A CURRICULUM DESIGN FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

by

Yolandi Burger

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PROMOTER: Dr SP van Tonder

CO-PROMOTER: Dr JH van Schoor

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Student's name: **Yolandi Burger**

Student number: **2010048391**

HIGHER EDUCATION STUDIES

FACULTY OF EDUCATION, UNIVERSITY OF THE FREE STATE



Dr MJ Bezuidenhout (PhD [HPE]; BA [Languages]**)**

Research Associate, Faculty of the Humanities, UFS

Language Practitioner

Waverley Bloemfontein

e-mail: bezuidenhouth@ufs.ac.za

Cell: 0724360299

SAVI /SATI membership number 1003226

South African Translation Institute

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~ *Soli Deo Gloria* ~

ABSTRACT

The South African higher education (HE) landscape has undergone many changes since the country's first democratic election in 1994. Among these changes, is the inclusion of alternative access programmes (AAPs) in the programme mix of higher education institutions (HEIs). One of the purposes of AAPs is to act as a student success mechanism in HE; however, this is not evident from the low graduation rate in South African HE which is way below the ideal rate of 25% for contact education. This may be due to limitations of AAPs noted in the reviewed literature of this study. The research was aimed at investigating features of, competencies developed through and/or factors related to successful AAPs for graphic design in order to derive a curriculum design framework that embeds critical elements in AAPs so that it can support student success in graphic design education.

Four research objectives were derived in support of the investigation of the stated problem, the first of which necessitated a literature review and empirical exploration of the constitution/design of existing AAPs and mainstream graphic design programmes, as well as the generic and discipline-specific competencies that are cultivated through these programmes. The second research objective called for the exploration of ways in which AAPs for graphic design might ensure student success, which also required a literature review and an empirical investigation. The third research objective required an empirical analysis of the status of one South African private HEI's existing AAP for graphic design in order to identify the specific AAP's strengths, opportunities, aspirations and results (i.e. a SOAR analysis). The fourth and final research objective involved the comparison, convergence, synthesis and integration of the findings obtained through the investigations pertaining to the first three research objectives in order to compile a curriculum design framework in line with the aim of this study.

The overarching research design for this study was a mixed-methods design with both explanatory and embedded components aimed at research objectives 1, 2 and 3, and which were triangulated to achieve the fourth and final research objective. Data collection techniques that were employed in this study were a literature review; three self-structured, web-based questionnaire surveys, as well as a paper-based questionnaire survey among the student participants of the specific private HEI. The population sample for the first self-structured web-based questionnaire survey (aimed at achieving research objectives 1 and 2) consisted of 756 HE teachers in AAPs for graphic design, AAPs in general, and mainstream graphic

design programmes at HEIs in South Africa. One hundred and fourteen (114) HE teachers and 86 students from eleven of the private HEI's campuses were recruited for the SOAR analysis survey. In accordance with research objective 4, the findings of the literature review, the SOAR analysis survey and the questionnaire survey among HE teachers finally culminated into a preliminary curriculum design framework.

The preliminary curriculum framework subsequently was reviewed and validated by a panel of ten invited experts in the field of curriculum development/design, AAPs and/or graphic design, who were selected through purposeful and snowball sampling procedures. Only nine of the ten expert participants eventually completed the expert validation questionnaire in which they were requested to rate the importance of 338 activities included in the preliminary framework, as well as to provide comments and suggestions about the features of the framework. The results of the expert survey eventually led to the addition of eight new activities to the proposed framework, the amendment of six of the originally listed activities in the preliminary framework, as well as the exclusion of ten activities from the final framework. The goal of the final framework proposed in the last chapter of the thesis is to provide guidance to curriculum/programme designers and/or HE teachers regarding curriculum design for AAPs for graphic design students. Since this curriculum design framework for AAPs also encompasses many generic curriculum design activities for improving student success, it is hoped that it will not only support student success in graphic design, but may ultimately also serve as a starting point for other curriculum designers and HE teachers who wish to improve the AAPs in which they are involved.

Recommendations for future research include similar investigations, but with larger quantitative and qualitative data sets which may result in findings that are even more generalisable and trustworthy; investigations of discipline-specific features and competencies pertaining to other disciplines, and an in-depth investigation of success mechanisms that will support students in any AAP.

Key terms:
Higher education; curriculum/course/programme design; design framework; alternative access programme; extended programme; bridging programme; competency/competencies; graphic design; (student) access; (student) success; success mechanism.

CLARIFICATION OF TERMINOLOGY



Alternative access programme	A programme which extends or augments an undergraduate diploma or degree programme in higher education and training in South Africa, and that provides alternative access for non-traditional students (Council on Higher Education [CHE], 2013:70, 73). For the purpose of this study, *alternative access programmes* include bridging, foundation, extended and preparation programmes in higher education and training.
Alternative access programme for graphic design	A programme which extends or augments an undergraduate graphic design diploma or degree programme in higher education and training in South Africa, and that provides alternative access for non-traditional students (aligned with the definition of alternative access programmes). For the purpose of this study, *alternative access programmes for graphic design* include bridging, foundation, extended and preparation graphic design or other related discipline programmes in higher education and training. See Table 3.2 in 3.2.2.1.1 for all alternative access programmes for graphic design in South Africa.
Competency, competencies and competence	*Competence* and *competency* are often used interchangeably in the literature, depending on the definition of the term within a specific study (ResearchGate, 2012: online). For the purpose of this study, and in alignment with the Oxford Dictionary (2015: online), a *competency* is defined as knowledge, a skill, an ability, an attitude, a value and/or a behaviour that an individual must possess within a specific discipline/ profession in order to successfully perform a particular task. The plural form is *competencies*. *Competence*, on the other hand, is the ability to do something well or efficiently and therefore is a cluster of competencies.

Graphic design qualification programmes	*Graphic design* is a field of study classified within the third Classification of Educational Subject Matter (CESM) category of visual and performing arts under the subsection of design and applied arts (Republic of South Africa [RSA] Department of Education [DoE], 2008:50). The third CESM category defines the disciplines within this category as fields of study that focus on the creation and interpretation of works to express ideas in various forms (RSA DoE, 2008:50). For the purpose of this research, a graphic design programme is defined as any qualification offered at a higher education institution (public or private) that delivers graduates that can practise as graphic designers upon successful completion of the programme.
Higher education teachers	Different terms are used to describe someone teaching or facilitating student learning in higher education and training (i.e. lecturer, facilitator, instructor, trainer, tutor, etc.). The term used depends on the person's own context and/or teaching style (see 2.3.6.4.2). The term *higher education teacher* is used throughout this thesis as a term that includes all the above-mentioned terms in order to accommodate all these persons' different contexts and teaching styles.
Student	A *student* is defined for the purpose of this study as a person studying at a higher education and training institution.
Student success mechanism	A student success mechanism refers to teaching/learning activities that aim at improving students' success in higher education and training, thereby improving student retention and throughput rates in higher education.

TABLE OF CONTENTS

vi

PREFACE

		PAGE
i	DECLARATION	i
ii	DECLARATION OF LANGUAGE EDITING	ii
iii	ACKNOWLEDGEMENTS	iii
iv	ABSTRACT	iv
v	CLARIFICATION OF TERMINOLOGY	vi
vi	TABLE OF CONTENTS	viii
vii	LIST OF TABLES	xix
viii	LIST OF FIGURES	xxiii
ix	LIST OF APPENDICES	xxvii
x	LIST OF ACRONYMS AND ABBREVIATIONS	xxx

SECTION A

CHAPTER 1

		PAGE
1.1	INTRODUCTION	2
1.2	BACKGROUND TO THE RESEARCH PROBLEM	3
1.3	PROBLEM STATEMENT, RESEARCH QUESTIONS, RESEARCH AIM AND OBJECTIVES	5
1.3.1	*Problem statement*	*5*
1.3.2	*Research Questions*	*5*
1.3.3	*Research aim and objectives of the study*	*5*
1.4	DISCIPLINARY DEMARCATION OF THE RESEARCH	6
1.5	RESEARCH DESIGN AND METHODOLOGY	6
1.5.1	*Sampling*	*7*
1.5.2	*Data collection techniques*	*8*
1.5.3	*Data analysis and reporting*	*8*

1.6	**ETHICAL CONSIDERATIONS**	**9**
1.7	**ROLE OF THE RESEARCHER IN THE INVESTIGATION**	**10**
1.8	**TRUSTWORTHINESS**	**10**
1.9	**VALUE OF THE RESEARCH**	**10**
1.10	**CHAPTER LAYOUT**	**11**
1.11	**CHAPTER SUMMARY**	**12**

SECTION B

CHAPTER 2

PAGE

2.1	**INTRODUCTION**	**16**
2.1.1	***Background to Higher Education in South Africa***	***17***
2.2	**CURRICULUM DEVELOPMENT**	**20**
2.2.1	***Orientations and approaches to curriculum development***	***22***
2.2.1.1	**Orientations to curriculum development**	**23**
2.2.1.2	**Approaches to curriculum development**	**23**
2.2.2	***Curriculum experts***	***25***
2.2.2.1	**Franklin Bobbitt**	**25**
2.2.2.2	**John Dewey**	**26**
2.2.2.3	**Ralph Tyler**	**26**
2.2.2.4	**Benjamin Bloom**	**26**
2.2.2.5	**Hilda Taba**	**27**
2.2.2.6	**Lawrence Stenhouse**	**27**
2.2.3	***Summary of curriculum development***	***28***
2.3	**CURRICULUM DESIGN**	**28**
2.3.1	***Curriculum design in the South African higher education context***	***29***
2.3.2	***Levels of curriculum design***	***31***
2.3.3	***Criteria for curriculum design***	***32***
2.3.4	***Curriculum frameworks***	***34***
2.3.5	***Curriculum design models***	***35***
2.3.5.1	**Procedural models**	**36**
2.3.5.1.1	*Tyler Rationale*	*36*
2.3.5.1.2	*The Taba model: Grassroots Rationale*	*39*
2.3.5.1.3	*Oliva's model of curriculum development*	*39*

2.3.5.1.4 Wiggins and McTighe's Understanding by Design (UbD) model 41
2.3.5.1.5 Carl's model 42
2.3.5.2 Descriptive models 43
2.3.5.2.1 Walker's Naturalistic model 43
2.3.5.2.2 Stenhouse's Process model 44
2.3.5.3 Conceptual models 46
2.3.5.4 Critical models 46
2.3.5.5 Summary of curriculum models 47
2.3.5.5.1 Procedural models 47
2.3.5.5.2 Descriptive models 49
2.3.6 Components of curriculum design 53
2.3.6.1 Situation analysis 55
2.3.6.2 Aims, goals, objectives and outcomes 55
2.3.6.2.1 Aims and goals 56
2.3.6.2.2 Objectives and outcomes 57
a) Outcomes-Based Education (OBE) 57
b) Constructive alignment in Outcomes-Based Education 58
c) Levels of (intended) learning outcomes 59
d) Designing intended learning outcomes at module level 60
e) Levels of understanding/Taxonomies 61
2.3.6.3 Curriculum content 65
2.3.6.3.1 Selecting curriculum content 65
2.3.6.3.2 Organising curriculum content 66
2.3.6.4 Teaching and learning 66
2.3.6.4.1 Principles of teaching and learning in higher education 67
2.3.6.4.2 Teaching and teaching styles 70
a) Teaching in generic and discipline-specific modules of AAPs 70
b) Teaching styles 73
2.3.6.4.3 Learning and learning styles 75
a) Learning in generic and discipline-specific modules of AAPs 75
b) Learning styles 76
2.3.6.4.4 Teaching and learning activities 78
2.3.6.5 Assessment 85
2.3.6.5.1 Assessment approaches/forms and tasks 87
2.3.6.6 Summary of the components of curriculum design 92
2.4 CURRICULUM EVALUATION 96
2.5 CHAPTER SUMMARY 97

