21 The EMPP programme's initial goal should be maintained – thus granting access to candidates
22 not having the initial pre-education for entering HE. The alignment is therefore also important
23 (EMPP → H Cert → Diploma) as gazette prescribe. The EMPP should therefor focus on
24 candidates who do not hold the NSC (NQF4 exit) but wish to upgrade their qualification. Having
25 said that, the admission should be what short courses each candidate holds and not the specific
26 prerequisite subjects on a grade 12 level. For candidates holding a NQF 4 or NSC, and ECP for
27 the diploma is recommended.

28

29 **[2:34] Number two**

30

31 Number two

32

33 **[2:37] Facilitator**

34

35 Thank you.

36

37 **[2:40] Number two**

38

39 Uhm, I think from my side the entry criteria should probably be, uhm (p) an in-service or a
40 staff member that is employed by a department of health or an emergency service, that- that
41 does have a matric but does not meet the entrance requirements of an HEI program, either
42 the higher certificate or the diploma EMC progress. That will be my (p) summarised version.

43

44 **[3:23] Number one**

45

46 Number one

47

48 **[3:27] Number one**

49

50 (Clear throat) I would like to add to that and say, uhm, also having the correct subjects that
51 are required to access these programs as well.

52

53 **[3:47] Number**

54

55 Sorry, it is Number five. Can you hear me?

56

57 **[3:47] Facilitator**

58

59 Yes, we can hear you.

60

61 **[3:54] Number five**

62

63 I would like to pick up, I agree with both of the last two participants, but I would like to just
64 mention more broadly that, uhm, the entrance criteria for a program uhm (p) I think should

65 be seen through the two purposes they serve (pause). The entrance criteria, and especially
66 what (name removed) said, sorry, I can't remember what participant, number one, I think said,
67 was that uhm, they should have the required subject combinations, but the interesting thing
68 for me is that the EMPP program is a vehicle to take people without the- the underbuilt and
69 get them to a point where they might be successful in engaging with a higher education
70 program, and maybe the colleagues would- would have a view on whether it is in fact required
71 that they have those- those subject combinations. But maybe not the symbols. Because for
72 me, the two things are that the- the entrance criteria need to filter out people that would not
73 be able to be successful on the EMPP program, but they would also need to filter out people
74 using the EMPP program, when there are other ways of them upgrading their grade 12
75 exemption. I will stop there.

76

77 **[5:37] Facilitator**

78

79 Thank you, everyone.

80

81 **[5:40] Facilitator**

82

83 Uhm, I am just checking here, it does not seem that there are any other questions, I see that
84 there is a hand raised.

85

86 **[5:51] Facilitator**

87

88 Number one

89

90 **[5:54] Number one**

91

92 Number one.

93

94 **[5:58] Number one**

95

96 Uhm, in addition to what has been said, uhm, I am thinking more, especially when looking at
97 in-service staff. The fact that with in-service staff (p) was sitting with officials that might have
98 the right subjects, and those who are likely not to have the correct subjects. Uhm, the other
99 opinion is that the EMPP should actually cater for both (p) had two streams where, it addresses
100 those with the right subjects, as well as a second stream that looks at those without the correct
101 subjects (p). Just my opinion. Thank you.

102102

103 **[6:48] Number six**

104104

105 Okay, thank you. Number six here. (pause)

106106

107 **[6:55] Number six**

108108

109 If I can go ahead.

110110

111 **[6:55] Facilitator**

112112

113 Yes, please. (pause)

114114

115 **[7:01] Number six**

116116

117 Okay, thanks. Yeah, I think I agree with the initial statements of Number two, Number one,
118 and Number five. Uhm, and I think the- the section that- that one needs to- to- to- to (pause),
119 identify is what would the initial purpose be of the EMPP program? and I think the last
120 statement of Number one, takes it a bit in a different direction now, though, it is- it is not
121 wrong, that there is a need for it. But I think purposely looking at this program that was
122 developed for access into the- the higher certificate and the diploma program, uhm the thing
123 is, that you (p) the TVET colleges, and so forth, they (pause) I think there's a role that they
124 also can play and uhm, looking at timewise and resource wise, it's going to start uhm taking
125 a lot of resource, funding, and so forth if you need to take individuals that do not have the
126 requirements, though, I think there is a need for it. But I think on this specific program that
127 we are looking at now, (p), the, (p), I agree on the initial statements being made, for those

128 that are in-serve that meet the requirements, and uhm, also possibly have not, ahh, be in any
129 source of education for a time period. So, it is actually preparing them to come into a higher
130 education program to help them be successful and to have a throughput at the end. And that
131 I think, is the end means and, (pause) and having a small margin between, for example, that
132 they have the subjects but they don't have the right symbols and just to prepare them up
133 them, as we know that there is numeracy literacy, getting the languages up and going the
134 computer sciences and- and just to have a candidate that is more eligible for the program
135 where they are, for example, in a stream with school leavers already that the gap between the
136 school leaver and the staff member that's been in the service for the last five or 10 odd years.
137 Uhm, that that can still be up to par. Thank you.

138138

139 **[9:50] Facilitator**

140140

141 Thank you. Thank you, Number six, I see that there is another hand. Number one, please
142 continue.

143143

144 **[10:05] Number one**

145145

146 (pause) Yeah, thank you, uhm, if I may just perhaps even justify the statement that I made,
147 uhm, because I am of the opinion that there comes a time in (p) especially when looking at in
148 service staff, where one would completely exhaust the number of those that have the right
149 subjects and if one has created such a program, there has to be a means of maintaining it and
150 continuing with it. So hence, I said, it has to have two streams just to also guarantee its
151 existence, and perhaps later on, then roll out to those with interest who are not, ahh, in service
152 officials. So hence, I think having two streams makes it very, uhm, it will cover a lot more, but
153 it makes sense to say for those with the correct subjects, it will be easier to work with them
154 give them immediate access as soon as they have met the right adjustments of- of symbols.
155 So, they will be having the right subjects and it will be addressing specifically the symbols and
156 having a second stream that looks at those (p) without subjects, even though TVET colleges
157 can come in and play a role. We need something that we have to really debate on as to whether
158 does it belong with TVET colleges? Or does it belong with, (p), uhm, the universities that are

159 offering these programs or not? But I feel that it will really be of good help to have the two
160 streams. Thank you.

161161

162 **[11:50] Facilitator**

163163

164 Thank you, Number one, ahh, Number five, your hand was up first and then Number two?
165 Number five, continue, please.

166166

167 **[11:59] Number five**

168168

169 Thanks. Look- look, I think (p) there is no doubt that there are many people in service who
170 have a matric but do not have maths or life Sciences. But I think the question is whether the
171 EMPP program can manage that deficit as a program and that the other you know; the counter
172 argument is to say those in-service staff who want to study in higher education should go in
173 my opinion and do the NSC as amended and there are many places that it can be done and
174 get the required subjects on and then engage with the EMPP. Because I think that the, uhm,
175 preparation program can only do so much and to try and take someone all the way, uhm, to
176 the level that they matriculate would be in physical science, for example, when they have never
177 ever had physical science. I would see that as a completely different program. But I do not
178 discount, and I think what, uhm, number one was saying is definitely a need. The question is
179 whether the EMPP program does that or whether those people need to engage with another
180 vehicle to get those- those modules added. Thanks.

181181

182 **[13:12] Facilitator**

183183

184 Thank you. Number two.

185185

186 **[13:22] Facilitator**

187187

188 I see Mr, uhm, Number two, has dropped his hand. Uhm Number three, Number, (p), apologies,
189 Number three, please continue.

190190

191191

192192

193193

194 **[13:34] Number three**

195195

196 Yeah. ahh, I am not too sure. What the purpose of the preparation program is. Ahh, Perhaps
197 I don't think, I think in the introduction, maybe you gave you know, a brief as to what it is and
198 the purpose they have, because in my in my understanding in higher education, I mean,
199 certainly from the institution that I work for, (p), I mean, you will be taken in based either on
200 RPL or your, your marks, your matric certificate or through the mature age exemption route.
201 So hence, I am not totally [inaudible] really clear, what is the purpose of a preparation
202 program? If you do not have the prerequisite subjects, for example? How does it facilitate
203 access into the into the higher education institution? Thanks. **(The expert panel guide
204 included a description of the purpose of the EMPP. Information letter. The
205 information from the Delphi survey also provided more information [Nell]),
206 [Facilitator provided more clarity on the purpose of the EMPP]**

207207

208 **[14:37] Facilitator**

209209

210 Thank you. Number three. Yes, I think, gentlemen, that we have approached the second part
211 of this question dealing with the admission criteria as per the agenda, which is basically asking
212 access versus preparation. So, we are looking at this uhm, EMPP program and we need to ask
213 the question whether this is, this should be focused on providing access to tertiary education
214 for the participants in the program? Or should it be focused on preparing the uhm, participants
215 in this program for what they can expect to find once they enter the mainstream (p) of the
216 education in the- in the three qualifications? So, if you would discuss that (p) your comments
217 are welcome, please.

218218

219 **[email] Number seven**

220220

221 Those who hold one of the three EMC short course qualifications and are currently registered
222 with the Health Professions Council of South Africa. Keeping the NQF alignment and

223 government gazette in mind. See previous comment on candidates already having the NQF 4
224 or NSC (ECP development). In addition, the EMPP should focus on granting prospective H Cert
225 candidates the opportunity to upgrade their education to a NQF 4 level and should speak to
226 the specific admission criteria. The focus might also be influenced by the current need in the
227 field of EMC nationally.

228228

229 **[15:25] Number four**

230230

231 Number four.

232232

233 **[15:27] Facilitator**

234234

235 Please continue. Thank you, Sir.

236236

237 **[15:27] Number four**

238238

239 Yeah uhm, I agree with Number three. Also, a bit confused. Uhm, because like- like Number
240 three said, we have criterion entry requirements for- for these programs and set out by our
241 institution. So, I'm also a bit confused, how is this going to be integrated or implemented, if
242 there is really criteria for this, that we are following? [**explained in expert panel guide and**
243 **information document]**

244244

245 **[16:02] Facilitator**

246246

247 Number three, please continue.

248248

249 **[16:06] Number three**

250250

251 Yeah, so if you wanted to have a program for access, I mean, this would have to be- to be
252 registered, for example, with the relevant authorities so that you can offer (pause) so, that you
253 can accredit, uhm, the maths, you know, physical science and uhm life sciences, for example.
254 You know, that is the only way I see this happening, if you wanted to have it as a program for

255 access. But if it is a preparatory program, (pause) then it will be a matter of then the people
256 needing access, they meet the minimum requirements, terms of the subjects, they've done the
257 subjects elsewhere, for example, uhm- uhm, whether to be a Dameline or whatever the
258 institution that offers matric (pause) and then the preparation program then would speak to
259 things like (pause), academic writing, uhm, you know, and other aspects of the program,
260 depending on which program they want to have access into whether it's the higher certificate,
261 the diploma or the four-year degree, because I would imagine that uhm the preparation
262 program would have to be tailored for- for each of those various programs. Thanks (pause)

263263

264 **[17:59] Number two**

265265

266 Uhm, Thanks. So (clear throat) I think that, (p) I think the purpose of the EMP program would,
267 would be to, to speak to that person who is in the in the, in the industry, but who does not
268 meet the requirements to enter into the, the HEI program, some of those- some of those staff
269 members or some of those individuals would be eligible to follow either the mature age or the
270 RPL for entry routes, however, then what we would find is when once that person has gone
271 through that route, [inaudible] they are not prepared for the program, which means they might
272 have been a person (p), they've done the various things and senate says uhm, it's good, the
273 person's portfolio looks good enough, they can enter into the program, but once they're in the
274 program, they simply do not cope, uhm, that and then there's that 10% rule where I mean, if
275 you if you're FTE number, uhm if your new number is let's say for example 40 that speaks to
276 four people per year that you can enter with that route. So, in my mind, the EMP would be
277 necessary to be registered with the relevant bodies and- and I think that is the purpose of this
278 PhD, uhm, is to develop this program and get it registered with the relevant bodies for access.
279 Because then what we can do is, if this is- is done, appropriately and correctly, we can have
280 more people enter into the program that does not necessarily meet the requirements. But then
281 we not, we are not exceeding the CHE rules or any of those- of those existing frameworks that
282 we need to operate within, uhm, so- so I think in the, (p) in the context or in the- in the
283 question with this would be simply a preparedness, uhm, program that takes someone who
284 already can enter into the system and just prepare them. I think there is a bit of that, but I
285 think, is this more than that? Does this thing speak more to access? I think that (p) that would

286 probably be the answer is this would eventually speak to access more than what it would speak
287 to simply preparedness. I do not know if (p) this makes any sense.

