THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS

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 Magister degree in Health Professions Education and that it has never been submitted to any other university/faculty for the purpose of obtaining a degree.

……. July 2012

Mr NH Baird **Date**

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

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Mr NH Baird **Date**

DEDICATION

I dedicate this dissertation to my
wonderful wife, mother, grandmother and brother, who offered me
unconditional love and
support throughout the course of this thesis.
In loving memory of my late father who would have
been so proud if he could have been here today.

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LIST OF ABBREVIATIONS

CMS	:	Content Management System
UFS	:	University of the Free State
CUT	:	Central University of Technology, Free State

SUMMARY

Key terms: Staff Development, Health Professions Education, Health Professions Educators, Professional Development, Qualitative Research, Quantitative Research, Video as content delivery medium.

This study originated from a need to provide staff development resources to health professions educators. The need for content to be delivered effectively at a time and place that suit staff best is a challenge that Faculties of Health Professions Education must meet.

In this research project, an in-depth study was done by the researcher with a view to utilising video as primary content delivery medium for staff development of *health professions educators*.

The problem that was addressed is how content can be delivered to health professions educators at a time that will suit them best and in a medium that can be consumed effectively.

The aim of the study was to determine the value of the use of online video as primary medium for content delivery for staff development of health professions educators.

The methods that were used and which formed the basis of the study comprised a literature review, and – as the empirical study - the development of an online video course. On completion of the course, a questionnaire survey to determine the value of the utilisation of video as primary content delivery medium for staff development of health professions educators was conducted.

In order to provide a scientific basis, the researcher created on online course which was presented to health professions educators. These participants completed the course as well as the survey to supply the researcher with the necessary data as to their experiences while taking part in the course. The resulting data that was retrieved indicated to the researcher that the positive aspects of video as primary content

delivery medium in health profession education, far outweighed the negative aspects and that it was also overwhelmingly embraced by the participants.

The ability of staff to access content on demand, played a major role in the success of content delivery through video.

From the literature study it is also clear that video as primary content delivery medium in Higher Education, as well as Health Professions Education has many advantages. It is clear to the researcher from the literature study and the feedback provided by participants, that using video as primary content delivery medium should be greatly considered and implemented in faculties of health professions. Recommendations in this regard were made.

The sound research approach and methodology ensured the quality, reliability and validity of this study.

This completed research study can form the basis for a subsequent research study.

OPSOMMING

Sleutelterme: Personeelontwikkeling, Gesondheidsberoepe-onderwys, Gesondheidsberoepe-dosente/opvoeders, Professionele Ontwikkeling, Kwalitatiewe Navorsing, Kwantitatiewe Navorsing, Video as inhoudsleweringsmedium.

Hierdie studie spruit uit 'n behoefte om personeelontwikkelingsbronne aan gesondheidsberoepe-dosente te voorsien. Die behoefte daaraan om inhoud effektief te lewer waar en wanneer dit personeel pas, is 'n uitdaging wat Gesondheidsberoepe-onderwysfakulteite die hoof moet bied.

In hierdie navorsingsprojek is 'n diepgaande studie onderneem met die oog daarop om video as die primêre inhoudsleweringsmedium vir personeelontwikkeling van gesondheidsberoepe-dosente/opvoeders te gebruik.

Die probleem wat aangepak is, is hoe inhoud aan gesondheidsberoepe-dosente gelewer kan word wanneer dit hulle die beste pas en in 'n medium wat effektief gebruik kan word.

Die oogmerk van die studie was om die waarde van die gebruik van aanlynvideo as primêre medium vir inhoudslewering tydens personeelontwikkeling van gesondheidsberoepe-dosente te bepaal.

Die metodes wat gebruik is en wat die basis van die studie gevorm het, was 'n literatuuroorsig en die ontwikkeling van 'n aanlynvideokursus as empiriese ondersoek. By die voltooiing van die kursus is 'n vraelysopname gedoen om die waarde van die gebruik van video as primêre inhoudsleweringsmedium tydens personeelontwikkeling van gesondheidsberoep-dosente te bepaal.

Die navorser het 'n aanlynkursus wat aan gesondheidsberoepe-dosente aangebied is, as wetenskaplike basis geskep. Die deelnemers het die kursus en die opname voltooi om die navorser sodoende van data te voorsien rakende hulle ervaring van die kursus. Die uiteindelike data wat herwin is, het aangetoon dat die positiewe aspekte rakende die gebruik van video as primêre inhoudsleweringsmedium in gesondheidsberoepe-

onderwys die negatiewe aspekte oortref het en dat dit ook oorweldigend deur die deelnemers aanvaar is.

Die vermoë van personeel om op aanvraag toegang tot inhoud te verkry, het ’n deurslaggewende rol in die sukses van inhoudslewering met behulp van video verseker.

Dit blyk ook uit die literatuuroorsig dat video as primêre inhoudsleweringmedium in Hoëronderwys en Gesondheidsberoepe-onderwys verskeie voordele inhou. Vir die navorser blyk dit duidelik uit die literatuuroorsig en die terugvoer wat die deelnemers verskaf het dat die gebruik van video as primêre inhoudsleweringsmedium verseker oorweeg en implementeer moet word in gesondheidsberoepefakulteite. Aanbevelings is in hierdie verband gemaak.

Die grondige navorsingsbenadering en metodologie het die gehalte, betroubaarheid en geldigheid van hierdie studie verseker.

Hierdie voltooide navorsingstudie kan die grondslag vir verdere navorsing bied.

THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS

CHAPTER 1

ORIENTATION OF THE STUDY

1.1 INTRODUCTION

In this research project, an in-depth study was done by the researcher with a view to utilising video as primary content delivery medium for staff development of *health professions educators*.

This study can serve as a directive for organisations to contribute to staff development stategies by making use of video as primary content delivery medium.

The aim of the first chapter is to orientate the reader to the study. It provides background to the research problem, followed by the problem statement – including the research questions, the overal goal, aim and objectives of the study. These are followed by a demarcation of the study and highlights of the foreseen significance and value of the study. Thereafter, a brief overview of the research design and methods of investigation are presented. The chapter is concluded by a lay-out of the subsequent chapters and a short, summative conclusion.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

We are living in a digital age, and even today with so many tasks being performed by computers, people are still the driving force in every organisation.

Staff development can be seen as a continious process. Development can begin at any time - but if successful, will only end at retirement. It encompassess the process in which staff engage to prepare themselves, continiously update themselves, and constantly revise and reflect on their own performance in their daily endeavours.

In *The Seven Habits of Highly Effective People,* Steven Covey (1989:45) suggests, "Begin with the end in mind". If members of staff plan to provide solutions to problems in the future, it is important they prepare themselves to do this through training and development.

Dutta (2010:Online) also defines Staff Development as "*the processes, programmes and activities through which every organisation develops, enhances and improves the skills, competencies and overall performance of its employees and workers".*

The application of video as medium for content delivery in education has been used for many years. The problem has been that, in the past, the distribution of content had not been as easy as it is today. Due to advances being made with the distribution of content through the Internet, this has changed. For many years, expensive recordings of motivational speakers and staff training professionals were made available on physical media, like film, video tapes and digital discs.

Many educational institutions have been moving from a physical medium to a digital online distribution model. Smith, Ruocco and Jansen (1999:122) state that digital video is an exciting new medium with the potential to revolutionise the way an organisation trains their employees. With an ever-increasing workload on lecturers, time constraints are experienced when it comes to staff development.

The following relevant questions usually direct training efforts:

- Can these learning interactions be enhanced through the use of online-video? and
- Can content be made available to health professions educators when and where a learning opportunity would arise?

Staff development should be available at all times and should be delivered when and where the health professions educator needs it. Because all health professions educators will not need the same type of training at exactly the same time, the use of recorded training content may enable health professions educators to be trained as needed. Some of the primary needs for training sessions, according to Smith *et al*. (1999:122), include refresher training, new equipment training, and training associated with new personnel, units, enivironments, or promotions. Staff should have the

opportunity to develop themselves at their own pace, at a time that suit them and where they are (Trondsen & Vikery 1998:169).

This content can be accessed online and watched in their own time. The online recorded sessions can also be stopped, replayed or paused at any stage.

Through the effective use of online-video, staff development can be rolled out across institutions, without excessive financial implications and time limitations.

1.3 PROBLEM STATEMENT AND RESEARCH QUESTIONS

The problem that was addressed is how content can be delivered to health professions educators at a time that will suit them best and in a medium that can be consumed effectively. A number of scholarly and scientific work were found on the use of technology in education and training, e.g. Explaining low learner participation during interactive television instruction in a developing country context (Evans 2005); Online courses for math teachers: comparing self-paced and facilitated cohort approaches (Carey, Kleiman, Russel, Venable & Louie 2008); Multimedia learning of chemistry (Kozma & Russel 2005). However, no recent (or any) study concerning the utilisation of video as primary content delivery medium for staff development of health professions educators could be traced as far as online searches and searches of scholarly articles were concerned.

In conclusion, there seemed to be no recent scientific publications on the utilisation of video as primary content delivery medium for staff development of health professions educators.

In order to address the problem stated, the following research questions were addressed:

1. Can the utilisation of video as primary content delivery medium, for staff development be conceptualised and contextualised as the theoretical framework of this study?
2. Can these online courses be created and be presented to health professions educators with video as primary content delivery medium?
3. How can the value of online video as primary content delivery medium as well as the utilisation thereof, be determined for staff development?

4. How can video as primary content delivery medium be used for staff development?

The research was carried out and completed based on these four research questions.

1.4 OVERALL GOAL, AIM AND OBJECTIVES OF THE STUDY

1.4.1 Overall goal of the study

The overall goal of the study was to contribute to staff development strategies by making use of video as primary content delivery medium.

1.4.2 The aim of the study

The aim of the study was to determine the value of the utilisation of online video as primary medium for content delivery for staff development of health professions educators.

1.4.3 Objectives of the study

To achieve the aim, the following objectives were pursued:

- To conceptualise and contextualise the use of video as primary content delivery medium in staff development of health professions educators via a literature study in order to provide a theoretical basis for this study. This objective addresses research question 1.
- To develop an online course (made up of three sections) with content primarily delivered through video clips. This course was presented to health professions educators. This objective addresses research question 2.
- To evaluate the responses to a questionnaire that was presented to participants on completion of the course. This objective addresses research question 3.
- To discuss the use of video as primary content delivery medium for staff development of health professions educators. This objective addresses research question 4.

1.5 DEMARCATION OF THE FIELD AND SCOPE OF THE STUDY

The findings of the study may be applied to staff development of all health professions educators. This study resides within the field of health professions education.

Due to the application of the study in the broader discipline of Health Professions Education in general, and in the field of staff development and online education, the study can be classified as being interdisciplinary.

The participants in the questionnaire survey in the study were health professions educators who have had some experience of face-to-face staff development sessions. The target population consisted of health professions educators from the Faculty of Health Sciences, University of the Free State (UFS) and School of Health Technology, Central University of Technology, Free State (CUT), who had attended a minimum of three staff development sessions during the previous two years. The names and contact information of staff members who met these criteria were obtained from relevant departments from the UFS and CUT. This information will be treated confidentially.

In a personal context, the researcher in this study is qualified to do the research as he is an Instructional Designer (Multimedia) at the Central University of Technology, Free State, and has been involved in the creation of educational content for the past 11 years. In recent years, the researcher has found that there is a need to extend contact sessions and content distribution beyond the confines of a specific training venue. With the advances being made with the distribution of content online, it has become evident that video has become a feasible medium for content distribution online.

As far as the timeframe is concerned, the study was conducted between November 2010 and April 2012, with the empirical research phase from November 2010 to November 2011.

1.6 SIGNIFICANCE AND VALUE OF THE STUDY

Heavier workloads and limited time to attend scheduled staff development sessions are problems in institutions. This could be solved by providing on-demand access to staff development resources. The results of the study may enable institutions, such as a

Faculty of Health Sciences, to improve the developmental opportunities of staff and expand the reach of these sessions.

1.7 RESEARCH DESIGN OF THE STUDY AND METHODS OF INVESTIGATION

1.7.1 Design of the study

A quantitative study was done with elements of qualitative feedback included in the questionnaire.

The major difference between quantitative and qualitative research is in the way that knowledge is generated (Creswell & Plano Clark 2007:259). Quantitative research is summarised by McMillan and Schumacher (2001:15) as the presentation of statistical results presented with numbers. This is supported by Burns and Grove (1999:5) who define quantitative research as a formal, objective, systematic process in which numerical data are utilised to obtain information.

On completion of the course sections, the health professions educators completed a short survey, which consisted of multiple-choice questions and minimal open-ended questions.

On completion of the full course, the health professions educators completed a final survey, which consisted of multiple-choice questions and minimal open-ended questions. This final questionnaire covered the whole course, including all three course sections.

A schematic overview of the study is given in Figure 1.1

FIGURE 1.1 A SCHEMATIC OVERVIEW OF THE RESEARCH

[Compiled by the researcher: Baird 2011]

The detailed description of the population, sampling methods, data collection and techniques, data analysis and reporting and ethical considerations are provided in Chapter 3.

1.8 IMPLEMENTATION OF THE FINDINGS

The research findings will be submitted to academic journals with a view to publication, as the researcher hopes to make a contribution to staff development in Health Professions Education. The research findings will also be presented at national and international conferences.

1.9 ARRANGEMENT OF THE REPORT

To provide more insight into the topic, the methods used to find solutions and the final outcome of the study will be reported as follows:

In this chapter, Chapter 1, **Orientation to the study**, the background to the study was provided and the problem, including the research questions, was stated. The overall goal, aim and objectives were stated and the research design and methods that were employed were briefly discussed to give the reader an overview of what is contained in the report. It further demarcated the field of the study and the significance of the study for staff development in Health Professions Education.

In Chapter 2, **The use of video as primary content delivery medium for staff development**, the use of video as content delivery medium will be investigated and discussed. Attention will further be given to the use of video for staff development in general. This chapter will serve as the theoretical framework for the study.

In Chapter 3, **Research design and methodology**, the research design and the methods applied will be described in detail. The data collecting methods and data analysis will be discussed.

In Chapter 4, **Results and discussion of findings of the questionnaire survey**, the results of the questionnaire as data collecting method employed in the study will be reported and the findings discussed.

In Chapter 5, **A discussion on the utilisation of video as primary content delivery medium for staff development of health professions educators,** the final outcome of the study will be provided, contextualised in health profession education, and discussed in full.

In Chapter 6, **Conclusion, recommendations and limitations of the study**, an overview of the study, conclusion, recommendations and the limitations of the study will be provided.

1.10 CONCLUSION

Chapter 1 provided the background and introduction to the research undertaken regarding the utilisation of video as primary content delivery medium for staff development of health professions educators.

The next Chapter, Chapter 2, entitled **Video as primary content delivery medium for staff development**, will be a study on the relevant literature.

CHAPTER 2

THE USE OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT

2.1 INTRODUCTION

For many years, anyone who graduated from a medical school was considered able to teach. The art of teaching is, however, not an innate gift. Teaching is more than just content; teaching also involves 'process', and for this academics require support (Benor 2000:503-512).

The main purpose of 'teacher training' in the past 50 years was to prepare academic faculty members for teaching. Staff development is defined in various ways in the literature; for example, Sheets and Schwenk (1990:141) define staff development (faculty development) as *"...any planned activity to improve and individual's knowledge and skills in areas considered essential to the performance of a faculty member in a department or a residency programme (e.g. teaching skills, administrative skills, research skills, clinical skills)".*

In this chapter, the history of staff development will be explicated to show where such a definition fits into the timeline and to contextualise the definition that emerges from the research study. The factors that drive and hinder staff development, as well as the future of staff development will be discussed. The use of video as content distribution medium will form the focus of the exposition. In conclusion, the use of video in staff development in health professions education will be highlighted.

Figure 2.1 below captures the main elements of this chapter schematically:

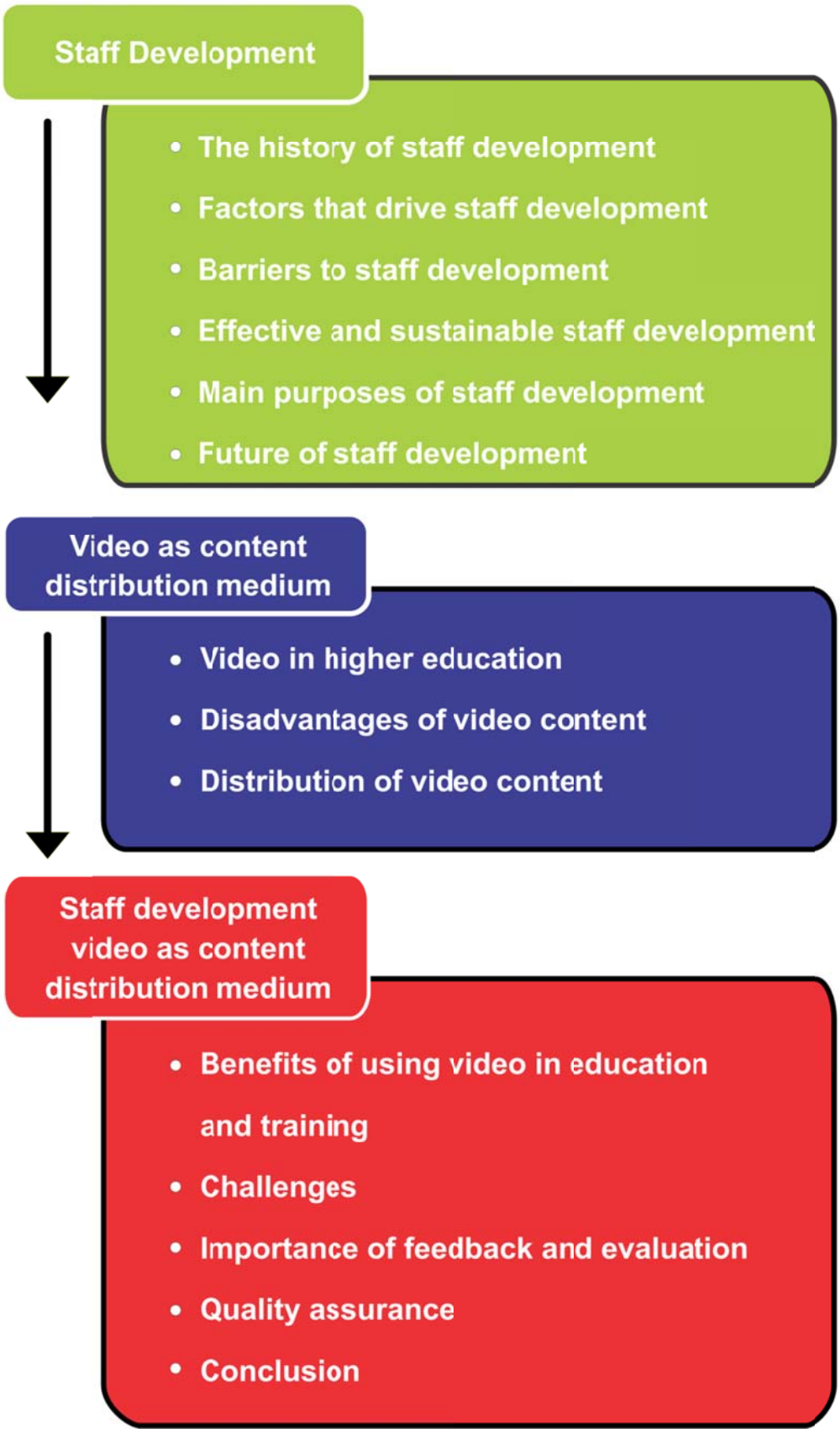

FIGURE 2.1 SCHEMATIC OVERVIEW OF CHAPTER 2

[Compiled by the researcher: Baird 2011]

2.2 STAFF DEVELOPMENT

2.2.1 The history of staff development

In literature, staff development is also referred to as Human Resources Development and Professional Development. According to the contributors to Wikipedia, Staff Development refers to knowledge and skills which are attained for both personal and professional development (Wikipedia contributors 2011:online).

For the purposes of this study, the term staff development will be used to refer to the notion of academic training and the professional, career and emotional development of staff (Guskey 2003:84).

The purpose of training since the 1970's was primarily to prepare newly appointed staff for teaching. This understanding of staff development expanded when the academics' responsibilities expanded to also include research and administration (Bland & Stritter 1998:282-288; Hitchcock, Stritter & Bland 1993:295-309; Steinert 2000:44-50).

McLean, Cilliers and van Wyk (2008:556) compiled a chronological evolution table of staff development in medical education; in this table some important contributions from 1975 to the present is highlighted.

TABLE 2.1 CHRONOLOGICAL EVOLUTION OF FACULTY DEVELOPMENT IN MEDICAL EDUCATION (SOME IMPORTANT CONTRIBUTIONS FROM 1975 TO PRESENT)

[From McLean *et al*. (2008:556)] (Table 2.1 continues on next page)

Authors	Suggestions / Highlights
Gaff (1975)	Staff development in higher education perceived as activities that assist teachers to • Improve their teaching skills • Design better curricula • Improve the institutional culture
Centra (1976)	Defined staff development as the broad range of activities used by institutions to renew or assist faculty to undertake their expected roles. Feedback from students was considered effective in changing teacher behaviour only when teachers were provided with individual consultation and suggestions for improvement.
Stritter (1983)	Divided staff development into three categories • Technical assistance (more or less at an individual level • High faculty involvement ('professional socialisation, e.g. through workshops; collaborative educational research

	• Assessment (by peers, students and self –assessment, with feedback)
Bland & Schmitz (1986)	Faculty development included skills other than teaching. Primary goal of faculty development had changed from recruiting and training faculty to building the academic base of a specialty by developing research capacity through fellowships, advisors, mentors, etc.
Bland & Schmitz (1988)	Faculty development provides faculty and institutional vitality. Strategies to improve vitality at 3 levels: • Institutional (e.g. altering personnel policies, redefining mission) • Department/college (organisational development and practice, e.g. providing administrative assistance) • Individual faculty members (faculty exchange, peer consultation, cross-departmental teaching)
Sheets & Schwenk (1990)	Staff development is 'any planned activity to improve an individual's knowledge and skills in areas considered essential to the performance of a faculty member in a department or a residency programme (e.g. teaching skills, administrative skills, research skills, clinical skills)'.
Hitchcock *et al.* (1993)	Major conclusions from a review of the literature: • Concept of staff development is evolving and expanding (e.g. professional academic skills; ethics, clinical and research skills) • Teaching skills still prominent aspect of staff development • Post-residency fellowships are effective in recruiting and training new faculty • Institutional environment is important in staff development (to improve productivity) • Faculty evaluation is an effective approach to faculty development • More research into outcomes of staff development is required • Different staff development models required for different faculty • Staff development centres increasing
Wilkerson & Irby (1998)	Staff development strategies influenced by theories of learning in vogue and research findings • Professional development (orientation) • Instructional development (improved practice, e.g. through mentoring) • Leadership development (leading to medical educators) • Organisational development (rewards for teaching)
Steinert (2000)	To keep pace with changes, faculty development will need to broaden its focus by • Using diverse learning methods • Being underpinned by learning theories • Fostering partnerships and collaboration • Rigorously evaluating interventions
Steinert *et al.* (2006)	In a best-evidence medical education (BEME) study focusing on the outcomes of staff development evaluation the authors suggest using Kirkpatrick's (1994) four levels of outcomes to frame evaluation. In the authors' view, conclusions could not be drawn from many studies as the outcomes were not measured.

From this table it follows that the development of staff is an ever - evolving process, which will probably continue to evolve as new requirements, processes and technologies come into play. The researcher believes that, in the future, staff development will evolve to be on demand and timely, easily accessible through the

Internet and made up of shorter information sessions. These sessions will be un-intrusive, as they will be available when needed and accessed as required.

2.2.2 Factors that drive staff development

Gruppen, Simpson, Searle, Robins, Irby and Mullan (2006:990-994) identify three main driving forces for staff development. These are: public accountability, the changing nature of health care delivery and the need to sustain academic vitality. There are, however, other internal and external factors that could also be considered.

2.2.2.1 *Internal factors*

The following internal factors have been identified:

The Socialisation of staff into the institutional culture. Recruitment is a very expensive procedure and it makes sense for an institution to invest time and money in the development of staff members. Staff members are often regarded as an institution's most valuable asset (Whitcomb 2003:78). This investment should start at the time of the new staff member's appointment, with the orientation of new staff into their roles and responsibilities.

Preparing for teaching. Medical academics often receive little or no training in their teaching responsibilities. This is because the appointment of academics is often based on a combination of relevant professional qualifications and also research excellence. It is rare that academics are required to demonstrate their teaching experience or prove their teaching abilities. It is believed that the process of becoming an effective educator is a developmental process (Higgs & McAllister 2007a:e51-e57, 2007b:187-199; Riley 1993:10).

Norton, Richardson, Hartley, Newstead and Mayes (2005:538-571) argue that there is little evidence that suggest that teaching experience alone promotes the adoption of transformative conceptions. It is becoming imperative that institutions invest and support teaching faculty in changing their conceptions. This should then improve their teaching practice. A logical career path can be identified as from teacher, scholarly teacher, to educational scholar and even to educational leader (Cohen, Murnaghan, Collins & Pratt 2005:670; Eitel, Kanz & Tesche 2000:518; Fincher & Work 2006:293).

Institutions that truly value both the professional and personal development of its staff will encourage and support staff in becoming educational scholars, leaders and researchers. Through developmental opportunities, nurturing and continued institutional support, some staff members may develop into much needed educational leaders and scholars (Rogers 2005:629-633).

Sustaining academic vitality. Medical teachers often show symptoms of stress and burnout (Harden 1999:245-247). The increase in student numbers, and administrative and research responsibilities should be taken into account when examining the changing role of the medical school academic (Skeff, Stratos, Mygdal, DeWitt, Manfred, Quirk, Roberts, Greenberg & Blanc, 1997b:s56). Academic vitality can be promoted through appropriate staff development programmes and may be linked to appropriate rewards and incentives. These rewards and incentives could, in turn, assist in the retention of teachers, clinicians, researchers and administrators (Bland & Stritter 1988:283; Hitchcock *et al*. 1993:295-309).

Through the use of technology, individual requirements can be addressed. As a result of the training of new lecturers at an institution, other staff members often need to forfeit training during the first few months of the year. All training provided is provided as induction of new staff. Through the use of technology and specifically through placing video sessions online, this issue can be addressed. It is also noteworthy that these recorded sessions can be used to re-energise staff and motivate them, as a way of curbing burnout and stress.

2.2.2.2 *External factors*

The following external factors have been identified:

Meeting society's needs. The overarching goal of medical education is to improve health care delivery (GMC 1993:79; Boelen 1999:S11-S20); these health care needs are constantly changing. The medical students starting their studies today, will be practicing many years from now; they need to be prepared for a future which is currently largely unknown. This was emphasised in an early GMC (1993:4) document which stated:

"Given the pace at which the horisons of medical science and technology expand, we can be certain that the doctors of tomorrow will be applying knowledge and deploying skills which are at present unforeseen... We cannot teach science that is as yet undiscovered nor can we forecast its future implications. But some of the present day art and science of medicine is fundamental to its practice and will certainly endure... For the rest, we can best strive to educate doctors capable of adaptation and change, with minds that can encompass new ideas and developments and with attitudes to learn that inspire the continuation of the educational process throughout professional life".

The task of training quality health care providers who are life-long learners requires a community of trainers that are informed, competent, dedicated and professional clinical educators, researchers and administrators.

Accountability and the professionalisation of teaching practice. It was pointed out by Brown (2000:513-516) that teaching is rarely the only occupation of an academic. It can, however, be seen as the most public aspect of the work, in that the students, the employers and all other stakeholders often focus on that part of the academic's role. The public and other governing bodies demand regular teaching audits of institutions of higher learning as part of quality assurance (Benor 2000:505; Eitel *et al*. 2000:522).

Due to heavy workloads placed on health professions educators, time is a valuable commodity. Staying up to date with the latest advances in the medical field and also adhering to requirements of governing bodies, can be a daunting task. Having knowledge and content available at all times for staff to consume may lessen the burden of educators having to attend training sessions which are mostly set up according to the trainer's time schedule.