CHAPTER 3

PAGE

3.1	**INTRODUCTION**	**100**
3.2	**CONSTITUTION OF ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN**	**100**
3.2.1	***Background to alternative access programmes in South Africa***	***101***
3.2.2	***Existing alternative access programmes in South Africa and the way forward***	***103***
3.2.2.1	**Curriculum design components of existing alternative access programmes**	**107**
3.2.2.1.1	*Situation analysis*	*107*
3.2.2.1.2	*Aims, goals and intended learning outcomes*	*112*
3.2.2.1.3	*Curriculum content*	*116*
3.2.2.1.4	*Teaching and learning*	*120*
3.2.2.1.5	*Assessment*	*123*
3.2.2.1.6	*Summary of curriculum design components of existing alternative access orogrammes for graphic design*	*125*
3.3	**STUDENT SUCCESS MECHANISMS FOR HIGHER EDUCATION**	**127**
3.3.1	***Academic advising***	***127***
3.3.2	***Learning environment***	***128***
3.3.3	***Teaching and learning strategies***	***128***
3.3.3.1	**Flipping the classroom**	**128**
3.3.3.2	**High impact practices for teaching and learning**	**130**
3.3.4	***Student engagement***	***132***
3.3.5	***Student motivation***	***133***
3.4	**CHAPTER SUMMARY**	**134**

CHAPTER 4

PAGE

4.1	**INTRODUCTION**	**138**
4.2	**BACKGROUND TO THE DISCIPLINE**	**138**
4.3	**CONTENT ANALYSIS**	**139**
4.4	**COMPETENCIES REQUIRED FOR THE DESIGN PROCESS**	**144**
4.4.1	***Collaboration with individuals and in group work/team work***	***145***
4.4.2	***Creativity***	***146***
4.4.3	***Curiosity***	***147***
4.4.4	***Imagination***	***147***
4.4.5	***Interpretation***	***148***
4.4.6	***Innovation***	***148***
4.4.7	***Intuition***	***148***
4.4.8	***Observation***	***149***
4.4.9	***Originality***	***149***
4.4.10	***Problem-solving***	***149***
4.4.11	***Reflection***	***150***
4.4.12	***Subjectivity***	***150***
4.4.13	***Thinking skills***	***150***
4.4.13.1	**Creative thinking skills**	**151**
4.4.13.2	**Critical thinking skills**	**151**
4.4.13.3	**Design-orientated thinking skills**	**152**
4.4.13.4	**Innovative thinking skills**	**153**
4.4.14	***Summary of competencies required in the design process***	***153***
4.5	**COMPETENCIES FOR THE DESIGN PRODUCT**	**159**
4.5.1	***Design principles and elements***	***159***
4.5.2	***Techniques***	***160***
4.5.2.1	**Media used by graphic designers**	**160**
4.5.2.2	**Tools used by graphic designers**	**161**
4.5.2.2.1	*Traditional tools*	*161*
4.5.2.2.2	*Digital tools*	*162*
4.5.3	***Visual communication***	***162***
4.5.4	***Summary of competencies required to deliver an effective design product***	***163***
4.6	**PERSONAL COMPETENCIES OF A GRAPHIC DESIGNER**	**164**
4.6.1	***Personal characteristics of a graphic designer***	***164***
4.6.2	***Professional and ethical behaviour***	***166***
4.6.3	***Summary of personal competencies of a graphic designer***	***172***
4.7	**CHAPTER SUMMARY**	**172**

SECTION C

CHAPTER 5

		PAGE
5.1	**INTRODUCTION**	**179**
5.2	**RESEARCH AIM AND OBJECTIVES**	**180**
5.3	**RESEARCH DESIGN AND METHODOLOGY**	**181**
5.3.1	***Paradigmatic perspectives and assumptions***	***183***
5.3.2	***Permission to conduct research***	***183***
5.3.3	***Research design and methodology aimed at achieving objectives 1 and 2***	***184***
5.3.3.1	**Data collection technique aimed at objectives 1 and 2**	**184**
5.3.3.2	**Pilot study for the questionnaire survey aimed at objectives 1 and 2**	**186**
5.3.3.3	**Research population(s) and sampling for the web-based questionnaire survey aimed at objectives 1 and 2**	**188**
5.3.3.4	**Recruitment of research participants for the questionnaire survey aimed at objectives 1 and 2**	**189**
5.3.3.5	**Response rate for the questionnaire survey aimed at objectives 1 and 2**	**190**
5.3.3.6	**Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objectives 1 and 2**	**191**
5.3.4	***Research design and methodology aimed at achieving objective 3***	***192***
5.3.4.1	**Data collection technique for the SOAR analysis aimed at objective 3**	**192**
5.3.4.2	**Pilot study for the questionnaire survey aimed at objective 3**	**193**
5.3.4.3	**Research population(s) and sampling for the web-based questionnaire survey for objective 3**	**195**
5.3.4.4	**Recruitment of research participants for the SOAR analysis aimed at objective 3**	**196**
5.3.4.5	**Response rate for the SOAR analysis aimed at objective 3**	**197**
5.3.4.5.1	*Response rate of HE teacher participants for the SOAR analysis aimed at objective 3*	*197*
5.3.4.5.2	*Response rate of student participants in the SOAR analysis survey aimed at objective 3*	*198*
5.3.4.6	**Dissemination avenues and limitations of the research design and methodology for the SOAR analysis**	**199**
5.3.5	***Methodology for compiling and validating the envisaged framework aimed at objective 4***	***200***
5.3.5.1	**Data collection technique for the validation of the preliminary framework aimed at objective 4**	**200**
5.3.5.2	**Pilot study of the expert validation questionnaire aimed at objective 4**	**201**

5.3.5.3 Research population(s) and sampling for the expert validation survey 202
5.3.5.4 Recruitment of research participants for the expert validation survey 202
5.3.5.5 Response rate of the expert validation questionnaire 203
5.3.6 Analysis, interpretation and presentation/reporting of the research data and findings 203
5.3.7 Trustworthiness 205
5.3.7.1 Quantitative research 205
5.3.7.1.1 Validity 205
5.3.7.1.2 Reliability 207
5.3.7.1.3 Objectivity 208
5.3.7.2 Qualitative research 208
5.3.7.2.1 Credibility 209
5.3.7.2.2 Transferability 209
5.3.7.2.3 Dependability 210
5.3.7.2.4 Confirmability 210
5.3.8 Ethical considerations 210
5.3.8.1 Avoidance of harm 210
5.3.8.2 Anonymity, confidentiality and privacy 211
5.3.8.3 At-risk groups 211
5.3.8.4 Compensation 211
5.3.8.5 No deception of participants 211
5.3.8.6 Ethics clearance 211
5.3.8.7 Informed consent 212
5.3.8.8 Publication of findings 212
5.3.8.9 Risk mitigation 212
5.3.8.10 Voluntary participation 212
5.4 VALUE OF THE RESEARCH 213
5.5 CHAPTER SUMMARY 213

SECTION D

CHAPTER 6

		PAGE
6.1	**INTRODUCTION**	**215**
6.2	**DATA ANALYSIS AND INTERPRETATION OF THE MIXED METHOD-ORIENTATED QUESTIONNAIRE SURVEY AMONG SOUTH AFRICAN HIGHER EDUCATION TEACHERS AIMED AT RESEARCH OBJECTIVES 1 AND 2**	**219**
6.2.1	***Demographics of South African higher education teacher participants***	***219***
6.2.2	***Data analysis and interpretation of South African higher education teacher participant responses***	***224***
6.2.2.1	**Quantitative data analysis and interpretation of South African higher education teacher participants' ratings of importance**	**224**
6.2.2.1.1	*Quantitative data analysis and interpretation of respondents' importance ratings of generic competencies*	*225*
6.2.2.1.2	*Quantitative data analysis and interpretation of respondents' importance ratings of discipline-specific competencies*	*226*
6.2.2.1.3	*Quantitative data analysis and interpretation of respondents' importance ratings of student success mechanisms*	*229*
6.2.2.1.4	*Summary of the quantitative analysis of the HE teachers' importance ratings of competencies and success mechanisms*	*230*
6.2.2.2	**Qualitative data analysis of South African higher education teacher participants' responses**	**232**
6.2.2.2.1	*Qualitative data analysis and interpretation of curriculum design components of AAPs*	*235*
a)	Aims, goals and intended learning outcomes of AAPs for graphic design	235
b)	Selection of curriculum content for AAPs for graphic design	238
c)	Teaching and learning activities for AAPs for graphic design	238
d)	Assessment tasks for AAPs for graphic design	239
6.2.2.2.2	*Qualitative data analysis and interpretation of competencies required of graphic designers*	*240*
a)	Design product competencies required of graphic designers	240
b)	Design process competencies required of graphic designers	241
c)	Personal competencies required of graphic designers	241
6.2.2.2.3	Qualitative data analysis and interpretation pertaining to student success mechanisms	244
a)	Academic advising as a student success mechanism	244
b)	Positive learning environment as a student success mechanism	244
c)	Student engagement as a student success mechanisms	245
d)	Student motivation as a student success mechanisms	246

6.2.3 Summary of data analysis and interpretation of the mixed-method-orientated questionnaire survey among South African higher education teachers (aimed at objectives 1 and 2) 247

6.3 DATA ANALYSIS AND INTERPRETATION OF THE SOAR ANALYSIS SURVEY AIMED AT OBJECTIVE 3 OF THIS STUDY 249

6.3.1 Data analysis and interpretation of higher education teacher participants' SOAR analysis of an AAP offered at a private South African Higher Education Institution 250

6.3.1.1 Demographics of the higher education teacher participants 250

6.3.1.2 Data analysis and interpretation of higher education teacher participants; responses in the SOAR analysis 252

6.3.1.2.1 Data analysis and interpretation of higher education teacher participants' responses in the SOAR analysis for the theme of curriculum design components of AAPs 255

a) HE teacher participants' teaching and teaching styles 255

b) Aims and goals of AAPs for graphic design 255

c) Selection of curriculum content for AAPs for graphic design 257

d) Intended learning outcomes for students in the AAP for graphic design 259

6.3.1.2.2 Data analysis and interpretation of higher education teacher participants' SOAR analysis responses for the theme of generic and discipline-specific competencies 260

6.3.1.2.3 Data analysis and interpretation of higher education teacher participants' responses under the theme of student success mechanisms by means of the SOAR analysis 262

6.3.2 Data analysis and interpretation by means of the SOAR analysis of data collected from the student participants 263

6.3.2.1 Demographics of the student participants 263

6.3.2.2 Data analysis and interpretation pertaining to the student participants' responses 265

6.3.2.2.1 Data analysis and interpretation of student participants' responses pertaining to the theme of curriculum design components of AAPs 268

a) Aims and goals of AAPs for graphic design 268

b) Selection of curriculum content for AAPs for graphic design 269

c) Intended learning outcomes of AAPs for graphic design 270

d) Teaching and teaching styles of the HE teachers 270

6.3.2.2.2 Analysis and interpretation of student participants' responses pertaining to the theme of generic and discipline-specific competencies 271