288288

289 **[20:59] Facilitator**

290290

291 Thank you. Number two, I see two hands raised. First, it was number one and then Number
292 four. Number one, please continue.

293293

294 **[21:11] Number one**

295295

296 Thank you for that.

297297

298 **[21:13] Number one**

299299

300 Uhm, I wish to agree with uhm, Number two and indicate that, specifically, as we said, in the
301 beginning that we're looking at in-service staff, we need to keep in mind that we had a few
302 documents that came out that are regulating, and uhm, and trying to give, uhm, sort of
303 direction to EMS what we sitting with, I believe it was the NECET policy of 2017. Uhm, that
304 also caters for a migration plan of officials, and especially now looking at those that are in-
305 service and how they can be upgraded and one, when you look at in service staff, and you
306 look at the different cadres that are there and knowing very well that they are officials with the
307 right subjects that (pause) would like to access EMC programs and go further with their studies,
308 but they're having difficulty because they don't have the right symbols. This is where the
309 preparatory program comes in, to give that kind of access. So, when we talking access versus
310 preparation, and I feel that such a program is definitely necessary and it will also, as said by
311 others that it needs to be properly registered with our bodies and be accepted by all universities
312 offering EMC programs. So, in such a way, then it will give them (p) in-service staff access to
313 these programs that without this particular program, they are unlikely to be able to gain access
314 and cannot further, uhm, study if such a program is not in place. Thank you.

315315

316316

317317

318 **[23:10] Facilitator**

319319

320 Thank you. Number one, I see that there is another hand from number six (p) and number
321 four. I just like to point out gentleman that we have reached the 20-minute time it on this
322 However, I'm going to take these last two comments. Number four, please continue.

323323

324 **[23:11] Number four**

325325

326 Thank you, I just want to agree with both Number three, sorry, what Number one and Number
327 two is that we are looking at access. But yet again, our institution we write our own program
328 for access, which is approved by our Academic Planning Committee. So that is in terms of-
329 terms of access for a program for- for people that do not meet the requirements. And then
330 secondly, is the RPL route, where we do RPL Department of Health candidates on to these
331 programs. Uhm, and there is requirements with regards to RPL processes for universities. So,
332 so we have our own criteria when we- when we do a preparatory program, we do have one at
333 Nelson Mandela University, where we send student candidates off to a to a place where they
334 can go and get the required subjects for instance, if they only have the required subjects and
335 I think that's quite important because these- these subjects are already mandated by- by SAQA
336 and the and the requirements of the program. So, you cannot really get a candidate onto a
337 program if they do not meet the subject requirements. So, unless we change the criteria about
338 the HCert and the diploma uhm, for access, that they do not need to have these the subject in
339 that is a different story.

340340

341 **[24:50] Facilitator**

342342

343 Thank you, Number four, then the last comment on this matter then we need to move on
344 gentlemen, please is number six. Please continue.

345345

346 **[24:59] Number six**

347347

348 Thank you. Yes, my input on this point of access versus preparation is that uhm, it can't be
349 mixed into one program, it's going to be, yeah, trying to kill all matters or address all the needs

350 in one program and I think that should be distinctive, there should be an access process and
351 then there should be uhm, either than subsequently a preparation program for those that need
352 to come in with its specific criteria that uhm it stated and I think we've mentioned that in in
353 point number one and I'll just like to emphasize some of the areas also as uhm, Speaker
354 number four mentioned, as well, I'd like to agree with- with Speaker number four now, these
355 last comments, and that this program specifically, would look at preparation, and as it says, a
356 preparatory program, and that access would be in a separate way and we were on the access
357 that we were speaking about the NSC, as amended, and there's different processes that are I
358 feel that they need to follow. But it should not be all in one program and whether it be the
359 university and the program looking into that, or different avenues. But I think the topic that
360 we are discussing today, regarding this program is about preparation, and it is not about access
361 as the main driver. Uhm, thank you.

362362

363 **[26:49] Facilitator**

364364

365 Thank you for that last comment Number six and thank you to everybody else for your
366 comments. I am going to close the subject now at 24 minutes. So, the next area that we need
367 to move into, according to the agenda that was sent to everybody is the curriculum design,
368 and the first question, one of four, one of four there is what should an EMPP curriculum consists
369 of? So, I will open the floor for your discussions.

370370

371 **[email] Number seven**

372372

373 Level descriptors.

374374

375 Suggestion: Level descriptors of the EMPP for an NQF 4 focus and not 5, as the N Cert is on a
376 five as well as the ECA (if I am not mistaken)

377377

378 Learning outcomes.

379379

380 Aligned for articulation into the next level which is NQF 5 (for the learning outcomes, even for
381 the EMPP I will also recommend the back design or constructive alignment done even within a
382 qualification (working thus from the Diploma, back to the N cert to the EMPP).

383 Learning facilitation.

384384

385 This might be influenced by the professional body's prescriptions, for example the EMPP (say
386 it is developed on a NQF 4), will have to include facilitators at least at one level higher, but the
387 higher the better.

388388

389 **[27:18] Facilitator**

390390

391 Number five, please continue.

392392

393 **[27:23] Number five**

394394

395 Yeah, look, I think that uhm, the curriculum in my opinion, will- will flow from the- the purpose
396 of the program. So if this is a program, and the main purpose is so that a person who has been
397 through that program, will- will gain entry into for example, a higher certificate, but not only
398 will they gain entry, they will have a as good as success rate as a matric, uhm, matriculants
399 leaving, because if the purpose in my mind, if the purpose of an MPP program is to take in
400 service staff who are normally mature age, who haven't been at school for a while, and, and
401 prepare them so that they can be successful when they do enter the higher certificate or
402 diploma, for example, then the curriculum must speak to those areas of the higher certificate
403 or the diploma where we know there are challenges, and I mean, I will just use one. One
404 example. If we know that people that are mature age, who in service who have not been at
405 school for a while or have the physical science, but the only score is three or two. If we know
406 that that passing physics at university is a challenge area, then logic dictates that part of the
407 curriculum of the EMPP must be focused on addressing those understandings of physics to the
408 point that they would be having a similar understanding as the classmates, because the real
409 challenge in my mind is you have a group of people entering a program like a higher certificate
410 or diploma, but that group is not homogenous. Some of them are school leavers, and some of
411 them now will be in service staff, because we cannot transform the profession by only qualifying

412 school leavers, we need to not forget about the people that are in service, who have not
413 through fault of their own, not- not had the required symbols or maybe hadn't gone to the best
414 school or went to school many years ago. So, I think the curriculum in my opinion would flow
415 from saying where the pressure points in those programs that mature age learners will struggle,
416 uhm, and then the curriculum must speak to those areas. That is my view.

417417

418 **[29:58] Facilitator**

419419

420 Thank you, Number five. I see that there is a request for comment from Number three, please
421 continue Number three, and then I acknowledge your request Number one.

422422

423 **[30:10] Number three**

424424

425 Yeah, thanks. Yeah, I think I, I agree with the last speaker in that the curriculum needs to
426 speak to? I mean, if it is preparation, that is what you are looking for, then you need to speak
427 to the preparation aspect of it. But I mean, if it is access, ahh, then it ought to, for example,
428 be what are the subjects that, ahh, the candidates are lacking for the particular program? And
429 then the program that needs to speak to that, which is quiet, ahh, I think it would be a
430 cumbersome exercise, and then, in terms of the preparation, I mean, there's various, ahh,
431 aspects, for example, I mean, I mentioned academic writing, and now HEI`s, is being forced,
432 thanks to COVID to use a more blended learning approach. So even- even the use of teams,
433 with folks in the service know how to use online platforms, etc. You know, is, ahh, I would
434 imagine, ahh, would be a challenge. So, I mean, issues like that, I mean, those would play a
435 significant barrier to academic success. If members were to come into this into (pause),
436 university without under a lack of understanding of using online platforms. So, I think the
437 preparation program would need to speak to such issues. Thanks.

438438

439 **[31:42] Facilitator**

440440

441 Thank you, Number three. Number one, please continue.

442442

443 **[31:48] Number one**

444444

445 Uhm, thank you, I wish to agree with the previous two speakers, and just add the fact that we
446 are talking to access (pause) one, having looked at the specific subjects where one is lacking,
447 that means one would have to then focus on that, if it's one subject, where one needs to
448 upgrade to be then the one subject and if it's all subjects, that one should be able to register,
449 then for all subjects into an upgrade for access. So yeah, that is just (p), my opinion on that
450 one.

451451

452 **[32:26] Facilitator**

453453

454 Thank you, Number one.

455455

456 **[32:29] Facilitator**

457457

458 Number two, your hand is rise, please continue.

459459

460 **[32:37] Number two**

461461

462 Thank you. I think that is perhaps the thing, uhm, not to try and code while the while the- the
463 data collection is in progress. But I think something that that might be important is that there
464 needs to be a bit more rigorous or quite a bit more rigorous discussion about what is the
465 purpose of this thing? Because I think even in the previous section, some of the panel, do you
466 believe that this might be an access program and some of the panel believe that this shouldn't
467 necessarily be an access program and rather preparatory program? And I think once we, once
468 we can answer that question a bit, a bit better, we will know what to do with the curriculum a
469 bit better, because then we'll know what to aim for, uhm, so I think once, I guess what I want
470 to say is, once we understand a bit more thoroughly what this thing is supposed to do, we can
471 maybe decide what to put in it.

472472

473 **[33:42] Facilitator**

474474

475 Thank you, number two, ahh, number six, your hand was raised first and then number five.

476476

477477

478478

479 **[33:52] Number six**

480480

481 Thank you. Uhm, so (p), for me on the comment of uhm, speaker number two now, just
482 bringing that in as well. I agree with that in and- and my take on the matter is the EMPP is a
483 preparatory program, somewhere between the Access Program and the true program running.
484 So, the (p) individual should have already come through access and say, Yes, we grant you
485 access, but you have to go on this preparatory programme because there are certain areas so
486 access to me is a separate process, and you've either come through- through RPL for access,
487 or whichever the- the means is that specifically looking at our in-service staff and so forth as
488 and- and joining into what speaker five, entry comment was what is the purpose of this
489 program? So, to me, the purpose of the program, and therefore the curriculum will stem from
490 that (p), it will flow from- from that purpose, it is a proprietary program, not an Access Program,
491 the access process is a separate process that the university should have handled, and with its
492 own criteria and its own purpose and then this is the preparatory program, and the curriculum
493 will uhm, cover that. So, I think we, my opinion, is we mixing two areas, and that is why we
494 were not getting to mutual ground. Thank you.

495495

496 **[35:50] Facilitator**

497497

498 Thank you, Number six. Number five, please continue.

499499

500 **[35:57] Number five**

501501

502 Uhm, Look- look, I think that sometimes make sense of the different views, you can use a
503 pragmatic example. Uhm, Let us, let us leave out all the school leavers. Let us talk about people
504 that are in-service, within the emergency services, you would have an individual who has no
505 matric, there are still some of them. Now, that person does not really feature in my opinion in
506 terms of any of these discussions, because they, they need to then go and register through to
507 adult basic education, ABET courses, or whatever, get- get equivalent to matric. But we do

508 have many people in the service who do have a matric or grade 12. But they do not have the
509 required subjects. So, they never took mathematics and never took physical science. If I
510 listened to what Number six was saying, (pause), it sounds like and- and I can be corrected,
511 there is an opinion that the EMPP program will not really address that cohort of people. Because
512 the gap is too far, they just do not have the (p), they do not have those subjects at all and
513 those people should not be left out, but possibly their route would be to go and do the NSC as
514 amended and add those subjects and then that the NSC as amended is not an EMPP program.
515 It is an existing programme, and the services should invest in, in paying those registration fees
516 and letting the providers of the NSC as amended deal with it. The EMPP program, as I
517 understand it, is taking people who have those, uhm, who have the grade 12, they also have
518 the subjects, but they don't have the APS score, and therefore, they would now go through a
519 refresher type prep program and so that if they are successful, they can be accepted on to the
520 program and to agree with what Sorry, I forgot all the numbers to- to agree with what Number
521 four was saying is, uhm, there would need to be a legislative agreement. In other words, this
522 program would need to be accepted by the Senate and by University of South Africa as a
523 Bonafede vehicle to bridge that gap only for mature age in-service staff, and I think that's, you
524 know, I think that's probably in my mind what the EMPP program should be looking at, and
525 then to come back to my original point, if that's the, if that's the purpose, the program should
526 be also serving as a filter, so that students who engage in the EMPP program will do very poorly
527 or do not pass the program, do not waste further public funds and resources and everything
528 engaging then in the programs because the evidence is that they aren't ready and they will not
529 be successful, ill stopped there.