2.2.3 Barriers to staff development

There are many factors that may influence the effectiveness of staff development. This can range from unsupportive leadership, a resistance to change and an unwillingness of staff to acknowledge the need for the development of their teaching abilities, their knowledge and skills (Hitchcock *et al*. 1993:304; Steinert 2005:48). Skeff

et al. (1997b:S60) identify three major barriers that may impact on staff development, namely:

The **institutional culture** will affect the value ascribed to staff development. Factors like leadership and appropriate rewards within institutions and even disciplines may contribute to this value that is assigned to teaching (Healey 2000:170; Knight & Trowler 2000:69-73; Richardson 2005:673-668; Norton *et al*. 2005:538-571).

While mission statements often place teaching as the priority of faculties, in the end it is often research that triumphs (Clark, Houston, Kolodner, Branch, Levine & Kern 2004:207; Hitchcock *et al*. 1993:305; Steinert 2005:390-395).

Where research is seen as the "gold standard" for promotions and appointment, the prioritisation of staff development may require some negotiation and justification.

Teachers' attitudes and misconceptions. Teachers may often have misconceptions and wrong attitudes about their teaching and this may reduce their willingness to participate in staff development (Skeff *et al.* 1997b:S56-S563). They may underestimate their teaching ability and may not see the benefits of training or may fail to even recognise the link between teaching and clinical skills.

Paucity of research on long-term benefits of staff development. There is a definite lack of published research on the success of faculty development programmes (Skeff *et al.* 1997a:252-257; Guskey 2003:748-750). The challenge lies in reporting the long-term effects that staff development has had on the learning of students. Satisfaction can easily be measured as it is self-reported, but how can student learning or enhanced patient care be measured over a longer period?

2.2.4 Effective and sustainable staff development

In order to identify effective staff development, it is vital that there should be agreement as to what exactly constitutes effective staff development.

The reported success of many programmes are directly linked to faculty participation rather than to the long-term outcomes, such as the change in practice or even improved student learning (Knight, Carrese & Wright 2004:592-600; Prebble,

Hargraves, Leach, Naidoo, Suddaby & Zepke 2007; Steinert, Mann, Centeno, Dolmans, Spencer, Gelula and Prideaux, 2006:497-526; Williams, Weber, Babbott, Kirk, Heflim, O'toole, Schapira, Eckstrom, Tulsky, Wolf and Landefeld 2007:941-947).

Kirkpatrick's (1994) model for the effectiveness of an intervention is considered at four levels, the participant's satisfaction and self-reported changes or improvements were most commonly reported, and these are both lower order levels of outcomes:

- Reaction of participants (e.g. participants' satisfaction);
- Learning (in terms of knowledge, skills and attitudes);
- Behavioural changes (willingness to transfer learning to educational environment); and
- Results (impact on learners, trainers, patients, organisational culture).

These factors will be described in more detail later in the chapter.

The effectiveness of staff development will depend on a number of factors; this will also include the primary aim or goal of the staff development activity or programme. For example, when the goal is to develop discrete skills such as providing the skills to make use of the smart classroom, then mastering the technology can easily be mastered in a few sessions. The outcomes will be considerably different when it comes to a staff development programme with the goal of fostering a more student-centred teaching practice. Achieving this would require longer-term interventions, guidance, support and feedback.

Prebble *et al*. (2004) point out that it may be very difficult to measure student outcomes due to the fact that the link between staff development and student outcomes is indirect and even a two-step process. Firstly, staff development may lead to improved teaching; this improved teaching may lead to enhanced student learning. This enhanced student learning may be possible to measure. Other aspects of student learning like appropriate learning and attributes may be more difficult to measure.

As the main goal of medical education is to help improve patient care in general, the measurement of improved patient care will be very difficult to gauge in terms of outcomes reached as part of staff development.

2.2.5 Main purposes of staff development

There are a vast number of reasons for any faculty or institution to embark on staff development. It should be noted that staff development may take many forms and the purposes listed here are just a few.

In the research conducted by McLean *et al*. (2008:569-570) five reasons at different levels were identified:

- The orientation of new staff into the academic culture of the faculty or institution.
- Developing a skill which may be required at the institution or faculty at a specific point in time; an example of this could be training provided to help with the creation of an online course.
- The professionalisation of teaching through enhancing and extending the educational practice of academics.
- The development of educational scholarship, by providing needed support of individuals who will extend the field of medical education research.
- The development and support of educational leadership, by supporting faculty members who wish to serve on educational committees and take a leading role in the creation of policies.

McLean *et al*. (2008:570) adapted these levels from Benor's (2000) 2020 vision of multiphase faculty development and teacher accreditation, in which he proposed that there are four phases of staff development, ranging from the orientation, the basic and specific instructional skills up to the development of educational leaders. This table of McLean *et al*. (2008) as they have adapted it from Wilkerson & Irby, 1998 and Benor 2000 is given here as Table 2.2.

Table 2.2 Levels of faculty development designed to meet the needs of individuals, disciplines and the institution (adapted from Wilkerson & Irby, 1998, Benor, 2000)

[From McLean *et al*. (2008:570)] (Table 2.2 continues over next pages)

	Level of faculty development	Whose need is being met?	For whom?	When? How?	Individual or teams?	Possible benefits for the institution
1	Orientation	Institutional: Individual	New academic staff entering the faculty	Scheduling would depend on recruitment. Format could include social gatherings, workshops and a peer mentoring programme.	Preferably groups, but may be on an individual basis	Faculty members • Are socialised into the institution • May be retained for longer if in a community of practice
2	Generic skills for all teachers - faculty, community preceptors	Institutional, discipline, individual	For all faculty, e.g. • Theories of learning • Interactive teaching • Principles of assessment • What's new in medical education?	Regular intervals for new faculty + updates for established faculty members though student and peer feedback on lectures, assessment questions. Interactive workshops are probably the best vehicle, E-learning, using Blackboard and other websites would be useful, especially for distance education. An educational newsletter would create an awareness of current issues in medical education. Developing educational portfolios would encourage reflection.	Groups or teams (multidisciplinary or departmental, depending on need)	• Increased self-awareness of teaching ability and learning conceptions • Increased awareness of student needs • Greater satisfaction and participation by students • Improvement teaching and assessment • Course or curriculum reform in line with global trends

3	For different communities of academics	Institutional, discipline, individual	*Clinical teachers, residents, e.g.* • Learning in the clinical environment • Ethical and effective use of patients for teaching • Assessment and feedback in clinical teaching *Administrators, e.g.* • Effective management • Effective leadership *Research, e.g.* • What is medical education research? • Research methodology • Research ethics	On-going programme which may lead to certification. May be in response to a particular need, e.g. course development. Feedback from students, patients and other members of the health care team would be useful as starting points and for measuring progress. Workshops and group discussions across disciplines encourage team work. Development projects (e.g. how would you revise this module, course?) could be useful for generating discussion. A medical education research group with regular journal clubs would support faculty wishing to become medical education researchers. Online and distance education possible.	Individual but more likely to be small multidisciplinary groups. May be discipline-based	Improved student learning Improved supervision Patient satisfaction Role modelling More inclusive faculty/discipline management More collegial culture Greater individual and institutional scholarship Research productivity, including student resident research.
4a	Educational scholarship	Institutional, individual	For those who have chosen teaching as a career: Clinical-Educator: Medical Science Educator, e.g. • How to publish • Writing grant proposals • Managing research	On-going programme, with the possibility of certification and /or a degree. Many activities are possible for these staff members, ranging from attending medical education conferences and recognised international training courses. A medical education research group is important. Collaborative research should be fostered.	Individuals or small groups (communities of practice)	• Communities of knowledgeable scholars • Development of innovative curricula, assessment and evaluation tools • Educational leaders and mentors • Home-grown

			funding			faculty developers • Medical education research • Improved student outcomes
4b	Educational Administration and leadership	Institutional, individual	Dean; Associate dean for Medical education; Curriculum committee chair • Policy and procedure development • Organisational structure • Effective leadership	On-going programme involving increasing responsibility, Training in human resource management and leadership skills essential.	Individual or small groups or teams	• Empowering leadership • Conductive institutional culture • Curriculum reviews • Policy development relating to key issues • Change agents

2.2.6 Future of staff development

Predicting the future of staff development has proven to be a daunting task. With so many changes taking place in the field of health care and also in education, it is virtually impossible. Still, many attempts have been made to predict the future of staff development in health professions (Alkan 2000:527-530; Benor 2000:503-512; Harden 2006:S22-S29; Karle 2006:S43-S46).

The overarching aim of staff development is the development of teachers, supervisors and the educators of tomorrow's health care practitioners. Some of the trends that may be considered to have an impact on staff development in health professions education are:

- The digital age
- Globalisation
- The Business of medical education
- Emphasis on patient-centred health care (Harden, 2000:435-442)

The computer age, information technology, virtualisation and simulation already play a part in medical education and also medicine; this will continue to play an ever-increasing role in the future (Benor 2000:507-511; Harden 2006:S22-S226). According to Gorman, Meier, Rawn and Krummel (2000:353-356) the future of their discipline (surgery) will be *"no longer blood and guts, but bits and bytes"*. These changes will necessitate a continuous need for staff development to play a role, in order for health professions educators to be able to cater to these new advances.

After being asked to give his comments on medical students and also medical education in the year 2020, Rennie (2000:532-535) responded by saying that he believed that medical education will always thrive to produce caring, sensitive practitioners. There are also calls for a more patient-centred approach and a curriculum based on moral ethics and values (Cooper & Tauber 2009:321-323).

What is clear is that the importance of staff development and also continuous staff development in health profession education will be of the utmost importance.

Factors that may need to be addressed in future are:

- How can a staff development session be presented and made available to staff at a time which will fit into their schedule?
- How can resources be reused to save on staff development costs?
- How can development be done in remote locations?
- How can development be provided at a point in time when it is required by staff members?

2.3 VIDEO AS CONTENT DISTRIBUTION MEDIUM

Glazebrook (2010:118) states that video is an audio-visual experience and that its strength lies in its ability to portray movements and emotions.

Video, if used correctly, can be a powerful educational tool. Video provides "*audio-visual images of exemplary individual cases which can imprint themselves in the learner's memory rather as his own experiences are imprinted*" (Gilder 1988:117).

2.3.1 Video in Higher Education (Health Professions Education)

Medical courses often make use of video as a source of teaching and learning and a number of studies have reported pedagogical reasons to do so (Roshier, Foster & Jones 2011:1).

The use of video consolidates traditional and specific learning resources, e.g. to show a specific practical technique (Chapman, Taylor, Buddle & Murphy 2007:577-582; MacLeay 2007:550-552). This not only engages the student but also promotes deeper learning (Reid, Burn & Parker 2002: online; Andrews 1996:508-513). Video may also have a number of other applications in medical training which include problem-based learning and observing surgical procedures via a live video link (Baharav 2008:286-298; Hawkins, Hansen & Bunch 2003:73-77; Gul, Wan & Darzi 1999:596-599). Video can also be used to teach students to take patient histories or how to conduct interviews and even to conduct clinical examinations (Nilsen & Baerheim 2005:28; Parkin & Dogra 2000:568-571).

In a study that was conducted on the *Advantages of video triggers in problem-based learning*, the researchers found a number of key advantages in the use of video in the training of medical students (Chan, Patil, Chen, Lam, Lau & Ip 2010:760 – 765).

The main features that made the use of video superior in the training of students in this study were the following:

Preserve the original language of the clinical consultations

The study was conducted in Hong Kong and the dominant language of more than 90% of the population is Cantonese (Census and Statistics Department of the Government of Hong Kong Administrative Region 2006). Because of the dominance of this language in this region most students and patients speak Cantonese; this is also the language of most of the clinical consultations in Hong Kong. The language of instruction at the University of Hong Kong is, however, English. All cases which are presented to students on paper are therefore translated into English before it is presented to students.

This practice, however, denies students the opportunity to listen to the patients in their original language. The students are presented with a translated version and interpretation of what was said by the patient.

The use of video gives students an opportunity to see and hear clinical problems in the form it was originally presented and in which they will experience in their later years (Chan *et al.* 2010:761). This language diversity can be compared to the situation in South Africa where there are 11 official languages (Wikipedia contributors 2011:online).

Encourage the active extraction of the patient's clinical history

Video gives students the opportunity to actively listen to the patient's actual complaints and it gives them the opportunity to extract the information that is relevant before they engage in discussion. In a paper-based case students are presented with a case that is interpreted and summarised for them. The use of video to engage the student in the active extraction of the information from the source is much closer to the actual problem-solving process that they will experience in a clinical setting. The ability to

identify and define problems is just as important as the ability to solve them (Chan *et al.* 2010:761).

Avoid depersonalisation of patients

According to Kenny and Beagan (2004:1071-1079) paper-based cases often detach students from the "*messiness of real patients' lives and emotions*". The verbal and non-verbal information that was expressed by the patient has been interpreted, edited and then presented as a case history. Not all the information is presented and choices of what information is to be presented in the case study are both made intentionally and unintentionally. In many cases, only the information considered to be relevant to making the diagnoses is presented; this is followed by the subsequent management of the case. The patient is presented to the student as a case and not as a person. The use of passive voice in case histories eliminates the observer and it gives the case a factual and authoritative status, e.g. "it was observed that". Oftentimes the patients' reported speech is noted with linguistic codes that signifies scepticism, e.g. "the patient claims that".

According to Chan *et al*. (2010:761) these paper-based case studies only present the story from the perspective of the doctor, stripping it of information, such as the patient's use of language and point of view. Doubts have in the past been expressed if this is the way in which students should be introduced to patients in their early years of study, since it promotes a position of detachment from the patient (Kenny & Beagan 2004:1071-1073). The ideal situation would be for students to get access to real patients in their training (Charlin, Mann & Hansen 1998:323-330), but this would be very expensive and also impractical. The next best alternative is to make use of video. Video captures the patient visually and audibly. The patient's appearance, gestures, voice and also expressions are captured and therefore the patient is presented as a human being. This will avoid the depersonalisation that can easily occur in paper-based cases (Chan *et al.* 2010:761).

Preserve nonverbal information about the patient

When patients come for consultation, they present both verbal and nonverbal information. In paper-based cases, the information is presented to the student in a written format. The information is presented in the chronological order as was

observed in the consultation. According to Fielding (1998:247-248) information is presented to the observer in many different ways and often at the same time, both verbally and nonverbally. There is a large amount of nonverbal information that should be observed, including the general appearance of the patient, as well as more specifically; the appearance of the patient, the facial expression of the patient, gestures, movement and personal hygiene of the patient, and even his or her emotional state. In paper-based cases, this information is either lost entirely or otherwise need to be described in detail to the student. In a video recording, most of the nonverbal information can be observed and interpreted by the students. Students need to pay attention to all the information that is presented to them and also be active processors of information, just like a competent doctor would be (Charlin *et al*. 1998:232-330). The use of video not only enhances the students' ability to observe, but also encourages them to integrate information (Chan *et al.* 2010:761).

Allow observation of patient-doctor interaction

In paper-based cases, the process of the interaction with the patient is often not presented and only the results are made available to the student. The process of interaction with the patient is an excellent opportunity for students to learn how to interact with patients. This interaction may include hearing how patients ask questions and how they react to different diagnosis, how doctors listen to and talk to their patients, how to explain an operation or treatment effectively, how to answer difficult questions. Video preserves this learning opportunity for students. By imitating the doctors in the videos, students can learn the behavioural aspects of clinical encounters (Walton & Matthews 1989:543-548).

Allow observation of clinical reasoning skills

The result of the physical examination and taking patients' histories are often not presented in the sequence in which it has been obtained in the actual clinical situation. Video makes it possible for a student to view the process as a whole, from obtaining the history of the patient to the physical examination and how one piece of information leads to another action. Video makes it possible for the student to observe the clinical reasoning process of a doctor. Students can see how hypotheses are formed and how each hypothesis is eliminated or supported to reach a final diagnosis. This clinical

reasoning skill is one of the goals that educators want to achieve in problem-based learning (Barrows 1986:481-486, 1994:3-12; Walton & Matthews 1989:543-584; Norman & Schmidt 1992:557-565). Video may help educators achieve this goal by showing students the clinical interaction and so letting them be guided by the reasoning process of experienced doctors (Chan *et al.* 2010:762).

Increase motivation to solve the problem

The goal of the student is to become a doctor in a real clinical environment with real patients. When students experience the image and voice of real patients, instead of a text-based character, their desire to learn may be stimulated (de Leng, Dolmans, van de Wile, Muijtjens & van der Vleuten 2007:181-188). Self-directed learning is very important and is driven by motivation.

Stimulate cognitive processes

According to Balslev, Grave, Muiijtjens and Scherpbier (2005:1086-1092) the verbal interaction among students who were exposed to video cases, compared to those who were exposed to paper-based cases, contained more data exploration, more theory building and theory evaluation - which indicate that cognitive processes were stimulated. These findings can be supported by cognitive load theory and the multimedia principle of learning, which postulate that working memory is better utilised when both the visual and auditory channels of information gathering and processing are utilised (Mayer 1999:611-615). Along the same lines, Kamin, O'Sullivan, Detering and Younger (2003:204-211) compared video cases to text-based cases with regards to the critical thinking that takes place in these two processes; they did this by applying the technique of content analysis. In this research study it was found that the video group showed an increase in all the different stages of critical thinking, except for the problem-identification stage.

Cognitive theory identifies the importance of the activation of prior knowledge when it comes to the construction of new knowledge, and the importance of context when it comes to learning (Schmidt 1983:11-16; Norman & Schmidt 1992:557-565; Regehr & Norman 1996:988-1001; Maudsley 1999:178-185). When a case is presented on paper, the patient is presented as a character on paper. When students watch a patient on video in a clinical situation, they are often reminded of their own

experiences in similar situations; this activates their prior knowledge. The new knowledge that has been acquired by watching these clinical situations can be recalled more easily by students' in their future clinical encounters (Barrows 1986:481-486; de Leng *et al*. 2007:181-188).

It follows from the above that the use of video in higher education is vital in providing the student with a complete understanding of the information provided in case studies. From this it can also be concluded that the content presented in video format is more effective than content presented in text format.

In this study, the use of video was primarily used as basis for clinical training, but the principles that are applicable to this can be transferred to other training situations.

In another study conducted in the United Kingdom, the use of video podcasts in medical education was researched. The term 'podcast' refers to audio or video files which are automatically downloaded using Real Simple Syndication (RSS) software and played on a computer or mobile media device (Copley 2007:387-399; Sandars 2009:387-389). In that study, the videos had a recorded voice combined with a slideshow. Even though this combination of static images combined with audio is not the optimal format for training with video, the researchers do list a number of potential advantages of using video in training; namely, that lecturers are able to augment their teaching and teach without the restrictions usually associated with time and place. Secondly, students also appreciate the convenience of learning on the go as well as repeated learning. In addition, the use of video also offers the universities the opportunity to teach beyond their campuses (Harris & Park 2008:548-551).

It is clear from the exposition above that the use of video in Higher Education can potentially enhance the learning experience of students.

2.3.2 Disadvantages of video content

It should be noted that when using video as medium for content distribution, the quality of the information that is provided is dependent on the quality of the content presented and provided by the presenter.

In the previously mentioned study that was conducted in the United Kingdom the use of audio combined with static images from a slide show, formatted into a video, compared poorly to the live lecture (Schreiber, Fukuta & Gordon 2010:1-6). The students showed a similar recall of information from the live lectures and the video, but even though they appreciated the convenience and control they had over the content, they did not find it as engaging as the live lectures. Specifically they felt that the content was less engaging in this format (audio with slides combined in a video format) than live lectures.

The researcher believes that the use of live video recordings of lectures may improve the engagement with content that is lacking in this research project. Proper planning and preparation for recordings will ensure engagement with the learner.

Cost is a vital aspect when it comes to the production of content at most institutions. The cost of the production of paper-based content may in some cases be lower than the production of video content. The reason for this is that, in some cases, one may need a professional production crew (Coles 1991:295-307). With limited budgets, the videographer may assume a number of roles including camera operator, lighting technician, editor and project manager (Glazebrook 2010:118).

In the use of streaming video, there are some limitations which should be considered. Low or inadequate bandwidth may hamper the continuous video stream (Reed 2003:15-20; Schmerbeck 2000:online). Streaming video playback may be bandwidth intensive, depending on the size of the streaming file.

Internet congestion may cause delays in the playback of streaming video. Even issues like time of day and the street address may influence the quality of the bandwidth that streams the video content. This is mostly caused by the infrastructure that cannot yet handle the required strain being placed on it. This will most likely become worse as new applications are developed and as high-definition streaming video grows in popularity (Windhausen 2008:18).

There are a number of video streaming services available and different vendors have different technical requirements for playback. If the user does not have the correct player, software installed on their system, playback may not be possible (Burnett, Maue & McKaveney 2002:34-38).

When the educational institution implements its own streaming video system, technical experts need to be on hand to assist with the maintenance and development of the system (Shepard 2003:297-310). When making use of free online services, this support is not necessary - but it should be noted that external bandwidth will then be used and may at this stage still be costly for institutions.

2.3.3 Distribution of video content

Computer technologies and the advances being made with online distribution methods are increasingly impacting medical education (Cook 2005:541-547, Ruiz, Mintzer & Leipzig 2006:207-209), most notably the improvements in the distribution of online video.

Since the conception of the World Wide Web, and the Internet, the delivery of content to learners have improved considerably. Learners today have online access to instructional materials that traditionally was only distributed in the classroom. Lecture notes, visual graphics and assignments are now easily obtainable through the Internet. The Internet is now able to provide media-rich content, such as digital video, to learners (Garrison 2001:174-178).

The traditional distribution of video was on video or CD-ROMs and was done through libraries and other audio-visual centres. The utilisation of the Internet for this distribution has made access more convenient for students. For this study, the researcher will focus on the use of online video as distribution method.

With the increase of bandwidth availability, the increase in speeds at which users can connect to the Internet and also the lowering of access costs to the Internet, it has become easier to use streaming video to deliver instructional content (Martindale 2002:19-21). The advantages of streaming video is that it can be used for the delivery of recorded or live video content which can grab the attention of students and present information that is easily absorbed. Streaming video is highly effective for training, motivation, and instruction (Joint information Systems Committee 2002:online). According to a study conducted by Fill and Ottewill (2006:397-405), video streaming "*increases students control*" and allows "*students flexibility with respect to accessing, starting, stopping and searching the video*".

Streaming video describes the technology through which a video file is compressed and gets transmitted through the use of buffering techniques, in real time, via the Internet to the computer or media device of the user (AboutVideoEditing 2003:online). Previously when downloading an entire video file the student needed to wait for the full file to download before watching it, but with streaming the file can be viewed in small portions as it is downloaded from the Internet (Weiser 2002:10-14). Video files can be quite large and if they need to be downloaded completely before one is able to watch them, it may take a long time. When the video is streamed the file is downloaded in smaller, buffer packets. When enough of these buffer packets are downloaded the media player on the user's device will start to play the video as one continuous video stream (Lorance 2003:online). Once the video file has been downloaded and viewed the file is automatically removed from the users' computer (Reed 2003:14-20). The process can be compared to a television broadcast where the programme or show is viewed and after the broadcast has been concluded, the programme or show is no longer stored on the television set. In the case of streaming video, the user will be able to view the content again by visiting the webpage and streaming it to his/her computer again (Wilson 2007:online).

In this study, the staff members of both institutions have access to the Internet and the Content Management System (CMS). Access is therefore no problem and the speeds at which the content can be accessed are very high.

2.4 STAFF DEVELOPMENT THROUGH VIDEO AS CONTENT DISTRIBUTION MEDIUM

There are two main factors driving the changes taking place in staff development in Health Professions Education. The first is the advances which are being made in the technological field, and the second is the changing role of the faculty member (Bland & Simpson, 1997:290-293). This also emphasises the importance of continuous staff development opportunities in a Faculty of Health Sciences.

As the overarching aim of staff development in Health Professions is to develop educators and supervisors of tomorrow's health care practitioners, it is also important to consider some of the future trends that may influence the way in which content is

delivered. The delivery of content in our daily lives may greatly influence and predict the way in which content is to be delivered in the academic field.

Today there are a number of methods employed to facilitate staff development. The most general formats may include short courses, workshops and seminars, sabbaticals and fellowships (Hitchcock, Stritter & Bland, 1993:295-297, Reid, Stritter & Arndt, 1997:242-245; Sheets & Schwenk, 1990:141-147). Some other formats include peer consultations, mentorship programmes and also individual preceptorships.

The problem with these methods is that they are mostly location- and time-based and not accessible at times that will suit the staff member.

2.4.1 Benefits of using video in education and training

For many decades, the use of video in higher education was seen as a very expensive medium (Copley 2007:389). Equipment was regarded as costly and the production of video content was seen as complex. Copley (2007) explains video file formats were too big and no portable device could handle and store these large file formats. The advances in online distribution technology and also portable players have changed this perception in the past five years.

There are a number of benefits to the use of video in higher education and these advantages also holds true for staff development and other training interventions.
The most prominent of these advantages are:

- Video provides access to education and educational resources to those who live or work in remote locations. Travel to the university may be difficult (Woodruff & Mosby 1996:online).
- Large groups of students and staff can be taught by one instructor as the video can be used repeatedly.
- Outside speakers, who would otherwise not be available, can now be involved in expert presentations and interviews (Willis 1992:online).
- Video recordings are not time-based and the resources can be accessed at a time that suits the student or staff member.
- It is now possible for lecturers and students to access resources from international video repositories. These resources include Columbia, Stanford and large public domain resources that are made available to users. These resources include new

productions, recorded lectures, digitised assets and interviews with experts in various fields (Kaufman 2009:online).

- Video supports the use of many diverse educational media such as the black board, transparencies, documents and models (Reed & Woodruff 1996:online).

2.4.2 Challenges

As with most technologies, video is not without challenges to the user.

- The production of video content may involve expensive and sophisticated technologies (Galbreth 1995:31-38).
- The recording of lectures may amplify poor teaching styles and teaching strategies.
- Instructors may need to devote more time to the initial preparation of their lectures which are to be recorded.
- Special attention needs to be paid by lecturers to the development of visual material (Woodruff & Mosby 1996:online).
- Lecturers need to engage students in the learning experience by moving from the "knowledge disseminator" to a "learning facilitator"; this will enhance the learning experience of students accessing the resources (Reed & Woodruff 1996:online).

2.4.3 Importance of feedback and evaluation

The evaluation of content provided in video format for staff development is no different than the evaluation of all staff development that is done. Guskey and Sparks (1991:73-76) argues that good evaluation can be seen as the product of thorough planning, asking the right questions and understanding how to identify valid answers. They state that in many ways it is simply a refinement of everyday thinking. The information that is provided by good evaluations is sound, meaningful and reliable to use when making decisions about professional development processes.

According to Kirkpatrick (1994:54-59) there are four levels for the evaluation of training programmes; namely reaction, learning, behaviour and results.

Level 1: Reaction. The participants measure how they feel about the various aspects of the training programme. This will include the topic, the speaker, the schedule and so

forth. This is basically a measure of customer satisfaction. These comments are often used by management to make decisions on future training programmes. This is also a method of determining the level of motivation and interest expressed by participants to participate in learning. If they are not in favour of the programme or not motivated, it is possible that they will not put in much effort to learn.

Level 2: Learning. This is a measure of the skills improved, knowledge acquired, or attitudes that were changed due to the training programme. In general a training course will accomplish one or more of these three things. Some training programmes aim to improve trainees' knowledge of specific concepts, principles and also techniques. Programmes also may aim to teach new skills, improve on older skills or change attitudes with regards to issues of diversity.

Level 3: Behaviour. This is to measure the level of training that was transferred. This is measured with regard to the extent that participants have changed their behaviour in the workplace because of the training that was completed.

Level 4: Results. This is a measure of the final results that occur due to the attendance of the training; this may include increased sales, bigger profits, reduced costs, less employee turnover, improved quality or in the case of higher education, a better pass rate of students.