6.3.2.2.3 Analysis and interpretation of student participants' responses pertaining to the theme of student success mechanisms 272

6.3.3 Summary of SOAR data analysis and interpretation results aimed at achieving objective 3 273

6.4 CHAPTER SUMMARY 275

CHAPTER 7

PAGE

7.1	**INTRODUCTION**	**293**
7.2	**NATURE OF EXPERTISE AND POSITION OF EXPERT PANEL PARTICIPANTS**	**294**
7.2.1	***Demographics of expert participants***	***294***
7.3	**REVIEW AND VALIDATION OF THE PRELIMINARY PROPOSED FRAMEWORK**	**296**
7.3.1	***Section A: Curriculum/programme design pertaining to AAPs for graphic design***	***300***
7.3.1.1	**Section A.1: General aspects pertaining to curriculum/programme design**	**301**
7.3.2	***Section B: Aims, goals and intended learning outcomes for AAPs for graphic design***	***302***
7.3.2.1	**Section B.1: General aspects pertaining to aims, goals, and/or intended learning outcomes**	**303**
7.3.2.2	**Section B.2: Aims and goals**	**304**
7.3.2.3	**Section B.3: Intended learning outcomes**	**304**
7.3.3	***Section C: Curriculum content pertaining to AAPs for graphic design***	***305***
7.3.3.1	**Section C.1: General aspects pertaining to curriculum content**	**306**
7.3.3.2	**Section C.2: Organising curriculum content**	**306**
7.3.3.3	**Section C.3: Selecting curriculum content**	**307**
7.3.4	***Section D: Teaching and learning activities pertaining to AAPs for graphic design***	***308***
7.3.4.1	**Section D.1: General aspects pertaining to teaching and learning activities**	**308**
7.3.4.2	**Section D.2: Student learning and learning approaches/styles**	**309**
7.3.4.3	**Section D.3: Teaching and teaching styles**	**310**
7.3.4.4	**Section D.4: Teaching and learning activities**	**311**
7.3.5	***Section E: Assessment tasks pertaining to AAPs for graphic design***	***311***
7.3.5.1	**Section E.1: General aspects pertaining to assessment tasks**	**312**
7.3.5.2	**Section E.2: Assessment approaches/forms and tasks**	**312**
7.3.6	***Section F: Competencies and success mechanisms pertaining to AAPs for graphic design***	***313***
7.3.6.1	**Section F.1: Generic and discipline-specific competencies**	**313**
7.3.6.2	**Section F.2: Student success mechanisms**	**315**
7.4	**CHAPTER SUMMARY**	**315**

SECTION E

CHAPTER 8

		PAGE
8.1	**INTRODUCTION**	**318**
8.2	**CONCLUSIONS**	**319**
8.2.1	***How are AAPs and graphic design programmes respectively constituted and which generic and discipline-specific competencies usually are cultivated through the respective programmes in HE?***	***319***
8.2.2	***How can AAPs and graphic design programmes respectively enhance student success in HE?***	***321***
8.2.3	***What is the current status of the existing AAP for graphic design of a specific private HEI?***	***323***
8.3	**IMPLICATIONS**	**325**
8.3.1	***How can the identified features, competencies and/or factors identified be embedded into AAPs so that they can support student success in graphic design education?***	***325***
8.4	**FINAL PROPOSED FRAMEWORK**	**327**
8.5	**SIGNIFICANCE OF THE STUDY**	**343**
8.6	**CRITIQUE AND LIMITATIONS OF THE RESEARCH**	**344**
8.7	**IMPLICATIONS FOR FUTURE RESEARCH**	**344**
8.8	**CONCLUDING REMARKS**	**345**

LIST OF REFERENCES	**352**
APPENDICES	**DVD**

LIST OF TABLES

vii

SECTION A

CHAPTER 1

TABLE NO	TABLE HEADING	PAGE
Table 1.1:	Chapters layout of the thesis	11

SECTION B

CHAPTER 2

TABLE NO	TABLE HEADING	PAGE
Table 2.1:	HEQC's first criterion for programme accreditation in South Africa (CHE, 2004:7-8)	30
Table 2.2:	Comparison of criteria for curriculum design	33
Table 2.3:	Taxonomies used for the classification of educational objectives	62
Table 2.4:	Comparison of criteria for the selection of curriculum content	65
Table 2.5:	A comparison of the principles of Angelo (1993:3-8), and Chickering and Gamson (1987:3-5) for teaching and learning in HE	68
Table 2.6:	Summary of professional and personal characteristics of good HE teachers	71
Table 2.7:	Summary of the Grasha-Riechmann survey's categories of teaching styles	74
Table 2.8:	Summary of four categories of learning/learning styles	77
Table 2.9:	Summary of teaching and learning activities for declarative and functioning intended learning outcomes	80
Table 2.10:	SAQA's four principles of good assessment (SAQA, 2001:16-19)	86
Table 2.11:	Types of assessment approaches/forms	88
Table 2.12:	Types of assessment tasks	90

CHAPTER 3

TABLE NO	TABLE HEADING	PAGE
Table 3.1:	South African higher education institutions that offer qualifications for the education and training of graphic designers	108
Table 3.2:	South African alternative access programmes for qualifications for the education and training of graphic designers	110
Table 3.3:	Australian and United Kingdom alternative access programmes for qualifications for the education and training of graphic designers	111
Table 3.4:	Alignment of the National Qualifications Framework level five descriptor with Bloom's revised taxonomy	114
Table 3.5:	Comparison of academic literacy and life skill topics with the critical cross-field outcomes of the South African Qualification Authority as well as generic and/or discipline-specific competencies identified in Chapter 4	117
Table 3.6:	Characteristics of teaching and learning in graphic design education programmes	120
Table 3.7:	Summary of design principles for a flipped classroom approach	129

CHAPTER 4

TABLE NO	TABLE HEADING	PAGE
Table 4.1:	Competencies of a graphic designer according to job descriptions in advertisements	142
Table 4.2:	Competencies of a graphic designer according to literature reviewed	143
Table 4.3:	Integrated design process competencies	155
Table 4.4:	Personal characteristics expected of a graphic designer according to job descriptions in advertisements	165
Table 4.5:	Comparative table of various aspects of professional and ethical behaviour addressed in the different codes of conduct	168
Table 4.6:	Professional and ethical behaviours expected of a graphic designer according to job descriptions in advertisements	171
Table 4.7:	Proposed generic and discipline-specific competencies for alternative access programmes for graphic design derived from the non-empirical literature study	175

SECTION C

CHAPTER 5

TABLE NO	TABLE HEADING	PAGE
Table 5.1:	Overall response rate for the questionnaire survey aimed at objectives 1 and 2	190
Table 5.2:	Responses per answered question for the questionnaire survey aimed at objectives 1 and 2	190
Table 5.3:	Overall response rate for HE teacher participants in the SOAR analysis aimed at objective 3	197
Table 5.4:	HE teacher participant responses per answered question in the SOAR analysis survey aimed at objective 3	198
Table 5.5:	Overall response rate for student participants in the SOAR analysis survey aimed at objective 3	198
Table 5.6:	Student participant responses per answered question in the SOAR analysis aimed at objective 3	199
Table 5.7:	Overall response rate for expert participants in the questionnaire survey aimed at objective 4	203
Table 5.8:	Quantitative and qualitative terminology for trustworthiness	205

SECTION D

CHAPTER 6

TABLE NO	TABLE HEADING	PAGE
Table 6.1:	Code list for the analysis of the qualitative set	216
Table 6.2:	Alignment of the research objectives, methodology, data analysis and findings of this study	217
Table 6.3:	Frequency of responses per answered question for the questionnaire survey aimed at objectives 1 and 2 according to the specific programme in which higher education teacher participants were involved *(n = 68)*	223
Table 6.4:	Preliminary list of generic and discipline-specific competencies for alternative access programmes for graphic design based on the quantitative data analysis and interpretation of survey data aimed at objectives 1 and 2 (excluding new competencies)	231
Table 6.5:	Alignment of generic and discipline-specific competencies with the South African qualification authority (SAQA) critical cross-field and developmental outcomes	237

Table 6.6:	Preliminary updated list of generic and discipline-specific competencies for alternative access programmes for graphic design, based on the quantitative and qualitative data analysis and interpretation focusing on objectives 1 and 2 (excluding the two new competencies)	248
Table 6.7:	Programme structure of the specific alternative access programmes for graphic design for which a SOAR questionnaire analysis was performed in order to achieve research objective 3	249
Table 6.8:	Summary of higher education teacher participants' SOAR analysis of the existing alternative access programme for graphic design	274
Table 6.9:	Summary of results of SOAR analysis of student participants' responses regarding the existing alternative access programme for graphic design	275
Table 6.10:	Alphabetical list of final generic and discipline specific competencies for alternative access programmes for graphic design based on the findings of the data analysis and interpretation reported in this chapter	277
Table 6.11:	Summary of activities for the design of a curriculum for alternative access programmes for graphic design derived from the literature and empirical findings	279

CHAPTER 7

TABLE NO	TABLE HEADING	PAGE
Table 7.1:	Frequency of responses per answered question for the expert questionnaire survey aimed at achieving research objective 4 *(n = 9)*	295
Table 7.2:	Summary of the overall mean of the mean of importance ratings for all sections of the preliminary proposed framework of AAPs for graphic design, as expressed by expert participants *(n = 9)*	295

SECTION E

CHAPTER 8

TABLE NO	TABLE HEADING	PAGE
Table 8.1:	Final proposed framework for curriculum design activities for alternative access programmes to support student success in graphic design	328

LIST OF FIGURES

SECTION A

CHAPTER 1

FIGURE NO	FIGURE HEADING	PAGE
Figure 1.1:	Outline of the orientation to the study chapter	2
Figure 1.2:	Outline of the interrelated components of the study	13

SECTION B

FIGURE NO	FIGURE HEADING	PAGE
Figure B.1:	Outline of the literature review chapters of this study.	15
Figure B.2:	Distribution of literature chapters in relation to the specific literature objectives	176
Figure B.3:	Visual summary of a proposed preliminary framework for alternative access programmes for graphic design.	177

CHAPTER 2

FIGURE NO	FIGURE HEADING	PAGE
Figure 2.1:	Outline of the structure of the chapter	17
Figure 2.2:	Timeline of publications of curriculum experts	25
Figure 2.3:	Outline of curriculum design models discussed in this chapter	36
Figure 2.4:	Steps of Oliva's model of curriculum development (Carl, 2012:76)	40
Figure 2.5:	A comparison of descriptive models according to the Tyler Rationale	49
Figure 2.6:	A representation of a possible descriptive model according to Stenhouse's (1975) and Walker's (1971) guidelines	52
Figure 2.7:	Outline of the curriculum design components of this study	55
Figure 2.8:	Constructive alignment (Biggs and Tang, 2011:105)	59

Figure 2.9:	Summary of principles to select TLAs (Carl, 2012:95-96)	78
Figure 2.10:	Summary of the curriculum design components	92
Figure 2.11:	Summary of curriculum design	95
Figure 2.12:	Summary of major sections in this chapter with associated relationships	99