530530

531 **[39:06] Facilitator**

532532

533 I thank you. Number five. I will take the last comment from number four. Before we move on
534 to the next question. Our time is limited. We are 12 minutes now. So, number four, please
535 continue and then we will move on to the next question.

536536

537 **[39:21] Number four**

538538

539 Thank you. I want to just agree with what Number five was saying with regards to access and
540 the preparatory program. I think that- that needs to be distinguished quite clearly and is a
541 preparatory and not an access program, and even- even so if it's an if it's a preparatory
542 program, small departments like ourselves will not be able to facilitate something like this (p),
543 to prepare students or potential students to come on to our program. That's why we- we refer
544 them to a to institution like what Number five was saying where they can do the, the- the
545 subjects over or if they don't meet- meet an APS score, we just refer them to another institution
546 where they where they can upgrade upskill their marks to get access to the, to the course
547 maybe next year, but it's definitely something that our institution will not be able to facilitate,
548 uhm, uhm because of the complexity of this and small departments as ours, will not be able to
549 facilitate a preparatory programme.

550550

551 **[40:00] Facilitator**

552552

553 Thank you for the last comment. Thank you, gentlemen. Uhm, during this discussion, we have
554 already addressed the- the second question under the curriculum design, which was what
555 should the core focus of an EMPP be? So, I think we should move on to the third, the second
556 last question, which is what should the duration of an EMPP be? (p), (pause) Number two,
557 please continue.

558558

559 **[email] Number seven**

560560

561 This will be based on the establishment of the focus of the EMPP, which should be aligned with
562 the admission criteria. Once established (see comment in 2nd question), the duration will be
563 apparent. I will look at the outcomes of the SLP's which can grant a candidate access to the
564 EMPP (this will obviously be aligned with the NQF levels) and then recommend a reasonable
565 time of duration. Also remember that notional hours and credits (if it should change to credit
566 bearing) also influence the duration. 12 credits = 120 notional hours and one year of study
567 should not exceed 120 credits. My personal feeling is that it should be one additional year for
568 such prospective candidates.

569569

570 **[40:58] Number two**

571571

572 Uhm, in my opinion, it would be as close to an academic year as possible and uhm, I think the-
573 the reason would be, uhm, is that the type of student that we would be with that would be on
574 the program would need more time, uhm, to grapple with or to engage with and grapple with
575 the content, and to ensure that the content makes sense. Uhm, in my opinion, there would
576 also be other modules included in the EMP, such as a physical preparedness module, and the
577 longer we have got with the student, the better physical preparedness results you can get
578 without the risk of injury or adverse events. Uhm, so- so as close to an academic year as
579 possible, the other reason why I would say that is because that would allow the university that
580 makes the decision whether this person enters or not, uhm, to get those final cohort of people
581 who will- who will then go into the HEI program. Uhm, if- if the academic year can end (p)
582 with the rest of the academic year, that gives the university enough time to plan and identify
583 those candidates who will form part of the next cohort. If the EMP carries on too long, or is
584 too far outside an academic calendar, it makes the planning for the cohort of the next year.
585 Very, very difficult.

586586

587 **[42:29] Facilitator**

588588

589 Thank you. Number two, just before I take your hand number four, it seems from the meeting
590 chat that most participants are agreeing on the one-year program however, I will allow (name
591 removed), number four, please continue.

592592

593 **[42:45] Number four**

594594

595 Yeah, again, in terms of the timeline for such a program would depend on the models that
596 they are taking. So, if it is if for example, physics or chemistry and those kinds of models, that
597 is a year module, if you go study at- at FET, for instance, so it is definitely a year module it
598 would also be depending on writing the exam or the matric at matriculation board. And that
599 will take another few months. So, it is quite difficult to answer how long it should be, but it is
600 depending on the subjects that are already doing for the preparatory program.

601601

602 **[43:20] Facilitator**

603603

604 Thank you. Thank you, gentlemen, I think we are pretty much it seems that the panel is in
605 agreement that it shouldn't be longer than a one-year program. So, I think it is safe for us to
606 move on to the next the end the last question, standing at just over 16 minutes for this topic,
607 what would be the most appropriate way to offer an EMPP? For example, face to face, e-
608 learning or blended learning? (p), Number four, your hand is raised. You may continue.

609

610 **[email] Number seven**

611

612 Surely a blended learning approach. The current pandemic has had great influence on the
613 development of blended learning styles. Surely the candidates that I will suggest enroll for the
614 EMPP, are working and adult learners, which may not always be available for face-to-face
615 instruction. The practical component of the EMPP should be reserved for face-to-face
616 instruction or simulation. Here the proposed time to spend on a module will also need to be
617 aligned with the assigned credits, notional hours etc., to be informed by each modules level of
618 difficulty, at-risk modules, and the learning outcomes.

619

620 **[43:57] Number four**

621

622 No that was from the previous one, and I just put it down. Thank you.

623

624 **[43:59] Facilitator**

625

626 No problem.

627

628 **[44:00] Facilitator**

629

630 Thank you. Number two, please continue.

631

632 **[44:07] Number four**

633

634 Thanks, I would say uhm, initially, obviously, with the COVID regulation taking place I say
635 initially (p) more face to face, and then moving on to blended learning and the only reason I
636 think that is if we look at our current HCert and Dip first year students, uhm the biggest thing
637 that those students grapple with is the immediate online education or the online form of their
638 education. So, I think if we going take a student and- and that's and that's the students who
639 meet entry requirements already, so I think we're going to take the students who we've already
640 identified need some preparation in order to cope with an HEI workload. I think to throw them
641 in the deep end, uhm for lack of a better term, but- but to throw them into the deep end from
642 the word, word, go potentially will- will set the students up for failure. So potentially start with
643 what the students are familiar with and that would probably be more of face-to-face type
644 approach and as the prep program moves on, move towards a more blended learning more
645 online type [inaudible] to prepare them for when they hit the HEI.

646

647 **[45:30] Facilitator**

648

649 Thank you. Number two, I am also seeing the chats, most of the participants are agreeing that
650 it should be a blended learner learning program. So, I, some components would need to be
651 contact based from comment from speaker number five. So, it seems that the consensus is
652 that it should be more of a blended learning with a slight focus towards face to face. (p) For
653 just, Are there any other comments on this? Before we move on to the next topic? It seems
654 we have reached our level of saturation on this. So, I am stopping the time and moving on to
655 the next question. The next topic is number four on the list, which is covering assessment and
656 the main question there would be what methods of evaluations could be used in the evaluation
657 process? Number five, your hand is up. Please continue.

658

659 **[46:36] Number five**

660

661 Uhm, yeah, look, colleagues given- given the confidential nature of this, I am going to be quite
662 direct with this. It is- it is, and I am aware of the fact that there was a an uhm- uhm institution
663 that dabbled with an EMPP program. And what was quite disappointing in my opinion was the
664 students were assessed and were passed from their program. But that turned out to be
665 particularly poorly prepared. And such that many of them ended up failing in the program for

666 which they were supposedly prepared to engage. So, for me, I think the assessments would-
667 would, speak to the- the learning outcomes or- or determine the assessments must speak to
668 those. But the assessments need to be robust enough, and off a sufficient standard to make
669 sure that those who pass are indeed well prepared. And I think in higher education in South
670 Africa, in general, we have this (p) we lament the terrible schooling system and everything,
671 and then we all produce pass rates of 80% and above. So, you can- you can read into a that
672 uhm, yeah that is my comment.

673

674 **[47:50] Facilitator**

675

676 Thank you. Number five. I do not see any other hands. Anybody wishes to add to this? With
677 regards to the (p) what methods of evaluations could be used in the evaluation process?

678

679 **[48:14] Facilitator**

680

681 Speaker five, are you proposing another comment?

682

683 **[48:21] Number five**

684

685 Uhm, no chair my hand is down. I think it is Mr. (name removed) hand, oh, is it my hand?
686 sorry, that is my hand up. I apologise.

687

688 **[48:30] Facilitator**

689

690 No problem. Thank you so much, then just- just an idea, something that I would like a Mr.
691 Speaker number one, I see your hand please continue.

692

693 **[48:45] Number one**

694

695 Maybe I should allow you to finish your statement first and then come in.

696

697 **[48:50] Facilitator**

698

699 No, thank you. Thank you. Speaker one I'm looking at another question that we are
700 formulating. Yes. So please, if you have any further comments on the previous, please
701 continue.

702

703 **[49:04] Number one**

704

705 Okay, um, my opinion on- on methods of evaluation, one would say they should be exposed
706 (pause) to a variety of, of, uhm assessment methods, I mean, as much as we ought to have a
707 blended type of, of learning, the- the methods must also try methods of assessment must also
708 be that which are pegged on the right level and preparing them to uhm deal with a university
709 level of university levels of assessments. So, we need to be making sure that we cater
710 everything according to ahh Bloom's, so your formative assessment summative assessments,
711 whether one uses diagnostic assessments, anything that one can use, that is used at a level of
712 an HEI they need to be exposed to that at this level. Thank you.

713

714 **[50:14] Facilitator**

715

716 Thank you for that comment number one, and I see that there are some people typing still in
717 the meeting. There we go. There is a comment here from speaker five, methods should be
718 similar to those they would encounter in the HEI programs which are being prepared. I think
719 that ties in with what speaker one just said. So, I take it that there is agreement there uhm
720 just waiting for another comment there from speaker six and speaker two. Speaker six is saying
721 assessment should prepare candidate to be comparable to the school leader counterpart and
722 speaker number two, agreement from himself as well. Gentlemen, thank you, it seems that we
723 have reached almost a consensus on this matter, and I think we can now safely move on this
724 was a quick one, it's under five minutes for this particular question. So, let us move on to topic
725 number five, which is the physical preparedness and the first question there under the physical
726 preparedness is should physical preparedness and learn to swim be part of an EMMP, Ill open
727 the floor? (p) Speaker number three, please continue.

728

729 **[email] Number seven**

730

731 I do not think at a EMPP programme level, this should be a requirement. For the N.Cert and
732 Diploma most definitely, as swimming can form part of the EMS environment.

733

734

735 **[51:43] Number three**

736

737 Yeah, thanks. Ahh- ahh I definitely think I mean; it should be- be part of the EMPP. You know,
738 given that, you know, folks in the profession, the older folk may not necessarily be, you know,
739 in a state of physical readiness to, to take part in the program. So, I think this will be a vital
740 component and I mean, the older folks generally sometimes struggle with the physical
741 preparedness component. I mean, there's, ahh, I mean, (pause) I won't mention their province,
742 that they are also having issues ahh with the diploma and that they are not getting the
743 adequate throughputs because the folks are not making it (p) as a result of the physical
744 preparedness and I mean, they seeing it as like PT. So why should the student fail simply
745 because they failing PT? Not understanding that. I mean, it is a module, I mean, the student
746 cannot pass or graduate without passing any module. So yeah. Thanks.

747

748 **[53:00] Facilitator**

749

750 Thank you. Speaker three, Speaker (p) Two, your hand was up first. Please continue.

751

752 **[53:08] Number two**

753

754 Yep. Thank you very much. I put my hand down because the previous speaker echoed what I
755 wanted to say. (p) So, thank you.

756

757 **[53:17] Facilitator**

758

759 Thank you. Speaker two, then we will move to speaker five.

760

761 **[53:23] Number five**

762

763 Sorry, I am also taking my hand down, the previous speaker captured exactly what I was going
764 to say as well. I agree with that.

765

766

767 **[53:32] Facilitator**

768

769 Thank you. Also note that speaker four has dropped their hand and speaker one has also
770 dropped their hand.

771

772 **[53:39] Number four**

773

774 Yeah, number four, I just want to agree with Number three was saying, no need to talk any
775 further. Thank you.

776

777 **[53:45] Facilitator**

778

779 Noted. Thank you.

780

781 **[53:50] Number one**

782

783 Yeah, Speaker one, I also wish to agree with uhm, the previous speaker and add that with
784 when one looks at the physical preparedness (p) module, it should be pegged correctly to
785 match that of the programs for which the candidate will be applying for (p) so it should not be
786 any different. However, the second part of the ahh question has a learn to swim, which I fully
787 agree that it should have a learn to swim in it, so that at least this part of a- a life skill, being
788 able to swim to save yourself and hopefully be able to retrieve someone else in the process. It
789 is very important that it needs to be part. So, looking at what is required by the universities on
790 the diploma or HCert or degree, that particular level of physical preparedness needs to be
791 included in the EMPP. Thank you.