The evaluation of these levels become more difficult as one moves from level 1 to level 4, and the information gained also increases in value. According to Kirkpatrick (1994:55) organisations often neglect levels 1 to 3, wanting to bypass these levels to get to level 4. This is, however, a big mistake as all four levels are necessary and there are no easy answers for knowing how to measure results.

Each level in this evaluation process is vital to ensure good quality training programmes.

2.4.4 Quality assurance

To ensure the quality of the content provided to lecturers, a number of evaluation instruments can be used. These instruments can be used to improve the programmes that are available continually.

A survey can be used at the end of each programme. The survey invites participants to reflect on the learning experience and also on the impact that the experience has had on their teaching. This is recorded and revised together with the reflections gathered in a separate survey completed by the convenor of the programme. The ideas from this feedback are fed back into the design of the next programme; this follows an action research cycle for professional development (McNiff 2010:5-12). For example, the feedback gathered from participants relating to timing and length of the online interactions may lead to their reorganisation, or complete revision of specific sections in the programme.

Using the basic steps of an action research process (McNiff 2010:11) which constitutes an action plan, the plan has been adapted by the researcher to fit perfectly as quality improvement process for using video as primary content delivery medium for staff development. This is represented in Figure 2.2.

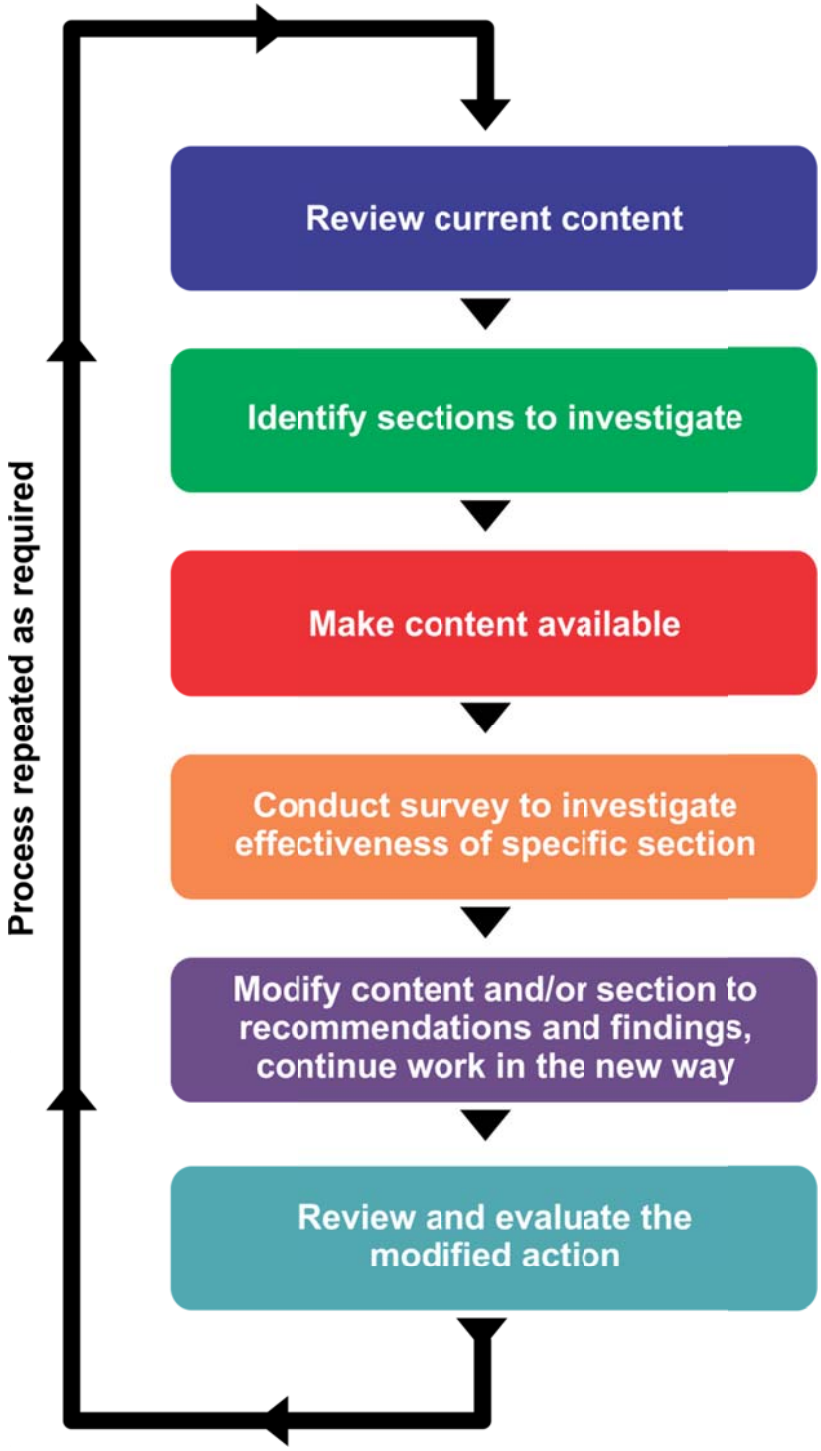

Figure 2.2: Schematic representation of the quality assurance process to evaluate and modify content as required
[Adapted by the researcher: Baird 2011]

As part of ensuring quality in the use of video as primary medium for staff development, it is vital that the lecturer assess the effectiveness and experiences of the lecturers and staff accessing the resources. From research conducted by the

University of Idaho (1996:online) it is clear that during the learning process continuous feedback is vital in ensuring the quality of the training or teaching process. According to the researchers at the University of Idaho, the following information should be gathered throughout the duration of the course:

- Is the student comfortable with the medium that is being used for the delivery of the content?
- Is the content clear to the student?
- Is the time of the class spent well?
- Was the teaching effective?
- How can the course be improved?

This feedback can be gathered in a number of ways, including online through the use of online surveys and email.

2.5 CONCLUSION

In this chapter the importance of staff development was discussed. This included factors that drive staff development, the barriers that exist in staff development and also the future of staff development.

The importance of video in health professions were shown with a direct link to the way in which medical students are taught; this can be directly linked to the training and development of staff at a faculty of health professions. The challenges were highlighted in the use of video as distribution medium.

The main focus of this study is the use of video as content distribution medium specifically in staff development at a faculty of health professions. In this section special attention was paid to the advantages and challenges when making use of video for this purpose. Quality assurance in all teaching and learning is vital and is also shown to be critical in the development of video content in staff development.

In the next chapter, Chapter 3, the researcher will discuss the research design, methodology and procedures followed in this research study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter deals with the research design and research methodology of the study. Theoretical perspectives on the research design are provided. This is followed by a detailed explanation of the process involved in each technique, namely the methodology and the procedures for designing the questionnaire. The pilot study as well as the sample selection and data analysis are also described.

It is stated by Goddard and Melville (2001:1) that the process of research is sometimes mistakenly seen as the gathering of information. These authors suggest that the process should rather be seen as the answering of unanswered questions or the creation of that which does not currently exist.

Leedy (1998:5) argues that research should be seen as "a procedure by which we attempt to find systematically, and with the support of demonstrable fact, the answer to a question or resolution of a problem".

An online course, through which content was distributed via video files, was created, and a selected group of health professions educators were asked a number of questions regarding their experience of the course.

3.2 THEORETICAL PERSPECTIVES ON THE RESEARCH DESIGN

3.2.1 The research design in this study

A quantitative study was done with a minimal qualitative component included in the questionnaire.

The major difference between quantitative and qualitative research is in the way that knowledge is generated (Creswell and Plano Clark 2007:259). Goddard and Melville (2001:52) explain the differences between quantitative and qualitative research as follows:

Data that are gathered in research can be either qualitative or quantitative. Qualitative data will have a numerical value, for example, in the range 0 to a 100. Qualitative data have values that will fall into specific categories; for example, animal, mineral or vegetable. Goddard and Melville (2001:52) use the following example to show the difference: The question whether it rained yesterday or not is a qualitative question (the categories are "rained" or "not rained"), but when the question is how much rain fell, it changes to a quantitative question.

On completion of the course sections, the health professions educators completed a short survey, which consisted of multiple-choice questions and minimal open-ended questions.

3.3 RESEARCH METHODS

The methods that were used and which formed the basis of the study comprised a literature review, and – as the empirical study - the development of an online video course. On completion of the course a questionnaire survey to determine the value of the utilisation of video as primary content delivery medium for staff development of health professions educators was conducted.

3.3.1 Literature review

A literature review was done by the researcher to gain the necessary knowledge base to conduct the research in order to answer the stated research problem. This research also gave a basis for the identification of research questions that were included in the questionnaire.

The themes which were discussed in the literature review mainly focussed on the following aspects: Staff development; Video as content distribution medium and Staff development video as content distribution medium. (cf. Chapter 2 for a full discussion)

3.3.2 The development of an online course

Figure 3.1 shows a schematic overview of the empirical phase of the research project (cf. Figure 3.1).

The online course was created in cooperation with a subject specialist.

The three sections of the course were created in such a way that it included the following styles: reflective, informative, and assessment of content. The content was delivered through video clips placed online.

- Reflective – This section was created to convey information to staff, and includes self-enrichment sessions and uplifting and motivational sessions. After each video clip, provision was made for self-reflection;
- Informative - This section was created to convey information, concepts or thoughts to staff. After each video clip, provision was made available for discussion or reflection;
- Assessment – This section was created to convey information of which retention will be assessed. After each video clip, a short assessment was made available, either for formal assessment, or as a self-test.

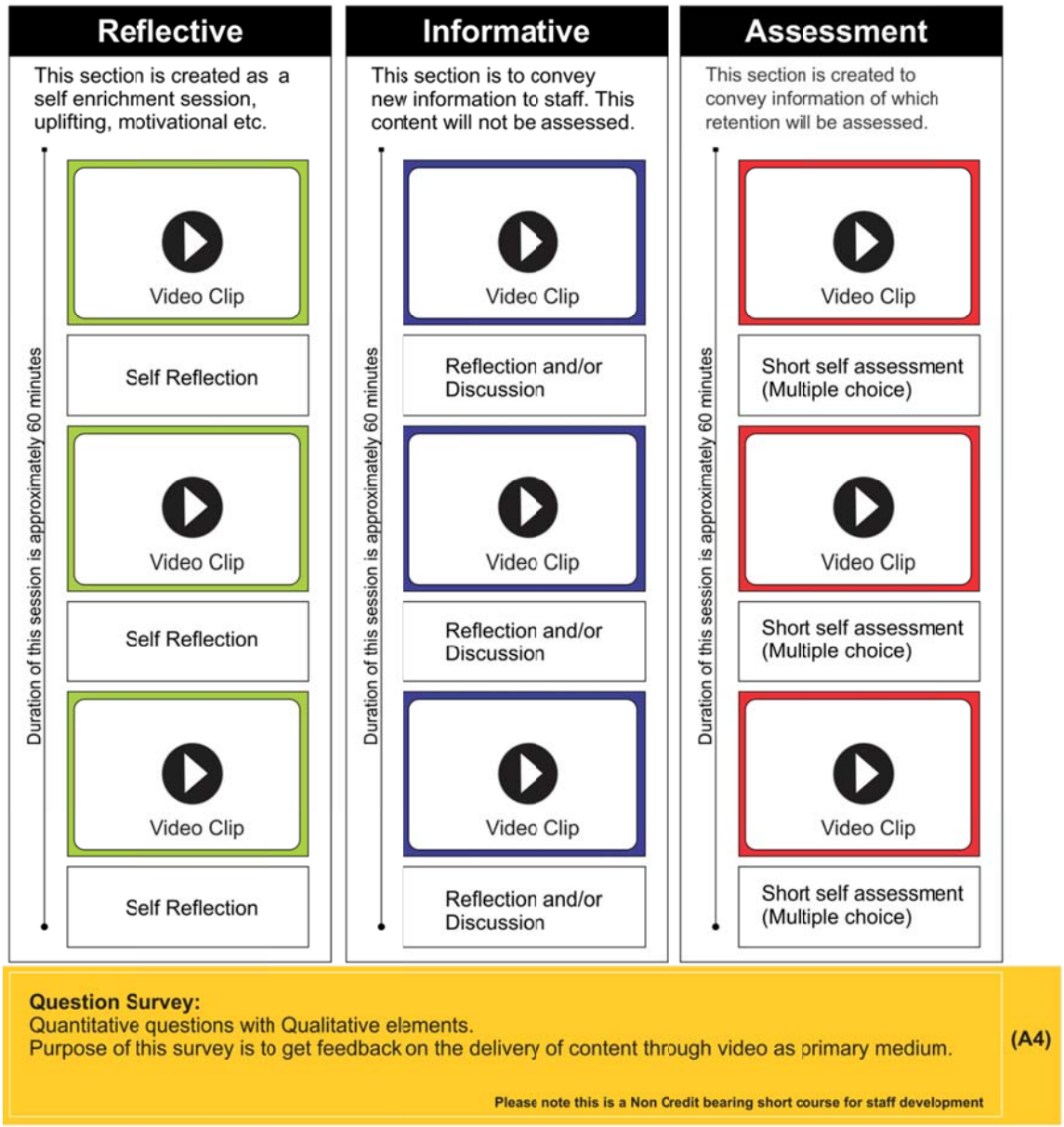

FIGURE 3.1: SCHEMATIC OVERVIEW OF THE EMPIRICAL PHASE OF THE RESEARCH PROJECT

[Compiled by the researcher: Baird 2011]

3.3.3 The questionnaire survey

3.3.3.1 *Theoretical aspects*

Goddard and Melville (2001:47) explain that a questionnaire may be considered to be a list of questions that respondents are requested to answer. Questionnaires may include open and closed questions; typically the closed questions are answered by means of ranking or scoring. These authors also argue that the effectiveness of a questionnaire may depend upon the prior planning of the questionnaire in terms of how objectively it can be analysed afterwards.

Goddard and Melville (2001:48) propose the following criteria for a good questionnaire:

- The questionnaire is complete – it contains all the data needed.
- It is short and therefore does not abuse the respondents' time or concentration.
- It asks only relevant questions.
- It gives clear instructions.
- It has precise, unambiguous, comprehensive and understandable questions.
- It has objective questions and does not suggest answers.
- It starts with general questions.
- It has appropriate questions.
- It puts sensitive questions at the end.
- It uses mostly closed questions, often with a four-point scale.

The information obtained must be valid and the instrument used needs to be reliable.

Questionnaires may be structured, semi-structured or unstructured. A structured questionnaire consists of fixed, standardised questions and scales which are presented to all the respondents in the same way. There are no variations in the questions and the same response choices are available (Bowling 2002:258). When specific information is required, structured or closed questions may be used; this type of questionnaire may be used for large-scale data collection (Goddard & Melville 2001:48).

Bowling (2002:258) reasons that one of the main advantages of using structured questionnaires is the ability to collect unambiguous answers. The answers are easy to

process, and it leads to quantitative data for analysis. This method leads to greater ease of data collection and analysis and it is relatively economical for large-scale data collection.

A disadvantage of structured questionnaires is that the pre-coded responses may not include all answers and may therefore not be sufficiently comprehensive. This may lead to respondents being forced to choose pre-coded answers that do not necessarily represent their views fully.

Another weakness of structured questionnaires is that it assumes that all the questions in the survey will be understood by all the respondents. A further complication is that not all respondents necessarily have the same perspectives and frame of reference and understanding of the terms and concepts that were used. Bowling (2002:259) warns that there is a potential for bias in that respondents' replies may be influenced by the design of the pre-coded questionnaires; some questions may be leading in a sense that they may lead to social desirability bias.

Other problems that may be experienced with the use of questionnaires are the rates of return and the process of selection of the participants (Goddard & Melville 2001:48).

3.3.3.2 *The questionnaire survey in this study*

In this study, the questionnaire was delivered electronically as part of the course. Respondents were able to complete and submit the survey online.

A survey was conducted on completion of the course content and determined the value of the use of online video as primary content delivery medium for staff development of health professions educators. This was a structured questionnaire (cf. Appendix A-3).

The questionnaire used a quantitative approach with elements of qualitative research. The survey established the perceived effectiveness of the format that was used for content delivery.

The focus was to establish the value of the delivery medium for health professions educators who completed the courses. Two open-ended questions were included as a method to get feedback and recommendations from respondents.

The content and survey were made available in English only.

The questionnaire survey (cf. Appendix A-3) was made up of questions with a number of pre-coded answer choices as well as limited open-ended questions. The following categories of questions were included:

Biographical data questions included the following:

- Gender
- Age group
- Professional profile
- Highest professional qualification
- Field of study

Internet use patterns and access:

- Connectivity, when, where and how
- What the Internet was used for in the past

Previous personal and staff developmental experiences:

- Attendance of face-to-face sessions
- Time limitations and constraints to attend staff development sessions
- Use of video in the past for staff development or personal development

Experience of the full online course presented in this research:

- Time of day when course was accessed
- Choices for future staff development sessions

Open-ended questions:

- Personal experience of the course
- Recommendations

3.3.4 Sample selection

3.3.4.1 *Target population*

It was important for the researcher that the health professions educators that were chosen to take part in the research had to be health professions educators with some experience of face-to-face staff development sessions. The target population consisted of health professions educators from the Faculty of Health Sciences, UFS and the School of Health Technology, CUT, who had attended a minimum of three staff development sessions during the previous two years. The names and contact information of staff members who met these criteria were obtained from the relevant departments of the UFS and CUT.

3.3.4.2 *Survey population*

A sample of forty respondents were targeted and given access to the online course. The course was made available on the institutional content management system (CMS) of the University of the Free State. Both institutions make use of the same CMS and therefore the staff members from both institutions were familiar with the basic working of the platform. Thirty, health professions educators from the Faculty of Health Sciences, UFS, and ten health professions educators from the School of Health Technology, CUT, made up the survey population.

3.3.4.3 *Sample size*

Determining a sufficient population to be included in the study was vital to the success of the research. The whole population was not able to take part in the survey and therefore a sample was selected. This sample had to be a reasonable representation of the whole population. It was constituted as follows:

- Thirty health professions educators from the Faculty of Health Sciences, UFS;
- Ten health professions educators from the School for Health Technology, CUT.

3.3.4.4 *Description of sample*

The sample was drawn from two Higher Education institutions in the Free State that provide health professions education. The Faculty of Health Sciences of the University of UFS, has a larger staff component than the School of Health Technology from the CUT, and therefore it was decided by the researcher to have a larger component of the survey population from the Faculty of Health Sciences, UFS.

3.3.4.5 *The pilot study*

A pilot study was conducted by giving to three health professions educators of the Faculty of Health Sciences, UFS, access to the online course. Due to the small target population at the Central University of Technology, Free State only candidates from the UFS was used in the pilot study.

This group gave their opinion on the following aspects of the course and questionnaire:

- The quality and accessibility of the content
- The clarity of questions
- Recommendations or suggestions that they would make, before the full study was conducted.

In the pilot study, short surveys about each section of the course were conducted. Only one candidate completed all three of these surveys. The pilot study was completed by three health professions educators. The following biographical information about these participants can be noted.

Two males and one female, aged between 41 and 70. They have been involved in health professions education for between 6 and 20 years and all have obtained doctoral degrees. Two of the candidates' primary study field is medicine and one was undefined. These candidates spend from one hour to about six hours online each day and they access the Internet both at home and at work. Two candidates accessed the course from home while one candidate worked on the course at the office only. Two of the candidates have taken part in online courses and have also watched online academic videos before. All three candidates had attended staff development sessions before and all three have had to leave a session due to some type of emergency. Two of the candidates did not feel that video should replace face-to-face staff development

sessions but all candidates indicated that they would like staff development sessions to be recorded and made available online.

When asked what their experiences were of the course with content delivered by video, the responses were as follows:

- "*Not bad. I grew up in a face-to-face teaching/learning world. It will take time for me to completely get used to a completely online approach".*
- *"Because of other office obligations it took me days to complete the course. Because I am not so IT literate I often felt frustrated when the video did not show/play. I did not know exactly where to click when accessing the video. Because I completed the course during different days I often forgot which session I had completed".*
- *"It was well structured, the instructions were clear and the access and interactivity was easy".*

When asked for recommendations to improve the use of video as content delivery medium for staff development, the responses were as follows:

- *"It's a very good medium of instruction - especially for content that does not need explanation, i.e. content that any staff member can read/study on her/his own. I personally would not have been happy to sit in a session for content that I know. Use it, but consider the diversity of the target group. Give clear instructions stating that it can be completed at different times and when the course should be completed".*
- *"No".*
- *"I liked the fact that the sessions were divided into shorter videos and the self-evaluations and surveys forced one to pay attention and I even made notes during the video. The content was relevant and presented in an easy, understandable format. PowerPoint presentations could supplement the presentations. All in all very good".*

Answers to the shorter surveys were as follows:

All the candidates indicated that they were able to access the content in the sections and that it was presented in a way that was easy to understand. The candidates

indicated that they were able to access the content at a time which suited them best; this was both at home and at work. The candidates all felt that they were able to easily stop and play the videos and that the duration of the videos were just right. Asked if the candidates were able to consume the content that was provided and make the content their own there were mixed reactions from the three candidates, with yes and no answers.

The researcher found that due to the low completion of the short surveys after each of the sections, it would be necessary to combine the three shorter surveys into the final survey. This would enable participants to complete all the survey questions in one session. The questions were adapted slightly to focus on all three sections instead of just one section at a time. The researcher believes that the combination of the shorter surveys provides a clearer picture of the consumption of the content.

3.3.4.6 *Data gathering*

The respondents had a maximum of five weeks to work through the three sections of the online course. On completion of the full online course, an online questionnaire was presented to the respondents (cf. Appendix A-3). This questionnaire was completed electronically and the collected data were saved on the servers of the University of the Free State. This data were then retrieved by the researcher. The questionnaire took each respondent approximately 40 minutes to complete. This survey was not conducted anonymously, but all information gathered is treated as confidential. Respondents needed to be given access to the CMS by issuing them with a username and a password, because it was not possible to make the questionnaire completely anonymous.

3.3.4.7 *Data analysis*

The quantitative aspect of the results were retrieved through a data analysis software package (*Respondus*) and interpreted by the researcher. The collected data were integrated, summarised and displayed in the research report (cf. Chapter 4 for a full discussion).

The qualitative data were analysed by the researcher through reading, identification and summarising the concepts. Qualitative data gathered in the form of open-ended

questions were categorised into themes. This made it possible to make sense of the data before allocating to themes and patterns (Labuschagne 2003:3). Specific categories were identified. Through the assistance of an independent, knowledgeable colleague, groupings and categories were checked for authenticity.

3.4 ENSURING THE QUALITY OF THE STUDY

3.4.1 Trustworthiness

According to Babbie and Mouton (2001:227-278) quantitative research cannot be considered valid unless it is reliable; a qualitative study cannot be called transferrable unless it is credible, and cannot be deemed credible unless it is dependable.

The trustworthiness of this study is established by providing a detailed outline of how the quantitative and qualitative data were analysed and interpreted in the final research report.

3.4.2 Validity

Validity is defined as the extent to which the instrument measures what it is supposed to measure (Leedy & Ormrod 2001:31). After being tested satisfactorily and repeatedly in the population that it was designed for, an instrument can be classified as being valid (Bowling 2002:150).

The validity of this research was maintained through the way the research instruments were designed as well as the expertise of the supervisors and supportive expertise provided by the researcher.

3.4.3 Reliability

Reliability is defined by Goodwin (1995:96) as the extent to which an instrument yields consistent, stable and uniform results over repeated observations or measurements under the same conditions every time.

The reliability of this research was established by means of a well-constructed questionnaire that was carefully piloted and reviewed by experts in this area of research.

3.5 ETHICAL CONSIDERATION

3.5.1 Approval

Approval to execute the research was obtained from the Vice-Rector (Academic), University of the Free State, the Dean of the Faculty of Health Sciences, UFS, and the Dean Faculty of Health and Environmental Sciences, CUT. Approval was also obtained from the Ethics Committee of the Faculty of Health Sciences of the UFS (ETOVS number 75/2011).

3.5.2 Informed consent

All respondents who participated in the study gave consent before gaining access to the online content and the survey (cf. Appendix A-2). The online questionnaire was only accessible with the use of a username and password. Staff who gave consent was issued with a username and password after which they were able to access and view the course and questionnaire.

3.5.3 Right to privacy and confidentiality

The information obtained through this questionnaire was treated as strictly confidential and no names will be made available.

Participants were assured that their feedback would remain confidential. The researcher's name and contact details were made available to all respondents. Due to the fact that access was provided to the CMS, the researcher knows the identity of the respondents.

3.6 CONCLUSION

In Chapter 3 an overview was provided of the research methodology involved in the study as well as the procedures that were followed.

In the next chapter, Chapter 4, entitled **Description of the results of the Feedback Questionnaire**, the results of the questionnaire that was used to obtain data for this study will be reported and discussed

CHAPTER 4

DESCRIPTION AND DISCUSSION OF THE RESULTS OF THE FEEDBACK QUESTIONNAIRE

4.1 INTRODUCTION

The purpose of this chapter is to present the results that were gathered from the surveys presented to the candidates in an online course that was presented to 33 Health Professions Educators. These health professions educators were drawn from the Faculty of Health Sciences, University of the Free State, and from the Faculty of Health and Environmental Sciences at the Central University of Technology, Free State.

The demographic information of the sample will be presented first (cf. 3.3.4.5) and includes information such as gender and age as well as the respondents' field of study, academic profile and also online usage profile.

The questionnaire (cf. Appendix A-3) was designed to measure the respondents' online usage habits with regards to the use and consumption of online content, the way in which they engaged in the presented content and their experiences and recommendations in the use of video as primary medium for content delivery for staff development.

The discussion deals with the responses of 33 Health Professions Educators who completed the questionnaire. The questionnaire consisted of 29 questions (27 closed-ended and 2 open-ended). The questions in the survey provide information on the following: demographic profile of the participants (cf. Appendix A-3, Question 1-6); the online user profile of the participants' (cf. Appendix A-3, Question 7-9, 11); content consumption online by the participants' (cf. Appendix A-3, Question 12-14); the staff development profile of the participants' (cf. Appendix A-3, Question 10, 15-17); the participants' experience of video in staff development (cf. Appendix A-3, Question 18, 26, 27); the participants' access to course content (cf. Appendix A-3, Question 19-25) and the experiences, recommendations and comments of the participants with regards to this course as answers to open-ended questions (cf. Appendix A-3, Question 28 – 29).

The data collected from this survey will be discussed in more detail. The results will be presented in diagrammatic format to give a breakdown of the information that was gathered during the survey.

The chapter will end with a summative discussion (cf. 4.9) including graphical representations of the data and a conclusion (cf. 4.10).

The percentages in this chapter have been worked out to the first decimal figure. Therefore the percentages would not add up to 100% in some cases. These are applicable to all the tables in this chapter where percentages have been worked out.

4.2 DEMOGRAPHIC DESCRIPTION OF THE SAMPLE [Questions 1 - 6 of Questionnaire (Appendix A-3)]

Participants were asked to provide information as to their gender, age distribution, number of years as health professions educator, their highest qualification and primary field of study.

4.2.1 Gender

Table 4.1 indicates the gender distribution of the sample. The base size of the sample is 33.

TABLE 4.1: GENDER BREAKDOWN OF THE SAMPLE (Question 1 of Questionnaire) [n=33]

Gender	
Male	33.3%
Female	66.6%

Discussion: The data collected show that the majority of the participants that completed the questionnaire were female (66.6%), while 33.3% were male. The original sample was based on the attendance of at least three staff development sessions by the participants over the past two years. This was the requirement for participation in this study. In this identified group the gender distribution was 45% male and 55% female.

4.2.2 Age

Table 4.2 shows the age group breakdown of the participants. The base size of the sample is 33.