CHAPTER 3

FIGURE NO	FIGURE HEADING	PAGE
Figure 3.1:	Outline of section 3.2	101
Figure 3.2:	The progression of extended programmes over the past three decades in South Africa (adapted from Kloot et al., 2008: 812).	103
Figure 3.3:	Summary of the curriculum design components of existing alternative access programmes for graphic design	126
Figure 3.4:	Outline of section 3.3	127
Figure 3.5:	Summary of alternative access programmes for graphic design	136
Figure 3.6:	Summary of graphic design programmes on a flexible curriculum framework with added student success mechanisms	137

CHAPTER 4

FIGURE NO	FIGURE HEADING	PAGE
Figure 4.1:	Outline of chapter according to the competency structure of the identified themes	141
Figure 4.2:	Buchanan's four orders of design theory (Buchanan, 1998:13)	153
Figure 4.3:	Competencies required for producing the design product	164
Figure 4.4:	Outline of the themes in this chapter and the influence they have on each other	173
Figure 4.5:	Visual summary of competencies required of successful graphic designers	174

SECTION C

CHAPTER 5

FIGURE NO	FIGURE HEADING	PAGE
Figure 5.1:	Outline of research design and methodology chapter	179
Figure 5.2:	Alignment of the objectives with each research design and methodology listed in this chapter	181

SECTION D

CHAPTER 6

FIGURE NO	FIGURE HEADING	PAGE
Figure 6.1:	Outline of empirical research results and interpretation chapter	215
Figure 6.2:	Percentage of HE teacher participants' teaching experience according to type of programme *(n = 68)*	220
Figure 6.3:	Percentage of HE teacher participants' teaching experience according to years *(n = 68)*	220
Figure 6.4:	Number of HE teacher participants according to the type of HEI *(n = 68)*	220
Figure 6.5:	Number of HE teacher participants arranged according to faculty *(n = 68)*	221
Figure 6.6:	Number of HE teacher participation arranged according to post level *(n = 68)*	221
Figure 6.7:	Bell chart of distribution and mean of importance rating for generic competencies listed in Appendix D.1	225
Figure 6.8:	Bell chart of distribution and mean of importance rating for discipline-specific competencies listed in Appendix D.2	227
Figure 6.9:	Bell chart of distribution and mean of the importance rating of student success mechanisms listed in Appendix D.3	229
Figure 6.10:	Word cloud of primary codes assigned to the data set collected in view of objectives 1 and 2 (generated by Atlas.ti)	233
Figure 6.11:	Organic Atlas.ti network diagram of South African HE teacher participants' analysis of generic and discipline-specific competencies as well as student success mechanisms	234
Figure 6.12:	Percentage of HE teacher participants from the eleven participating campuses *(n = 47)*	250
Figure 6.13:	Number of participants according to the time frame in which these participants taught in the programme *(n = 47)*	251

Figure 6.14:	Number of participants per module taught in the programme *(n=38)*	252
Figure 6.15:	Word cloud of primary codes assigned to the data set of HE teachers in the SOAR analysis (generated by Atlas.ti)	253
Figure 6.16:	Organic Atlas.ti network diagram of HE teacher participants' analysis of the specific private HEI's existing AAP for graphic design	254
Figure 6.17:	Percentage of student participation rate per participating campus *(n = 75)*	264
Figure 6.18:	Number of student participants according to the year in which the participants completed the AAP for graphic design *(n = 64)*	264
Figure 6.19:	Number of student participants according to the reason why a participant was first admitted into the AAP for graphic design and not directly into the mainstream programme for graphic design *(n = 58)*	265
Figure 6.20:	Word cloud of primary codes assigned to the data set of student participants for the SOAR analysis questionnaire aimed at achieving research objective 3 (generated by Atlas.ti)	266
Figure 6.21:	Organic Atlas.ti network diagram of the analysis of student participants' responses regarding the specific private HEI's existing AAP for graphic design	267

CHAPTER 7

FIGURE NO	FIGURE HEADING	PAGE
Figure 7.1:	Outline of the structure of Chapter 7	293
Figure 7.2:	Percentage of expert participants' experience in years *(n = 9)*	295
Figure 7.3:	Number of expert participants according to their discipline of knowledge or profession *(n=9*)	295
Figure 7.4:	Bell chart of the distribution of the mean of importance ratings of all sections of the preliminary proposed framework	299

SECTION E

CHAPTER 8

FIGURE NO	FIGURE HEADING	PAGE
Figure 8.1:	Outline of Chapter 8	318
Figure 8.2:	Visual summary of proposed framework for alternative access programmes to promote student success in graphic design	342

LIST OF APPENDICES



SECTION B

CHAPTERS 2, 3 AND 4

APPENDIX NO	APPENDIX HEADING
Appendix B.1:	Critical reader reports of Chapter 4
Appendix B.2	E-mail correspondence from Nelson Mandela Metropolitan University pertaining to their alternative access programme

SECTION C

CHAPTER 5

APPENDIX NO	APPENDIX HEADING
Appendix C.1:	Ethical clearance from the University of the Free State
Appendix C.2:	Ethical clearance from participating higher education institutions
Appendix C.3:	Pilot study for the questionnaire survey aimed at achieving research objectives 1 and 2
Appendix C.4:	Feedback questionnaire for the pilot questionnaire survey aimed at achieving research objectives 1 and 2
Appendix C.5:	Final self-structured web-based questionnaire survey aimed at achieving research objectives 1 and 2
Appendix C.6:	E-mail invitation to prospective HE teacher participants to partake in the questionnaire survey aimed at research objectives 1 and 2
Appendix C.7:	Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objectives 1 and 2
Appendix C.8:	Final self-structured web-based SOAR analysis aimed at achieving research objective 3
Appendix C.9:	E-mail invitation to prospective HE teacher participants to partake in the SOAR analysis aimed at research objective 3
Appendix C.10:	Pilot study for the SOAR analysis aimed at achieving research objective 3
Appendix C.11:	Feedback questionnaire for the pilot SOAR analysis aimed at achieving research objective 3

Appendix C.12: Printed invitation to prospective student participants to partake in the SOAR analysis aimed at research objective 3
Appendix C.13: Short message service (SMS) invitation to prospective participants to partake in the SOAR analysis aimed at research objective 3
Appendix C.14: Final self-structured printed SOAR analysis for student participants aimed at achieving research objective 3
Appendix C.15: Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objective 3
Appendix C.16: Pilot study for the expert validation questionnaire aimed at achieving research objective 4
Appendix C.17: Feedback questionnaire for the pilot expert validation questionnaire aimed at achieving research objective 4
Appendix C.18: Final self-structured web-based expert validation questionnaire aimed at achieving research objective 4

SECTION D

CHAPTERS 6 AND 7

APPENDIX NO **APPENDIX HEADING**

Appendix D.1: Frequency/number of participants who rated each generic competency at a particular level of importance *(n = 25)*
Appendix D.2: Frequency/number of participants who rated each discipline-specific competency at a particular level of importance *(n = 16)*
Appendix D.3: Frequency/number of participants who rated each student success mechanism at a particular level of importance *(n = 33)*
Appendix D.4: Organic Atlas.ti network diagram of South African HE teacher participants' analysis of generic and discipline-specific competencies as well as student success mechanisms
Appendix D.5: Frequencies of primary and secondary codes per theme for HE teacher participants in the SOAR analysis
Appendix D.6: Organic Atlas.ti network diagram of HE teacher participants' analysis of the specific private HEI's existing AAP for graphic design
Appendix D.7: Frequencies of primary and secondary codes per theme for national HE teacher participants
Appendix D.8: Organic Atlas.ti network diagram of the analysis of student participants' responses regarding the specific private HEI's existing AAP for graphic design

Appendix D.9: Frequencies of primary and secondary codes per theme for student participants
Appendix D.10: Proposed aspects pertaining to curriculum/programme design pertaining to AAPs for graphic design (Section A; *n = 9*)
Appendix D.11: Proposed activities pertaining to the aims, goals, and/or intended learning outcomes pertaining to AAPs for graphic design (Section B; *n = 9*)
Appendix D.12: Proposed activities pertaining to the curriculum content pertaining to AAPs for graphic design (Section C; *n = 9*)
Appendix D.13: Proposed teaching and learning activities pertaining to AAPs for graphic design (Section D; *n = 9*)
Appendix D.14: Proposed assessment tasks pertaining to AAPs for graphic design (Section E; *n = 9*)
Appendix D.15: Proposed generic and discipline-specific competencies, and success mechanisms pertaining to AAPs for graphic design (Section F; *n = 9*)

SECTION E

CHAPTER 8

APPENDIX NO **APPENDIX HEADING**

Appendix E.1: E-mail invitation to present at the Scholarship of Teaching and Learning in Art and Design during 2018

LIST OF ACRONYMS AND ABBREVIATIONS



ACRONYM/ ABBREVIATION	EXPLANATION
AAP	Alternative access programmes
AC/s	Assessment criterion/criteria
ADDIE	Analysis, Design, Development, Implementation and Evaluation
AGDA	Australian Graphic Design Association
AIGA	American Institute of Graphic Arts
AT/s	Assessment task/s
BCSA	Brand Council of South Africa
CESM	Classification of Educational Subject Matter
CHE	Council on Higher Education
CCFO/s	Critical cross-field outcome/s
DCA	Design College of Australia
DEFSA	Design Education Forum of Southern Africa
DHET	Department of Higher Education and Training
DoE	Department of Education
ELI	EDUCAUSE Learning Initiative
GDC	Graphic Designers of Canada
HE	Higher education
HEI/s	Higher education institution/s
HELTASA	Higher Education Learning and Teaching Association of Southern Africa
HEQC	Higher Education Quality Committee
HEQSF	Higher Education Qualifications Sub-Framework
HIPs	High impact teaching and learning practices
IDEO	Innovation, Design Engineering Organisation
IDI	Institute of Designers in Ireland

ACRONYM/ ABBREVIATION	EXPLANATION
ILO/s	Intended learning outcome/s
LO/s	Learning outcome/s
NACCCE	National Advisory Committee on Creative and Cultural Education
NSC	National Senior Certificate
NQF	National Qualifications Framework
OBE	Outcome-Based Education
QAA	Quality Assurance Agency
RBT	Revised Bloom's Taxonomy
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
SAQA	South African Qualification Authority
SOAR	Strengths, opportunities, aspirations and results
SOLO	Structure of the Observed Learning Outcome
TLA/s	Teaching and learning activity/ies
UbD	Understanding by Design
VARK	Visual, Aural, Read/write and Kinaesthetic
UNESCO	United Nations Educational, Scientific and Cultural Organisation

SECTION A

ORIENTATION TO THE STUDY



CHAPTER 1

ORIENTATION TO THE STUDY

1

1.1 INTRODUCTION

The purpose of this chapter is to orientate the reader with regard to the study reported on in this document. A background to the research problem with supporting literature is provided, followed by an explanation of the research problem investigated and the associated research questions, aim and research objectives. Thereafter, a description of the demarcation of the study is noted, followed by a concise overview of the research design and methodology, including sampling, data collection techniques, data analysis and reporting, which are discussed in-depth in Chapter 5. A brief discussion of ethical considerations, trustworthiness of the study and the value of the research is also included (for more detail, see 5.3.8, 5.3.7 and 5.4 respectively). The chapter concludes with a structured layout of the chapters of the thesis in order to serve as a navigation map for the reader and to highlight alignment of the various components (see 1.10 and 1.11).