792

793 **[55:07] Facilitator**

794

795 Thank you.

796

797

798

799 **[55:08] Facilitator**

800

801 Speaker one, Speaker five, please continue.

802

803 **[55:11] Number five**

804

805 No- No the only thing I did want to add is that uhm it would be truly wonderful if an MPP
806 program, uhm first of all, you know, got off the ground, but if it could prepare the person to
807 pass the physical fitness requirements, it will take a massive amount of pressure off the
808 university. Because as Number four correctly pointed out, there's- there is a huge amount of
809 uhm, of energy and interest and it is not all positive about that person who comes on a program
810 and then passes everything and then right near the end they cannot you know, fitness
811 requirements. So, I (p) you know, don't want to repeat what was said, but it is important that
812 not only is it part of the program, but it embeds itself, such that people who don't pass this
813 component should not pass the EMPP and- and- and if they don't pass the EMPP, then by- by
814 virtue of that they should not enter into the higher education programs, and we'd need to
815 repeat components of the EMPP because there could take the pressure off the of the higher
816 educations, that are currently many managing programs that have this included.

817

818 **[56:26] Facilitator**

819

820 Thank you, Speaker five and other speakers, I think we are moving towards the next question
821 under the physical preparedness, then, how should physical preparedness be facilitated on the
822 EMPP? I will just repeat the question, then open the floor for discussion. How should the
823 physical preparedness be facilitated on the EMPP?

824

825 **[56:56] Facilitator**

826

827 Speaker five, please continue.

828

829

830

831 **[57:04] Number five**

832

833 Sorry chair, I was muted. Uhm, Look, I- I think that to- to- to prepare someone physically, is
834 ahh, you know, it is not something you are going to do online. On screen blackboard collaborate
835 on one of these things. People need to follow a program. But I think that it needs to be linked
836 with going all the way back to the actual selection for the EMPP. Part of the selection criteria
837 to allow someone onto the EMPP would also be a basic medical check-up, with special attention
838 to the BMI and-and, obesity because we know that people, I am not talking about people that
839 are slightly unfit to overweight, I am talking about people that are that are obese, they get
840 injured, and they do not pass. Uhm and the evidence is in is before us, so years and years of
841 data and so. I would say that the first step in managing this is to not have people on the MPP
842 that simply are not going to make it or will become injured, and the second thing is once they're
843 on the program, it's important, in my opinion to follow a scientific fitness program and- and
844 that the- the people taking physical prep sessions need to have the background experience
845 and they themselves need to probably know a little bit about exercise and exercising and so. I
846 would see this as being offered as contact sessions. You can have students do some of their
847 own work at home in inverted commas by following a program but my own experience of that
848 is that those who follow the program are inherently fit and enjoy the exercise and those who
849 really need to do the training do not do it when I when they left to themselves. So, I think it
850 would have to be a mixture of contact.

851

852 **[59:15] Number three**

853

854 Yeah, from number three. I think the just adding on to ahh what the last speaker said that the
855 risk analysis, I think is quite key in terms of the facilitation of the physical preparedness,
856 because our in our institution recently lost a student in January after she partook in the physical
857 preparedness assessment. I mean, while the tool may not be related a death and assessment,

858 but I mean that is still under investigation. But I think one of the key things that is also being
859 asked by the investigator is, is, a risk analysis of students getting into a program, knowing fully
860 Well, what they are about to embark on. So, I mean, you cannot subject, folks, especially the
861 older folks who might be at even greater risk of physical preparedness in the EMPP and not do
862 a thorough risk analysis in terms of medical screening before partaking in the EMPP. Thanks.

863 **[60:32] Facilitator**

864

865 Thank you, Speaker three, I do not see any other hands at the moment, however I'm just
866 going to refer to the chat that's happening here on the side. The (p) one of the speakers is
867 saying that they fully agree, but the swim requirements need to be addressed and then follow
868 that up also with selection should be a strict and not set up the candidate for failure and then
869 the last comment there is that facilitation of the physical preparedness should include medically
870 cleared baseline instruction scientific program to be followed with structured contact sessions
871 is another comment that just came through fully agree with this anyone applying needs to
872 know exactly what would be expected of them, and also should be in good health? Speaker
873 number one, your hand is up, you have the floor.

874

875 **[61:26] Number three**

876

877 Sorry chair, perhaps before speaker number one comes in? I have got a- a question of clarity.
878 Swimming requirements. What do you mean by that? Because I thought all HEI`s have, set
879 requirements for, for, swimming. So perhaps if I can just someone can enlighten what
880 requirements are not clear.

881

882 **[61:51] Facilitator**

883

884 Let me just find that [inaudible] mentioned. The comment was from speaker Number one and
885 also has the floor? I do not know speaker one. Do you want to reply to that, please?

886

887 **[62:02] Number one**

888

889 Yes, please. ahh Thank you for- for that question. Uhm, I think before I touched the question,
890 I just want to add quickly on this one to say that having uhm a (p) daily type of schedule in
891 place where students uhm train on a daily basis, we need to also have a form of a continuous
892 evaluation in place where we reduce uhm stress levels at the end of- of the year where students
893 have to be subjected to an assessment where everything is done all at once, I feel that uhm,
894 there's already way too much pressure academically, and now having pressure when it comes
895 to uhm the actual exercise part of things. It also, yeah, it- it adds a lot more now to the
896 problem. If one can uhm do an assessment on a continuous basis, even if one passes say that
897 run, there needs to be that continuous, it doesn't mean that no, (p) you stop running, you
898 continuously exercise to maintain that level, but that is just my opinion on that and going back
899 to the swimming requirements, I feel that at the moment with swimming requirements for
900 students to be doing just 600-meter swim over a period of- of six minutes, it does not serve
901 the purpose that I believe it is that the programs are intended for. One ahh again, it is my
902 opinion to say that uhm one should not just be training to be ahh doing 600 meters without
903 even being able to, can go down and pick up somebody who is maybe at the bottom of a pool
904 out and maybe even do CPR on them and in the case where one has fallen in a pool one is not
905 going to be swimming 600 meters fast and then go and retrieve the patient. If one can swim,
906 one go to the side closest to where the patient dive down, pick up the- the patient, take out
907 the pool and resuscitate. At the moment and how it has been structured, my feeling is that for
908 me it uhm it serves a purpose of building stamina, but it doesn't serve the purpose of being
909 able to help somebody. That is just my opinion on uhm that as well. So, I hope that addresses
910 uhm speaker number five or six`s question. Thank you.

911

912 **[64:45] Facilitator**

913

914 Thank you, speaker one I see the hand of speaker four please continue.

915

916 **[64:50] Number four**

917

918 Number four. Yeah, I think Number one is opening up a can of worms there and I've got lots
919 to say on that question sorry that comment. Is it certainly no- no evidence, not one piece of
920 evidence in South Africa where a paramedic jumped into swimming pool with his life with his

921 (p) with his- with his-with his- with his jumpsuit, and save somebody in in resuscitated
922 somebody? Every time the EMS arrived, they the paramedic find somebody on the show on,
923 on, something already and does not happen where a paramedic jumps in and save somebody.
924 There is no evidence there is no research conducted. So, it's quite a sensitive topic, but here
925 you are- you are correct, that those kinds of parameters was- was put in place in the 90s and
926 we haven't really deviated from those criteria. The individual institutions are slowly moving
927 away from that, especially our institution and some of that criteria that I have implemented
928 last year this year. But yeah, to be realistic, you are absolutely correct. Thank you.

929

930 **[65:53] Facilitator**

931

932 Thank you, ahh, thank you, speaker four. I have just noted there is a stream of messages
933 coming in as well. Correction on speaker ones 600 meters statement, it is 200 meters in six
934 minutes. However, I think that was said in light spirits. Then there is another comment coming
935 in, I agree that the difference between being able to swim the level expected for swimming for
936 EMS workers, and then the level expected for rescuers will all need to be determined more
937 scientifically, that is, I believe a valid statement. However, I wish to just direct us back to the
938 topic of the of the swimming situation, forming part of the complete physical preparedness,
939 the question being how it should be facilitated, I think maybe if we could look at whether the
940 facilitation of this, including the swimming should be an internal responsibility to be taken on
941 by the provider of the program, and how they should be facilitating this then.

942

943 **[67:01] Number three**

944

945 Yeah, from number three, I think it was covered. Ahh- ahh I think by- by Number five, I think
946 we are I would imagine that. I mean, you need the scientific program, for example, whether
947 you get (p) whether it is a personal trainer or someone from the sports science background,
948 who will draw up a program for- for people. ahh, I mean, they will be told, I mean, this is what
949 is the expected outcome of these people at the end of the program, and then uhm have a
950 program that is tailor made to suit the individuals on the program. So that they able to succeed
951 and or without them, I mean, you- you do get I mean, all these kinds of programs, for example,
952 from couch to five kilometres, I mean, you get some people that go from couch to running a

953 comrades in one year. So, I mean, these, these things are out there. So, depending on what
954 needs to be achieved, I think someone from a sports science background can assist, and then
955 certain the coordinator can simply just facilitate things.

956

957

958

959 **[68:17] Facilitator**

960

961 Thank you, Number three, and Number four, you have your hand up, please continue.

962

963 **[68:22] Number four**

964

965 Yeah, I agree with Number three, I do not think this panel has got the experience to determine
966 what is needed. It must be some from the biokinetics was sport science institution to answer
967 those kinds of parameters and questions. Thank you.

968

969 **[68:37] Facilitator**

970

971 Thank you for that comment, Sir. Uhm I am just seeing that there is another chat here that
972 says there is currently a PhD study underway from DUT to try and determine a valid tool for
973 assessment of physical preparedness for EMS, EMC students. Just a question on that. The
974 assessment tool would be for EMC students as per the statement would that then also carry
975 over into an EMMP program? The assumption on that if I can just allow speaker five to reply
976 to the question and then speaker- speaker one your hand is noted.

977

978 **[69:20] Number five**

979

980 Look, uhm. I must say it is with some interests that I have seen uhm how you know (p) physical
981 prep and swimming just somehow at the end of the day uhm, (p) while I agree with- with uhm
982 Number three, it becomes a just gets into the same old debate in and out probably it does
983 because it is an area that has a bit of historical context to it in this country. But my- my- my-
984 my take on this and the reason I cited the PhD study (p) is that we- we need to we need to

985 try to determine uhm things like (p) when we assess fitness, your cardiovascular fitness, your,
986 your, muscle strength power to weight ratio is not really actually directly linked to whether you
987 can swim or not. You can be very fit but be unable to swim and I think that maybe ahh what
988 number one was saying uhm was, was, that we should reflect on, on, the ability to swim almost
989 being seen as a life skill for all citizens of the country. But- but how good should we be at
990 swimming if we are an EMS person, uhm because there's different levels, being able to doggy
991 paddle to the side of a piece of water, if you slip and fall in is different from the type swimming
992 you would need to retrieve a child from the bottom of a pool. Uhm, and in actual fact, although
993 someone says this is not published literature, there are instances I know, for example, in
994 Gauteng with paramedics have jumped in and pull the child out because the people on the
995 scene couldn't swim themselves. But that is, you know, that- that those- those, stats are not,
996 you know, readily available. But I just think that assessing fitness levels, needs to be scientific
997 and the study from DUT is trying to determine what the tool would be. My feeling is that after
998 a full year, on an EMPP program, I believe that the person should be assessed and be found
999 to be physically fit to the same level as the students on that program would need to be. It does
1000 not make sense to me that after a year, you- you still need to you still have not made it, if
1001 students are willing and able to exercise there's no reason why after one year, they can't
1002 achieve the level that the school leavers would be expected and that sets them up for success
1003 in the program when they do. Yeah.

1004

1005 **[71:55] Facilitator**

1006

1007 Thank you for that comment, uhm, Number one, I see you dropped your hand, do you want
1008 to still comment?

1009

1010 **[72:02] Number one**

1011

1012 Oh, uhm, I dropped my hand when you noted me. Thank you very much. Uhm, I wish to fully
1013 agree with uhm Number five on this one and also saying, my point that I made, especially
1014 when it comes to the swimming is that the focus has to be definitely on being able to swim,
1015 being able to swim to save yourself and even in the training part of it. We need to ensure that
1016 we introduce the skill of being able to go down and get someone out of the pool, then I feel

1017 some (p) swimming module in these programs and as well said the criteria on the EMPP needs
1018 to be similar to that on the programs to which one wants to access. Thank you.

1019

1020

1021

1022

1023 **[72:56] Facilitator**

1024

1025 Thank you for that comment. Uhm, Gentlemen. Thank you, I think we have addressed this
1026 one. We are sitting at just over 21 minutes now. So, I will stop us and move on to the next
1027 question. The next question is about the generic skills and competencies and there is only one
1028 question. Should the EMPP include any generic EMC skills and competencies? I will just repeat
1029 that should the EMPP include any generic EMC skills and competencies?

1030

1031 **[73:29] Facilitator**

1032

1033 open for discussion.