TABLE 4.2: AGE GROUP BREAKDOWN OF THE SAMPLE
(Question 2 of Questionnaire) [n=33]

Age group	
21 – 30 years	3.0%
31 – 40 years	21.0%
41 – 50 years	58.0%
51 – 60 years	15.0%
61 – 70 years	3.0%

Discussion: According to the data the majority of participants were in the 41 - 50 years group with 58.0% of the participants falling in this age group. The second largest group with 21.0% of participants were between 31 – 40 years while 15.0% of participants were in the group of 51 – 60 years. Only 3.0% of the participants were in the 21 – 30 years group. The remaining 3.0% of participants were in the 61 – 70 year age group.

4.2.3 Number of years as a health professions educator

Table 4.3 shows the number of years as a health professions educator. The base size of the sample is 33.

TABLE 4.3: YEARS AS HEALTH PROFESSIONS EDUCATOR (BREAKDOWN OF SAMPLE GROUP)
(Question 3 of Questionnaire) [n=33]

Years as health professions educator	
0 – 5 years	15.1%
6 – 10 years	36.4%
11 – 15 years	21.2%
16 – 20 years	21.2%
more than 20 years	6.1%

Discussion: Most of the participants in this study have been health professions educators for at least six years (84.9%). Only 15.1% of participants have been health

profession educators for five or fewer years. The data show that the participants have years of professional experience, but the fact that they still participate in staff development shows that they are life-long learners. The expectation is that with this many years of experience in staff development their inputs would be of high value.

4.2.4 Highest qualification obtained

Table 4.4 shows the highest qualification obtained by the participants. The base size of the sample is 33.

TABLE 4.4: HIGHEST QUALIFICATION OBTAINED (BREAKDOWN OF SAMPLE GROUP)
(Question 4 of Questionnaire) [n=33]

Highest qualification obtained	
Doctoral degree	33.3%
Master's degree	51.5%
Bachelor's degree	15.2%
Diploma	0.0%

Discussion: Only 15% of the participants in this study have not yet completed a Master's or Doctoral degree. The group consisted of 33.3% with Doctoral degrees, 51.5% with Master's degrees and 15.2% with Bachelor's degrees. With 84.8% of respondents having a postgraduate qualification of either a Master's or Doctoral degree, it can be concluded that the participants are highly skilled professionals and academics.

4.2.5 Primary fields of study

Table 4.3 shows the primary fields of study of the participants. The base size of the sample is 33.

TABLE 4.5: PRIMARY FIELD OF STUDY (BREAKDOWN OF SAMPLE GROUP)
(Question 5 of Questionnaire) [n=33] (Table continues on next page)

Primary field of study	
Medical Science	48.5%
Radiography	12.1%
Dietetics	6.1%

Occupational Therapy	3.0%
Optometry	3.0%
Dental Assisting	3.0%
Emergency Care	3.0%
Nursing	0.0%
Physiotherapy	0.0%
Other	21.2%

Discussion: The participants were asked to identify their primary field of study. The largest group (48.5%) of participants were in Medical Science with a large distribution from other fields. Participants whose primary fields of study were not listed were able to select "other" and could then enter their field of study manually. The 21.2% of participants who chose the "other" option entered the following fields of study; Clinical Technology, Cardiovascular Perfusion, Natural Sciences, Health Professions Education, Clinical Technology and Medical Research, Human Movement Science, Pathology (microbiology) and Nuclear Medicine.

4.3 ONLINE USER PROFILE

[Questions 7-9 and 11 of Questionnaire (Appendix A3)]

The online user profile of the participants can give insights into the participants' basic usage of the Internet. Are the participants regular users of the Internet or is it something that they make use of only rarely? If they are not users of the Internet, this may cause them to find the use of online video and courses difficult and even something that they would not want to make use of at all.

4.3.1 Hours spent online

Table 4.6 shows the average hours spent online by each participant on a daily basis. The base size of the sample is 33.

TABLE 4.6: HOURS SPENT ONLINE PER DAY (BREAKDOWN OF SAMPLE GROUP) (Question 7 of Questionnaire) [n=33]

Hours spent online per day	
I am never online	0.0%
00:01 to 02:00	45.5%
02:01 to 04:00	24.2%
04:01 to 06:00	18.2%
06:01 to 08:00	6.1%
08:01 or more	6.1%

Discussion: All participants spend some time online during the day. This indicates that all participants do have access to the Internet and also make time to access the internet. More than half of the participants (54.5%) spend more than 2 hours online per day. None of the participants indicated that they do not spend any time online. This indicates that these participants are able to make use of the Internet in some degree.

4.3.2 Access to the internet

Table 4.7 shows where the participants mostly access the Internet. The base size of the sample is 33.

TABLE 4.7: INTERNET ACCESS (BREAKDOWN OF SAMPLE GROUP) (Question 8 of Questionnaire) [n=33]

Access the internet	
At work	15.2%
At home	0.0%
Both at home and at work	84.8%

Discussion: From the data provided it can be gathered that 100% of participants access the Internet from work. This is to be expected as both institutions, from which the participants were drawn, provide Internet access to staff. The participants also indicated that at least 84.8% access the Internet from home. Only 15.2% of participants accessed the Internet from work only. This serves as reinforcement that the participants are able to make use of the Internet.

4.3.3 Preferred time at which the Internet was accessed

Table 4.3 shows when participants mostly access the Internet. The base size of the sample is 33.

TABLE 4.8: WHEN THE INTERNET IS ACCESSED (BREAKDOWN OF SAMPLE GROUP)
(Question 9 of Questionnaire) [n=33]

Mostly access the Internet	
during office hours	63.6%
after hours	36.4%

Discussion: As can be expected from the fact that all participants have access to the Internet from work they also mostly access the Internet during office hours. After hours 36.4% of participants accessed the Internet. This shows that even though 84.8% of participants have access to the Internet from home they do prefer to access the Internet during office hours (64.6%) and only 36.4% access the Internet after hours (cf.4.3.2).

4.3.4 Primary use of the Internet

Table 4.9 indicates the primary use of the Internet by participants. The base size of the sample is 33.

TABLE 4.9: PRIMARY REASON TO ACCESS THE INTERNET (BREAKDOWN OF SAMPLE GROUP)
(Question 11 of Questionnaire) [n=33]

Primary reason to access the Internet	
Read email	45.5%
Research	42.4%
Browse/surf	9.1%
Online learning	3.0%
Watch videos	0.0%
Blog	0.0%

Discussion: Currently it can be seen that most participants make use of the Internet primarily to read emails (45.5%). The second group of users use the Internet

primarily for research (42.4%) with 9.1% of participants using the Internet for browsing. Only 3% of participants indicated that their primary use of the Internet is for online learning. The fact that research is the primary reason of 42.2% of participants to access the Internet indicates to the researcher that if the content is provided online for staff development, these participants would also access the content as part of their research endeavours. Using online video as primary content delivery medium could add value to research, and online learning in the sense that the medium can be used to enhance research and also online learning. The use of email as communication and announcement tool, specifically to inform staff of the availability of staff development content online, can also be investigated in a further research study.

4.4 CONTENT CONSUMPTION ONLINE

[Questions 12 - 14 of Questionnaire (Appendix A3)]

This section provides insights into the participants' use of the Internet, in the past, to access video resources.

4.4.1 Use of Internet to access courses and video content

Table 4.10 shows the use of the Internet by participants to access courses and video content. The base size of the sample is 33.

TABLE 4.10: USE OF INTERNET TO ACCESS COURSES AND VIDEO CONTENT (BREAKDOWN OF SAMPLE GROUP)
(Question 12 of Questionnaire) [n=33]

Have taken part in an online course	
Yes	39.4%
No	60.6%

Discussion: In this question the participants were asked if they had in the past taken part in an online course. The largest group of participants (60.6%) indicated that they have not yet done so in the past. This online course therefore was a new experience for a large number of the participants. This result is also expected as there are currently limited if any online staff development resources available at the two institutions.

Table 4.11 indicates the percentage of participants who have watched videos online. The base size of the sample is 33.

TABLE 4.11: PATICIPANTS WHO HAVE WATCHED VIDEOS ONLINE (BREAKDOWN OF SAMPLE GROUP)

(Question 13 of Questionnaire) [n=33]

Have watched online videos	
Yes	93.9%
No	6.1%

Discussion: Most of the participants (93.3%) indicated that they have in the past watched online videos. Only 6.1% of participants have not in the past watched online videos.

Table 4.12 indicates the percentage of participants who have watched videos online.

TABLE 4.12: PARTICIPANTS WHO HAVE WATCHED ONLINE ACADEMIC VIDEOS (BREAKDOWN OF SAMPLE GROUP)

(Question 14 of Questionnaire) [n=33]

Have watched online academic videos	
Yes	93.9%
No	6.1%

Discussion: From the data gathered it is seen that 93.9% of participants have watched online academic videos while only 6.1% of participants have not watched online academic videos in the past. This shows that all participants who have watched online videos have also watched academic videos online (cf. Table 4.11).

4.5 STAFF DEVELOPMENT

[Questions 10, 15 - 17 of Questionnaire (Appendix A3)]

This section provides insights into where and when the participants accessed and completed this staff development course and their experiences with regards to previous staff development sessions.

4.5.1 Use of Internet to access courses and video content

Table 4.13 shows when participants accessed this online staff development course.

TABLE 4.13: WHEN THIS STAFF DEVELOPMENT COURSE WAS ACCESSED (BREAKDOWN OF SAMPLE GROUP)
(Question 10 of Questionnaire) [n=33]

I worked on this staff development course	
during office hours	63.6%
after hours (in my office)	15.2%
after hours (at home)	21.2%

Discussion: From the responses of the participants it is seen that 63.6% of the participants worked on this study during office hours while about 36.4% of participants made time after hours, at home or in the office, to work through the content. This indicates that participation in the course was not bound to a specific time schedule and the participants had the freedom to choose when and where they preferred to access the course.

4.5.2 Previous attendance of staff development sessions

Table 4.14 shows the percentage of participants who attended staff development sessions in the past.

TABLE 4.14: PREVIOUSLY ATTENDED STAFF DEVELOPMENT SESSION (BREAKDOWN OF SAMPLE GROUP)
(Question 15 of Questionnaire) [n=33]

Previously attended staff development sessions (face-to-face)	
Yes	100.0%
No	0.0%

Discussion: One of the requirements for participation in this study was that all participants needed to have attended three staff development sessions in the past. It is therefore not surprising that 100% of participants indicated that they have in the past taken part in staff development sessions. This is also very important so as to provide the participants with the experience of previous sessions with which to compare this

online session and make informed observations as to the advantages and disadvantages experienced.

4.5.3 Participants who in the past had to miss staff development sessions due to other obligations

Table 4.15 shows the percentage of participants who in the past had to miss staff development sessions due to other obligations.

TABLE 4.15: PARTICIPANTS WHO IN THE PAST HAD TO MISS STAFF DEVELOPMENT SESSIONS DUE TO OTHER OBLIGATIONS (BREAKDOWN OF SAMPLE GROUP)

(Question 16 of Questionnaire) [n=33]

In the past missed staff development sessions due to other obligations	
Yes	100%
No	0%

Discussion: Staff development sessions are often not seen as a priority and as in the responses from participants 100% of the participants had in the past missed staff development sessions, due to other obligations. Staff development sessions are often bound to specific time frames which are determined by the availability of the facilitators of the session or by the availability of the majority of the participants. It is therefore not surprising that each of the participants in the past had to miss a staff development session due to other obligations.

4.5.4 Participants who had to leave a staff development session due to an emergency

Table 4.16 shows the percentage of participants who in the past attended a staff development session, but then had to leave the session due to an emergency.

TABLE 4.16: PARTICIPANTS WHO IN THE PAST HAD TO LEAVE A STAFF DEVELOPMENT SESSION DUE TO AN EMERGENCY (BREAKDOWN OF SAMPLE GROUP)

(Question 17 of Questionnaire) [n=33]

In the past had to leave a staff development session due to an emergency	
Yes	54.5%
No	45.5%

Discussion: Due to the fact that many health profession educators are often required to see patients in emergency situations, this could prevent them from attending or finishing staff development sessions. From the responses from participants it is also seen that 54.5% of these participants indicated that they have had to leave a staff development session due to an emergency. The participants of these sessions in effect missed parts of the training sessions and would have to attend again to get the information and benefit from the session.

4.6 VIDEO IN STAFF DEVELOPMENT

4.6.1 Video use in the past

[Questions 18, 26 and 27 of Questionnaire (Appendix A3)]

This section provides insights into the participants' use of video in the past as medium for personal and staff development and their experience of video in this course.

TABLE 4.17: PREVIOUS USE OF VIDEO FOR SELF-ENHANCEMENT AND IMPROVEMENT (BREAKDOWN OF SAMPLE GROUP)
(Question 18 of Questionnaire) [n=33]

Previous use of video for self-enhancement and improvement (cassettes and online)	
Yes	60.6%
No	39.4%

There is a large number of self-enhancement and self-improvement video resources available on cassettes and online. Participants indicated that 60.6% of them had in the past used these resources for self-enhancement or improvement, while 39.4% of participants indicated that they have never done this. In past years most video resources were available in libraries and not as widely accessible as they are through the Internet; it is, therefore, understandable that 39.4% have not done this in the past. The use of online video as a medium for staff development is an opportunity for a new initiative.

4.6.2 Future availability of staff development content online in video format

Table 4.18 indicates the responses of participants in answer to the question whether they would like future staff development sessions to be made available online in video format.

TABLE 4.18: PARTICIPANTS WHO IN THE FUTURE WOULD PREFER TO HAVE ALL STAFF DEVELOPMENT BE DONE ONLINE IN VIDEO FORMAT (BREAKDOWN OF SAMPLE GROUP)

(Question 26 of Questionnaire) [n=33]

In the future I would prefer to have all staff training sessions made available online in video format	
Yes	57.6%
No	39.4%
Unanswered	3.0%

Discussion: Table 4.18 shows that 57.6% of participants felt that training sessions should be made available online in video format while 39.4% did not prefer that this be done. This question was not answered by 3.0% of the participants. From the open-ended questions at the end of the survey (cf. Table 4.28) it is clear that participants currently still prefer to have face-to-face sessions for staff development, but would like video to be used as a supplemental resource to extend the session. Video can be used for revision or review. This is also quite clear from the responses of participants to question 27 (Cf. Table 4.19).

Table 4.19 indicates the preference of participants with regards to video recordings of staff development sessions being made available as supplemental resource to regular staff development sessions.

TABLE 4.19: PARTICIPANTS WHO IN FUTURE WOULD PREFER THAT ALL STAFF DEVELOPMENT SESSIONS BE RECORDED IN VIDEO FORMAT AND MADE AVAILABLE ONLINE AS SUPPLEMENTAL RESOURCE. (BREAKDOWN OF SAMPLE GROUP)

(Question 27 of Questionnaire) [n=33]

In future would prefer that all staff development sessions be recorded in video format and made available online as supplemental resource	
Yes	90.1%
No	9.9%

Discussion: In Table 4.19 it is clearly seen that the vast majority of participants indicated that they would prefer that all staff development sessions be recorded in video format and made available online as supplemental resource. Only 9.1% of participants indicated that they would not prefer that this be made available as a supplemental resource. When seen in conjunction with the responses to question 26 (cf. 4.18) it can be concluded that a vast number of the participants who indicated that they would not like to receive the content only through online video, do acknowledge the fact that they would like the sessions to be recorded to be accessed again at a later stage. This could be either as a method of revision, or as a method of reinforcement of what was said. A small percentage (9.9%) of participants indicated that they would not like any video recordings of staff developments sessions to be made available online.

4.7 ACCESS TO COURSE CONTENT

[Questions 19 to 25 of Questionnaire (Appendix A3)]

This section provides insights into the accessibility of the content. This includes the ease of access, the presentation of the content, the time at which content was accessed, where the course was completed, the ability to pause, resume and replay content, the duration of the video content and the ability of the participant to consume the content.

4.7.1 Easy to access

Table 4.20 shows the accessibility of content in sections of the online course.

TABLE 4.20: CONTENT WAS EASILY ACCESSED IN THE SECTIONS OF THE COURSE (BREAKDOWN OF SAMPLE GROUP)
(Question 19 of Questionnaire) [n=33]

Content was easily accessed in the sections of the course	
Yes	97.0%
No	3.0%

Discussion: The accessibility of the course is vital to the success of the user experience. In Table 4.20 it can be seen that 97.0% of participants felt that the access was easy and only 3.0% of participants had difficulty.

4.7.2 Content presented in a way that was easy to understand

Table 4.21 shows the experience of the participants in regard to the ease of understanding of the content that was provided.

TABLE 4.21: CONTENT IN THE SECTIONS WERE PRESENTED IN A WAY THAT WAS EASY TO UNDERSTAND (BREAKDOWN OF SAMPLE GROUP)
(Question 20 of Questionnaire) [n=33]

The content in the sections were presented in a way that was easy to understand	
Yes	100%
No	0%

Discussion: Question 20 was asked to ensure that the content in the sections and the way in which it was presented, would not affect the experience of the use of video to convey the content negatively. It can be seen that 100% of the participants found that the content was presented in a way that was easy to understand.

4.7.3 Access to content at a time that suited the participant best

Table 4.22 indicates the ability of the participants to access the content at times which suited them best.

TABLE 4.22: PARTICIPANTS WAS ABLE TO ACCESS CONTENT AT A TIME WHICH SUITED THEM BEST (BREAKDOWN OF SAMPLE GROUP)
(Question 21 of Questionnaire) [n=33]

Was able to access content at a time which suited best	
Yes	97.0%
No	3.0%

Discussion: One of the benefits of online video is that the time at which one accesses content is flexible and may vary according to the needs and preferences of participants. Table 4.22 indicates that this is indeed the experience of 97.0% of

participants with only 3.0% indicating that they were not able to access the content at a time which suited them best.

4.7.4 Where course was completed

Table 4.23 indicates where participants completed the online course

TABLE 4.23: VENUE WHERE COURSE WAS COMPLETED (BREAKDOWN OF SAMPLE GROUP)
(Question 22 of Questionnaire) [n=33]

Completed the course at _____	
Home	12.1%
Office	75.8%
Both at home and at the office	12.1%

Discussion: The consumption of online content is not location-based and can be accessed at various venues as long as an Internet connection is available. Participants were able to access the content from where it suited them best. The majority of participants (75.8%) chose to complete the course in their offices at work, while 12.1% of participants chose to work from home. The remaining 12.1% of participants worked on the course both from home and at work. It was truly based on the time that was available and not on the location that was available.

4.7.5 Able to play and pause when needed

Table 4.24 indicates the ability of participants to pause, rewind, stop and restart the video content in the course.

TABLE 4.24: ABILITY TO STOP AND PLAY VIDEO AS WAS NEEDED (BREAKDOWN OF SAMPLE GROUP)
(Question 23 of Questionnaire) [n=33]

I was able to stop and play the video as was needed	
Yes	97.0%
No	3.0%

Discussion: The fact that participants should be able to stop and start the delivery process, is vital for the consumption of the content that is provided. Most of the participants (97.0%) were able to stop and play the video clips as was needed. Only 3.0% of participants were not able to do this.

4.7.6 Length of video clips

Table 4.25 indicates the participants' perception as to the length of the video clips that were included in the course.

TABLE 4.25: LENGTH OF VIDEO CLIPS (BREAKDOWN OF SAMPLE GROUP)
(Question 24 of Questionnaire) [n=33]

The length of the video clips were _____	
Too long	0.0%
Too short	6.1%
Just right	93.9%

Discussion: To ensure the effectiveness of the content being delivered in video format the average length of the video clips used in this research study was approximately 3 to 4 minutes. According to 93.9% of participants, this length was just right while 6.1% of participants felt that the videos were too short. None of the participants felt that the video clips were too long.

4.7.7 I was able to consume the content that was provided and through the self-reflection/self-tests I was able to make the content my own

Table 4.26 indicates the participants' experience with regards to the content provided

TABLE 4.26: ABILITY TO CONSUME THE CONTENT THAT WAS PROVIDED (BREAKDOWN OF SAMPLE GROUP)
(Question 25 of Questionnaire) [n=33]

I was able to consume the content that was provided and through the self-reflection /self-tests I was able to make the content my own	
Yes	100.0%
No	0.0%

The main aim and purpose of any course is to convey knowledge and for the participants to make the content their own. Through the incorporation of self-reflection and self-tests in the course, 100% of the participants responded that they were able to make the content their own.

4.8 OPEN-ENDED QUESTIONS (SUMMARY)

[Questions 28 and 29 of Questionnaire (Appendix A3)]

The open-ended questions that formed part of the survey, were created to provide participants with the opportunity to not only share their experience of the delivery method, but also to give their insights as to what they liked or disliked about this delivery medium; they were also encouraged to give recommendations. These experiences, comments and recommendations are compiled in Tables 4.27 and 4.28. The comments have been included as it was provided, without any changes or corrections.

4.8.1 Experience of course content delivered through video as primary delivery medium

The question that was put to the participants was: "*What was your experience of the course content delivery medium (video)?"*

This section contains responses of participants that reflect feedback concerning their experience of the course content delivery through video, as tabled in Table 4.27. The researcher will present the responses as it was received in the words of the participants; no language editing was done on these responses. A short summary and discussion on feedback are provided.

TABLE 4.27: EXPERIENCE OF PARTICIPANTS REGARDING THE COURSE CONTENT DELIVERY MEDIUM (VIDEO)(Continues on next pages)

"New, but very easy and covenient way of learning"
"I liked the medium of video, espessially because it can be watched at a preferred time, your oun speed of progression, can be interruppted, can be repeated if nescesary. The negative aspect is: no oppertunity for questions or explenations no oppertunity for discussions with other people in a simular situation."
"It was a new experience to have the whole course on video and do it when time is availalbe. over-all a positive experience"

"I experienced it as good."
"I found it excellent. The time management component was particularly interesting and I immediately started applying what I have learnt with great positive effect. The fact that the videos were short made it practical to look at them in between other obligations. The presenter was also excellent and very engaging. The questions in session 3 were not always that clear, though. I found the self-reflection very useful. Thank you for making me part of this study."
"Enjoyed it, the content was very applicable to my Right Brain disorganisation! Did not look at all the videosAre actually a more "paper and pen" person (comes from that generation), but the students we are working with are doing this and now I felt how they experience this Blackboard online thing!"
"I found it easy to access and liked being able to do it in my own time. I learnt a lot and found the content very enriching (especially the time management sections)."
"Excellent, like the four parts and not just one long video,"
"Streaming was slow at home - I would prefer to receive the content on disk and complete the questions on-line. I enjoyed the material, but it could also have been helpful to have it as audiofiles that I can listen to when driving or doing other things."
"Very positive. The only thing I thought that I missed was the interaction and reasoning on matters and asking questions."
"It was very good in my view. Igno presented the material very clearly, in good English and did not stutter once. He was clearly well prepared and had a great understanding of the topic. I really enjoyed the short videos. They made it bite sized and much better to reflect on. Really nice style and learning method!"
"Good I learned more as I would face to face because I could dothe training in my own time and watch the videos again if anything was unclear"
"Positive"
"It was fine. However I felt that my concentration was not like in at a lecture/live. The first video frustrated me because of background, cars people walking. It was annoying. Could not focus on the presentation.From second session it went better."
"Very good. At a stage the sound caused difficulty, as 2 videos played together. Easy to follow and you can stop at any time."
"The course was well planned, easy to navigate and interesting to follow. I would recommend all staff to use this course."
"I liked it! It was presented in an easy unerstandable manner with a short summary at the end. It almost felt like an one-on-one session."
"I have learned a lot - many things to apply to my personal situation. I enjoy the flexibility "
"It was easy to pause and restart to maybe write something down. Easy to operate."
"In the sections provided it made it easy to follow and easy to access in terms of the time it takes to get through the presetnations. the ability to pause and replay sections allowed reinforcement of points made"
"I had a very positive experience of this medium. It was nice to have somebody who talked about the work - almost felt like a face-to-face session. Because I could watch the video more than once, I could go back and watch it again when I struggeld with the questions."
"You can use when you want to, it sends one message that can be repeated and the packaging is ideal."
"I really enjoyed it. I like the fact that it can be replayed if something was missed or you wanted to hear it again."
"It was very convenient and clear. I especially enjoyed being able to go back to a part I missed due to an interruption."
"I used ADSL, but the video still had to load every now and then. Could do it at home without interuptions. Could stop to make a cup of coffee or go to the toilet, and so concentrate fairly well.Blackboard is not always so easy to navigate, but is fine. Only put the best videos on the systemPersonal style: I also like to read something, and ask questions. Sometimes a trainer of a video can be too slow. Give short snippets like these please"
"I found the information interesting and the short clips allowed me to assimilate it easily. I believe for this kind of training - knowledge based - that the e-learning options works well. For skills training or training where a deeper unerstanding of the content is required, face-to face training might work better. There were times during these session when i would have

liked to have the opportunity to ask some questions or when I though more elaboration on the subject would have increased my insight and the depth of learning. I preferred the short test evaluation to the reflection. I was quicker and more to the point.“
“Clear consice video's which highlithten the important information and refered to the source which you could then go an read if you wanted too“
“The video was clear, audible and also can access it at my own convenient time. The sessions were short and have to re-play in order to understand or reflect on the matter.“
“I enjoyed the medium as it provided me the opportunity of doing it in my own time. However, I experienced problems accessing Blackboard from my computer at home, which limited the time I had available to participate in the course. I would have liked to have the time to watch all the supplementary videos included in the course too! “
“Very nice alternative.I do however also like face-to-face training“
“I liked the ease of access and the ability to shift it to a convenient timeslot. I do however think that some really good trainers might not be comfortable with being recorded and that some live interaction is also of value.“
“Positive. It was helpful and I could access the material between other commitments that I had at the office today. The course content took slightly longer than I anticipated and I found some of the multiple choice questions quite difficult. I thought that one question in the training evaluation session part 2 would have been more applicable to part 3. I would recommend that the course sessions be taken on different days for maximum retention of knowledge. I chose to do the entire course today due to other commitments later this week and during April. Thank you for this opportunity.“
“Excellent. Clear and to the point. Love the style of the presenter(s)“

What follows is a summary of the main comments as to the experience of content delivery through video as submitted by participants of this study. The responses to question 28 of the research study are provided in Table 4.27. The participants provided both positive and negative comments on the experience. The researcher will summarise these by way of short discussion of the primary points that were highlighted by the majority of participants. This will be followed by a summary of positive and negative experiences so as to give a comprehensive picture of the varying experiences of participants.

Discussion and summary: The responses from participants were varying in nature, but overwhelmingly specific points were emphasised by a large number of participants. The fact that content could be consumed and worked through at the participant's own pace and at a time which suited the participant best, was a plus for most participants. The flexibility and ability to pause the video, restart, stop and play the video as was convenient and needed by the participant enabled participants to work through content more effectively. Being able to stop or go back if there was an interruption enabled participants to not miss any aspect of the course.

Positive feedback from participants are extracted and provided in Table 4.28 while negative feedback is provided in Table 4.29.

TABLE 4.28: POSITIVE FEEDBACK FROM PARTICIPANTS AS TO THEIR EXPERIENCE OF THE COURSE CONTENT DELIVERY MEDIUM (VIDEO) (Question 28 of Questionnaire) [n=33]

Flexibility
I liked the medium of video, espessially because it can be watched at a preferred time, your oun speed of progression, can be interruppted, can be repeated if nescesary.... "
... liked being able to do it in my own time.... "
"Good I learned more as I would face to face because I could dothe training in my own time and watch the videos again if anything was unclear"
"...Easy to follow and you can stop at any time."
"... I enjoy the flexibility"
It was easy to pause and restart to maybe write something down. Easy to operate."
... the ability to pause and replay sections allowed reinforcement of points made"
"It was nice to have somebody who talked about the work - almost felt like a face-to-face session. Because I could watch the video more than once, I could go back and watch it again when I struggeld with the questions."
You can use when you want to, it sends one message that can be repeated and the packaging is ideal."
"I really enjoyed it. I like the fact that it can be replayed if something was missed or you wanted to hear it again."
"It was very convenient and clear. I especially enjoyed being able to go back to a part I missed due to an interruption."
"Could do it at home without interuptions. Could stop to make a cup of coffee or go to the toilet, and so concentrate fairly well.
The video was clear, audible and also can access it at my own convenient time.
"I enjoyed the medium as it provided me the opportunity of doing it in my own time... "
"I liked the ease of access and the ability to shift it to a convenient timeslot.... "
"It was helpful and I could access the material between other commitments that I had at the office today. ... "
Ease of use
New, but very easy and covenient way of learning"
"... I found it easy to access ...
"I liked it! It was presented in an easy unerstandable manner with a short summary at the end. It almost felt like an one-on-one session."
"... easy to follow and easy to access in terms of the time it takes to get through the presetnations....
Length of video clips
"... I immediately started applying what I have learnt with great positive effect. The fact that the videos were short made it practical to look at them in between other obligations.... "
"...like the four parts and not just one long video,"
... I really enjoyed the short videos. They made it bite sized and much better to reflect on. Really nice style and learning method!"
"...the short clips allowed me to assimilate it easily
The sessions were short and have to re-play in order to understand or reflect on the matter."