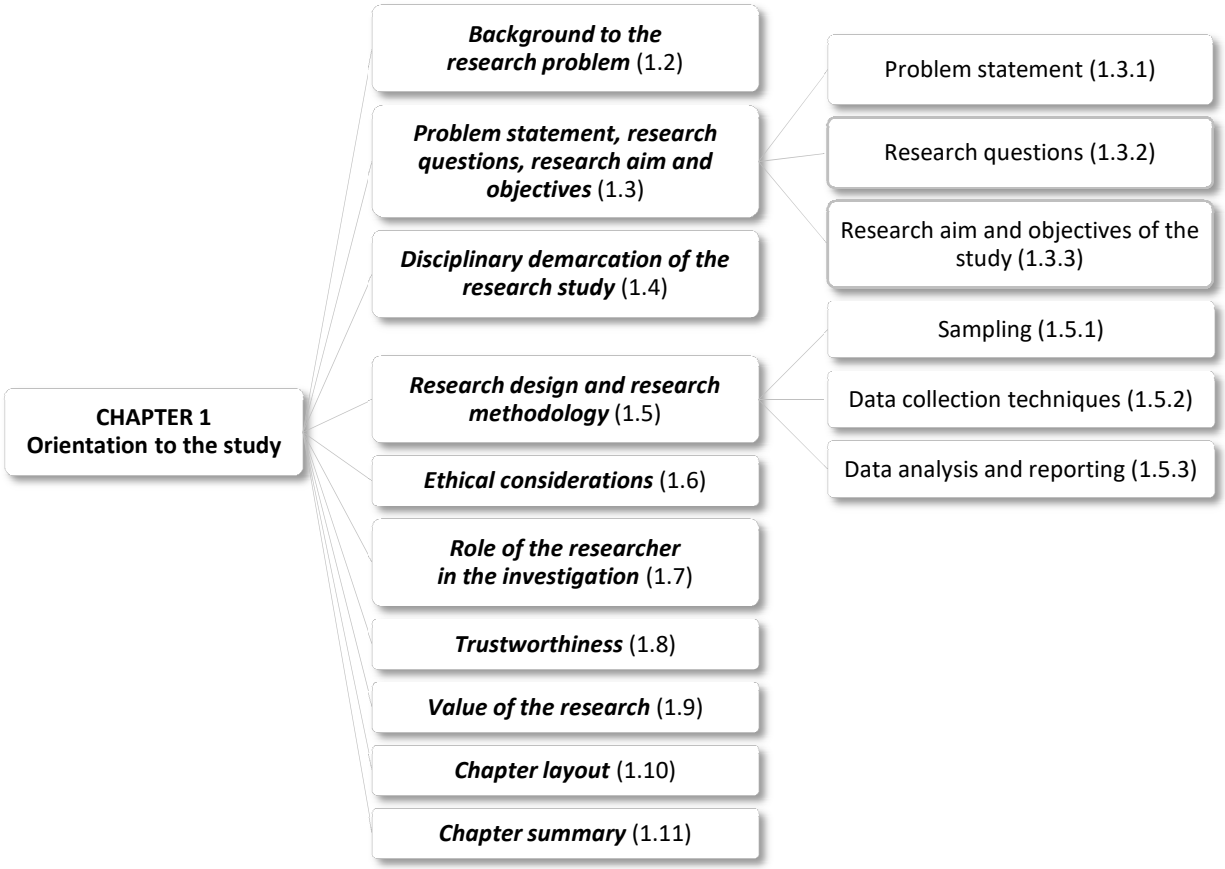


Figure 1.1: Outline of the orientation to the study chapter

1.2 BACKGROUND TO THE RESEARCH PROBLEM

The South African higher education (HE) landscape has undergone many changes since the country's transition to democracy in 1994. Among these changes is the inclusion of alternative access programmes (AAPs) in the programme mix of higher education institutions (HEIs; Republic of South Africa [RSA], 1997:7). AAPs' purposes include that AAPs act as a student success mechanism in HE by addressing the existing articulation gap between secondary education and HE; providing equal access opportunities for all students to enter HE, and widening access for non-traditional students to HE in South Africa (Council on Higher Education [CHE], 2013:70,73).

Successful AAPs rely on identifying and cultivating appropriate competencies which students must possess in order to succeed in the diploma or degree programmes they aspire to enrol for as well as an understanding of how to facilitate such learning (Trewartha, 2008:35). The inclusion of ample foundation provision (e.g. introductory discipline-specific modules, academic literacies, and learning skills) in AAPs can foster identified generic and discipline-specific competencies which should be in line with the extended or augmented diploma or degree programme (CHE, 2013a:70), as well as with the graduate attributes of the relevant HEI (Biggs and Tang, 2011:113). Competencies developed through AAPs and the graduate attributes of HEIs need to infuse the mandatory critical cross-field outcomes (CCFOs) and developmental outcomes of the South African Qualifications Authoritiy (SAQA) at an appropriate level on the National Qualification Framework (NQF; SAQA, 2000:18). Each level of the NQF contains ten level descriptors which embed the CCFOs and developmental outcomes of SAQA (SAQA, 2012:4). Discipline-specific competencies can be identified through the relevant discipline's key procedures, concepts and criteria, which also are in line with Stenhouse's process model for curriculum design/development (Stenhouse, 1975:85) (see 2.3.5.2.2).

Graphic design is defined as an area of study which prepares students to *apply design principles and computer techniques to the interpretation of technical and commercial concepts* (RSA Department of Education [DoE], 2008:51), which in turn highlight discipline-specific competencies associated with the design product (see 4.5). The design process is the procedure which the designer follows to achieve the design product (Chakradeo, 2010:109) and therefore is equally important as, if not more important than, the design product (Cassim, 2013:192; De la Harpe, Peterson, Frankham, Zehner, Neale, Musgrave and McDermott, 2009:42; Fernando, 2006:10). Personal competencies also need to be fostered in the curriculum design and learning in graphic design programmes since these competencies are specified in job advertisements for the recruitment of employees in this discipline (see 4.6). Generic and discipline-specific competencies required of graphic designers are noted in Table B.1 in Section B of the thesis and were eventually reviewed and validated by a panel of experts, as reported in Chapter 7.

In our current day and time it is important for undergraduate students to be aware of different disciplines and how they can contribute/effect each other in order to promote innovation in their own discipline (Alway-Rosenstock, 2011:173). The term innovation is often used to describe the nature of design (Knight and Yorke, 2003:36) and is one of the core graduate attributes that need to be developed in art and design education (Clarke and Budge, 2010:154; Danvers, 2003:52; Quality Assurance Agency [QAA], 2008:5). Innovation indeed is an important graduate attribute to possess, not only in design disciplines but in all disciplines, since it may promote the economic potential of a country (Gustina and Sweet, 2014:53; Lee and Breitenberg, 2010:55). Apart from innovation, the level of research, analysis for idea generation, intuition (which guides the design process), and the level of creativity necessary to produce a design product, all are competencies required of designers, which, if fostered in all disciplines, may allow students to become innovators in their respective fields of study (Alway-Rosenstock, 2011:178).

AAPs currently are not as successful as hoped due to several limitations. Limitations include epistemic transition problems from AAPs to mainstream programmes, students are underprepared due to lower admission requirements for enolment in AAPs in order to widen access, and it is very difficult to incorporate the foundation provision of AAPs into a rigid traditional curriculum framework (CHE, 2013a:72). Student success mechanisms which can be employed in AAPs include academic advising; creating a positive learning environment; employing high impact practices and alternative teaching and learning strategies; promoting student engagement, and motivating students (see 3.3). Apart from these student success mechanisms, a flexible curriculum framework is proposed to improve the graduation output of South African HEIs (CHE, 2013a:107). A flexible curriculum framework may follow an AAP structure approach; however, it should address the limitations and concerns of AAPs (noted in section 3.2; CHE, 2013:114). Therefore, curriculum design for/development of AAPs requires appropriate collaboration between disciplinary and academic development experts (Boughey, 2005:241).

The need for successful AAPs that can serve as a student success mechanim in HE is highlighted by the low graduation rate of South African students since the flexible curriculum framework referred to above is still only a proposal at this stage (see 3.2.2). The graduation rate for South African public HEIs in 2014 varied from 16% to 19% for undergraduate degrees, certificates and diplomas (RSA DHET, 2016:17). This is lower than the ideal graduation rate of 25% stipulated by the National Plan for Higher Education (RSA DHET, 2016:17).

1.3 PROBLEM STATEMENT, RESEARCH QUESTIONS, RESEARCH AIM AND OBJECTIVES

The sections below provide a description of the problem statement, research questions, research aim and objectives.

1.3.1 Problem statement

The low graduation rate in South African HE is a concern since it remains way below the ideal rate of 25% for contact education (RSA DHET, 2016:17). One of the purposes of AAPs is to serve as a mechanism for student success (CHE, 2013a:70,73); however, this is not yet the case due to the limitations of these programmes (CHE, 2013a:72). This study aims to investigate features of, competencies developed and/or factors related to successful AAPs for graphic design specifically in order to derive a curriculum design framework that embeds critical elements in an AAP so that it can support student success in graphic design education.

1.3.2 Research Questions

The primary research question for this study is: How should AAPs in HE be constituted in order to support student success in graphic design?

Four secondary research questions guided the researcher in answering the overarching research question, namely:

1 How are AAPs and graphic design programmes respectively constituted and which generic and discipline-specific competencies usually are cultivated through the respective programmes in HE?
2 How can AAPs and graphic design programmes respectively enhance student success in HE?
3 What is the current status of the existing AAP for graphic design of a specific private HEI?
4 How can the identified features, competencies and/or factors identified be embedded into AAPs so that they can support student success in graphic design education?

1.3.3 Research aim and objectives of the study

The aim of this study was to investigate and develop a framework for designing, maintaining and/or improving (as applicable) AAPs for graphic design so that these programmes can support student success in graphic design.

To attain the above-mentioned aim of the study, the following research objectives were pursued:

1. Explore the constitution/design of existing AAPs and graphic design programmes and the generic and discipline-specific competencies which are cultivated through these programmes respectively.
2. Explore ways in which AAPs for graphic design can ensure student success.
3. Analyse the status of one private HEI's existing AAP for graphic design by means of a strengths, opportunities, aspirations and results (SOAR) analysis.
4. Compile a curriculum design framework for embedding critical elements in AAPs so that they can support student success in graphic design.

1.4 DISCIPLINARY DEMARCATION OF THE RESEARCH

The findings of the study are expected to be applied in AAPs for the undergraduate curriculum design and delivery of graphic design programmes in South Africa, and more specifically to the existing AAP for graphic design at the specific private HEI that was analysed. The ultimate goal of the fourth research objective (i.e. the compilation of a curriculum design framework) is to eventually increase the throughput and graduation rate of graphic design students who are enrolled for these programmes (i.e. AAPs for graphic design; see 5.4). Therefore, the study falls within the field of HE studies and focuses on the research categories of curriculum/course design (design and delivery of programmes) and student experiences (access, selection and graduation; Tight, 2012:5-6).