1034

1035 **[73:36] Facilitator**

1036

1037 Number two, please proceed.

1038

1039 **[73:42] Number two**

1040

1041 Uhm, I think maybe perhaps after my answer, there could be a bit more clarity with if we mean
1042 by generic skills and competencies, we mean by doing things like CPR and BVM ventilations,
1043 and things like that, or whether we- we talk about other- other things. I do believe that the
1044 EMP, uhm and I am now specifically also thinking of the person that does not necessarily uhm
1045 pass the EMP and does not make it onto the HEI program but goes back into service. I would
1046 feel that that time spent on the EMP, even though you did not make it into the HEI program
1047 should translate to should be beneficial to the student or to that person when they go back to
1048 the service. So even if it is not necessarily a medical skill, where they have been taught how

1049 to cite an IV line for example, but now they understand or their ability to- to work on a on a
1050 computer, for example, has improved their- their writing has improved the way they- they
1051 complete patient report forms has improved. Uhm, I think it is those types of skills. Definitely,
1052 in the EMP it is important, especially for the person who doesn't necessarily make it- it still
1053 needs to be valuable when they go back into the service that they can at least benefit (p) from
1054 the time that they have the time spent.

1055 **[75:15] Facilitator**

1056

1057 Thank you for that comment number two, just a point of clarification, the generic EMC skills,
1058 and competencies which the question refers to is more related to the theoretical education that
1059 the student will receive on the EMPP and for example, we'll say that the mathematical skills,
1060 the numeracy skills that they learn will be directed towards what they would find once they
1061 enter the tertiary level courses for an EMC qualification and the physics and the chemistry will
1062 be aligned towards preparing them for the specific outcomes, which they would then need to
1063 meet on the on the official courses. So, I see that I have a hand from Number six, and then
1064 from number one.

1065

1066 **[76:06] Number six**

1067

1068 (Clear throat) Thank you, I think the understanding the generic EMC skills, if it's either skills
1069 driven understanding towards EMC, my opinion is no. Remember what the purpose should be
1070 either or understanding that the purpose of the MPP should be having the generic Life Sciences,
1071 maths, etc. ahh Preparing the individual and it's not like the historic short courses where you
1072 have to have a prerequisite of EMS type of skills and outcomes and achieve that, achieving
1073 CPR at a certain level, and then you access the program. To me this is (pause) based on the
1074 (p) the (pause) requirements compared to having your counterpart, the school leaver coming
1075 in without any of such that you have the individuals sort of at the same level with life sciences
1076 and those are the areas that our candidates are struggling most with. So yes, that would be
1077 the one but in under Life Sciences, specifically, uhm, chemistry, and so forth, I believe it should
1078 be aligned, and it should be purpose built in. That it would be speaking to the program that is
1079 coming and not just over all generic one, it usually helps the students better if- if you focus
1080 more on the areas that they will be engaging on the upcoming HEI program. Thank you.

1081

1082 **[78:00] Facilitator**

1083

1084 Thank you. Number six. (pause) Number two I saw your hand was up.

1085

1086

1087 **[78:08] Number one**

1088

1089 Oh, I thought you are going to give me a chance. I think it was noted.

1090

1091 **[78:12] Facilitator**

1092

1093 My mistake, Number one that was your hand that was up and then I see after that is Number
1094 four.

1095

1096 **[78:20] Number one**

1097

1098 Thank you very much, uhm, just a quick one, I believe that if this program is to really cater for
1099 access and preparation for the EMC uhm, taking into account the fact that these are in service
1100 officials and with what I said previously about the uhm swimming and the skills required, it
1101 would not hurt to have a one-day BLS for healthcare provider that addresses issues of doing
1102 proper CPR and how to use a BVM. Uhm, as if there are to be changes to how the swimming
1103 part is offered, and how it is assessed those particular skills would then be necessary in terms
1104 of an area of focus. So, I would rather than to say when it comes to this particular question,
1105 my view is, Yes. Thank you.

1106

1107 **[79:22] Facilitator**

1108

1109 Thank you for that. Number four, you have the flow.

1110

1111 **[79:27] Number four**

1112

1113 I think just for clarity, [inaudible] for my sake, I think there is two assumptions. One assumption
1114 is that this preparatory program will be taken on board by the institution and then secondly,
1115 the preparatory program will be done by an external provider. If it is done by an external
1116 provider, then- then- then it is there is no skills really, that is required or the subjects of the
1117 choices that they need to redo. So, there is no EMC skills required or competencies. Uhm, if it
1118 is required that the institution take on board and then then maybe that the that that the
1119 curriculum or that program can be tailor made. Uhm, to include like what Number one, is
1120 saying, for the department of health employees. So, I think there must be two distinctions
1121 made for this, is it an institution that is going to be running this as an (p) as a- as a program
1122 or an external provider? Thank you.

1123

1124 **[80:18] Facilitator**

1125

1126 Thank you, Number four, Number five, please respond to that.

1127

1128 **[80:25] Number five**

1129

1130 Yeah, look, I have to say I do not, uhm. (pause) to me, it does not actually matter whether it
1131 is an external provider who runs the EMPP, or whether it is an institution, but (pause) I think
1132 there is two points, I do not see this program, changing someone's NSC or their matric at all.
1133 It is not like they are upgrading the if they had physics on a three off to the EMPP, they are
1134 not going to walk away with an NSC that is amended to show physics on a four, five. That to
1135 me is not the purpose of the program. The uhm, it's- it's what will have to happen and I think
1136 were, uhm- I think where uhm, Number four is right, what will have to happen, though, is that
1137 (p) if you have an EMPP program that exists, either it's going to be offered by the university,
1138 or it's going to be offered by a provider, but the university to make that program valuable the
1139 university would have to accept their senate. So, if I use example UJ- UJ senate would need
1140 to accept the EMPP program run by Dameline, as just as an example, as a bona fido a program
1141 that leads to entry into the higher certificate for in service staff who may have physics but not
1142 on the level. Uhm, and- and also, not only with the, not only with the senate of the universities
1143 have to approve these programs, but University of South Africa will also have to approve these
1144 programs as a bona fido vehicle to (p) allow for the transformation of in-service staff, because

1145 if those two role-players agree, then the 10% rule of RPL and everything is- is- is besides that,
1146 unless I have this, I've got this thing wrong I, stand, I'll take comments from Number two or
1147 others on that one.

1148

1149

1150

1151 **[82:33] Facilitator**

1152

1153 Thank you. Um, I am just going to quickly refer back to the meeting chat that's running on the
1154 side here, uhm, it seems that most- most, everybody is agreed. However, one of the uhm
1155 points that the first speaker number two raised and then there is another comment here about
1156 EMC clinical skills can be addressed on the HEI EMC program. Just again, for the sake of clarity,
1157 the question does not relate to the clinical skills. The question relates to the content of the
1158 academic material and whether the content should be focused on preparing the student for
1159 what the student may find, once they are on an official EMC course, that follows on the on the
1160 preparatory program on the EMPP.

1161

1162 **[83:32] Facilitator**

1163

1164 I see that some messages are being typed, gentlemen, it might expatriate, if we can just
1165 discuss this quickly. There is a comment coming through people on this program already
1166 registered healthcare professionals, i.e., at minimum they would be BLS qualified.

1167

1168 **[83:52] Number five**

1169

1170 Chair- Chair I just wanted to expand on that, uhm, look, I know we have to be realistic and
1171 pragmatic, and I think that might be where number one is coming from uhm without saying it
1172 in a blunt direct way, there may be people that are basic life support qualified on this program
1173 that are, are, maybe not current with basic life support. I do agree with that, but I do also,
1174 more- more agree with Mr (p) sorry, I am messing up all the numbers, but I agree with Number
1175 six, when Number six said ahh, you know the main purpose of this program is not to be a
1176 refresher program for EMC skills, because those skills will be refreshed when they arrive, and

1177 they do the actual program. Most of the time should be spent building up those gaps in their
1178 knowledge uhm for the foundational academic under build like computer literacy, language,
1179 English writing skills, stuff that is going to make them successful. Uhm, so I mean, I have to
1180 say in this regard, I do agree that (pause) I don't mind If I wouldn't mind if there was some
1181 skills, but I don't think they absolutely have to be there on the prep program EMC skills on.

1182

1183 **[85:09] Facilitator**

1184

1185 Thank you, speaker five, speaker two would like to reply to that floor is yours.

1186

1187 **[85:18] Number two**

1188

1189 Thanks. Uhm, I- I completely agree with the previous speakers. Uhm, I think if you look at or
1190 if one looks at uhm the feedback coming from the areas where the EMP candidates have
1191 entered into the programs, uhm the concern with the preparedness is not always an (p), in
1192 fact, that's the minority of cases where the concern is with, it is with a clinical skill sets or the
1193 technical skill sets. The- the areas [inaudible] where these individuals are quite significantly
1194 underprepared uhm are the areas that was mentioned, or were mentioned by the previous
1195 speaker, uhm and those were, and those would be the more the more academic areas, uhm
1196 that speaks to the non-clinical modules. But those are the are the areas where the- where the
1197 students struggle the most. So, definitely, I think let's reserve the clinical updates for the BAA
1198 and the AEA refreshers in the CPG updates and things like that and keep the EMP program
1199 where- where it's supposed to add the most value, and that is to prepare the students for the
1200 areas that they that they would struggle with the most, which is not clinical skill.

1201

1202 **[86:40] Facilitator**

1203

1204 Thank you for that last comment as well. I do not see any further comments coming in or
1205 hands that are up. If there are no other comments, I think we can close this question and start
1206 moving to the next one. It seems that everybody is in agreement with everybody else. (p) I do
1207 not see any further comments (p) hence. So, we will move on to the next one now, which is
1208 under the topic of quality assurance and the question there is what should be included in quality

1209 assurance practices, for an EMPP? What should be included in quality assurance practices for
1210 an EMPP? Number five, please continue (pause) Speaker five, you are still muted. I do not
1211 know if you are continuing.

1212

1213

1214

1215 **[email] Number seven**

1216

1217 Should be aligned with the applicable prescriptions of the professional body, but also with the
1218 approved quality assurance policies and procedures of the institution offering the EMPP. The
1219 EMPP should be seen as a formal qualification and hence should be handled as any other
1220 qualification.

1221

1222 **[87:40] Number five**

1223

1224 Yeah, I was muted. I was talking to myself. Now I just think that no, no one or no institution
1225 should provide the EMP program, unless- unless they are a bona fido or registered provider of
1226 educational programs and surely the quality assurance mechanisms would be taken from the
1227 quality procedures and policies of that institution, uhm, you know, to try and say what should
1228 the quality assurance measures be, (p) What are those QA measures at DUT, UJ at NMU? At
1229 the different colleges? There should be quality assurance measures, but if you do want my
1230 opinion in confidence, uhm the fact that EMP program has run before at some local place or
1231 places and the program was- was disorganised and did not deliver, uhm, that- that speaks to
1232 the level of oversight and- and quality assurance at- at those places. I do want to just end by
1233 saying I think that (p) if the senate of my university have approved an EMPP program, there
1234 would be a shared responsibility, I think with quality if I am not the sole provider. In other
1235 words, if UJ elects to offer an EMPP program, we will naturally quality assurance the program
1236 and we cannot then be crying about the poor quality of people coming out of that program.
1237 But if UJ elects to partner with a provincial college that offers the program or parts of the
1238 program, then the responsibility for quality would both rest with the university as well as with
1239 whoever the provider is. Thanks. That is my comment.

1240

1241 **[89:43] Facilitator**

1242

1243 Thank you for that comment. Speaker one.

1244

1245

1246

1247 **[89:49] Number one**

1248

1249 Yeah, I also want to agree with Speaker five and add to that uhm, as what the [inaudible] has
1250 been in the past, that definitely has to be a form of moderation as it is done with all the subjects
1251 in an HEI where one monitors the quality of the assessments that are set, where one checks
1252 on the physical fitness preparedness levels of the students and that is not solely dependent on
1253 the service provider to check themselves, which is, in a way not a good way to go, there has
1254 to be a way where if uhm, the program has been accredited by a university not accredited as
1255 such, but accepted by a university, like the UJ, or DUT or NMU, then there be someone from
1256 the university assigned to moderate and check on what is being offered, and ensuring that
1257 facilitators that are training students on these programs are fairly qualified enough to offer
1258 uhm, these courses or modules on these programs so that we don't also end (p) up with a
1259 situation where they're given a substandard work and that is not pegged at the right NQF
1260 levels. Thank you.