From these comments it is clear that a large number of the participants enjoyed the convenience of accessing the course at a time which suited them best. In today's fast-paced work environment it can be difficult to set aside specific time periods for staff development. This medium enabled participants to work through content and

participate at times it suited them best. Participants also highlighted that the fact that content can be accessed on demand made it more applicable and possible to apply new skills immediately in the workplace.

The fact that videos could be paused, played, stopped and also replayed helped participants to consume information as required and at times which suited them best. Participants liked the shorter video clips as they were concise and to the point. Some participants preferred self-reflection, while others preferred to have short self-tests as the bases for reflection.

The ease of use and navigation was also mentioned by participants. It was noted that, at times, the videos felt like a face-to-face session. The majority of participants indicated that they enjoyed the experience.

TABLE 4.29: NEGATIVE FEEDBACK FROM PARTICIPANTS AS TO THEIR EXPERIENCE OF THE COURSE CONTENT DELIVERY MEDIUM (VIDEO) (Question 28 of Questionnaire) [n=33]

Lack of interaction with presenter
"...The negative aspect is: no oppertunity for questions or explenations no oppertunity for discussions with other people in a simular situation."
"... The only thing I thought that I missed was the interaction and reasoning on matters and asking questions."
"I also like to read something, and ask questions. "
"There were times during these session when i would have liked to have the opportunity to ask some questions or when I though more elaboration on the subject would have increased my insight and the depth of learning. "
Internet connectivity
"Streaming was slow at home - I would prefer to receive the content on disk and complete the questions on-line. I enjoyed the material, but it could also have been helpful to have it as audio files that I can listen to when driving or doing other things."
"I used ADSL, but the video still had to load every now and then..."
"I experienced problems accessing Blackboard from my computer at home, which limited the time I had available to participate in the course. "
Background disruptions in video
"It was fine. However I felt that my concentration was not like in at a lecture/live. The first video frustrated me because of background, cars people walking. It was annoying. "
Resistance to being recorded
"I do however think that some really good trainers might not be comfortable with being recorded and that some live interaction is also of value."

The negative aspects as provided by participants can be limited to a few basic points.

Participants found that the interaction with the presenter in this new format was lacking. Participants indicated the fact that they would prefer the ability to interact and post questions to the presenter.

Connectivity speeds at home is still a problem for some participants. The fact that video is streamed to participants' computers was a negative aspect, as some participants still have slow connection speeds. This influenced the experience for these participants.

Participants were easily distracted by movement in the background of the presenter. One participant noted that some trainers may find it difficult to present while being recorded. This may vary from presenter to presenter and cannot be linked to the users' experience of the video, but rather to the content creator's experience of creating the content.

The experience of the participants were overwhelmingly positive and some of the aspects that were highlighted as negative were not directly linked to the medium, but rather as to the infrastructure through which the content was accessed. These aspects of connectivity speeds will change considerably in the next few years as connectivity is increased and improved.

The model which supports the content being delivered through video is still an area which needs further research and is a possibility for a follow-up study. The content provided through video can be supported in a number of ways. These options range from interactive chat boards, discussion boards, live video conference calls, instant messaging through online and mobile technology amongst other options. Secondary resources can also be provided easily as supplemental reading to enhance the understanding and knowledge of the participant on completion of the online content delivery through video.

4.8.2 Recommendations and/or comments to improve the use of video as content delivery medium for staff development

In question 29 participants were asked to give their recommendations or comments to improve the use of video as content delivery medium for staff development. Their recommendations and comments are given in Table 4.30.

Table 4.32 contains all recommendations or comments to improve the use of video as content delivery medium for staff development. Recommendations and comments are divided into categories. The main categories identified by the researcher are production notes, distribution platform, the presentation skills of presenter, course development notes and supplemental resources.

TABLE 4.30: RECOMMENDATIONS AND/OR COMMENTS TO IMPROVE THE USE OF VIDEO AS CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT (Question 29 of Questionnaire) [n=33] (Continues on next page)

Course Development Notes
Perhaps start each session with outcomes/ goals before the start of the session.“
“ The reflection components with specific questions that guide oneself to make the content your own is very good and essential to successful training. thus: Recorded face-to-face training sessions available on internet will not have the same result because of the absence of the structured (forced) self reflection: If an assignment / end evaluation can be part of a course it will provide feedback for the student to show if he/she achieved the goals; and provide feedback to the presenter to indicate the effectiveness of the course (e.g. in this specific course: hand in a diary/time management plan for two weeks)“
“I like the fact that the videos was short and concise, with a reflection/question session at the end.“
“I would like to see some summary notes in between the presenter's face and talking - something like one or two powerpoint slides just to summarise the important aspects as re-inforcement.“
“Give references for further reading about the topic. “
The videos must be bite sized (max 4-5min each)“
“Video good. More visuals at the background, otherwise it is actually only sound. “
“In some videos I've seen highlight- or important subtexts are distracting. In these videos I would recommend adding the most important topics especially when talking about a list of points from a reference. Should Make it easier to follow. (Although Igno did a good job to keep you interested.)“
“It will be beneficial if you show something on the screen and we can then do it ourselves on own computer before we continue so that it is not only observing. I think if you kind of force someone to submit a few questions after respondes training it will help us do it before we forget. People do what is inspected- not expected.“
“It would have been nice to see bulleted words as one would put on a powerpoint slide show to keep you focused or see the line of thoughts.“
“For me personally it would be more interesting if the video was a bit more visually stimulating. My concentration wandered at times, although it was a short clip.“
“I believe this to be a valuable asset in training. I would however suggest that contents of these courses be scrutinised to insure that learners are not left feeling “half fed“ to due the lack of personal contact. perhaps a combination of the two mediums could work well. I am also interested in the possibilities this opens up for post-graduate students who are not always able to attend classes. Thank you for this opportunity, I must admit that I was skeptical about thia medium at first but found my initial contact with it fun, easy and informative.“
“I think the short clips were very useful. Written recommended supplementary sources (in e-format or book format) would be very helpful. It would be helpful if the MCQ's could be attempted twice as a form of formative evaluation.“

Production Notes
"Keep the background a particular scene. The video should be accompanied by a powerpoint or the presenter could use more pictures to explain instead of just talking. See and learn instead of watch and learn."
"I found the place where the video was taken (at the side of a busy road) distracting."
"The distracting traffic was distracting and an interesting way to see if you could keep your attention on the speaker"
Presentation skills of presenter
"Please let them talk slower! (or probably just a age related problem) (Question 9 and 11 not fair! combination of all will be more appropriate!!!)"
"The presenters MUST be GOOD speakers and ENGAGING in their abilities.
Distribution platform
"Make it available on iTunesU, which is a format I commonly use."
"Provide it as an interactive app to be used on smartphones or ipads that is faster. I would not only stick to video, unless it is used to actually demonstrate something - audio files are smaller and faster and can be used anywhere. Thank you for a valuable course - I really enjoyed it and learned a lot!"
"When a video end in youtube you are given a selection of new videos, you cannot replay the one that just finished except by refreshing the page. Maybe a different space to place the videos?
"Bandwidth"
Supplemental Resources
"This should not be used as a PRIMARY medium of staff development but rather a means to supplement a face-to-face approach. Personally I prefer a medium that allows for 1-on-1 interaction where questions can be asked and immediate feedback given. The video medium can assist in summarising important points during a revision process"
"The online staff development video is a powerful medium to supplement the face to face session. will suggest that the sessions be a little bit longer so that the listener can integrate the ideas."
"The supplementary video material is valuable to supplement the speakers' presentation. Perhaps a good method would be to present a course "face-to-face" and then make a concise video available that may be viewed at one's own leisure to consolidate the message and to contribute to further learning. I don't think the exact face-to-face presentation should just be recorded and posted online, as the "chemistry" of live participation is lost - unless it is done primarily in the medium of audiovisual recording (e.g. a TV show: HPE could start an Oprah-like programme?)"
"If unable to attend other sessions it would be nice to have it available. *It is a powerful medium and can be brought in as an impact factor in a larger training plan."*
Endorsement of concept
"Have these short clips that one can look at before work one at a time.Please keep the interesting clips on, because I still want to look at them. Thanks for this fresh and useful course. Needed it!"
"No recommendations it is a very good delivery medium."
"Get more people on the job. Videos should be expanded much more. Thanks for a wonderful learning experience! Well done"
"I would strongly suggest that it forms part of any staff development courses in future (to be able to watch it again at home in your own time!)"

Discussion and summary of recommendations

Course development notes: From Table 4.30 it follows that the fundamentals of course design still need to be a priority when it comes to the development of content that can be distributed by video. The recommendations for the development of the course are to add supplemental resources to the course to support what is presented in the video.

The provision of outcomes or goals in the online course before the video clips are viewed will support the learning experience greatly.

To ensure that the content is successfully transferred, the use of self-reflection and self-testing is supported in the comments; this will give structured feedback as to progress being made in the course, without the need for a face-to-face session.
The positive experience of shorter video clips is essential in order to keep students engaged in the process.

Participants noted the need for slides or the insertion of PowerPoint slides into the video. The researcher acknowledges this as a possibility, but due to the fact that this process will require additional production time and costs, it should be noted that these notes can also be provided as supplemental files that can accompany the video clips.
The researcher holds the view that the production of these videos should not involve lengthy production schedules and should be easy to update in order to keep all content up to date and at the leading edge of information and content distribution. The use of slides and bulleted main points on the screen during the video is, however, something that should be investigated and used if possible. The only reason for it not to be included is the time and cost of production. It can be noted that an alternative to the use of video files could be to use audio recordings of information. It is, however, the view of the researcher that video is more engaging and may require more focus during the consumption of the content.

The use of supplemental resources should in future form part of all online video-based courses. All content cannot be covered in short video clips and the use of supplemental resources like text documents, audio files, websites, PowerPoint presentation, photos and even supplemental videos may complement and add value to the information presented.

The planning and development phase of each video clip is vital and should incorporate all the needed information and educational criteria to aid in the learning experience. This is the most important phase in the process.

Production Notes: The recommendations provided by participants are directly linked to the video clips used in this study. Even though each video production would most probably be different from others, it is good to note the primary recommendations that were made as to the video clips. The traffic that formed the backdrop of the video clips of the first section of the course was distracting to a number of participants. The video clips in session two and three were static and was more acceptable to participants. Ensuring that the background of video clips add value and not distract from the learning experience should be remembered.

Presentation skills of the presenter: The comments of participants about the presentations skills of the presenter was not directly linked to the presentations in this study, but rather added as general guidelines for all presenters who are to present in online video content. Presenters should pace themselves, even though video clips should be kept short and to the point. The researcher believes that the solution to this could be to rather record a larger number of shorter videos, and not to rush through the content in order to cover more work per clip. It is also essential that the presenter be engaging, lively and competent in the subject field; this will help to keep the attention of participants.

Distribution platform: The researcher acknowledges the large number of distribution platforms that are available for use. The chosen platform for this study was BlackBoard, due to the fact that both institutions make use of this platform. YouTube.com was chosen to host video as staff from both institutions needed to be able to access the video at the same speed. If videos were hosted on one of the institutional servers, access to the videos of participants from the other institution would have been at a slower speed and this may have affected the experience negatively. The technical advances made in video steaming by YouTube.com are also more advanced than that of BlackBoard. It would be ideal if all content be made available directly on both institutional platforms with copies made available on iTunes and also in Mobile Apps that is developed for this purpose. The researcher believes that in coming years there may be a drive towards the convergence of these

technologies to enable cross-platform posting of all content in order to cater to the preferences of all participants.

Supplemental resource: It was the opinion of some of the participants that video should only be used as a supplemental resource in addition to the original face-to-face session. The researcher acknowledges that this is a new medium for the primary distribution of content, and notes that it may be a while before this medium can be fully utilised as primary content distribution medium in staff development. The advantages and power of video as supplemental resource must also be kept in mind as was noted by the participants. The use of video as a medium through which face-to-face sessions can be enhanced and extended is a step in the move towards video as primary content delivery medium.

Participants also noted that if a session was missed, this would be a great way to also gain access to the information that was presented. The researcher observes that when this is done, the supplemental resource changes to the primary resource for that participant.

Endorsement of concept: The positive endorsement of the concept of video as primary content delivery medium in staff development by participants is also noted in this summary. It is suggested that short video clips should form part of staff development and be made available to staff to consume.

4.9 SUMMATIVE DISCUSSION ON THE FINDINGS OF THE QUESTIONNAIRE

A summative discussion on the findings of the questionnaire will be given:

Figures 4.1 – 4.26, provide a graphic presentation of some of the aspects of the main findings.

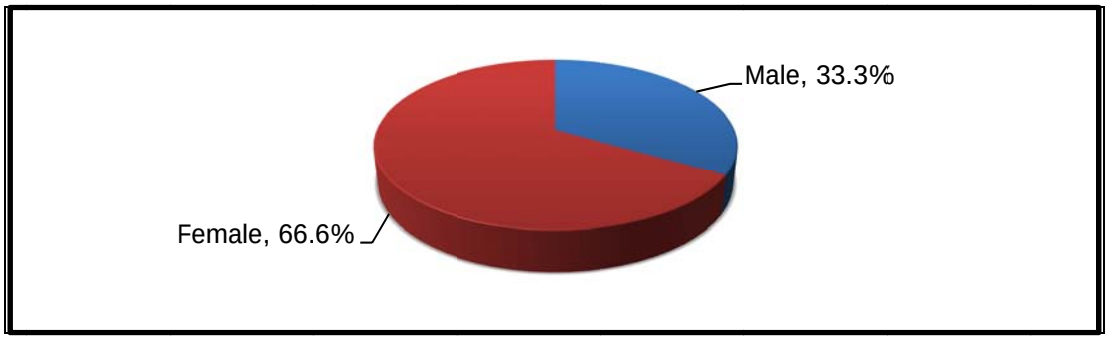

FIGURE 4.1: GENDER BREAKDOWN OF THE SAMPLE

(Question 1 of Questionnaire) [n=33]

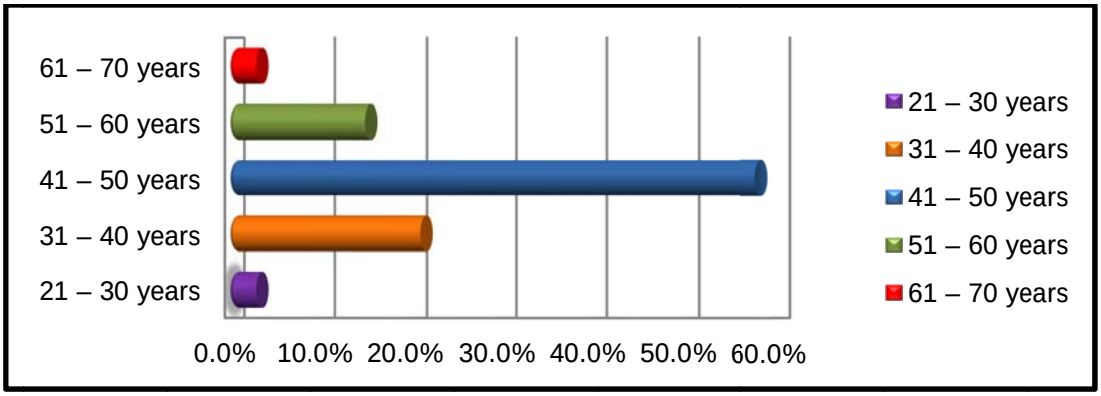

FIGURE 4.2: AGE GROUP BREAKDOWN OF THE SAMPLE

(Question 2 of Questionnaire) [n=33]

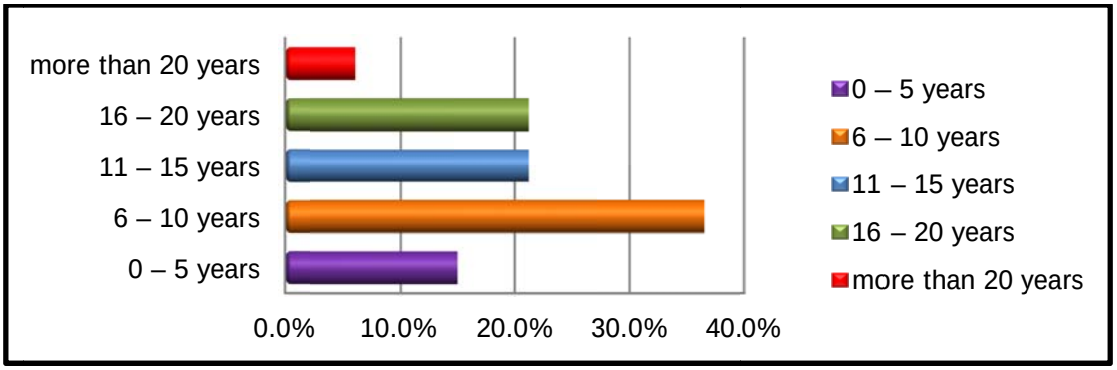

FIGURE 4.3: YEARS AS HEALTH PROFESSIONS EDUCATOR (BREAKDOWN OF SAMPLE GROUP)

(Question 3 of Questionnaire) [n=33]

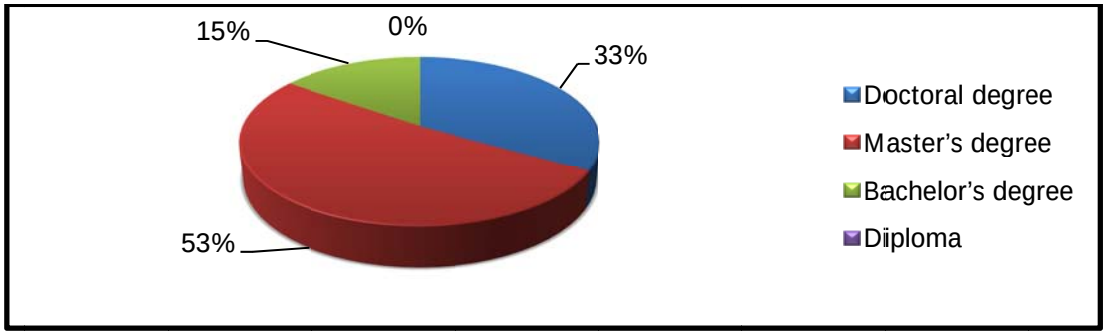

FIGURE 4.4: HIGHEST QUALIFICATION OBTAINED (BREAKDOWN OF SAMPLE GROUP)(Question 4 of Questionnaire) [n=33]

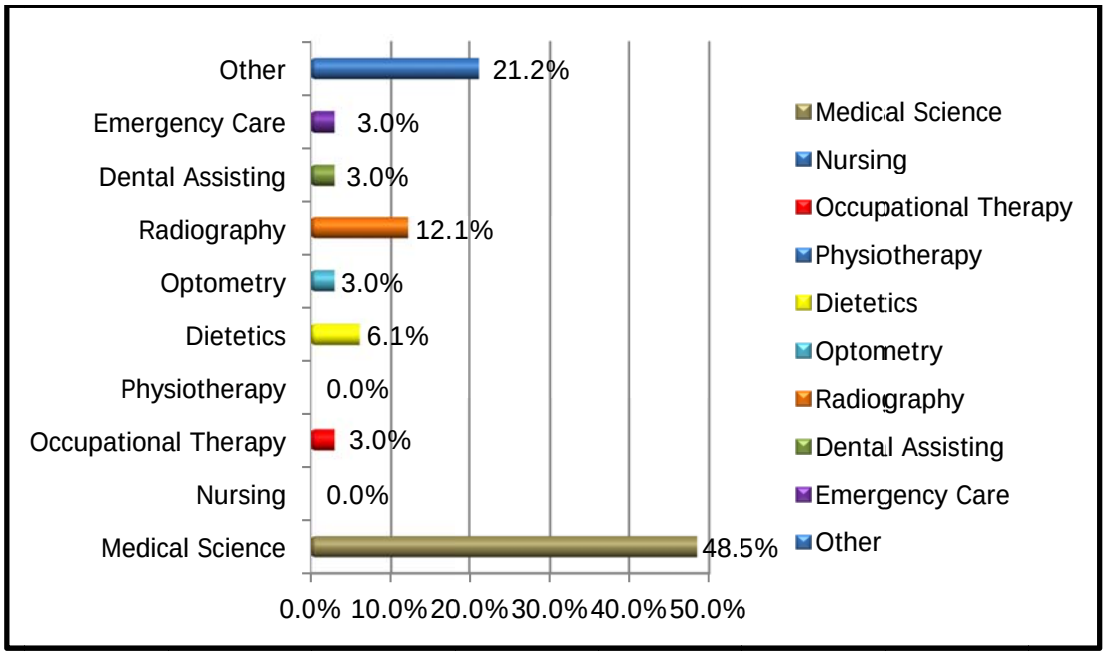

FIGURE 4.5: PRIMARY FIELD OF STUDY (BREAKDOWN OF SAMPLE GROUP)(Question 5 of Questionnaire) [n=33]

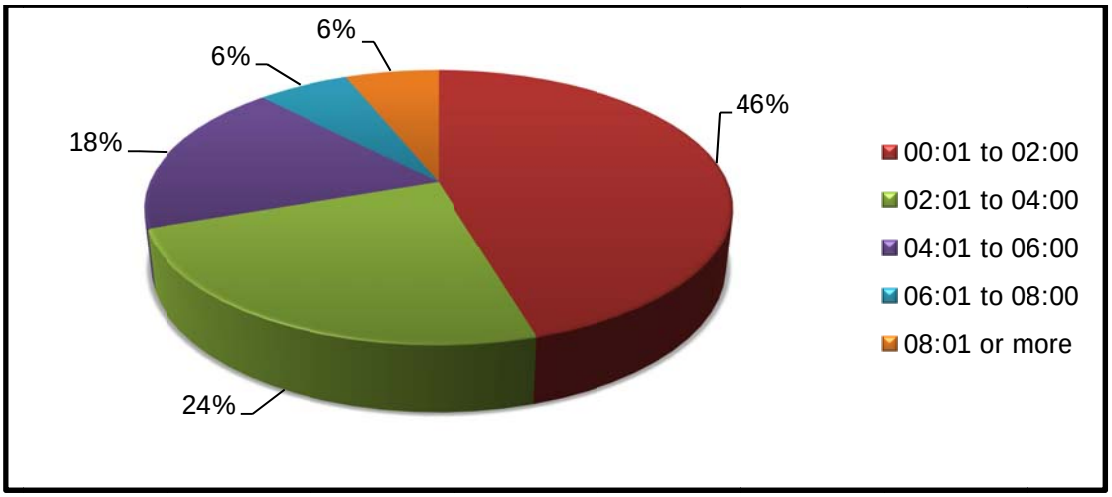

FIGURE 4.6: HOURS SPENT ONLINE PER DAY (BREAKDOWN OF SAMPLE GROUP)(Question 6 of Questionnaire) [n=33]

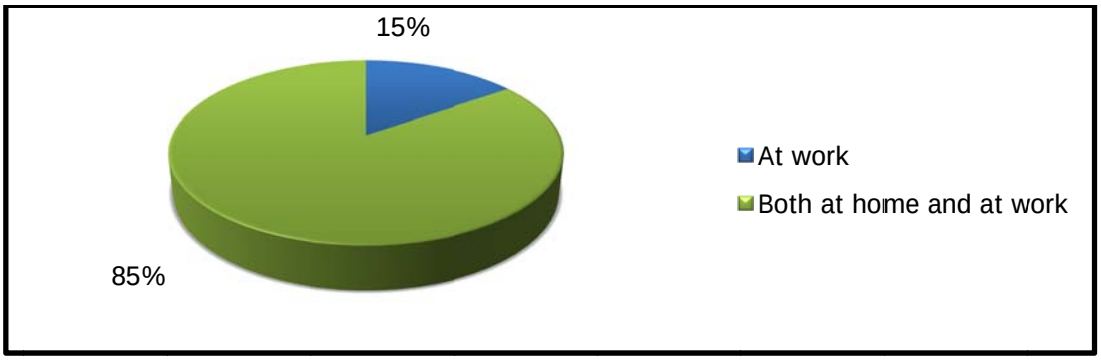

FIGURE 4.7: INTERNET ACCESS (BREAKDOWN OF SAMPLE GROUP) (Question 7 of Questionnaire) [n=33]

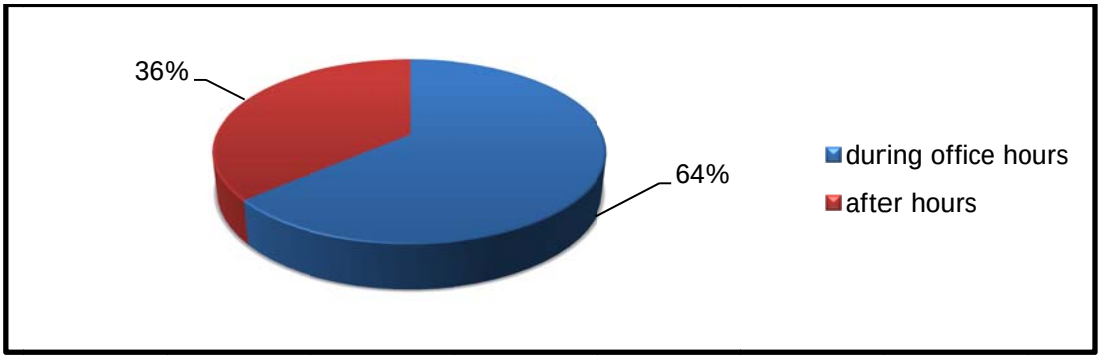

FIGURE 4.8: WHEN THE INTERNET IS ACCESSED (BREAKDOWN OF SAMPLE GROUP)
(Question 8 of Questionnaire) [n=33]

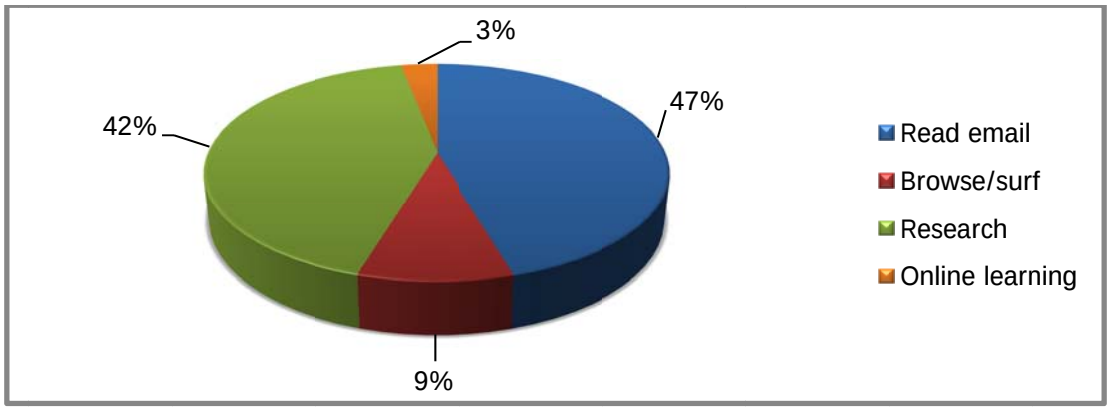

FIGURE 4.9: PRIMARY REASON TO ACCESS THE INTERNET (BREAKDOWN OF SAMPLE GROUP)