1.5 RESEARCH DESIGN AND METHODOLOGY

The research design of this study encompasses a non-empirical literature review (see section B) and an empirical investigation into the context of the problem stated in section 1.3.1 (see section D). In line with the pragmatic research paradigm, knowledge can be quantitative and/or qualitative in nature as long as it achieves its purpose (Morgan, 2007:1045). The overarching research design that was applied in this study is a mixed-methods design with both explanatory and embedded components (*cf.* Creswell and Plano Clark, 2007:64,68,73), geared at triangulation of results, especially those of the investigation aimed at the fourth research objective (*cf.* Delport and Fouché, 2015:442) (see section C).

The non-empirical literature study was used to inform the emprirical investigation for research objectives 1 and 2 above. The research design and methodology used to achieve research objectives 1 and 2 were those of an explanatory mixed-method design (see 5.3.3). An explanatory mixed methods design involves collecting quantitative data which participants then explain, or on which they elaborate by providing the researcher with qualitative data (Delport and Fouché, 2015:441-442).

The third research objective of the study required a SOAR analysis of an embedded single case study of an AAP for graphic design at a specific private HEI which rendered qualitative data. The research design in this case involved an embedded mixed-method design, focusing on collecting and analysing qualitative data which were augmented by means of quantitative data (see 5.3.4). A SOAR analysis is a positive approach used to analyse an existing situation/construct (Stavros, Cole and Hitchcock, 2014:72-73).

To achieve the final and fourth research objective involved an explanatory mixed-method design which was informed by comparing, converging and integrating the research findings obtained through the non-empirical literature review and empirical investigation aimed at research objectives 1, 2 and 3. Table 6.2 in Chapter 6 highlights the alignment of the research design and methodology of the study with the research objectives listed in section 1.3.3.

1.5.1 Sampling

All participants in this study were purposively selected in order to involve information-rich participants who showed a maximum variation of perceptions and experiences. The sample for the first, self-structured, web-based questionnaire survey (aimed at achieving research objectives 1 and 2) consisted of all HE teachers in AAPs, AAPs for graphic design (in general), and in graphic design programmes of HEIs within South Africa who were willing to participate. Eventually, only nine of the invited public HEIs expressed interest and granted permission for the research to be conducted involving their HE teachers as participants. A specific private HEI, which offers an AAP for graphic design, also provided permission for its HE teachers and students to be involved (see 5.3.2). However, the specific private HEI's student participants only were involved in the SOAR analysis aimed at achieving research objective 3. In total, the target population of the questionnaire survey aimed at research objectives 1 and 2 consisted of 756 HE teachers (see 5.3.3.3). The response rate for the survey aimed at these two objectives was *8.99% (n = 68)* of the invited participants, of which only *1.72% (n = 13)* completed the questionnaire in its entirety (see 5.3.3.5).

For the second self-structured, web-based questionnaire survey (i.e. the SOAR analysis of a single, embedded case study) the target population consisted of all HE teachers and students involved in the specific private HEI's AAP who complied with the specified inclusion criteria (see 5.3.4.3). The inclusion criteria for research participants in the SOAR analysis were as follows: (1) Students must have been enrolled for the relevant AAP for graphic design during 2011 and/or 2012, since the study was conducted during 2013. (2) HE teachers had to have been teaching within the existing AAP for graphic design programme during 2011, 2012 and 2013. (3) All participants had to be eighteen years of age or older. The target population consisted of 114 HE teachers and 86 students across eleven of the twelve campuses of the specific private HEI (see 5.3.4.5). I need to mention here that the odd ratio between HE teachers and students in this sample was due to the large number of HE teachers teaching generic modules in AAPs for

graphic design as well as in other disciplines. The overall response rate of HE teacher participants in the SOAR analysis survey was 47 of the 114 invited AAP for graphic design HE teachers *(i.e. 41.23%)*, of which only 28 of the invited HE teacher participants *(24.56%)* answered all the questions in the SOAR analysis questionnaire (see 5.3.4.5.1). Seventy-five (75; *87%*) of the invited student participants responded using the printed questionnaire (see 5.3.4.5.2).

The population for the final, self-structured, web-based questionnaire survey consisted of a panel of ten experts who were invited to evaluate and validate the preliminary framework I had compiled, based on the research findings obtained from the literature review and the first two questionnaire surveys (see 5.3.4.3). The selection of the expert participants started off as purposeful and eventually developed into a snowball sampling; however, both types of sampling were subject to the convenience of the expert participants' geographical location (see 7.2). Eventually nine of the ten invited expert participants completed the questionnaire focusing on evaluating and validating the preliminary framework presented in Appendix C.18 and Table 6.11.

1.5.2 Data collection techniques

The study employed a literature review, three self-structured, web-based questionnaire surveys aimed at achieving research objectives 1, 2, 3 and 4, as well as a paper-based questionnaire survey among the student participants of the specific private HEI, which also was aimed at achieving research objective 3. The rationale for using web-based questionnaires was that they have the potential to reach participants in remote areas to whom I otherwise would not have access (*cf.* Cohen, Manion and Morrison, 2011:276). The data collection techniques of the three questionnaire surveys are discussed in more detail in sections 5.3.3.1, 5.3.4.1 and 5.3.5.1. The findings of the literature review and the questionnaire surveys ensured achievement of research objectives 1, 2 and 3. These findings were compared, converged and integrated in order to compile the preliminary curriculum design framework, which then had to be reviewed and validated by a panel of experts by means of the last web-based, self-structured questionnaire that covered the features of the preliminary framework (see 6.4). The findings of this survey were used to finalise and propose a curriculum design framework (see Chapter 8) which, I trust, will support efforts to enhance student success in graphic design.

1.5.3 Data analysis and reporting

Data obtained from the data collection techniques that informed the objectives of this study were analysed according to the specified steps for quantitative and qualitative data analysis and interpretation as discussed in section 5.3.6. The process recommended for quantitative data analysis by Fouché and Bartley (2015:252-276) was used for analysing, interpreting and presenting the data collected by means of self-structured, web-based questionnaire surveys aimed at research objectives 1, 2 and 4, as well as all the nominal and ordinal data obtained from all the questionnaires used in this study (section A in all the questionnaires). Qualitative data were obtained from the two self-structured questionnaire surveys (aimed at achieving research objectives 1, 2 and 3), as well from the expert validation survey (aimed at achieving

research objective 4). The qualitative data of the above-mentioned surveys were analysed and interpreted according to the theoretical perspectives and assumptions of the paradigmatic perspective and assumptions; and interpreted as recommended by Schurink, Fouché and De Vos (2015:403). In addition, the literature findings assisted in analysing the data and gleaning appropriate meaning from the way participants' individual remarks were formulated. A detailed report on the analysis, interpretation and discussion of the research design and methodology of this study is presented in Section D (i.e. Chapters 6 and 7). The data analysis and interpretation involved using thick descriptions, as required in qualitative research.

1.6 ETHICAL CONSIDERATIONS

Strydom (2015:113) specifies ten ethical considerations which a researcher needs to abide by when using people as participants. These considerations are only briefly outlined below since section 5.3.8 provides a detailed discussion of these considerations.

- During the various data collection activities I tried to ensure that no participant was emotionally or physically harmed by using appropriate data collection techniques and tools.
- To ensure confidentiality, anonymity, and privacy of the participants no personal details were captured by the online survey programme employed to capture the data collected through the three web-based questionnaire surveys, as well as in the paper-based questionnaire survey among students aimed at research objective 3.
- At-risk groups were excluded as participants for the empirical study, as was the case with the participants in the pilot study with a view to achieve research objective 3 (HE teachers and students of the Bloemfontein campus of the specific private HEI).
- Participants received no compensation.
- No deception of participants took place.
- Ethics clearance and institutional permission were obtained from all participating HEIs in this study (see Appendices C.1 and C.2). Ethics clearance numbers were communicated to participants in the informed consent prior to the start of the questionnaire surveys.
- Informed written consent was obtained from all participants in this study for each of the three self-structured, web-based questionnaire surveys as well as the paper-based questionnaire.
- I intend to make public the findings of the study as specified in the informed consent letter which accompanied each questionnaire. This will include feedback to participating HEIs, and presenting the findings at conferences, as well as publishing the research in (a) peer-reviewed publication(s) (see 8.3).
- Risk mitigtion was addressed by encrypting data that were collected electronically with passwords, and keeping hard copy data in a locked safe to which only I had access.
- Participants had the right to withdraw at any stage of the research and participation was voluntary.

1.7 ROLE OF THE RESEARCHER IN THE INVESTIGATION

I started my HE career in 2008 at the Central University of Technology, Free State as a HE teacher and programme coordinator for the AAP for art and design. My passion for AAPs and my belief in their purpose grew over the four years I worked with these students and similar minded HE teachers. In 2012, the specific private HEI at which the research was conducted aimed at achieving research objective 3 employed me as a HE teacher and academic coordinator on its Bloemfontein campus. I taught in this HEI's AAP for graphic design as well as in its mainstream graphic design programme from 2012 to 2015. I also managed all academic-related activities of these programmes as well as various AAPs for other disciplines. For this reason, the Bloemfontein campus was excluded from my study, except for the pilot study done with the view to achieve research objective 3, since these students and HE teachers were regarded as an at-risk population group as stipulated in the ethical considerations of this study (see 5.3.8).

1.8 TRUSTWORTHINESS

Only a brief summary of trustworthiness of this study is given in this paragraph since section 5.3.7 presents a detailed discussion of this aspect. In line with the mixed-method research design of this study, quantitative and qualitative trustworthiness aspects were adhered to. In order to ensure the quality of the quantitative data and components, I employed quantitative quality and trustworthy measures such as internal validity, external validity, reliability and objectivity (*cf.* Schurink et al., 2015:419-421). I also used the qualitative trustworthy measures of Lincoln and Guba's (1985:301-320) *trustworthiness model/framework* that focuses on credibility, transferability, dependability and confirmability. Research done in this study is also documented in detail throughout the various chapters of this thesis in order to leave a rich audit trail with a thick descriptions to further enhance the trustworthiness of this study (see Chapters 5, 6 and 7).

1.9 VALUE OF THE RESEARCH

This research may contribute to a better understanding of factors that might play an important role in the success of AAPs for graphic design students. All partners of the research will benefit or already benefited from this research, as outlined below:

- It is envisaged that, besides graphic design HE teachers and curriculum developers, other AAP and applied art discipline HE teachers and curriculum developers will be able to learn from and apply selected elements of the final proposed curriculum design framework appearing in Chapter 8 (see 8.4 and 8.5).
- Ultimately, it is hoped that AAP for graphic design students will benefit from the study due to the implementation of the curriculum design framework by relevant curriculum designers and HE teachers to enhance student success through AAPs in future.

- The participating private HEI already benefited from findings obtained in this study, since the preliminary findings of the SOAR analysis were incorporated into the redesign of its own AAP for graphic design during 2015 (see Appendix C.15).
- All participating HEIs will benefit since the findings of the research will be communicated through relevant communication channels once completed, as specified in the institutional permission and ethics approval documents of the various HEIs (see Appendix C.2).
- Other AAPs may in future adapt the proposed curriculum design framework for their specific discipline fields.
- Graphic design students will benefit from this research as their experiences regarding the AAP for graphic design at the specific private HEI were voiced and subsequently were addressed by the HEI.

1.10 CHAPTER LAYOUT

Table 1.1 provides an overview of the chapter layout of this thesis. The non-empirical literature review is documented in Chapters 2, 3 and 4, which together constitute Section B of the thesis. The empirical study is described and documented in sections C (i.e. Chapter 5 and D (i.e. Chapters 6 and 7) respectively, the latter of which includes the review and validation of the preliminary curriculum design framework. The final curriculum design framework, as per research objective 4, is presented in Chapter 8 (section E) in conjunction with the concluding remarks, implications and limitations of the study.