1261

1262 **[91:23] Facilitator**

1263

1264 Thank you, Speaker one. Speaker number five, you have the floor.

1265

1266 **[91:47] Number five**

1267

1268 Yeah, I think also maybe one thing that- that needs to be thought of, in my opinion, if you buy
1269 a vehicle, like a car, the real way you test the quality is you take that if you bought a bakkie,
1270 you take the thing and you do the Sani pass and you ride that thing and if it falls apart, it
1271 speaks back to the quality of the vehicle and so possibly the early stages of the MPP program
1272 running should this program be established, we need to have a- a- a monitoring of those

1273 cohorts of EMPP students monitoring of how they perform in the program, when they get into
1274 those programs. Because if MPP is about preparing people to be successful in a program, the
1275 true judge of quality will be are they successful in a program, and it doesn't make sense to
1276 take a person away from the base and their shift for all year and to spend taxpayer's money
1277 because they don't pay for the this for themselves. This is an in-service thing and then after a
1278 whole year they go on a program they still cannot pass. So, I think the quality is during the
1279 program, but the other comment on quality is, are they actually successful if they are successful
1280 and they pass the higher certificate, and they pass the diploma, despite the fact that they may
1281 not have had a great matric, uhm, that speaks to a quality preparation programme, and I think
1282 that that is a very- very important thing in my opinion.

1283

1284 **[93:25] Facilitator**

1285

1286 Thank you. Thank you for that comment. Gentlemen, I would just like to again, a statement
1287 for clarity's sake for the discussion is that the focus of this program is not necessarily going to
1288 be only on the person that is already employed in the health services. The focus, it needs to
1289 be extended as well to include school leavers, others that have just finished school, or that
1290 have finished school quite a while previously, without having the correct entry requirements
1291 and perhaps setting in one of two situations where they have another job and wish to develop
1292 themselves in the EMC direction, or where they don't have any formal employment and they
1293 are looking at developing themselves to get in the speaker number five and then speaking
1294 number two.

1295

1296 **[94:20] Number five**

1297

1298 Thanks, I must say I disagree. Uhm, and that was not my, I do not think that would be a good
1299 idea at all and I will tell you why is that a school leaver or someone who's employed and what
1300 have you, doesn't, who is not in the emergency medical services (p) that they need to follow
1301 a different route they need to they need to go the route of doing the NSC as amended or
1302 upgrading the matric and applying for the program when they meet the requirements. My
1303 understanding of the EMPP as alluded to in the NECET policy. The EMPP in my opinion is a self-
1304 limiting program that will phase out in the next decade, hopefully, but it's tailor made for people

1305 who are in-service who are already basic ambulance attendants, who already ambulance
1306 emergency attendants or whoever, I must say, in my opinion, and it is my view that I don't
1307 think this program is- is and for anyone who's not in that category, otherwise we are creating
1308 a duplicitous system where it's not about the matric anymore, you know, there's this other
1309 avenue to get in, and I don't think that would work. But obviously, they might be different
1310 views on it.

1311 **[95:37] Facilitator**

1312

1313 Thank you, Number five, Number two, and then Number four.

1314

1315 **[95:46] Number two**

1316

1317 Uhm, Thanks. Yes, I agree with the previous speaker. I am aware of discussions and opinions
1318 outside of this forum where it has been mentioned as well, we have some of the industry role
1319 players feel that this is an avenue for a school leaver to enter, but I do think that the previous
1320 speaker is completely correct in saying that if we if we include school leavers in the cohort of
1321 or in the group of people that that are allowed to enter into the EMP program, we're again
1322 getting confused between access and preparation, because the, the not only the access and
1323 preparation, but also the purpose of this program. Uhm, the school leaver is not in the system
1324 already and is not necessarily part of the cohort that has been part of a historical disadvantage
1325 where they thought that they do the BAA, AEA then the CCA that is how they that is how they
1326 progress. Uhm, so- so the school leaver, I think should not be part of this this programme that
1327 should be for- for the in-service stuff. I am already perhaps then for the school leaver is not
1328 an EMP, but perhaps from an employer level, a bit more direction into or a bit more direction
1329 about avenues to follow to enter into HEI programs. For example, if you- if you want to do the
1330 HE programme, but you do not have the- have the link, there are a few places you can go ahh
1331 (pause) to upgrade your matric or amend your matric results or something like that, but
1332 definitely not- not an EMPP for the school leaver.

1333

1334 **[97:40] Facilitator**

1335

1336 Thank you. Number two, Number four.

1337

1338 **[97:44] Number four**

1339

1340 You know, I think both my colleagues is absolutely correct, I was also under the impression
1341 that it was for in-service staff, but not as that-(p) that means you're your- your questions is all
1342 targeted incorrectly. So, question number two, with regards to the admission criteria and then
1343 question number six, we cannot have skills being taught to somebody that has never been
1344 taught EMC or EMS, and competencies. **[Clarity from documentation Nell and**
1345 **clarification from the facilitator]**.

1346

1347 **[98:37] Facilitator**

1348

1349 Thank you. Thank you for that. The- the statement for clarification to broaden this was based
1350 on the information that was included in the Delphi discussion that was held. So, it is merely a
1351 statement to make everybody aware of this, then I see, Speaker number five, your hand is still
1352 up. I do not know if you wish to comment on this, I do see that you have placed a message.

1353

1354 **[99:05] Number five**

1355

1356 Sorry that this is a little bit off the topic, and I do apologise. But I think that (p) we have to
1357 understand that we are in a transition as a profession and that the transition that we are in is
1358 going to affect all of us as educators and the profession. I think for the next decade or maybe
1359 hopefully not longer than that. So, we are in a situation where the profession has
1360 professionalised and that means that moving forward, we are not going to have people
1361 registering with the Health Professions council who do not have a higher education
1362 qualification. But the question is, how do we manage all those people who already in-service
1363 who do not have higher education qualifications, they have short courses which aren't on the
1364 NQF, and they also aren't registered with SAQA, and I think that it's simple to say some of
1365 them will not want to some of the in-service staff will not want to study further. The guys that
1366 are close to retirement and everything. They will not want to, but they may be younger people
1367 or mid-career people who want to and this vehicle the EMPP is catering for those people. But
1368 if we are still running EMPP programs 10 years from now, then the only people to blame are

1369 the EMS managers and services because they keep employing people with BAA and- and- and
1370 a grade 12 with biblical studies and Agricultural Sciences and- and until that mindset can be
1371 changed in EMS, we will continue to have I think a need for these types of programs. But we
1372 also have to send a message that the profession is professionalised. You don't see nurses and
1373 doctors and- and dentists saying where is our preparation program for a guy who leaves school
1374 he wants to be a doctor but doesn't have maths. They do not even have those questions. The
1375 reason we have these questions is our profession is in its young transition phase. Once we
1376 open the door, I think we are setting our profession and everything up for- for- for a bad
1377 situation and with- with respect to the Delphi panelists, EMS is not a place where you go to-
1378 to work when you cannot get in anywhere else and EMS, we do not need to create programs
1379 for people who couldn't pass matric with a good APS scope. Those people must, must- must,
1380 must consider something else, or they must go back, and they must upgrade them and that
1381 that is my view.

1382

1383 **[101:29] Facilitator**

1384

1385 Thank you very much for that. I have seen speaker one's hand was up, it was dropped. I am
1386 not sure whether speaker one wants to still say something and then there is also a hand from
1387 speaker four.

1388

1389 **[101:43] Number one**

1390

1391 Uhm, thank you very much chair. uhm, I do wish to agree that the EMPP specifically, Uhm, it
1392 will serve a great purpose as I've initially indicated from the beginning that it talks to what the
1393 needs and policy of 2017 is saying and looking at specifically in service personnel and trying to
1394 get them to gain access on to these major programs that the service is in need of and to
1395 upgrade and migrate its people from the levels they are to the next level and as a result, we
1396 try and close the tap of having more people coming in that are not meeting the requirements
1397 from the beginning and as indicated by the previous speaker, there needs to be a clear, clear
1398 ahh distinction and the employers should make sure that they hire the correct people.
1399 Otherwise, we sit in this problem, and it will not come to an end and continuing on this specific
1400 topic. Uhm, looking at quality assurance as that is where I just wanted to add the fact that

1401 when this program has it starts and when it's being offered, one would have to set clear goals
1402 and requirements and once those are set, there has to be a continuous check to see if the
1403 program is (pause) complying with the goal set and the requirements and this should be a
1404 regular check that is done in order to make sure that the program does achieve that for which
1405 it was created. So, measures have to be put in place and there has to be clear monitoring on
1406 a continuous basis, we should not find ourselves at the end of the year only and say we've
1407 taken students onto the program as a full academic year program and at the end, we find that
1408 students still cannot swim, or students are not passing mathematics or they're not passing
1409 sciences. So, they need to be a clear continuous monitoring taking place. Thank you.

1410

1411 **[104:03] Facilitator**

1412

1413 Thank you, number one, Number four. Uhm, Speaker Number four you still have your hand
1414 up. Would you like to add?

1415 [104:15] Number four

1416

1417 No- no, that was from the previous comment. Sorry.

1418

1419 **[104:17] Facilitator**

1420

1421 No problem. Thank you for that.

1422

1423 **[104:21] Facilitator**

1424

1425 Uhm, Gentlemen, it seems that we have addressed the quality assurance question quite well.
1426 Your comments are noted, and I thank you for them. Then we move on to point number eight,
1427 which is the general discussion whether anybody has any additional comments that they would
1428 like to add and just as a bit of a guideline for the general discussion, any suggestions to improve
1429 the EMPP. (p) Speaker five continue.

1430

1431 **[105:03] Number five**

1432

1433 Just, I think one comment and maybe because this is the end, I also just want to thank you as
1434 the facilitator and also, Mr Nell for the- for the good work and he's energy and efforts he's
1435 putting in. I am, my concluding comments is also that it is nice to see that we are all coming
1436 from very different provinces and different HEI`s, but they in my opinion, and I think when
1437 you analyse your- your transcripts, there is a- there is a commonality of views and opinions. I
1438 just have this one comment to make is that the NECET policy at the time that it was developed,
1439 and I was part of that, I think and I will take the criticism didn't fully unpack the how and that's
1440 one of the challenges we have in this country is we have many great policies and many great
1441 ideas, but we sometimes fall a little bit short when it comes to implementation and given- given
1442 were EMS is and given where the economy of the country is, I don't think we're going to see
1443 many people that have a steady job working in EMS leaving EMS (p) and the message that
1444 needs to go forward then is that the people that are employed by EMS are going to stay there;
1445 and because of the limited funding government have now an I mean our public finances is very
1446 tight the expansion of EMS that was alluded to in the 2030 health plan I don't think is going to
1447 happen. I think it is going to become very difficult to create new posts. I am not saying they
1448 will not be some, but EMS is not going to suddenly explode with 5, 6, 700 new posts. Now if
1449 you have an environment where your workforce is remaining inside EMS, it does not help to
1450 train more and more school leavers, because you now find that you will have school leavers
1451 with the new qualifications spoken to in in NECET, you are unable to enter EMS because there
1452 are not posts. You will have people in EMS who don't have the new qualifications and so, it's
1453 got to be a moderated, modified approach where we don't forget the in-service cohort and I
1454 say this, it's especially the youngsters in service and the mid-career people and I think the MPP
1455 program, although it's not completely sorted out, is a wonderful vehicle to cater for that cohort
1456 of people and so that hopefully, we can get to 2030. We can get in say, remember when we
1457 used to have a prep program, because the services have a big role to play and maybe we can
1458 all encourage them as academics, when someone retires a BAA with 30 years' experience, do
1459 not employ another BAA employ someone who has got a new qualification so that we slowly
1460 transform the service as, as, was the vision of the NECET. but that is all I really wanted to add.
1461 It is a bit off the topic but thank you for the opportunity.

1462

1463 **[108:20] Facilitator**

1464

1465 Thank you for those comments, uhm, Speaker five, and just to note nothing is off the topic
1466 right now and under the general discussion versus open for anybody to add any additional
1467 comments, air their opinions, share their thoughts on how this uhm program can be. Speaker
1468 one, you have any comments.

1469

1470

1471 **[108:48] Number one**

1472

1473 Uhm, thank you, Sir. wish to agree with Number five on this one, because clearly, my feeling
1474 is that when it comes to the EMPP it needs to be treated as a project where one identifies and
1475 say throughout the provinces, there are so many BAA`s so many ILS`s, these are the people
1476 that meet the migration plan criteria, this is how they can be migrated to various levels and
1477 this is how the EMPP can contribute to this change that we want to see happen and the EMPP
1478 is going to take this number for this year in this province and next year, this number and we're
1479 looking at the uhm, the year 2030 being everyone having been covered by the EMPP. So, if
1480 you would have a start and an end and one should look at it in that way, it should- should not
1481 be something that really comes to stay forever and then uhm another program that can be
1482 completely put in place for all the other school leavers. If it means then following the- the
1483 national certificate as amended, then that is then the route, (p) but clearly for in-service staff,
1484 we should definitely have a plan and say, we're starting now, and this is where this is going to
1485 end, this should not be something that uhm stays with us, uhm, and we end up just repeating
1486 ourselves without necessarily achieving the goal that the NECET had intended to achieve.
1487 Thank you so much for the hard work that has been put in and I hope the comments that we
1488 have given would add value to your study Mr. Nell, thank you.