(Question 9 of Questionnaire) [n=33]

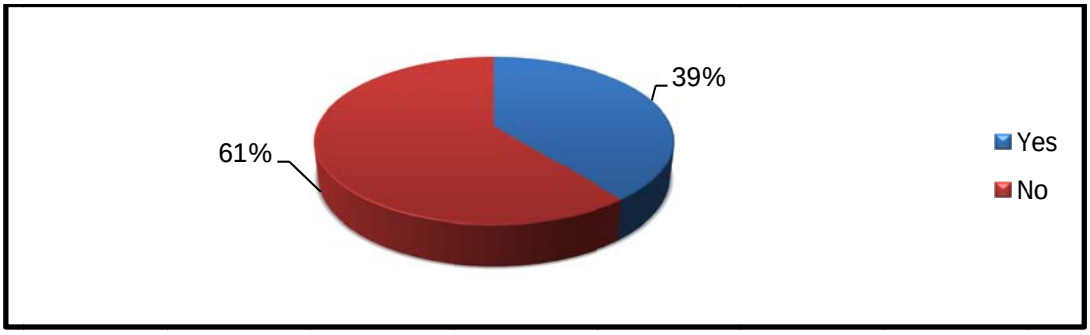

FIGURE 4.10: USE OF INTERNET TO ACCESS COURSES AND VIDEO CONTENT (BREAKDOWN OF SAMPLE GROUP)

(Question 10 of Questionnaire) [n=33]

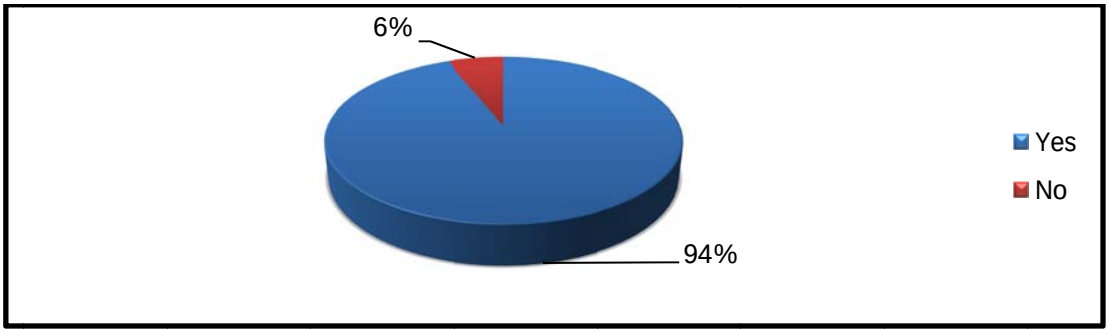

FIGURE 4.11: HAVE WATCHED VIDEOS ONLINE (BREAKDOWN OF SAMPLE GROUP)

(Question 11 of Questionnaire) [n=33]

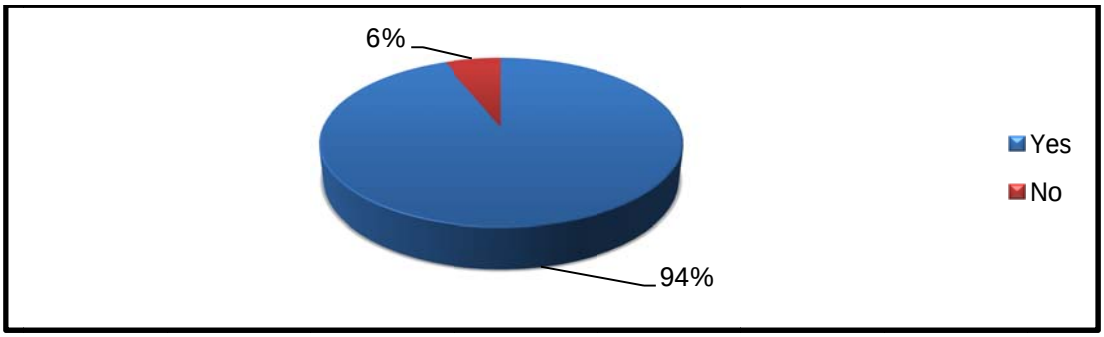

FIGURE 4.12: HAVE WATCHED ONLINE ACADEMIC VIDEOS (BREAKDOWN OF SAMPLE GROUP)

(Question 12 of Questionnaire) [n=33]

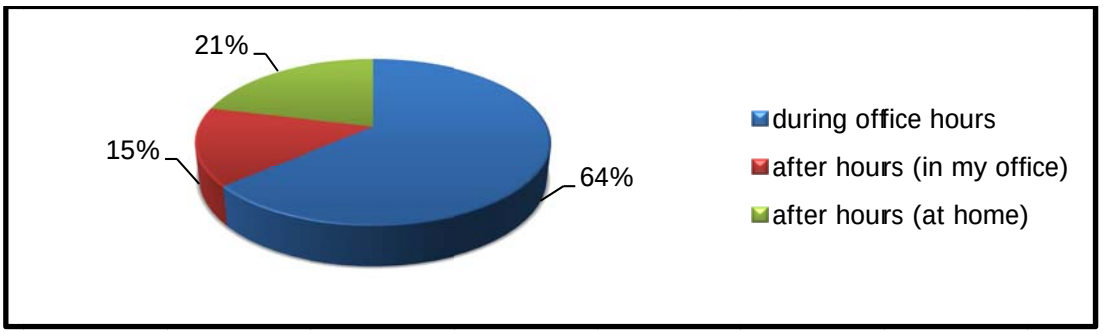

FIGURE 4.13: WHEN THE INTERNET IS ACCESSED (BREAKDOWN OF SAMPLE GROUP)

(Question 13 of Questionnaire) [n=33]

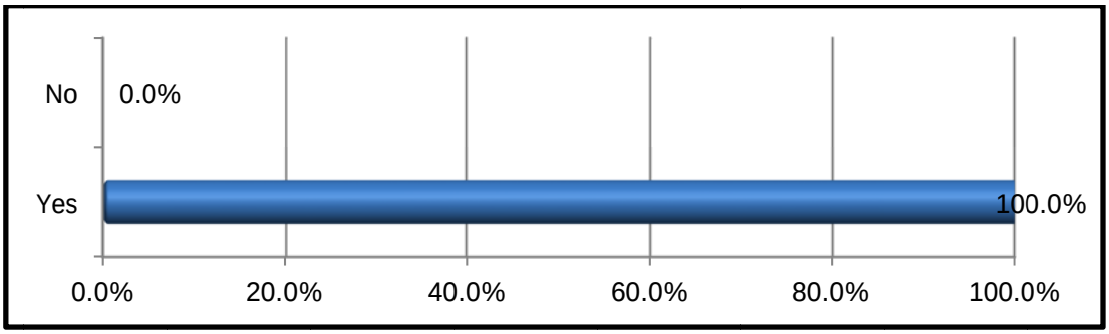

FIGURE 4.14: PREVIOUSLY ATTENDED STAFF DEVELOPMENT SESSION (BREAKDOWN OF SAMPLE GROUP)

(Question 14 of Questionnaire) [n=33]

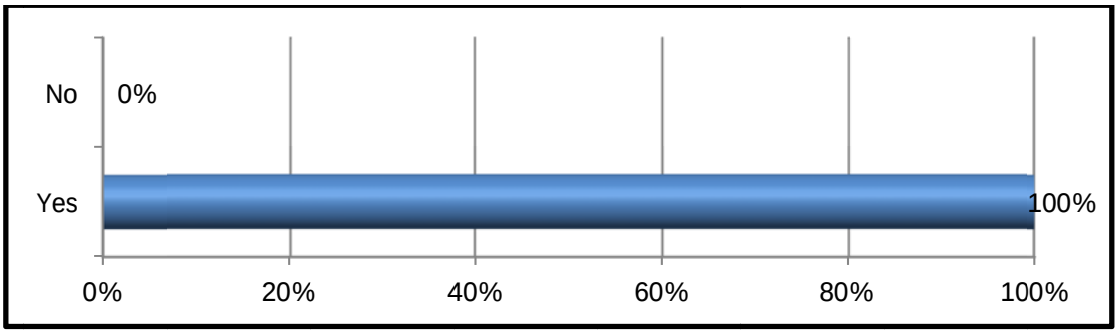

FIGURE 4.15: IN THE PAST HAD TO MISS STAFF DEVELOPMENT SESSIONS DUE TO OTHER OBLIGATIONS (BREAKDOWN OF SAMPLE GROUP) (Question 15 of Questionnaire) [n=33]

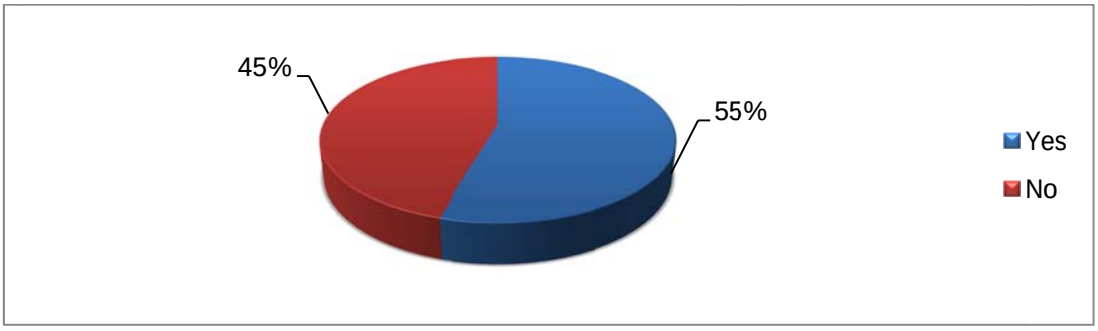

FIGURE 4.16: IN THE PAST HAD TO LEAVE A STAFF DEVELOPMENT SESSION DUE TO AN EMERGENCY (BREAKDOWN OF SAMPLE GROUP) (Question 16 of Questionnaire) [n=33]

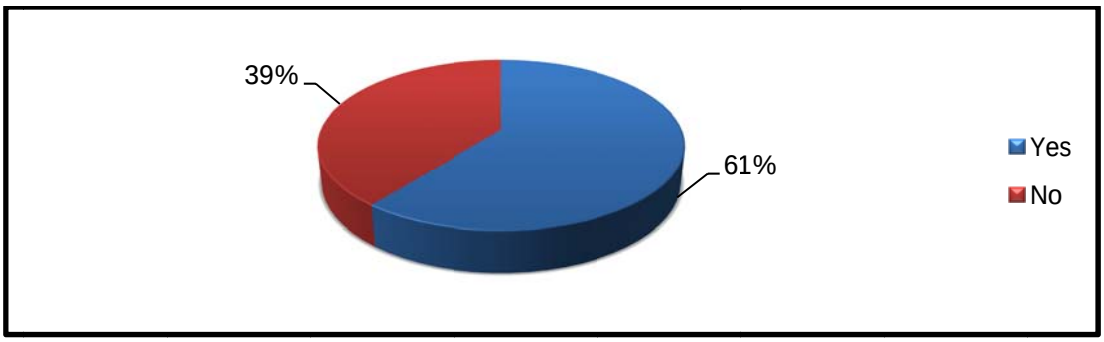

FIGURE 4.17: IN THE PAST USED VIDEO FOR SELF-ENHANCEMENT AND IMPROVEMENT (BREAKDOWN OF SAMPLE GROUP) (Question 17 of Questionnaire) [n=33]

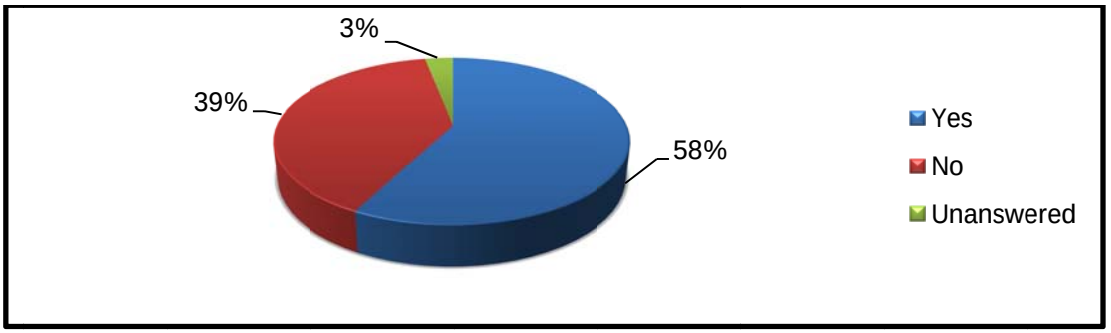

FIGURE 4.18: IN THE FUTURE WOULD PREFER TO HAVE ALL STAFF DEVELOPMENT DONE ONLINE IN VIDEO FORMAT (BREAKDOWN OF SAMPLE GROUP)

(Question 18 of Questionnaire) [n=33]

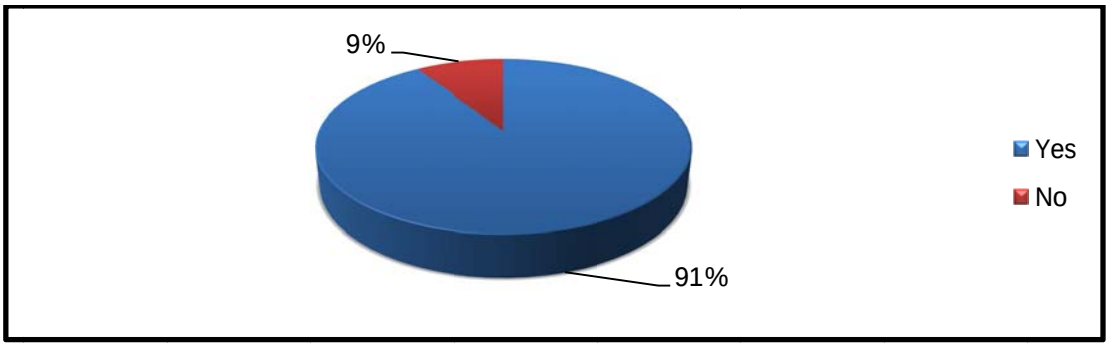

FIGURE 4.19: IN FUTURE WOULD PREFER THAT ALL STAFF DEVELOPMENT SESSIONS BE RECORDED IN VIDEO FORMAT AND MADE AVAILABLE ONLINE AS SUPPLEMENTAL RESOURCE (BREAKDOWN OF SAMPLE GROUP)

(Question 19 of Questionnaire) [n=33]

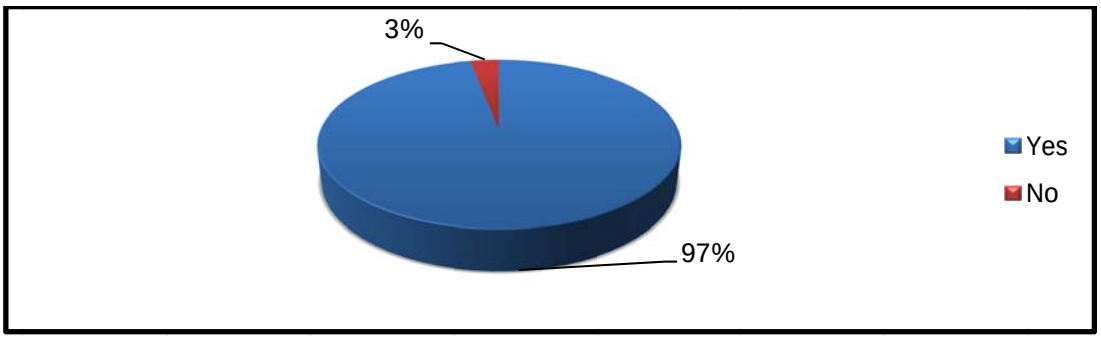

FIGURE 4.20: CONTENT WAS EASILY ACCESSED IN THE SECTIONS OF THE COURSE (BREAKDOWN OF SAMPLE GROUP)

(Question 20 of Questionnaire) [n=33]

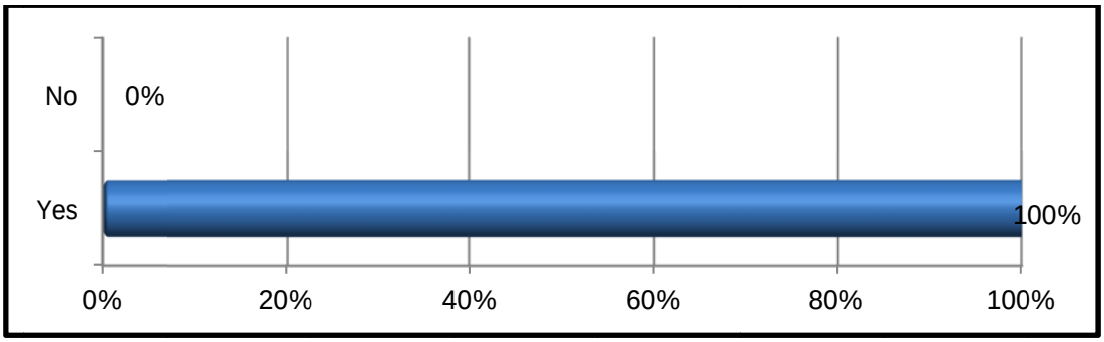

FIGURE 4.21: CONTENT IN THE SECTIONS WERE PRESENTED IN A WAY THAT WAS EASY TO UNDERSTAND (BREAKDOWN OF SAMPLE GROUP) (Question 21 of Questionnaire) [n=33]

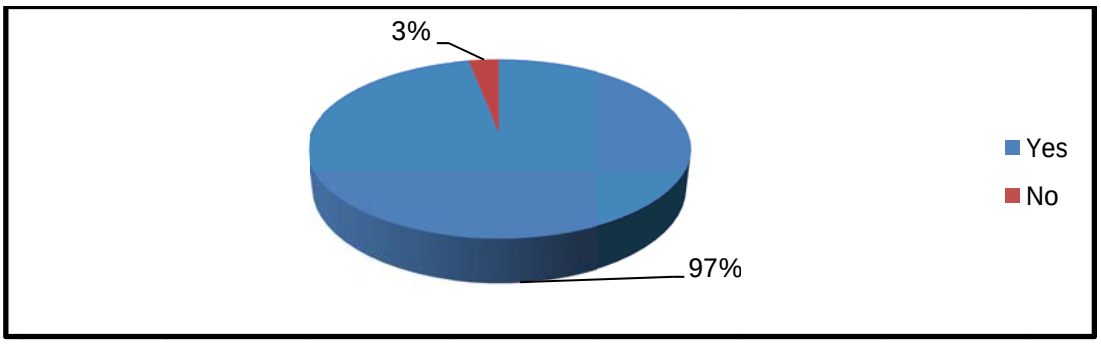

FIGURE 4.22: PARTICIPANTS WERE ABLE TO ACCESS CONTENT AT A TIME WHICH SUITED THEM BEST (BREAKDOWN OF SAMPLE GROUP) (Question 22 of Questionnaire) [n=33]

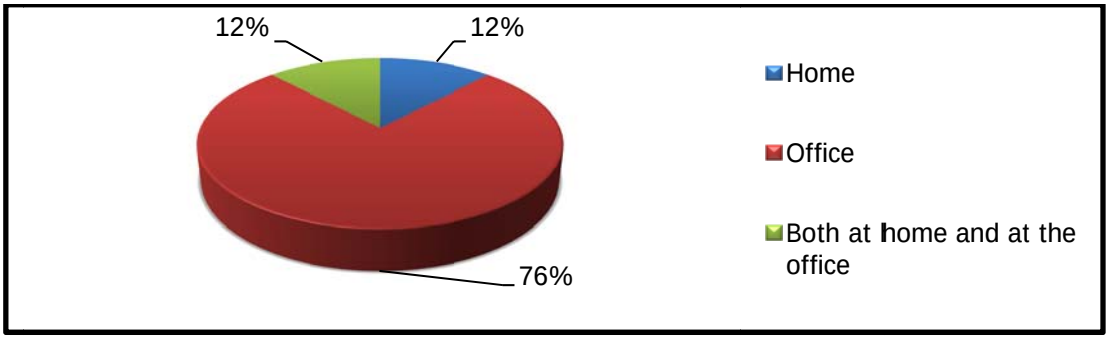

FIGURE 4.23: WHERE COURSE WAS COMPLETED (BREAKDOWN OF SAMPLE GROUP) (Question 23 of Questionnaire) [n=33]

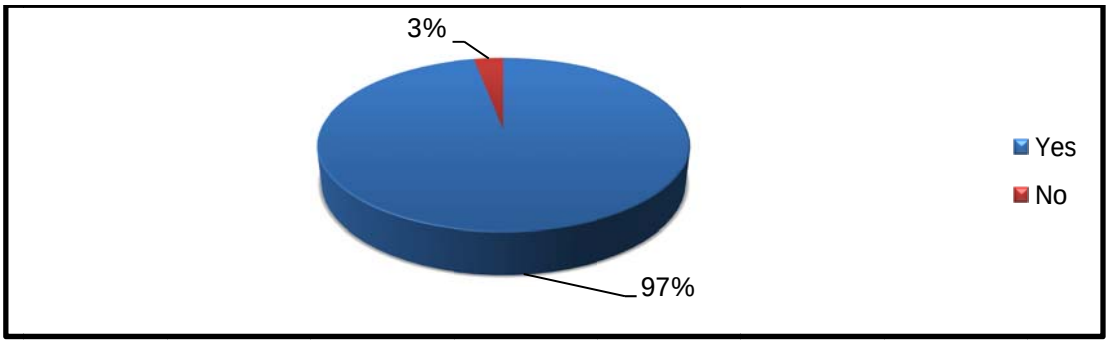

FIGURE 4.24: ABILITY TO STOP AND PLAY VIDEO AS WAS NEEDED (BREAKDOWN OF SAMPLE GROUP)
(Question 24 of Questionnaire) [n=33]

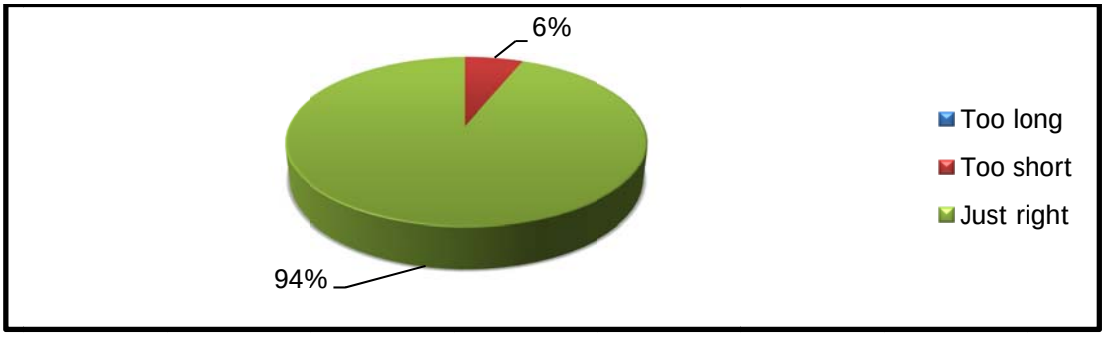

FIGURE 4.25: LENGTH OF VIDEO CLIPS (BREAKDOWN OF SAMPLE GROUP)
(Question 25 of Questionnaire) [n=33]

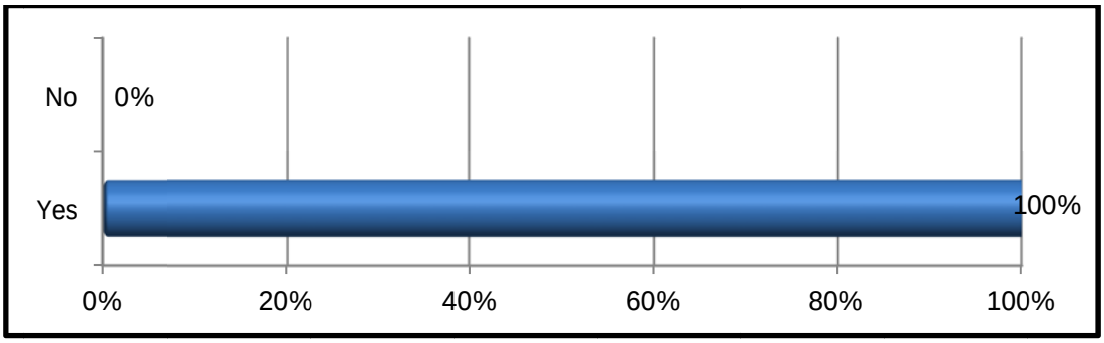

FIGURE 4.26: ABILITY TO CONSUME THE CONTENT THAT WAS PROVIDED (BREAKDOWN OF SAMPLE GROUP)
(Question 26 of Questionnaire) [n=33]

The following main findings of the different sections will now be provided before a final conclusion.

4.9.1 Demographic profile of participants

- The researcher has come to the conclusion that the participants' demographics are more or less a fair representation of the larger group of participants that were invited to take part in the research study (cf. Figure 4.1).
- The age distribution of participants is in line with the fact that most health professions educators are highly skilled and experienced. The dominant age distribution of participants is between 31 and 50 years (cf. Figure 4.2)
- On average, the participants have been health professions educators for between six and twenty years (cf. Figure 4.3). This shows the experience that is present in this sample population.
- More than 50% of all participants in this study had already completed their Master's Degrees, while one third of the participants (33%) have already completed their Doctoral studies (cf. Figure 4.4).
- The large number of different fields of study of the participants gives a good distribution of varied experiences in practice when it comes to staff development (cf. Figure 4.5).
- The fact that this group is such a highly skilled sample with six to twenty years' experience in various fields of study in health professions education, points to the validity of their reactions to questions asked in this research study.

4.9.2 Online user profile of the participants

- All the participants in this study access the Internet on a daily basis. The fact that all participants have access to the Internet on a daily basis shows that all participants were able to access the course to provide feedback for this study (cf. Figure 4.6).
- All participants have access to the Internet, with 84.8% of the participants with access to the Internet both at work and at home (cf. Figure 4.7).
- Participants indicated that they mostly access the Internet at work, with only 36.4% of participants indicating that they mostly access the Internet from home (cf. Figure 4.8).
- When asked what the primary reason was for participants to access the Internet, the majority of participants indicated that they accessed the Internet to read email. The second largest group accessed the Internet to do research. Only 3% of participants indicated that their primary reason to access the Internet is to access

online learning resources (cf. Figure 4.9). This could be because of the fact that there are limited resources available.

4.9.3 Online content consumption profile of participants

- Most of the participants in this study had not yet completed an online course in the past. Only 39.4% of participants indicated that they have in the past taken part in an online course (cf. Figure 4.10). This shows that for most of the participants this has been a new experience and that they have mostly been participating in face-to-face staff development sessions.
- The researcher has found that all of the participants who have watched videos online in the past (93.9%) have also watched academic videos online (cf. Figure 4.11 and Figure 4.12).

4.9.4 Staff development profile of participants

- Participants mostly preferred to complete the course during office hours with 15.2% working on it after hours but at the office. A small group of participants (20.2%) chose to complete the course at home (cf. Figure 4.13).
- This indicates to the researcher that the content could be accessed and consumed at a time and place that suited the participants best.
- Content that was provided was not time-, or venue-based, but the choice was left to the participant.
- All participants in this study have in the past attended face-to-face staff development sessions. This is not surprising as this was a requirement for participants to gain access to this research study (cf. Figure 4.14).
- Due to the fact that face-to-face staff development sessions are time-, and venue-based, the need to stop and then resume a session when you have to tend to an emergency, or if you are not able to attend at a specific time, may cause you to lose out on the chance to gain new knowledge (cf. Figure 4.15 and Figure 4.16).

4.9.5 Participants' experience of video in staff development

- The researcher needs to acknowledge that self-enhancement and improvement videos and cassettes have been available in physical format for a number of years. These have been available as a resource in libraries and also online.