Table 1.1: Chapter layout

SECTION	CHAPTER	TITLE OF CHAPTER
SECTION A	Chapter 1	Orientation to the study
SECTION B	Chapter 2	Programme design and review in higher education
	Chapter 3	Constitution of alternative access programmes for graphic design, and student success mechanisms which support these programmes
	Chapter 4	Generic and discipline-specific competencies required of graphic designers
SECTION C	Chapter 5	Research design and methodology
SECTION D	Chapter 6	Empirical findings, interpretation and discussion
	Chapter 7	Proposed framework for alternative access programmes that support student success in graphic design
SECTION E	Chapter 8	Towards a proposed framework for alternative access programmes that support student success in graphic design: Conclusions, implications and limitations

1.11 CHAPTER SUMMARY

This chapter provides the reader with an outline of the research documented in this report. The succeeding chapters elaborate on the aspects highlighted in the different sections of this chapter. Figure 1.2 provides a visual summary of the alignment and sequence of the study's research objectives and research design and methodology components.

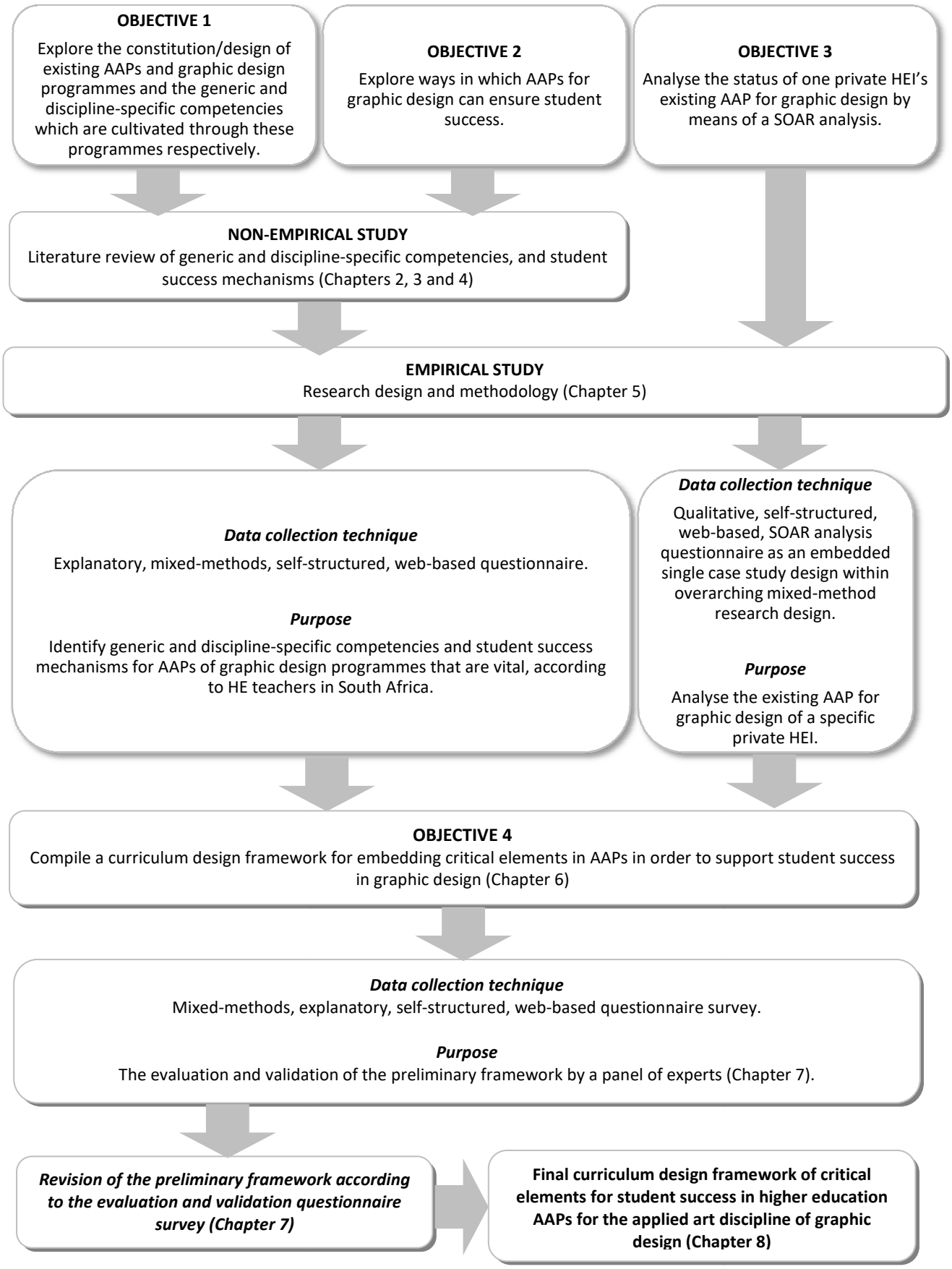


Figure 1.2: Outline of the interrelated components of the study

SECTION B

NON-EMPIRICAL LITERATURE STUDY

B

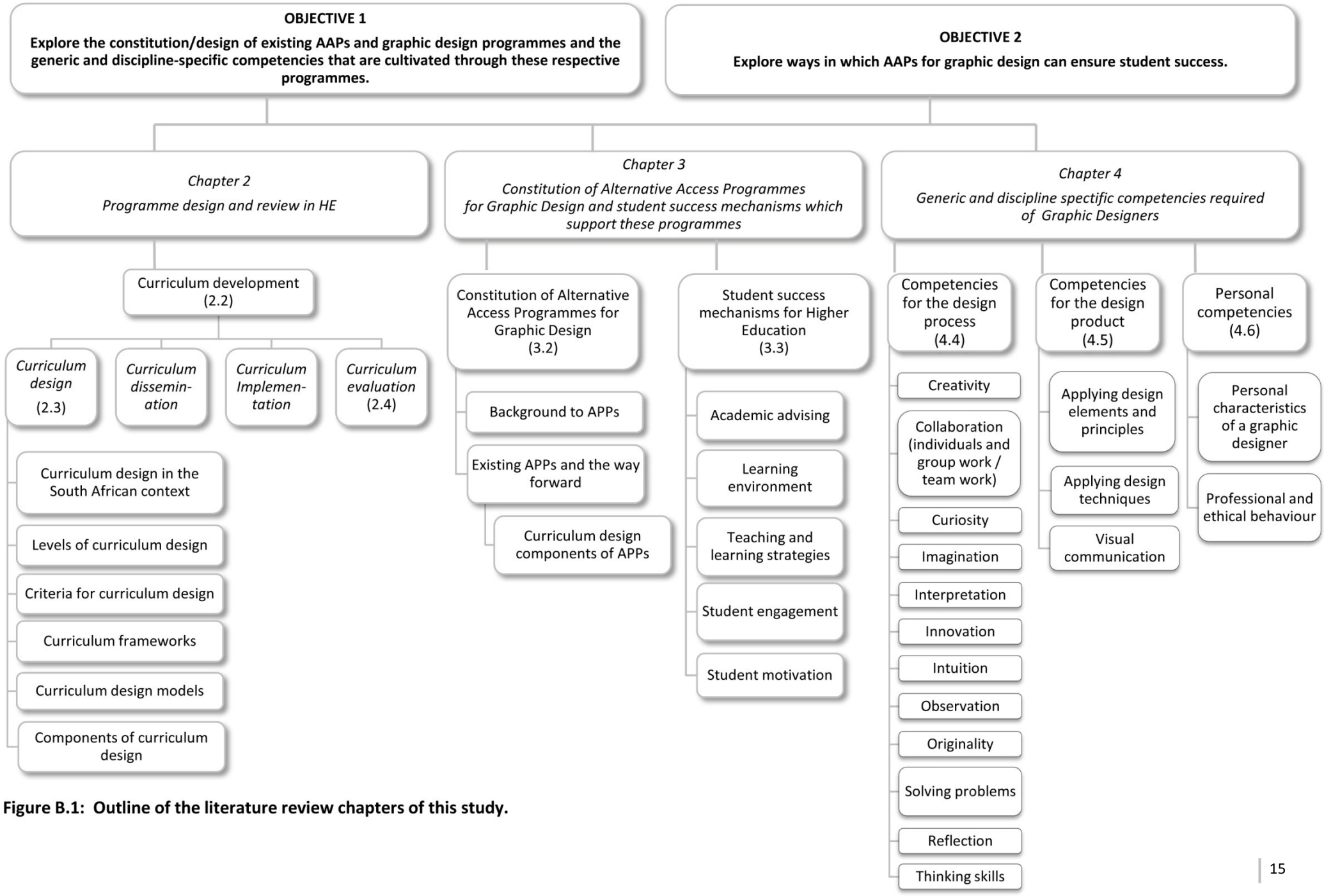


Figure B.1: Outline of the literature review chapters of this study.

CHAPTER 2

PROGRAMME DESIGN AND REVIEW IN HIGHER EDUCATION

2

2.1 INTRODUCTION

Countries globally, including South Africa, are placing emphasis on the higher education (HE) sector to produce graduates who make a contribution to the country's economy and development (Kaliannan and Chandran, 2012:50). Szeto (2010:76) notes the importance of design education (e.g. graphic, product or multimedia) for the economic and cultural development of society. However, a diverse student population from different socio-economic backgrounds and with different intellectual abilities complicates the achievement of this goal through teaching and learning tasks as well as curriculum development (Altbach, Reisberg and Rumbley, 2009:17). The focus of this chapter is to investigate programme design and review in HE in order to aid the exploration of alternative access programmes (AAPs) in graphic design for this study. Programme development and design are used synonymously with the terms curriculum development and design in this study, in accordance with South African HE (see 2.3.1). The literature discussed in this chapter fundamentally is based on the work of Biggs and Tang (2011), and Carl (2012). Carl's (2012) contribution is used as a primary guidance source since he is a credible South African researcher in the field of curriculum development; whereas Biggs and Tang (2011) are experts in HE. The chapter was expanded by exploiting and integrating 143 additional sources to outline programme design and review in HE. Figure 2.1 provides an outline of the structure of this chapter. The South African HE landscape is discussed briefly in section 2.1.1 in order to provide background knowledge to the reader.