1489

1490 **[110:51] Facilitator**

1491

1492 Thank you for that. Gentleman. I do not see any other hands. I do not see any other messages
1493 coming in on the stream. So, I think that we have reached the conclusion of this discussion.
1494 From my side, I would just like to thank you all for your cooperation and for your valued inputs.
1495 I am sure that Mr. Nell will be spending a little bit of time with your comments, and we wish

1496 him luck with it. I will hand you back to Mr. Nell for the conclusion and the closure. Thank you
1497 so much, gentlemen.

1498

1499 **[111:40] Nell**

1500

1501 I just want to thank everyone for availing themselves on a holiday and for the valuable
1502 contributions. Also thank you to all your families.

1503

[End of transcription]

1504

1505 **TEAMS MESSAGE STREAM**

1506

1507 [09:29] Number one

1508 Bridging Programme (standardized for access)

1509 [09:35] Number five

1510 I would think things like, Basic sciences, entry level anatomy and physiology, physical prep,
1511 computer literacy, writing skills.

1512 [09:40] Number one

1513

1514 NQF level 5 - Maths, Science (Physics and Biology), English, Academic writing, Computer
1515 literacy

1516

1517 [09:41] Number two

1518

1519 Agreed

1520

1521 [09:42] Number one

1522 Fully agree.

1523 [09:43] Number six

- 1524 Agreed
- 1525 [09:45] Number one
- 1526 EMPP - Should offer access.
- 1527 [09:45] Number one
- 1528 1 year programme
- 1529 [09:45] Number five
- 1530 The duration will be informed by the curriculum, but I would think not more than one
1531 academic year, like 1.
- 1532 [09:46] Number six
- 1533 Agreed, should not be longer than a year, like 1
- 1534 [09:48] Number five
- 1535 I don't think the prep programmer would result in changes to their NSC.
- 1536 [09:48] Number one
- 1537 EMPP - Should offer access while preparing the candidate to be mentally ready for their first
1538 year.) (thus, should offer a dual function)
- 1539 [09:48] Number six
- 1540 Blended learning
- 1541 [09:48] Number five
- 1542 Blended
- 1543 [09:48] Number one

- 1544 Blended learning
- 1545 [09:49] Number five
- 1546 Some components would need to be contact based.
- 1547 [09:49] Number six
- 1548 Agree with Speaker 2
- 1549 [09:52] Number two
- 1550 Agreed
- 1551
- 1552 [09:52] Number six
- 1553 Agree with speaker 5.
- 1554 [09:54] Number five
- 1555 Methods should be similar to those they would encounter in the HEI programmes for which
- 1556 they are being prepared.
- 1557 [09:55] Number six
- 1558 Assessment should prepare candidate to be comparable to the school leaver counterpart.
- 1559 [09:55] Number two
- 1560
- 1561 Agreement from 2 as well.
- 1562
- 1563 [09:57] Number six
- 1564 Yes, but as a life skill preparing candidate to be successful in the HEI programme.
- 1565 [09:58] Number six
- 1566 Agree with speaker 3.

- 1567 [10:01] Number one
- 1568 I fully agree but the swim requirements need to be addressed.
- 1569 [10:03] Number one
- 1570 Selection should be strict and not set candidate up for failure!
- 1571 [10:03] Number six
- 1572 Facilitation of Physical Preparedness: Medically cleared; Baseline instruction; scientific
1573 programme to be followed; structured contact sessions.
- 1574 [10:05] Number five
- 1575 Fully agree with this anyone applying needs to know exactly what would be expected of them
1576 and also should be in good health.
- 1577 [10:06] Number one
- 1578 There has to be a clear daily schedule in place. With continuous evaluation and not have final
1579 assessment at the end.
- 1580 [10:06] Number three
- 1581 I don't think that being able to swim should be an entry requirement, they should rather be
1582 taught whilst on the programme, agree that the assessments should be CE not...
- 1583 [10:07] Number four
- 1584 agree that the assessments should be CE not one high stakes assessment at the end of the
1585 year.
- 1586 [10:08] Number four
- 1587 200m in 6min, not 600m...

1588 [10:09] Number five

1589 I agree that the difference between been able to swim, the level expected for swimming for
1590 EMS workers and then level expected for rescuers will all need to be determined more
1591 scientifically.

1592

1593

1594 [10:10] Number one

1595 Agreed 4

1596 [10:10] Number one

1597 Apologies!

1598 [10:10] Number one

1599 200 yes in 6 min

1600 [10:11] Number five

1601 There is currently a PhD study underway from DUT to try and determine a valid tool for
1602 assessment of physical preparedness for EMC students.

1603 [10:17] Number five

1604 Agree with number four on this.

1605 [10:17] Number six

1606 Scientific research should form baseline; and EMPP curriculum should inform physical
1607 preparedness outcomes and assessment etc. Outcomes should be logic and fit for purpose.

1608 [10:21] Number five

1609 I agree with Number six on this point....

Development of quality assurance and educational guidelines for an EMPP in South Arica

- 1610 [10:25] Number two
- 1611 Agreed with no 5.
- 1612
- 1613 [10:25] Number six
- 1614 EMC Clinical skills can be addressed on the HEI EMC programme
- 1615 [10:26] Number six
- 1616 Not on Preparatory programme
- 1617 [10:26] Number three
- 1618 agreed Number five.
- 1619 [10:28] Number five
- 1620 The people on this programmer are already registered health care professionals ie at
1621 minimum they would be BLS qualified?
- 1622 [10:34] Number six
- 1623 Agreed with speaker 5 re QA.
- 1624 [10:35] Number five
- 1625 external bench marking and moderation working hand in hand to ensure quality.
- 1626 [10:42] Number five
- 1627 Slightly off the topic. ... EMS services need to stop employing people without the required
1628 Grade 12 / NSC APS scores and subject combinations to (at minimum) enroll for the H Cert
1629 which is the entry level qualification for Professional recognition.
- 1630 [10:43] Number three
- 1631 agreed Number five.

- 1632 10:50] Number one
- 1633 True Number five.
- 1634 [10:56] Number five
- 1635 Thanks Everyone have a lekker day further.
- 1636 [11:01] Number two
- 1637
- 1638 Thank you everyone. Have a good day!

Appendix V:

Letter to the Dean of Health Sciences at the Central University of Technology

APPENDIX D: LETTER TO THE DEAN OF HEALTH SCIENCES AT THE CENTRAL UNIVERSITY OF TECHNOLOGY

Dean of the Faculty of Health Sciences
Faculty of Health Sciences
Central University of Technology

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear Prof Mashele

I am in the process of writing a thesis to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA**

My promotors are:

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and
Development
Office of the Dean: Health Sciences
JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences:
Radiography
Faculty of Health and Environmental
Science
Central University of Technology
duplesj@cut.ac.za

The problem that will be addressed by this research is the absence of formal, scientifically researched Quality Assurance (QA) and educational guidelines for an emergency medical care preparation programme in South Africa. Furthermore, this study will attempt to possibly increase the limited literature available on emergency care preparation programmes and QA guidelines and criteria specifically for Emergency Medical Care (EMC) educational programmes in South Africa. As the EMPP provides EMC personnel with the means to further their paramedic careers, it is of vital importance that high-quality education and training are maintained. The development of QA and educational guidelines will play a vital role in ensuring the success of personnel.

The aim of this study is to develop quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa.

To achieve the aim, and answer the research questions set for the investigation, the following objectives will be pursued to:

1. Analyse literature and existing documentation on Quality Assurance (QA) guidelines for Higher Education (HE) qualifications in South Africa (SA) and (ii) the educational guidelines and criteria for (a) NQF level 5 programmes, (b) Short Learning Programme`s and (c) Emergency Medical Care (EMC) education and training programmes. (Literature review and document analysis).
2. Analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in objective 1. (Document analysis).
3. Develop and refine draft QA and educational guidelines for the EMPP. (Integrating objective 1 and objective 2, Delphi survey).
4. Finalise the QA and educational guidelines for the EMPP. (Expert panel discussion and input).

In Phase 1 of the study, a literature review and document analysis will be done to: (i) analyse the QA guidelines for HE qualifications in SA and (ii) the educational guidelines and criteria for (a) NQF level 5 programmes, (b) Short Learning Programmes (SLP`s) and (c) EMC education and training programmes. Literature will also be scrutinised for QA guidelines specific for SLPs and EMC education and training, as governed by a professional body. Phase 2 of the study will include the analysis of the EMPP course design with regards to, level descriptors, exit level outcomes, notional/unit hours, module/unit outcomes, learning facilitation, development of generic skills and competencies, assessment in the programme and physical preparedness to determine alignment with the guidelines and criteria as set out in Phase 1. Phase 3 will involve the development and refining of draft QA and educational guidelines for an EMPP which will be guided by the integration of Phase 1 and Phase 2 data and refined by means of a Delphi survey. In Phase 4 of the study the QA and educational guidelines for an EMPP will be finalised by means of the inputs from an expert panel discussion.

The value of this research will be the provision of QA and educational guidelines for an emergency medical care preparation programme, with the possibility to also assist other EMC educational programmes in the maintenance and assurance of quality. Additionally, the study will increase the limited literature currently available on EMC-specific preparation programmes and EMC education QA programmes in South Africa.

I hereby apply to conduct this research as approved by the Health Science Research Ethics Committee (HSREC no _____).

Yours faithfully

Mr EN Nell

EMS Coordinator/Lecturer
Free State College of Emergency Care
Department of Health, Free State
Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee)
Tel: 051-4017794/5
Email: EthicsFHS@ufs.ac.za.

Appendix W:

**Letter to the Director, Human Resource management, Free State Department
of Health**

APPENDIX M: LETTER TO THE DIRECTOR, HUMAN RESOURCE MANAGEMENT, FREE STATE DEPARTMENT OF HEALTH

Director Human Resource Management, Free State Department of Health
Bophelo House
Bloemfontein

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear Mrs Kala

I am in the process of writing a thesis to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA**

My promotors are:

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and
Development
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JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences:
Radiography
Faculty of Health and Environmental
Science
Central University of Technology
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I hereby apply to for your permission to obtain the contact details of the Principal of the Free State College of Emergency Care to take part in an expert panel discussion. The problem that will be addressed by this research is the absence of formal, scientifically researched Quality Assurance (QA) and educational guidelines for an emergency medical care preparation programme in South Africa. Furthermore, this study will attempt to possibly increase the limited literature available on emergency care preparation programmes and QA guidelines and criteria specifically for Emergency Medical Care (EMC) educational programmes in South Africa. As the EMPP provides EMC personnel with the means to further their paramedic careers, it is of vital importance that high-quality education and training are maintained. The

development of QA and educational guidelines will play a vital role in ensuring the success of personnel.

The aim of this study is to develop quality assurance and educational guidelines for an Emergency Medical Preparation Programme (EMPP) in South Africa.

To achieve the aim, and answer the research questions set for the investigation, the following objectives will be pursued to:

1. Analyse literature and existing documentation on Quality Assurance (QA) guidelines for Higher Education (HE) qualifications in South Africa (SA) and (ii) the educational guidelines and criteria for (a) NQF level 5 programmes, (b) Short Learning Programme`s and (c) Emergency Medical Care (EMC) education and training programmes. (Literature review and document analysis).
2. Analyse EMPP documentation to determine alignment with the guidelines and criteria as set out in objective 1. (Document analysis).
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4. Finalise the QA and educational guidelines for the EMPP. (Expert panel discussion and input).

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I hereby apply to conduct this research as approved by the Health Science Research Ethics Committee (HSREC no _____).

Yours faithfully

Mr EN Nell

EMS Coordinator/Lecturer
Free State College of Emergency Care
Department of Health, Free State
Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee)
Tel: 051-4017794/5
Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Mrs Kala

Appendix X:

Letter to the Head of Department at the Durban University of Technology

APPENDIX K: LETTER TO THE DEAN OF THE FACULTY OF HEALTH SCIENCES AT THE DURBAN UNIVERSITY OF TECHNOLOGY

Head of the Faculty of Health Sciences
Durban University of Technology
Faculty of Health Sciences
Emergency Medical Care and Rescue

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear Dr. S Sobuwa

I am in the process of writing a thesis to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **DEVELOPMENT QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA**

My promotors are:

PROMOTOR

Dr M.P. Jama
Head: Division Student Learning and
Development
Office of the Dean: Health Sciences
JamaMP@ufs.ac.za

CO-PROMOTOR

Dr J. du Plessis
Department of Clinical Sciences:
Radiography
Faculty of Health and Environmental
Science
Central University of Technology
duplesj@cut.ac.za

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careers, it is of vital importance that high-quality education and training are maintained. The development of QA and educational guidelines will play a vital role in ensuring the success of personnel.