- These were usually accessed by individuals and generally did not form part of staff development sessions. A large percentage of participants (60.6% indicated that they have in the past made use of these resources (cf. Figure 4.17).
- From the recommendations of participants and also from the results obtained from the survey the idea that "all" staff development be done through the use of online video is only a preference of 57.6% of the participants (cf. Figure 4.18). The use of video as a supplemental resource for staff development, where staff development sessions are recorded and then made available online, was the preference of 91.9% of participants (cf. Figure 4.19). Both these results indicate that the use of video, be it a new method of content distribution could be excepted more readily as time progress and participants is exposed to the concept more often. The researcher notes that this is a new method of content distribution for participants and the results are indicative of growth and improvement.

4.9.6 Participants' access to course content

- Due to the availability of Internet access to participants at work and also in most cases at home it is quite clear that all participants are well connected (cf. Figure 4.7). This enabled content to be easily accessed by participants. Due to the fact that institutions provide Internet access to staff members, this aid to the use of online video as medium for staff development.
- The structure of the course was presented in a way to make it easy and logical for participants to access the content in a logical manner, which was presented in a time line as to aid participants to complete the course in the order as was required.
- The aim was for all content to be presented in a way that would make logical sense and be presented at the required level of understanding of participants. All participants (100%) responded that the course was presented in a way that was easy to understand (cf. Figure 4.21).

4.9.7 Participants' experiences, recommendations and comments with regards to this course

- From the survey it is seen that 97.0% of participants felt that they were able to access the content at a time that suited them best (cf. Figure 4.22).
- This finding is further supported by the overwhelming reaction to the flexibility of online video as content delivery medium in question 23 (cf. Figure 4.24) where

97% of participants indicated that they stopped, played, paused the video as was needed. This was later emphasised in comments made in question 29 (cf. Figure 4.28) where participants noted the importance and advantages of being able to stop, play and replay video clips at a time that was convenient to them, or when there were no interruptions.

- The fact that the content is not bound by the limitations of specific venue was also mentioned as part of the flexibility in question 29 (cf. Figure 4.28). Being able to complete and participate in the course either at home or at work made it possible for more participants to find the time to participate in the course. From the participants 12.1% completed the course at home, 12.1% completed the course both at home and at the office, while 75.8% of participants completed the whole course at the office (cf. Figure 4.23).
- The length of video clips in the course sections were kept short and to the point. Participants found this to be effective as can be seen in answer to question 24 (Cf. Figure 4.25). Only 6% of participants felt that the videos were too short.
- All participants (100%) felt that through watching the video and then reflecting on the content as was provided in the course they were able to consume the content and make it their own. This proves to the researcher that the goal of the courses has been reached with 100% of the participants. The end goal of any training session of course in the end is to enable participants to consume content and make it their own.

4.10 CONCLUSION

In chapter 4 an overview of the results and a discussion of the findings, of the questionnaire survey that was conducted have been provided.

In the next chapter, Chapter 5, entitled: A discussion on the utilisation of video as primary content delivery medium for staff development of health professions educators, the premises for the use of video as primary content delivery medium for staff development of health professions educators, points of departure, the role-players, and recommendations with regards to the implementation at a Faculty of Health Sciences are presented.

CHAPTER 5

A DISCUSSION ON THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS

5.1 INTRODUCTION

The overall goal of this study is to contribute to the effective delivery of developmental content to enhance the quality of staff development of health professions educators.

Staff development is a continuous process. Staff members need to constantly engage in staff development as it is the process through which they are able to improve themselves, and to constantly revise their performance and reflect on their growth.

Developmental content for staff development should be available at all times for staff to access. Digitally recorded training content gives staff members the opportunity to access specific content at a time and place that suit them best. The nature of the content accessed is determined by the need of the staff member.

The research methods used in identification and compilation of this proposed implementation structure included a literature review, the development of an online course which was presented to participants and finally, a questionnaire survey that was conducted as part of the course that was presented. The information that was gained during this intervention, forms the basis for the development of the recommendations and proposed implementation plan as is presented in this chapter.

Chapter 1 of this study dealt with the introduction and orientation to the study, Chapter 2 comprised a thorough literature study that was conducted by the researcher. In Chapter 2; the main topics reviewed was Staff Development, Video as content distribution medium and Staff Development with video as primary content distribution (cf. Figure 2.1). Chapter 3 described the research design,

methodology, sampling and selection of the study. Chapter 4 provided a Description and discussion of the results of the feedback questionnaire.

In this chapter, Chapter 5, the premises for the use of video as primary content delivery medium for staff development of health professions educators, points of departure, the role-players, and recommendations with regards to the implementation at a faculty of health sciences are discussed.

5.2 PREMISES FOR THE USE OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS

Due to the fact that content is to be delivered online, it is vital that the devices and platforms that are to be used should be able to handle and deliver the content to the user. The following minimum requirements are therefore suggested to enable the delivery of video content to health professions educators.

These minimum requirements form the foundational requirements to enable the effective use of video as primary content delivery medium. Requirements need to be met in the following main areas; User Hardware, User Software, Institutional Hardware, Institutional Software, User Requirements and Requirements from Management.

5.2.1 User Hardware

The minimum requirement is that the user be equipped with a device such as a Personal Computer or Mobile device. The following is a list of devices that could be used to access the content:

- Personal Computer (Apple iOS, Windows, Chrome OS or Linux)
- Tablet PC or iPad
- Mobile phone (Smart Phones)

These devices can be used to access the Internet through an Internet browser, which will be mentioned under User Software (cf.5.2.2). These devices need to either be connected to the Internet through which the Content Management System

can be accessed or directly linked to the Intranet of the institution. The Content Management System will be discussed under Institutional Software (cf. 5.2.4).

The User Hardware refers to any device that the user would use to access the provided video content in digital format as part of an online course.

The device should be fitted with speakers or a headset. Video is comprised of both audio and visual output; the device should be able to reproduce the sounds that accompany the video to effectively deliver the content.

5.2.2 User Software

Content is distributed by a Content Management System directly connected to the institutional network (Intranet) or the Internet (World Wide Web) (cf. 5.2.3). Participants can access this content by opening their Internet Browsers and entering a specific URL or Internet address. Modern web-browsers facilitate the delivery of video content without much effort from the user. When specific codecs or plugins are required to playback video, the browser will identify the needed codec or plugin and notify the user. The browser in most cases will also provide a link to the codec or plugin that is needed. In many cases the codec or plugin will automatically be installed but, if not, the user can easily click and install as required.

Currently the most popular browsers are Internet Explorer, FireFox, Opera, Safari and Chrome. The primary purpose of the browser is to deliver and gain access to the content that is made available on the Institutional Software or Content Management System (cf. 5.2.4), and as browsers develop and change this would stay the same.

5.2.3 Institutional Hardware

There are a number of Content Management Systems available on the market and each of these prescribes a different set of minimum system requirements. The minimum requirements of the institutional hardware will therefore be dictated by the Content Management System that is used by the institution, and also to what extent the system is utilised.

The institution should have a server with the necessary network capabilities and storage for the maintenance, delivery and storage of the content.

The researcher does not wish to elaborate as to the specific technical requirements as this will differ considerably, depending on the institution's server network and Content Managements System.

5.2.4 Institutional Software

The Institutional Software in this study refers to the Content Management System which needs to be installed on a webserver in order to deliver the content to staff. The system requirements listed above (cf. 5.2.3) also refer to a number of minimum requirements for the software to be installed on the server in order for the Content Management System to function effectively.

Through the Content Management System, video as part of an online course can be delivered to participants. Video is embedded into the course pages and directly integrates and forms part of the course.

5.2.5 User requirements

For any training intervention to be successful, it is important for participants to be committed to the process. Participants need to be actively involved in the course to the extent that the course can be viewed as a self-regulated and self-managed learning experience. The content should form part of the participant's personal learning environment. This learning environment should be freely accessible to participants whenever and wherever new knowledge is needed or when time is available for participation in the courses.

Participants can determine when they want access to the content, and they are also able to work through the content at their own pace. It is therefore necessary for participants to be self-directed in the learning experience.

Participants need functional computer literacy skills. These skills should include the ability to access the network or Content Management System in order to consume content online. These basic skills are (1) to open the web browser, (2) entering the

Content Management System online through clicking on a link or entering an URL that is provided. The ability to, (3) enter a Username and Password and access the course content. The necessary knowledge to click on the links provided in the course to access the provided resources and collaborative tools, (4) as well as clicking on the play/pause button of videos to watch the recorded video content in the browser.

To meet these minimum requirements, a face-tot-face orientation session could be arranged at the outset. This could be provided to staff that feel that they may need orientation and need to acquire some of the basic skills, or this orientation can form part of the induction courses that are presented to new staff at the beginning of each year.

Due to the high digital literacy rate of staff at a Faculty of Health Sciences the need for extensive training in the use of the Content Management system would be limited.

To enhance the participants' user experience, a short video can be made available at the start of each course to give the participants a guided tour and instructions of how to navigate through the content effortlessly.

5.2.6 Requirements from management

For any training intervention to be successful the support of management is important. The support needed is on a number of levels and without the explicit commitment and support from management, training cannot be successful.

With the support of Management, the attendance and participation in staff development sessions can be promoted and form part of performance management criteria as set out in job descriptions. Management can also ensure that the attendance and participation in staff development is compulsory.

The use of video may also require an initial increased expenditure, both for getting subject experts to participate and for the production of a number of video clips to be used in the courses. The cost of production may need to be approved by

management and without their commitment to the process, these expenses may be rejected.

5.3 RECOMMENDATIONS

This section will deal with the recommendations which the researcher wishes to make. The first aspect which will be discussed are the points of departure which influence the recommendation, as depicted in Figure 5.1:

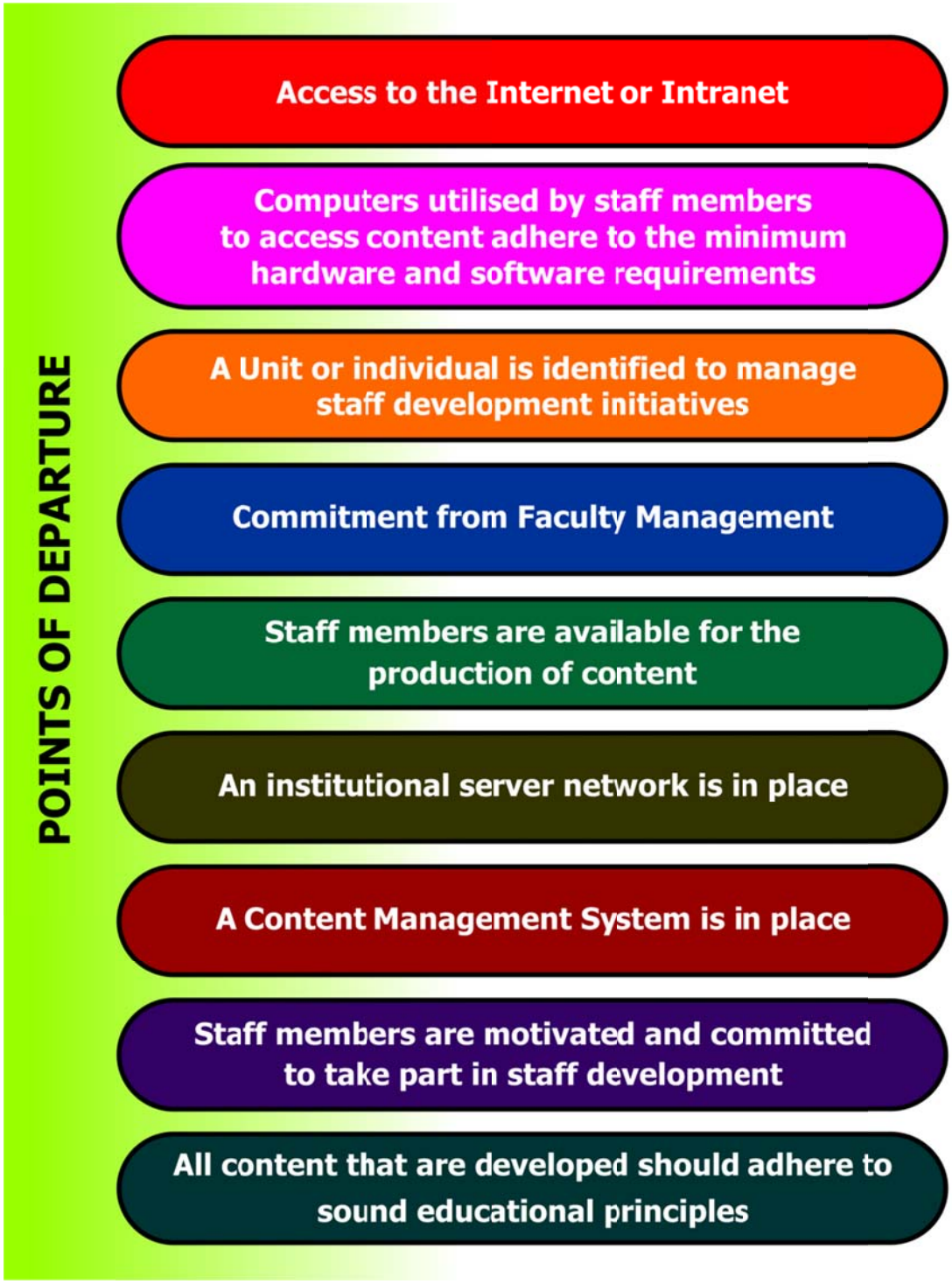

FIGURE 5.1: POINTS OF DEPARTURE WITH REGARD TO THE RECOMMENATIONS ON VIDEO AS PRIMARY DELIVERY MEDIUM FOR STAFF DEVELOPMENT

[Compiled by the researcher: Baird 2012]

5.3.1 Points of departure

For the recommendations in this study to be implemented effectively, the following elements are assumed to be in place, or, if they are not in place, they should be put in place:

- **Access to the Internet or Intranet**
  Staff members that are required to take part in staff development sessions should have access to the Content Management System. This can be done through a computer, tablet or mobile device.

- **Computers utilised by staff members to access content adhere to the minimum hardware and software requirements**
  Devices through which course content can be accessed should have the software and hardware requirements as is described in this chapter (cf. 5.2.1 & 5.2.2).

- **A Unit and/or individual is identified to manage staff development initiatives**
  In order to facilitate effective and managed staff development a committed unit or individual should be in identified to take control of all staff development initiatives. The identification, design, development, implementation and review of content that is made available, should form part of the duties of such a unit.

- **Commitment from Faculty Management**
  For any staff development initiative to be successful the full support of management should be secured. The commitment from management will ensure that staff development be seen as a priority, and also for the procurement of resources as is needed for the development of sustainable staff development courses.

- **Staff members are available for the production of content**
  Because many skills are required in the creation of an online course which is primarily delivered through video, skilled production members should be identified. These role-players are discussed later in this chapter (cf. 5.3.2).

- **An institutional server network is in place**

  Online staff development through video cannot take place if there is no server network in place. The server network will form the platform on which the Content Management System is installed (cf. 5.2.3).

- **A Content Management System is in place**

  For the effective distribution and creation of course content a Content Management System can enhance the staff's developmental experience. Being developed for the delivery of content in a structured way the use of a Content Management System greatly supports learning (cf. 5.2.4).

- **Staff members are motivated and committed to take part in staff development**

  Staff must be motivated and committed to take part in staff development. If the majority of staff members are against staff development, the production and distribution of content would be of little to no value.

- **All content that are developed, should adhere to sound educational principles**

  In order for training or learning to take place, content creation should adhere to sound educational principles. The value, quality and delivery of each item of content should be considered.

The next section of this chapter will deal with the main role-players, who will play a role in staff development through the use of video as primary content delivery for health professions educators.

5.3.2 Role-players

For the use of video as primary delivery medium for staff development of health professions educators, the following role-players need to be identified and involved where required. The list of role-players is based on the minimum requirements. Some of the tasks presented here can be performed by the same person or persons, but for clarity the most important roles are described.

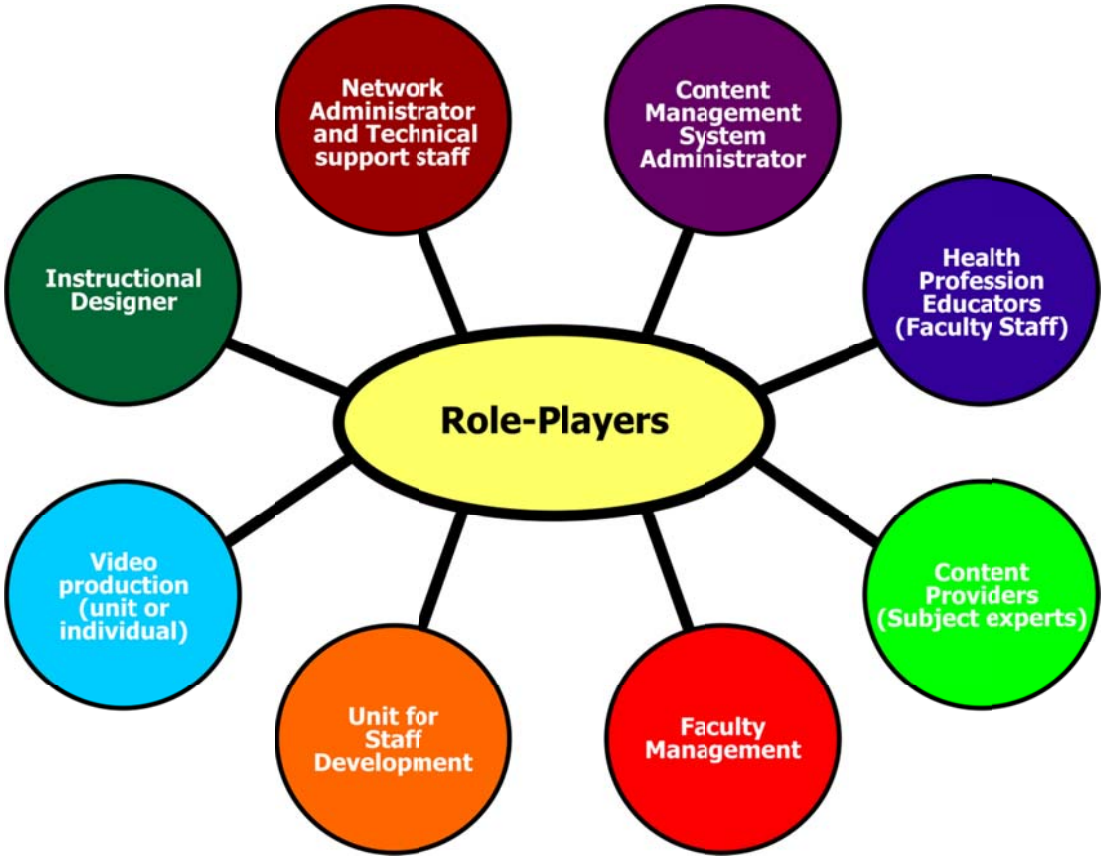

FIGURE 5.2: SCHEMATICAL ILLUSTRATION OF ROLE-PLAYERS IN THE DEVELOPMENT AND DELIVERY VIDEO AS PRIMARY MEDIUM FOR STAFF DEVELOPMENT

[Compiled by the researcher: Baird 2012]

Network Administrator and Technical support staff by:

- Setup and maintenance of the institutional network
- Setup and maintenance of network platforms and other software, this would include the Content Management System
- Maintenance and technical support provided to all staff with regards to hardware and softwarE.

Content Management System Administrator by:

- Updating and maintaining the Content Management System platform
- Registering staff on the system and providing them with access to the course content
- Addressing potential problems with access to courses and content

- Providing information and updates as to the working of the Content Management System to staff and content providers to ensure the effective use of the system.

Health Profession Educators (Faculty Staff) by:

- Identification of personal and departmental development needs
- Communication of personal and departmental needs to a unit or member of staff responsible for staff development
- Active participation in staff development opportunities that is made available to staff.

Content Providers (Subject experts) by:

- The development of content as identified and requested by a unit or member of staff for staff development
- Presenting content in an educationally sound manner
- Being available for the recording of such content on video
- Assistance in the maintenance of created course content
- Identification of interactive, self-reflective, self-evaluation or collaborative tools that could enhance content delivery.

Faculty Management by:

- Providing the necessary funding for the creation of content
- Providing the necessary funding of the maintenance of content
- Motivating or compiling staff to participate in staff development sessions.

Unit for Staff Development by:

- Identifying and listening to the personal and professional developmental needs of staff
- Analysing the needs of staff with regards to personal and professional development
- Identifying the needed training interventions to address these needs
- Identifying the ideal content provider or subject specialist
- Design course content to address the needs of staff
- Develop and produce video and course content
- Present developed course to staff online

- Provide staff with the necessary skills to navigate and work through the provided content
- Support staff through the developmental process
- Conduct reviews and surveys as to the quality and effectiveness of the course
- Enhance and modify course where needed, or as new knowledge is obtained over time.

Video production (unit or individual) by:

- Recording of video content
- Ensuring that video and audio is of good quality
- Editing of video content as is required by content provider
- Converting video content to formats that are compatible with the Content Management System.

Instructional Designer by:

- Designing educationally sound course content in collaboration with the subject specialist and the unit responsible for staff development
- Ensuring the educationally sound production of course content
- Ensuring the logical delivery of course content through a user friendly structure
- Enhancing the course with interactive, collaboration, self-reflective and self-testing opportunities
- Ensuring the quality of course content through constant review of content and content delivery methods.

5.3.3 Recommendations with regard to video as primary content delivery for staff development of health professions educators

The following recommendations are made with regard to the use of video as primary content delivery medium for staff development of health profession educators.

5.3.3.1 *Implementation*

The implementation of a new medium for content delivery for staff development may initially encounter resistance. This could be because of a fear for the unknown. Through the gradual implementation and exposure of staff to the medium, uptake and participation may increase gradually. For this purpose the implementation may be divided into two phases. The first phase will only be utilised initially, while the second phase is the process which would form the basis for all future course development (cf. Figure 5.3).

In order to implement the use of video as primary content delivery medium for staff development the following guidelines and suggestions are made by the researcher.

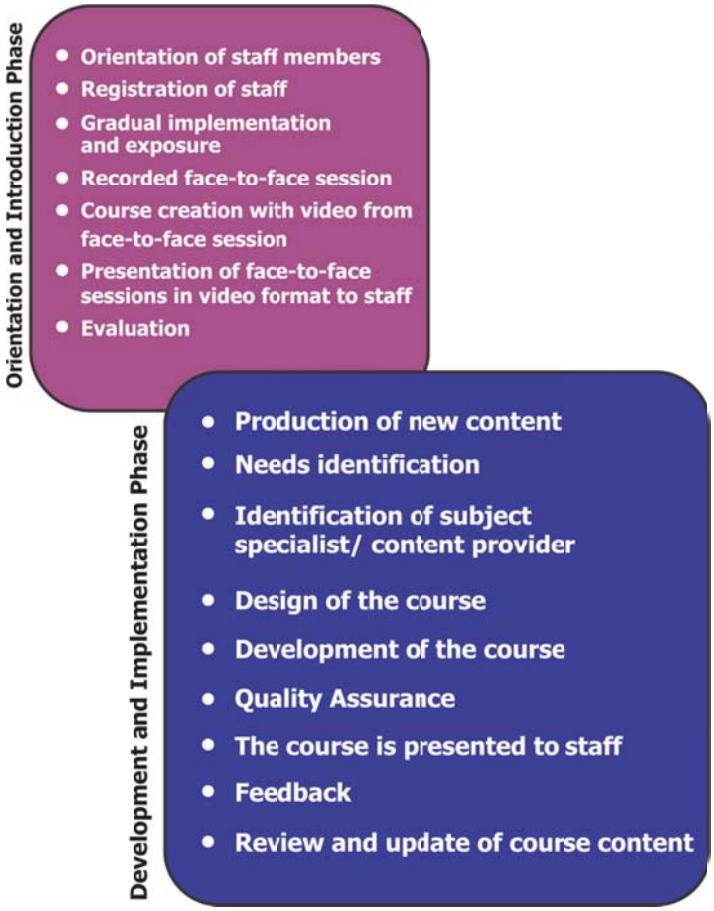

Figure 5.3: REPRESENTATION OF THE TWO PHASES OF GRADUAL IMPLEMENTATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT

[Compiled by the researcher: Baird 2012]

Orientation of staff members: In order to give staff the minimum computer literacy needed to access content online an orientation or information session may be required. For staff who have limited computer skills, a short information or practical session on how to access and interact with the content may be required. This orientation session should still be in a face-to-face format.

The production of a short orientation video for staff that already have the necessary computer skills to access content online may add value to staff that just need guidance on how to navigate through the content and how to make use of some of the tools in the Content Management System.

Registration of staff: During this phase of the process all staff in the faculty need to be registered on the Content Management System. A helpdesk may be established to help staff members who have difficulty with passwords and usernames.

Gradual implementation and exposure: The key to the implementation of a new medium for content delivery is to do it gradually, by first enhancing the current medium with elements of the new medium, while gradually adding new resources primarily through the new medium. The researcher recommends that as a start, current face-to-face staff development sessions be recorded. The quality of the video and audio in these recordings should be of a high quality.

Recorded face-to-face session: These recorded sessions should not just be made available online in the original recorded format. The recordings should be edited into shorter four to eight minute video clips; these clips should contain only the necessary and important components of the session. This identification of content should be done in collaboration with the content provider or subject specialist and the Instructional Designer.

Course creation with video from face-to-face session: The Instructional designer should take these video clips and create an online course, combining the video content with interactive, collaborative, self-reflective and self-testing tools. The researcher suggests the format that is depicted in Figure 5.4. Due to the fact that the format in which content is delivered, long training sessions can be broken up into various shorter, more easily manageable pieces. These shorter sections can

emphasise specific areas of the content more so than long presentations or training sessions.

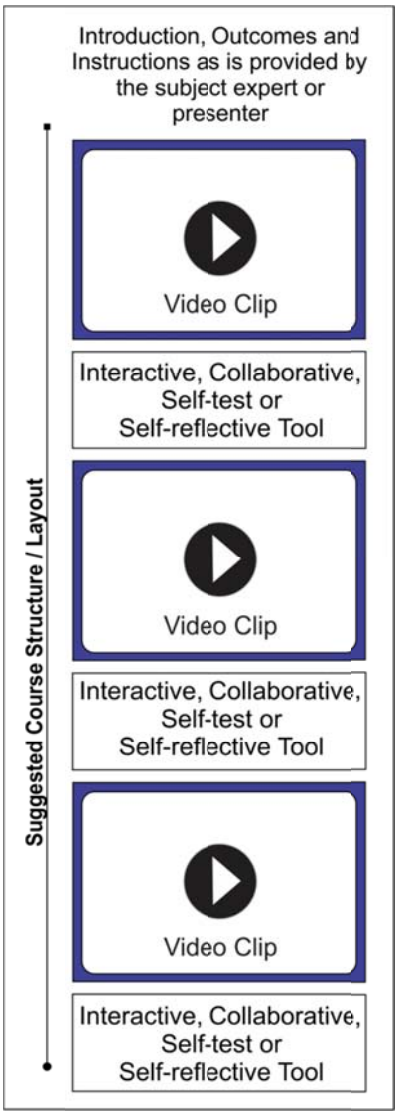

Figure 5.4: SUGGESTED COURSE STRUCTURE FOR A COURSE WITH VIDEO AS PRIMARY DELIVERY MEDIUM
[Compiled by the researcher: Baird 2012]

Presentation of face-to-face sessions in video format to staff: These courses should be made available to all staff. Staff who attended the face-to-face session may use the resource as a method to review the work that was presented. Other staff who did not attend the session due to various reasons, may use the course as primary resource for the training, or as a supplemental resource that can be accessed when needed.

Evaluation: The use of these first courses should be monitored closely and possible surveys regarding the experiences of staff should be considered to enhance future courses. As with all courses, quality assurance should make out a large part of the content production.

Production of new content: To start with the production of content that is specifically identified, created and presented to staff through video, have many of the same characteristics of using video that was recorded in a live session and was discussed in this chapter. The researcher would like to review and discuss the proposed process from start, as this will be the next step in the implementation process.