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Department of Health, Free State
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Contact details: HSREC (Health Sciences Research Ethics Committee)
Tel: 051-4017794/5
Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Dr. Simpiwe Sobuwa

Appendix Y:

Letter to the Head of Department at the University of Johannesburg

APPENDIX L: LETTER TO THE DEAN OF THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF JOHANNESBURG

Dean of the Faculty of Health Sciences
University of Johannesburg
Faculty of Health Sciences

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear Prof S Khan

I am in the process of writing a thesis to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA**

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Mr EN Nell

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Tel: 0718721749/ 051 405 2782

Contact details: HSREC (Health Sciences Research Ethics Committee)
Tel: 051-4017794/5
Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Prof Sehaam Khan

Appendix Z:

Letter to the Head of Department at the Nelson Mandela University

LETTER TO THE HEAD OF DEPARTMENT AT THE NELSON MANDELA UNIVERSITY

Head of Department, Nelson Mandela University

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

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Contact details: HSREC (Health Sciences Research Ethics Committee)
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Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Head of Department

Appendix AA:

Letter to the Chairperson of the Professional Board of Emergency Care, PBEC

APPENDIX P: LETTER TO THE CHAIRPERSON OF THE PROFESSIONAL BOARD OF EMERGENCY CARE, HPCSA.

Chairperson of the Professional Board of Emergency Care
Health Professions Council of South Africa

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear Mr LA Malotana

I am in the process of writing a thesis to obtain the Philosophiae Doctoriae Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student number 2013174343). The title of my research is **DEVELOPMENT OF QUALITY ASSURANCE AND EDUCATIONAL GUIDELINES FOR AN EMERGENCY MEDICAL CARE PREPARATION PROGRAMME IN SOUTH AFRICA**

My promoters are:

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CO-PROMOTOR

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Department of Clinical Sciences:
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Free State College of Emergency Care
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Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Mr LA Malotana

Appendix BB:

Letter to the Principal of the Free State College of Emergency Care

LETTER TO THE PRINCIPAL OF THE FREE STATE COLLEGE OF EMERGENCY CARE

Principal, FSCoEC, Free State Department of Health, National Hospital, Bloemfontein

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH.

Dear _____

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Contact details: HSREC (Health Sciences Research Ethics Committee)
Tel: 051-4017794/5
Email: EthicsFHS@ufs.ac.za.

Approved/Not Approved

Principal

Appendix CC:

Letter from language editor



SHINE BRIGHTLY

EDITA SERVICES Reg. no 2014/235262/07

28 July 2021

To whom it may concern,

I, Mignonette Fair, from Edita Services, hereby confirm that I edited and proofread Mr. Eduard Nico Nell's dissertation titled The Development of Quality Assurance and Educational Guidelines for an Emergency Medical Preparation Programme in South Africa.

The following was checked: Spelling and grammar, overall consistency and flow, and reference style. The mentioned factors were correct when returned to the student and we do not accept responsibility for changes made after the final version was sent to the student.

Please feel free to contact me, should you require any further information.

Kind regards,

Mignonette Fair

Director - Edita Services (Pty) Ltd

Appendix DD:

Turnitin report

Development of QA and educational guidelines for an EMPP in SA.

ORIGINALITY REPORT

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Appendix EE:

**Document
analysis
matrix**

Type of document	Document Code	Document Title	Date	Author	Source	Location	Type	Relevant information
Foundational documents	F1	Mathematics study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F2	Physics study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F3	Chemistry study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F4	Numeracy study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F5	Basic digital literacy study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F6	Life Sciences study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F7	Academic literacy and communication study guide	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Foundational documents	F8	Physical preparedness and learn to swim	2019	Lecturer	CUT	CUT	Learning guide	Inform the curriculum
Quality assurance document	Q9	Procedure for the Management of Institutional CE Courses at CUT;	2019	CUT	CUT	CUT	Policy	Inform QA process
Quality assurance document	Q10	EMPP short-learning programme (SLP) approval document (2019);	2019	Coordinator	CUT	CUT	Curriculum	Inform QA process
Quality assurance document	Q11	CUT Moderator Report Template for pilot testing (2020);	2020	CUT	CUT	CUT	Report	Inform QA process
Quality assurance document	Q12	CUT Quality Enhancement Project (QEP) (2019);	2019	CUT	CUT	CUT	Policy	Inform QA process
Quality assurance document	Q13	Policy for the Management of Institutional Continuing Education (CE) Courses at CUT (2019)	2019	CUT	CUT	CUT	Policy	Inform QA process
Quality assurance document	Q14	A good practice guide for the quality management of short courses offered outside of the HEQSF	2016	CHE	CUT	CUT	Guidelines	Inform QA process
Quality assurance document	Q16	EMPP student feedback forms 2018	2018	Coordinator	CUT	CUT	Report	Inform QA process
Quality assurance document	Q17	EMPP student feedback forms 2019	2019	Coordinator	CUT	CUT	Report	Inform QA process
Quality assurance document	Q18	EMPP course feedback form 2018	2018	Coordinator	CUT	CUT	Report	Inform QA process
Quality assurance document	Q19	EMPP course feedback form 2019	2019	Coordinator	CUT	CUT	Report	Inform QA process
Assessment documents	A20	EMPP learn to swim assessment criteria;	2019	Lecturer	CUT	CUT	Assessment criteria	Inform assessment
Assessment documents	A21	CUT Assessment Policy (2018);	2018	CUT	CUT	CUT	Policy	Inform assessment

Appendix FF:

**EMC
admission
criteria**

EMERGENCY MEDICAL CARE ADMISSION CRITERIA

The **minimum** entry requirements to register for one of the Emergency Medical Care Programmes at an accredited institution are as follow:

To register for the Higher Certificate in Emergency Medical Care programme:

1. The applicant with a Senior Certificate (Prior to 2009) must have at least a minimum of an E symbol on Higher Grade or a D symbol on Standard Grade for **all** of the following subjects:
 - a. English
 - b. Mathematics
 - c. Biology and/or Physical Science

OR

2. The applicant with a National Senior Certificate with a Higher Certificate endorsement must have the following subjects with rating codes:
 - a. English (3)
 - b. Mathematics (3) or Mathematical Literacy (6)
 - c. Life Sciences (3) and/or Physical Science (3)
 - d. Additional Subject 1 (3)
 - e. Additional Subject 2 (3)

OR

3. National Vocational Certificate, must have achieved a minimum pass of 60% for all of the following subjects:
 - a. English
 - b. Mathematics
 - c. Life Sciences and/or Physical Science

AND

4. The applicant must have a minimum of **18 points**.
5. The applicant must pass the Medical Fitness and Physical Fitness Evaluations.

To register for the Diploma in Emergency Medical Care programme:

1. The applicant with a Senior Certificate (Prior to 2009) must have at the following symbols for the respective modules Higher Grade and/ or Standard Grade:
 - a. English - Higher Grade (C) Standard Grade (B)
 - b. Mathematics- Higher Grade (D) Standard Grade (C)
 - c. Biology - Higher Grade (D) Standard Grade (C)
 - d. Physical Science - Higher Grade (D) Standard Grade (C)

OR

2. The applicant with a National Senior Certificate with a Higher Certificate endorsement must have the following subjects with rating codes:
 - a. English (5)
 - b. Mathematics (4)
 - c. Life Sciences (4) and Physical Science (4)
 - d. Additional Subject 1 (4)
 - e. Additional Subject 2 (4)
 - f. Additional Subject 3 (1)
3. The applicant must have a minimum of **26 points**.
4. The applicant must pass the Medical examination, Physical Fitness Evaluations and Phobia evaluation

To register for the Bachelors in Emergency Medical Care programme:

1. The applicant with a Senior Certificate (Prior to 2009) must have at the following symbols for the respective modules Higher Grade and/ or Standard Grade:
 - a. English - Higher Grade (C) Standard Grade (B)
 - b. Mathematics- Higher Grade (D) Standard Grade (C)
 - c. Biology - Higher Grade (D) Standard Grade (C)
 - d. Physical Science - Higher Grade (D) Standard Grade (C)

OR

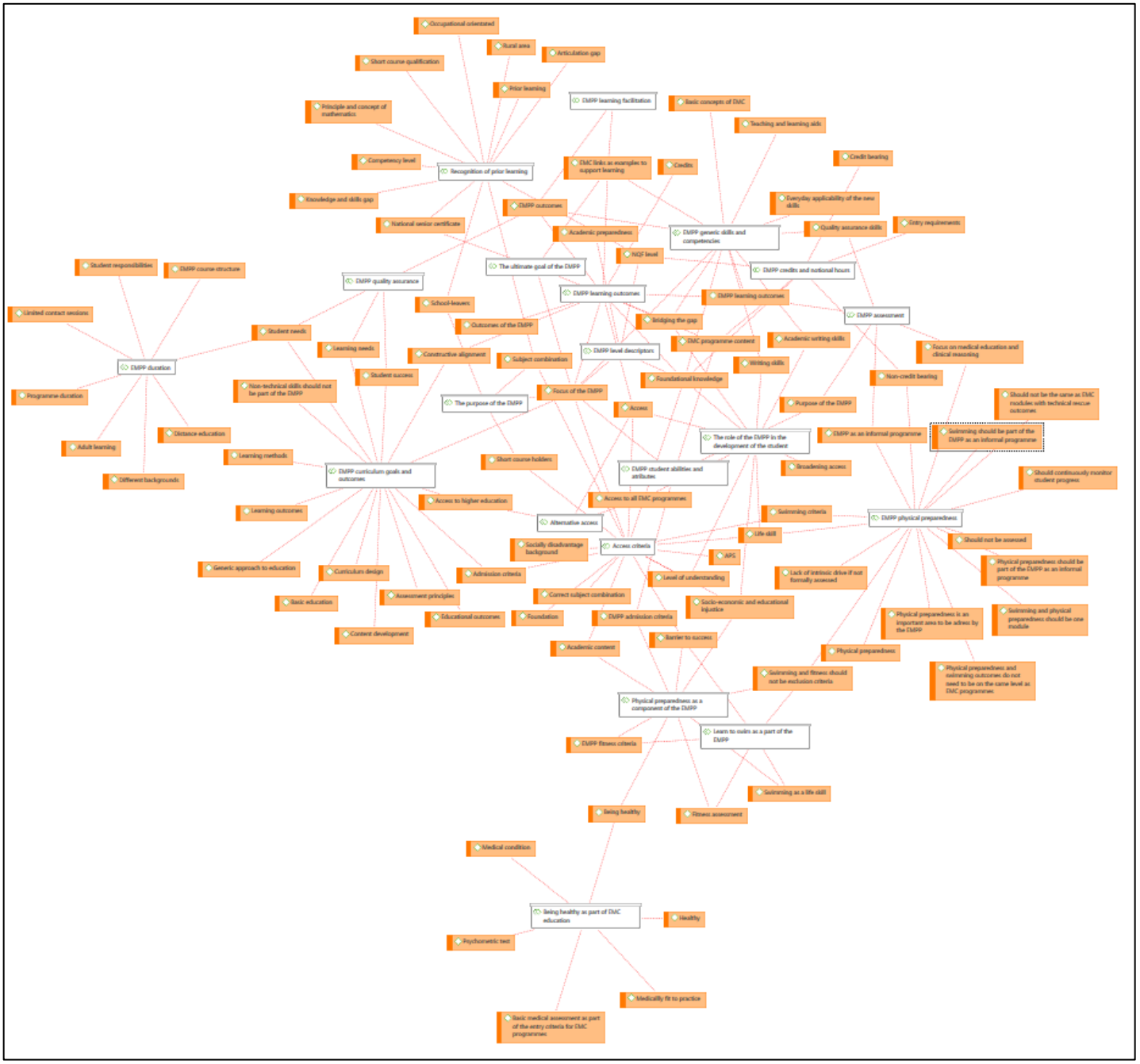
2. The applicant with a National Senior Certificate with a Higher Certificate endorsement must have the following subjects with rating codes:
 - a. English (5)

- b. Mathematics (4)
- c. Life Sciences (4) and Physical Science (4)
- d. Additional Subject 1 (4)
- e. Additional Subject 2 (4)
- f. Additional Subject 3 (1)

- 3. The applicant must have a minimum of **26 points**.
- 4. The applicant must pass the Medical examination, Physical Fitness Evaluations and Phobia evaluation

Appendix GG:

**Delphi survey
code network**



Appendix HH:

**Expert panel
code network**