Needs identification: As should be the case with all Staff development, the identification of a need from staff is vital. The Unit for Staff Development should request information about specific needs from staff.

Identification of subject specialist/ content provider: After the identification of the need, the Unit needs to identify the subject specialist or content provider. The subject specialist needs to be comfortable with being recorded and should be well-spoken and engaging in the way that he/she presents the course.

Design of the course: The subject specialist needs to collaborate with the Unit for Staff Development and also the Instructional Designer to ensure that the content is relevant, to the point and of value. The structure of the course should also be discussed at this stage to demarcate the content into specific shorter parts that can be presented online to staff.

Development of the course: The content is now presented and recorded. During this process it is important that the audio and video quality of the recording is very high.

The recorded video is now edited and converted into a format that can be presented online.

These video clips are presented to the Instructional Designer who, in collaboration with the subject specialist, now compiles the content online. Video clips are

uploaded and the collaborative, interactive, self-reflection or self-testing tools are now integrated with the content to facilitate learning. An introduction or orientation is also added to the beginning of the course.

Quality Assurance: The course is now reviewed by the unit for staff development, the subject specialist and also the Instructional Designer to ensure the quality of the course.

The course is presented to staff: Staff may now be given access to the new course. In order to promote participation, staff should be made aware of new courses that are available through email and other channels in the faculty.

Feedback: On completion of the course, feedback may be requested from staff in the form of an online survey or by email. This process should form part of every course.

Review and update of course content: As suggestions and comments are received or as new information about the subject that was presented becomes available, new content may be added to the course. Because the course is presented in digital format, changes can easily be made in a very short time without major expenses.

5.3.3.2 *Recommendations concerning the structure of content delivered in courses with video as primary delivery medium*

Due to heavy workloads and time constraints of health professions educators, the time available for staff development is very limited. This is often the reason why staff development is neglected.

When planning the structure of courses, this should be taken into consideration. Providing long training sessions may result in many staff members, starting a course but very few actually finishing it.

The researcher suggests that the structure presented in Figure 5.4 should be used in the compilation of a course with the primary medium of content delivery being done through video.

The duration of video clips should be between four and eight minutes and these short information sessions should be connected and enhanced with interactive, collaborative, self-reflective or self-testing tools. These tools are available in most Content Management Systems and can easily be used to give the participant an opportunity to consolidate the new knowledge that was acquired.

The short video clips can be watched whenever the participant has a few minutes available and there is no need to block out a large section in his/her diary to attend the session, or to work through a long video that is presented. After a specific video clip has been watched, the participant can either immediately make use of the tools provided online, before moving to the next video clip, or the participant can continue with another task, while thinking and reflecting on what was presented. When another opportunity to participate arises, the participant can make use of the tools provided, or move on to the next video clip that is presented in the structured course.

Through this self-regulation of the learning experience, the participant can work through quantities of content over a period of time, without it drastically impacting on the participant's time schedule. The learning takes place at a time and place which suit the participant best.

5.3.3.3 *Recommendations concerning staff involvement*

In order to truly create resources that staff will take the time to participate in, the content should address a direct need that was identified.
The content should be easily accessible and all stumbling blocks should be removed. The network and content management system should be stable and should always be available and accessible.

If possible, certain staff development courses should be linked to career path development. Skills required for promotions and increases should be highlighted.
Management and heads of department should encourage and support participation in staff development. Staff development should not be seen as an optional extra, but rather as an essential part of every staff member's performance criteria. Staff development should form a major part of the every staff member's career, starting from the first day of employment until the day of retirement.

Participation in and completion of staff development courses should be acknowledged by management.

Content should be presented in a user friendly fashion which engages and involves participants.

5.4 SUMMATIVE PERSPECTIVE

In summary, the researcher is of the opinion that from the literature study and the research that was conducted, that the use of video as primary content delivery medium for staff development of health professions educators should be implemented. The use of video enables staff to actively take control of their learning and development at a time and place which suit them best. Making use of resources that cover a variety of needs, the health professions educator is able to direct their own learning and fully participate in the learning and developmental session.

The course structure proposed in this chapter (cf. Figure 5.4) serves as a departure point for the development of online courses with video as primary content delivery medium.

The proposed implementation process suggested in 5.3.3.1 serves as a guide to enable staff developers to develop content and also prepare staff to make use of developmental resources, as is provided in this format. The implementation route that is followed by a specific faculty may vary, according to what programmes are currently in place and the needs of staff.

5.5 CONCLUSION

In Chapter 5, The utilisation of video as primary content delivery medium for staff development of health professions educators was presented, including the premises, points of departure and the role-players involved. Recommendations as to the development of content and gradual implementation were made.

In the next Chapter, Chapter 6, final conclusions on the study will be drawn, the limitations of the study will be discussed and recommendations will be made.

CHAPTER 6

CONCLUSION, RECOMMENDATION AND LIMITATION OF THE STUDY

6.1 INTRODUCTION

The aim of the study is to determine the value of the use of online video as primary content delivery medium for staff development of health professions educators (cf. Section 1.4.2). It was directed by three objectives (cf. Section 1.4.3).

Staff development is a vital, continuous process in organisation and institution. Due to heavy workloads experienced by staff in Faculties of Health Sciences, it is important that educators are able to access staff developmental content at times that suit them best.

The aim of this chapter is to provide an overview and concluding thoughts on the final findings of the study. The chapter commences with an overview of the study followed by conclusions that were drawn, a short discussion on the limitations of the study, the significance of the study, including the contribution to knowledge, recommendations on the way forward and a conclusive remark.

6.2 OVERVIEW OF THE STUDY

Research was carried out based on three research questions. The findings of the research forms the basis of the recommendations discussed in this chapter.

In Chapter 1 (cf. 1.3) an outline of the research questions were presented. These research questions guided the research study and shaped the final outcome which is presented in this final chapter. In Point 6.2.1 the research questions are reviewed together with the main findings of each research question.

6.2.1 Research question 1

The research question was stated as:

Can the utilisation of video as primary content delivery medium for staff development be conceptualised and contextualised as the theoretical framework of this study?

The following objective was pursued:

To conceptualise and contextualise the use of video as primary content delivery medium in staff development of health professions educators via a literature study, in order to provide a theoretical basis for this study. This objective addresses research question 1.

The research question aimed to provide a background to this study. In Chapter 2, video as primary content delivery medium for staff development of health professions educators was conseptualised and contextualised from an educational perspective. These three main areas are: **Staff development** (cf. 2.2), **Video as content delivery medium** (cf. 2.3) and **Staff development with video as content distribution medium** (cf. 2.4). Each of these primary areas of study was made up of sub divisions, namely:

- **Staff Development** (cf. 2.2): This section on staff development focuses firstly on **The history of staff development** (cf. 2.2.1), and then **Factors that drive staff development** (cf. 2.2.2), comprising of the **Internal factors** (cf.2.2.2.1) that drive staff development as well as the **external factors** (cf. 2.2.2.2).

  The barriers to staff development (cf. 2.2.3) were researched to enable the researcher to identify problems in staff development which may be addressed through the use of video in this study. To constitute exactly what effective staff development is a study on **effective and sustainable staff development** was conducted (cf. 2.2.4).

In order to understand the specific needs to be addressed in staff development, research was done as to the **main purposes of staff development** (cf. 2.2.5). Researching the **future of staff development** (cf. 2.2.6) provided the researcher with a basis from which to gauge if the use of video as primary content delivery medium for staff development of health professions educators would fit into a future model for staff development.

- **Video as content distribution medium** (cf. 2.3): This section focused on the use of **video in higher education and Health Professions Education**.(cf. 2.3.1) Video in Higher Education was investigated to form a global picture of how lecturers currently make use of video in teaching and learning and, also more specifically, in Health Professions Education. **The disadvantages of the use of video content** (cf. 2.3.2) were investigated to give the researcher a balanced perspective of the advantages and also the disadvantages. **The distribution of video content** (cf. 2.3.3) is very important to serve as a vehicle for content to reach the participants. The research was done to provide the researcher with the knowledge of how the distribution of video content has evolved over the past few decades.

- **Staff development with video as content distribution medium** (cf. 2.4) focused on the benefits of using video in education and training (cf. 2.4.1). Challenges (cf. 2.4.2) are listed for notification. **The importance of feedback and evaluation** (cf. 2.4.3) is provided with the four levels for evaluation of training programmes of Kirkpatrick forming the basis. **Quality assurance** (cf. 2.4.4) plays a vital role in the delivery of content and it was researched to ensure the quality in the content that was provided in the research study.

An overview of chapter 2 is provided in figure 2.1.

6.2.2 Research question 2

The research question was stated as:

Can these online courses be created and be presented to health professions educators with video as primary content delivery medium?
The following objective was pursued:

To develop an online course (made up of three sections) with content primarily delivered through video-clips, were created. This course was presented to health professions educators. This objective addresses research question 2.

In order to respond to this research question, an online staff development course was created (cf. 3.3.2). Chapter 3 describes the empirical phase of the research study, but in order to address research question 2, focus is placed on the development of an online course.

An online course with three sections was created in cooperation with a subject specialist. The course comprised of three sections (cf. Figure 3.1).

The content of the course was presented to a survey population made up of forty health professions educators (cf. 3.3.4.2). Delegates had to have attended at least three staff development sessions in the past two years. The names were provided by the two institutions (cf. 3.3.4.3). Participants were given access to the online course after permission was given to take part in the study. A pilot study was conducted (cf. 3.3.4.5).

6.2.3 Research question 3

The research question was stated as:

How can the value of online video as primary content delivery medium, as well as the utilisation thereof, be determined for staff development?

The following objective was pursued:

To evaluate the responses to a questionnaire that was presented to participants on completion of the course. This objective addresses research question 3.

On completion of the course, participants were given access to a short survey (cf. Appendix A-3). The survey was presented in electronic format and participants were able to submit the survey electronically on completion. The questionnaire was quantitative with some elements of qualitative research. The focus was to establish the value of the delivery medium (cf. 3.3.3.2).

On completion of this survey the results were retrieved from the content management system (CMS), summarised and briefly discussed by the researcher (cf. Chapter 4).

The discussion deals with the responses of 33 Health Professions Educators who completed the questionnaire. The questionnaire consisted of 29 questions (27 closed-ended and 2 open-ended). The questions in the survey provide information on the following: **demographic profile of the participants** (cf. Appendix A-3, Question 1-6); the **online user profile of the participants'** (cf. Appendix A-3, Question 7-9, 11); **content consumption online by the participants'** (cf. Appendix A-3, Question 12-14); **the staff development profile of the participants'** (cf. Appendix A-3, Question 10, 15-17); **the participants' experience of video in staff development** (cf. Appendix A-3, Question 18, 26, 27); **the participants' access to course content** (cf. Appendix A-3, Question 19-25) and the **experiences, recommendations and comments of the participants with regards to this course as answers to open-ended questions** (cf. Appendix A-3, Question 28 – 29).

The main findings of these different sections were discussed under the following headings. **Demographic profile of participants** (cf. 4.9.1), **online user profile of the participants** (cf. 4.9.2), **online content consumption of participants** (cf. 4.9.3), **staff development profile of participants** (cf. 4.9.4), **Participants' experience of video in staff development** (cf. 4.9.5), **participants' access to course content** (cf. 4.9.6) and, **participants' experiences, recommendations and comments with regards to this course** (cf. 4.9.7).

6.2.4 Research question 4

The research question was stated as:

How can video as primary content delivery medium be used for staff development?

The following objective was pursued:

To discuss the use of video as primary content delivery medium for staff development of health professions educators.

In order to address research question 4, the use of video as primary content delivery medium for staff development of health professions educators was presented (cf. Chapter 5). This was done in three sections; **the premises for the use of video as primary content delivery medium for staff development of health professions educators** (cf. 5.2) **recommendations** (cf. 5.3) and a **summative perspective** (cf. 5.4).

With regards to the **premises for the use of video as primary content delivery medium for staff development of health professions educators in** (cf. 5.2) these minimum requirements should be in place to enable the use of video as primary content delivery medium. This was done with regards to the following sections; **User Hardware** (cf. 5.2.1), **User Software** (cf. 5.2.2), **Institutional Hardware** (cf. 5.2.3), **Institutional Software** (cf. 5.2.4), **User Requirements** (cf. 5.2.5) and **Requirements from Management** (cf. 5.2.6).

In the section on **Recommendations** (cf. 5.3) three primary focus areas are discussed. The first focus is on the **points of departure** with regard to the recommendations on video as primary delivery medium for staff development (cf. 5.3.1). The second focus area is the **role-players** (cf. 5.3.2); each of the roles of the role-players are described. The third focus area is the **recommendations with regards to video as primary content delivery medium for staff development of health professions educators.** (cf. 5.3.3). The recommendations are discussed in three sub sections namely, **the implementation** (cf. 5.3.3.1), **Recommendations concerning the structure**

of content delivered in courses with video as primary delivery medium (cf. 5.3.3.2) and **Recommendations concerning staff involvement** (cf. 5.3.3.3).

6.3 CONCLUSION

This study originated from a need to provide staff development resources to health professions educators. The need for content to be delivered effectively at a time and place that suit staff best, is a challenge that needs to be addressed by Faculties of Health Professions Education.

This research was conducted after the researcher found that there is very little research that was done on the use of video as primary content delivery medium for staff development of health professions educators.

Research has been done in the use of video as content delivery medium in higher education, but not primarily for staff development.

In order to provide a scientific basis, the researcher created on online course which was presented to health professions educators. These participants completed the course and completed the survey to give the researcher the necessary data, as to their experiences while taking part in the course. The resulting data that was retrieved, indicated to the researcher that the positive aspects of video as primary content delivery medium in health profession education far outweighed the negative aspects and it was overwhelmingly embraced by the participants.

The ability of staff to access content on demand played a major role in the success of content delivery through video.

From the literature study it is also clear that video as primary content delivery in Higher Education, as well as Health Professions Education, has many advantages. It is clear to the researcher that from the literature study and from the feedback provided from participants, that using video as primary content delivery medium, should be greatly considered and implemented in faculties of health professions.

6.4 LIMITATIONS OF THE STUDY

The researcher recognises the following limitations in the study:
The responses of participants were in some cases influenced by external factors. The ability to connect effectively from home with a private Internet connection was dependent on the quality of the connection provided or to which the participant has subscribed. This experience may negatively impact the way in which participants access and participate in the course. This is an external factor that should not be directly linked to the quality of the course as it can be addressed by the participant's willingness to upgrade to a better Internet connection.

The participants' past knowledge of the Internet and digital literacy did have an impact on one or two participants' experiences, as they have never in the past accessed video online.

6.5 CONTRIBUTION OF THE RESEARCH

The researcher is of the opinion that the research made a modest contribution to new knowledge. By exploring the experiences of health profession educators in online staff development courses which was presented through video as primary content delivery medium, the researcher believes that this information may help advance staff development practices in Faculties of Health. The sound research approach and methodology ensured the quality, reliability and validity of the research. The completed research could also form the basis for a subsequent research study.

The overall goal of the research was to make a contribution to the efficient and effective use of video as primary content delivery medium for staff development of health professions educators. Through the use of this medium, content can be delivered to staff at a time and place that suit them best in order to extend the reach of staff development.

6.6 RECOMMENDATION

In order for the study to yield significant and valuable results, the researcher takes the liberty to recommend the following:

- That the finding of this research be made available to the deans and units for staff development at the Faculty of Health Sciences of the University of the Free State as well as the School of Health Technology at the Central University of Technology, Free State.
- That video as primary content delivery medium is implemented for staff development at both these institutions.
- That all staff development sessions be recorded to be used as a supplemental resource for the extension of staff development sessions.
- That the use of external staff development, video resources be made available to integrate with online staff development initiatives.
- That more research be done in this specific subject area.
- That digital literacy is made part of staff development sessions to better equip staff to access digital content in future.
- To further research a model for the use of video as primary content delivery medium for staff development of health professions educators.
- To publish articles on the research results in accredited subject journals.
- To present research results at nation al and international conferences.

6.7 CONCLUSIVE REMARK

The result of the research conducted indicates that the use of video as primary content delivery for staff development of health professions educators is a viable alternative. The need for effective content delivery for staff development is vital for the survival of any organisation or institution. The effective use of this medium can enhance the developmental experience of each and every staff member - which in the end may enhance the quality of training provided by the Faculty of Health Sciences.

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Appendix A

INCLUDING APPENDICES A1 – A7

Appendix A-1:	**FORM OF CONSENT: QUESTIONNAIRE SURVEY**
Appendix A-2:	**LETTER OF INVITATION TO PARTICIPATE IN QUESTIONNAIRE SURVEY**
Appendix A-3:	**QUESTIONNAIRE SURVEY**
Appendix A-4 – A-6:	**APPLICATION FOR PERMISSION TO CONDUCT RESEARCH ON THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM IN STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS**
Appendix A-7:	**LIST OF VIDEO CLIPS USED IN THIS STUDY**

Appendix A-1

FORM OF CONSENT: QUESTIONNAIRE SURVEY

This form will be placed online to be completed and accepted by respondent.

By accessing the course and working through the content you provide consent for me to make use of the results obtained, in my research study.

Thank you for taking part in this study.

I wish to assure you that the information will be treated in a highly confidential manner and that there will be no reference to any names. Thank you in advance for your kind co-operation. Please take note that the results coming from this Magister study will be published.

Yours faithfully

Nico Baird (Researcher)
Student number: 1992197069
HPE programme
Faculty of Health Sciences
University of the Free State
Bloemfontein 9301

Appendix A-2

LETTER OF INVITATION TO PARTICIPATE IN QUESTIONNAIRE SURVEY

Dear Colleague

REQUEST TO PARTICIPATE IN A MAGISTER STUDY ENTITLED: VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS

I am writing to request your assistance in a study that I am conducting regarding Staff Development at your institution. Please regard this letter as an invitation to participate in this research exercise. I am requesting the involvement of a limited number of health professions educators.

I am currently writing a script in the partial fulfilment of a structured Master's degree in Health Professions Education at the Faculty of Health Sciences, University of the Free State (Student number 1992197069)

Internal study leader: **Prof MM Nel**
Internal co-study leader: **Ms SB Kruger**

Staff development and in-service training is critical in any corporate organisation or institution. Consequently, it is vital for staff to have access to development opportunities.

Due to heavy workload and limited time this is very difficult in large organisations. Attendance of these sessions is often very low.

Content should be delivered effectively. The content should be available on demand and should not be limited by location. Staff members need to have control over when and where content can be accessed. The problem that will be addressed is how content can be delivered to staff at a time that will suit them best and in a medium that can be consumed effectively.

The goal of the study would be to contribute to staff development strategies by making use of video as primary content delivery medium.

In the study a number of objectives will be pursued. Three online courses with content primarily delivered through video clips will be created and these courses will then be presented to staff. After the completion of the online course a short questionnaire survey will be conducted.

My particulars are as follows:
Postal Address: PO Box 25308, Langenhoven Park, 9330
e-mail address: nbaird@cut.ac.za
Telephone number: 083 701 5351

Fax Number: 086 5000 700

I would like to request you to take part in this research project by participating in the online course and also by completing the questionnaire survey afterwards. The survey will also be conducted online.

Thank you very much for your consideration of this initiative and I look forward to hearing from you. Your participation will contribute to the improvement of staff development in Health Professions Education.

Yours sincerely

Nico Baird

Questionnaire Survey

Section A

1. My gender is

a. Male

b. Female

2. My age group is

a. 21 - 30 years

b. 31 - 40 years

c. 41 - 50 years

d. 51 - 60 years

e. 61 - 70 years

3. I have been a Health Professions Educator for

a. 0 - 5 years

b. 6 - 10 years

c. 11 - 15 years

d. 16 - 20 years

e. more than 20 years

4. My highest qualification obtained

a. Doctoral

b. Master's

c. Bachelor's degree

d. Diploma

5. My primary field of study is

a. Medical Science

b. Nursing

c. Occupational Therapy

d. Physiotherapy

e. Dietetics

f. Optometry

g. Radiography

h. Dental Assisting

i. Emergency Care

j. Other

6. If you selected "other" in the previous question, please enter your field of study here

7. I spend about _____ hours online per day (during the week)

a. I am never online

b. 00:01 to 02:00

c. 02:01 to 04:00

d. 04:01 to 06:00

e. 06:01 to 08:00

f. 08:01 or more

8. I access the Internet

a. At work

b. At home

c. Both at home and at work

9. I mostly access the Internet

a. during office hours

b. after hours

10. I worked on this staff development course

a. during office hours

b. after hours (in my office)

c. after hours (at home)

11. I mostly access the internet to (please select one)

a. Read email

b. Browse/surf

c. Research

d. Watch videos

e. Blog

f. Online learning

12. I have in the past taken part in an online course (excluding this course).

a. Yes

b. No

13. I have watched videos online (excluding this course).

a. Yes

b. No

14. I have watched academic videos online (excluding this course).

a. Yes

b. No

15. I have previously attended staff development sessions (Face-to-face sessions).

a. Yes

b. No

16. I have in the past had to miss staff development sessions due to other obligations.

a. Yes

b. No

17. I have in the past had to leave a staff development session due to an emergency situation.

a. Yes

b. No

18. I have in the past used video for self enhancement and self-improvement session (cassettes and online).

a. Yes

b. No

19. I was able to easily access the content in the sections of this course.

a. Yes

b. No

20. The content in the sections were presented in a way that was easy to understand.

a. Yes

b. No

21. I was able to access the content at a time which suited me best.

a. Yes

b. No

22. I completed this course at

a. Home

b. Office

c. Both at home and at the office

23. I was able to stop and play the video as was needed.

a. Yes

b. No

24. The length of the video clips in the sections were

a. Too long

b. Too Short

c. Just right

25. I was able to consume the content that was provided and through the discussion/self-reflection / self-tests/ I was able to make the content my own.

a. Yes

b. No

26. In the future I would prefer to have all staff training sessions made available online in video format.

a. Yes

b. No

27. In future I would prefer all face-to-face training sessions be recorded and made available online in video format as a supplemental resource.

a. Yes

b. No

28. What was your experience of the course content delivery medium (video)?

29. Any recommendations or comments to improve the use of video as content delivery medium for staff development?

Appendix A-4

Prof HR Hay
Vice-Rector: Academic
University of the Free State

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH ON THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM IN STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

Dear Prof Hay

I am in the process of writing a script to obtain the Magister in Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student nr. 1992197069). The title of my research is THE USE OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

My study leaders are:

Internal study leader
Prof MM Nel
Head: Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

Internal co-study leader:
Ms SB Kruger
Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

The aim of the study is to make effective use of video as primary content delivery medium for staff development.

To achieve this goal, the following objectives will be pursued, namely:

- To create an online course with three sections. The content will be delivered through short video clips.
- To present these courses to staff.
- To evaluate their responses to a questionnaire in regards to the course' after completion of the courses.

A section of my research population is drawn from staff in the Faculty Health Sciences at the University of the Free State.

A literature review will be done. This literature review will ensure that the researcher will have the necessary knowledge base to conduct the research in

answer to the stated research problem. This research MAY also give a basis for the identification of research questions to be included in the questionnaire. Online courses will be created. The courses will be created in a way to include the following content types, informative, reflective and assessed content.

After the content has been delivered through short video clips, a questionnaire will be presented to the delegate.

I hereby apply to conduct research as approved by the Ethics Committee (Faculty of Health Sciences) on the *Use of video as primary content delivery medium for staff development of health professions educators*, at the Faculty of Health Sciences, University of the Free State. Permission is required to request staff to participate in the research project.

Yours faithfully

Mr NH Baird
Instructional Designer
Centre for eLearning and Educational Technology,
Central University of Technology, Free State
Tel: 0837015351 / 051 507 3819

Appendix A-5

Prof L de Jager
Dean: Faculty of Health Technology
Central University of Technology, Free State

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH ON THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM IN STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

Dear Prof de Jager

I am in the process of writing a script to obtain the Magister in Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student nr. 1992197069). The title of my research is THE USE OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

My study leaders are:
Internal study leader
Prof MM Nel
Head: Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

Internal co-study leader:
Ms SB Kruger
Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

The aim of the study is to make effective use of video as primary content delivery medium for staff development.

To achieve this goal, the following objectives will be pursued namely:

- To create an online course with three sections. The content will be delivered through short video clips.
- To present these courses to staff.
- To evaluate their responses to a questionnaire in regards to the course, after completion of the courses.

A section of my research population is drawn from staff in the Faculty of Health Technology at the Central University of Technology, Free State.

A literature review will be done. This literature review will ensure that the researcher will have the necessary knowledge base to conduct the research in

answer to the stated research problem. This research will also give a basis for the identification of research questions to be included in the questionnaire. Online courses will be created. The courses may be created in a way to include the following content types, informative, reflective and assessed content.

After the content has been delivered through short video clips, a questionnaire will be presented to the delegate.

I hereby apply to conduct research as approved by the Ethics Committee (Faculty of Health Sciences) on the *Use of video as primary content delivery medium for staff development of health professions educators,* at the Central University of Technology, Free State. Permission is required to request staff to participate in the research project.

Yours faithfully

Mr NH Baird
Instructional Designer
Centre for eLearning and Educational Technology,
Central University of Technology, Free State
Tel: 0837015351 / 051 507 3819

Appendix A-6

Prof G van Zyl
Faculty of Health Sciences
University of the Free State

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH ON THE UTILISATION OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM IN STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

Dear Prof van Zyl

I am in the process of writing a script to obtain the Magister in Health Professions Education in the Faculty of Health Sciences at the University of the Free State (Student nr. 1992197069). The title of my research is THE USE OF VIDEO AS PRIMARY CONTENT DELIVERY MEDIUM FOR STAFF DEVELOPMENT OF HEALTH PROFESSIONS EDUCATORS.

My study leaders are:
Internal study leader
Prof MM Nel
Head: Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

Internal co-study leader:
Ms SB Kruger
Division Health Sciences Education
Faculty of Health Sciences, UFS
Bloemfontein, SOUTH AFRICA

The aim of the study is to make effective use of video as primary content delivery medium for staff development.

To achieve this goal, the following objectives will be pursued namely:

- To create an online course with three sections. The content will be delivered through short video clips.
- To present these courses to staff.
- To evaluate their responses to a questionnaire in regards to the course after completion of the courses.

A section of my research population is drawn from staff in the Faculty Health Sciences at the University of the Free State.

A literature review will be done. This literature review may ensure that the researcher will have the necessary knowledge base to conduct the research in answer to the stated research problem. This research will also give a basis for the identification of research questions to be included in the questionnaire.

Online courses will be created. The courses will be created in a way to include the following content types, informative, reflective and assessed content.

After the content has been delivered through short video clips, a questionnaire will be presented to the delegate.

I hereby apply to conduct research as approved by the Ethics Committee (Faculty of Health Sciences) on the *Use of video as primary content delivery medium for staff development of health professions educators*, at the Faculty of Health Sciences, University of the Free State. Permission is required to request staff to participate in the research project.

Yours faithfully

Mr NH Baird
Instructional Designer
Centre for eLearning and Educational Technology,
Central University of Technology, Free State
Tel: 0837015351 / 051 507 3819

Appendix A-7

List of video clips that was used in this research study is available online. Please use the provided links to watch these short video clips.

Welcome and Orientation Video - http://youtu.be/Z6pcfJ8vCgI

Session 1
Part 1 - http://youtu.be/N-xCta34Ti8
Part 2 - http://youtu.be/y0O-mTFRaXY
Part 3 - http://youtu.be/r1gt7l1TtEU

Session 2
Part 1 - http://youtu.be/LLYCFsF9Keg
Part 2 - http://youtu.be/2KumnYRkB30
Part 3 - http://youtu.be/vkgBMOYw8cg
Part 4 - http://youtu.be/lcM5e_UIVI0

Session 3
Part 1 - http://youtu.be/zx1PHTSvrC4
Part 2 - http://youtu.be/vuOyPo04Y1o
Part 3 - http://youtu.be/1DKTJkfbkqQ