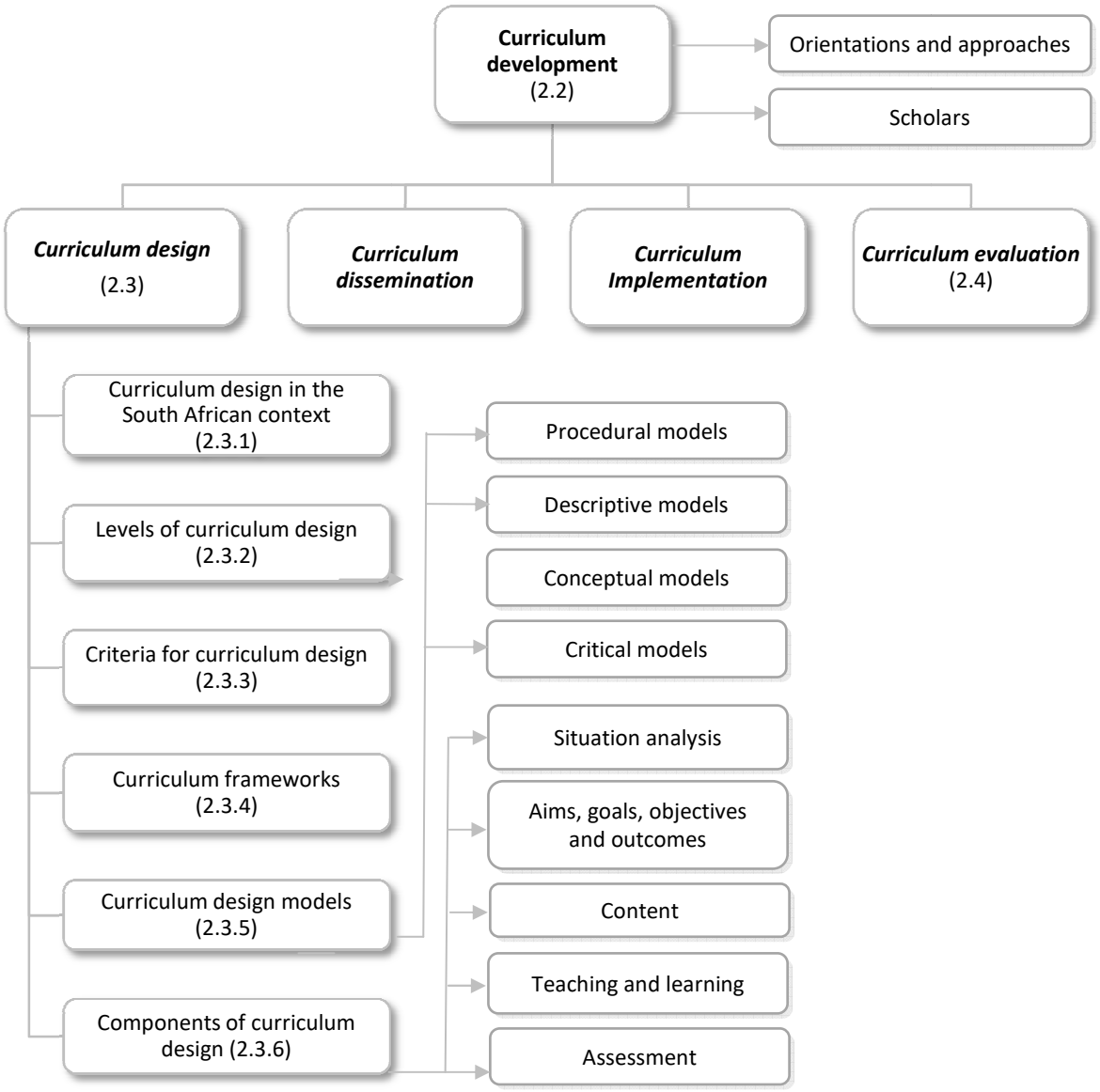


Figure 2.1: Outline of the structure of the chapter

2.1.1 Background to Higher Education in South Africa

It is evident from the literature consulted that HE in South Africa has undergone many changes since the country's first democratic election in 1994. HE is of importance for the development of societies as it is crucial to life chances of individuals (Republic of South Africa [RSA] Department of Education [DoE], 1997:7). Therefore, the transition to democracy called for the evaluation of all existing practices, institutions and values in the Higher Education Act 101 of 1997 (RSA, 1997:7) in order to provide individuals with such opportunities. This transition is commonly referred to as the transformation of HE in South Africa (*cf.* RSA, 1997).

HE in South Africa covers all learning programmes higher than the National Senior Certificate (NSC) or National Certificate, previously referred to as the Standard 10 certificate (RSA DoE, 2013:16-17; RSA DoE, 1997:17). The Education White Paper 3 of 1997 preceded the National Plan for the Transformation of HE set out in the Higher Education Act 101 of 1997 (RSA, 1997). The National Plan provides a framework for HE in South Africa to contribute to 21st century challenges in our country (RSA Ministry of Education, 2001:9). One of the main focuses of the National Plan is to improve the quality of academic programmes in HE (RSA Ministry of Education, 2001:10). In order to achieve this focus of the National Plan, HE in South Africa had to have a supporting structure with the specific focus to aid the Department of Higher Education and Training (DHET). The DHET's responsibilities include the registration of HE providers and approval of new qualifications and programmes for public higher education institutions' (HEIs) programme and qualification mix (Council on Higher Education [CHE], 2013a:10). The White Paper for Post-School Education and Training (CHE, 2013b:vii-vix) outlines the development plan of the DHET until 2030 which includes the transformation of the post-schooling system into an integrated whole in which every institution plays their individual but coherent role.

The CHE was established in May 1998 in terms of the Higher Education Act 101 of 1997 (CHE, n.d.:online). CHE is responsible for the management of the Higher Education Quality Committee (HEQC). The HEQC manages the quality assurance system for HE in South Africa and is responsible for monitoring and regulating the quality of HE programmes and, therefore, changes the government's role from provider to regulator (Le Grange, 2011:82). CHE's greater responsibilities are noted in their third annual report of 2000/2001 (CHE, 2001:45). Such responsibilities include:

- The adherence and adaption of curriculum and mode of delivery to meet the private and public sectors' needs (CHE, 2001:45).
- Increasing the workplace in-service learning and structured internships in all qualifications (CHE, 2001:45). CHE also refers to such learning as work-integrated learning in later publications. In 2011, the CHE published a good practice guide for curriculum developers as aid to achieve the requirements set by the Higher Education Qualifications Framework (HEQF; CHE, 2011:online). The CHE (2011:online) highlights in the foreword to the good practice guide the importance of work-integrated learning as it assists graduates to be real-world ready. The successful integration of graduates into the world of work, however, requires innovative curricula and pedagogies (CHE, 2011:3).
- Embedding Recognition of Prior Learning (RPL) and experience in HE policies (CHE, 2001:45). This is in line with the redress of past discrimination advocated in the Higher Education Act 101 of 1997 (RSA, 1997:1). RPL is defined as the recognition of formal and non-formal learning towards credit, access, inclusion or advance in the formal education and training system or workplace (South African Qualification Authority [SAQA], 2013:5).

The CHE is also responsible for the management of the Higher Education Qualifications Sub-Framework (HEQSF), which forms part of the National Qualifications Framework (NQF) of South Africa (CHE, n.d.:online). The HEQSF assigns the responsibility of developing standards for HE qualifications to the CHE (CHE, 2013a:5). A standard should state the purpose of a specific qualification together with evidence required to demonstrate achievement (CHE, 2013a:6). By setting standards it contributes to achieving the key objective of the HEQSF of enabling articulation and transferring students between programmes and institutions (RSA DoE, 2013:4). The HEQSF is an integral part of the NQF. The NQF comprises ten levels of which six are dedicated to HE. Levels five to seven are assigned to undergraduate qualifications and eight to ten to post graduate qualifications (RSA DoE, 2002:v). Each level has a descriptor to ensure consistency of qualifications accredited by SAQA (2012:3). The descriptors are designed to guide the curriculum developer to:

- write learning outcomes (LOs) and assessment criteria (ACs) for a qualification;
- pitch the qualification at an appropriate level, thereby informing the outcome and assessment level, and
- manage the quality of the programme .

  (SAQA, 2012:4-5)

In order to achieve the LOs of a qualification, students are required to meet the minimum volume of learning required (RSA DoE, 2002:10). The HEQSF refers to the measure of the volume of learning as a credit which is equivalent to ten notional study hours (RSA DoE, 2002:10). Qualifications on the HEQSF have a minimum credit load of 120 credits per academic year, except for master's degrees and doctorates which carry 180 credits (RSA DoE, 2002:10).

SAQA is the qualification authority of South Africa. SAQA's objectives are the advancement, development and implementation of the NQF and its sub-frameworks (SAQA, n.d. (b): online). SAQA needs to, in consultation with the quality committees, develop and implement policy and criteria for the development, registration and publication of a qualification or part of a qualification. SAQA also is responsible for assessments, RPL, credit accumulation and transfer development (SAQA, n.d. (b): online). Level descriptors embed SAQA's critical cross-field outcomes (CCFOs) and developmental outcomes (SAQA, 2012:4) since they are deemed to be important for capacity development for life-long learning (SAQA, 2000:18). CCFOs are defined as generic outcomes that inform teaching and learning (CHE, n.d.:online,) as well as directions to policy makers and curriculum developers (SAQA, 2000:18). The CCFOs are also commonly referred to as graduate attributes. This is in line with the liberal education concept noted by Altbach et al. (2009:115), which emphasises a curriculum that focuses on skills such as creativity, critical thinking and problem-solving to name but a few. SAQA (2000:18) states in its publication on curriculum development that the inclusion of some of the CCFOs is mandatory and must be incorporated at an appropriate level. The CCFOs prescribed by SAQA are:

- *identification and solving of problems that display responsible decision-making using critical and creative thinking;*
- *effectively work as a member of a team, group, organisation and/or community;*
- *organising and managing yourself and your activities responsibly and effectively;*
- *collecting, analysing, organising and critically evaluate information;*
- *effectively communicate through oral and/or written presentations by using of visual, mathematical and/or language skills;*
- *effectively and critically using science and technology that shows responsibility toward the environment and health of others, and*
- *demonstrating an understanding of the world as a set of related systems by the recognition that problem-solving does not exist in isolation.*
  (SAQA, n.d.(a):1; SAQA, 2000:18-19)

SAQA also identified five developmental outcomes as part of the CCFOs that aid the development of the student personally, as well as the social and economic development of society (SAQA, 2000:19), namely:

- *reflecting on and exploring a variety of strategies to learn more effectively;*
- *participating as a responsible citizen in life locally, nationally and globally;*
- *being culturally and aesthetically sensitive to a range of different social contexts;*
- *exploring education and career opportunities, and*
- *developing entrepreneurial opportunities*.
  (SAQA, n.d. (a):1; SAQA, 2000:18-19)

This section on HE in South Africa provides a background to changes made in our country since its first democratic election in 1994. An overview of the HE structure with specific focus on the CHE, HEQC, NQF, HEQSF and SAQA is given as background to curriculum development for programme review in the South African context. Altbach et al. (2009:48) conclude that in order to retain previously underrepresented students in HE, HEIs need to align the curricula and teaching approaches in accordance with students' needs, interests, learning styles and previous experiences. The chapter covers the process of curriculum development as an introduction to curriculum design which forms the core of this study.

2.2 CURRICULUM DEVELOPMENT

Curriculum is a word that was derived from the Latin word *currere* which translates to a number of meanings (e.g. race-course, the race itself, a place of deeds or a series of deeds) (Bobbit, 1918:42). In the Encyclopaedia of Curriculum Studies, Breault and Marshall (2010:179) point out efforts made to change the traditional definition of curriculum when used in the context of education, namely a course of study.

However, the main elements of Dewey's and Bobbit's concept of experience-centredness still apply today (Breault and Marshall, 2010:179). Dewey (1902:11) stated that a curriculum represents a process of continuous reconstruction, since it moves from a person's early age experiences into organised bodies of truth called studies. The various study areas in a curriculum, for example Language and Mathematics, provide the experiences which are the essence of the educational race (Dewey, 1902:12). Curriculum, in the context of education, therefore was defined by Bobbit (1918:42) as a series of activities and experiences that develops abilities that will be used in a person's adult life. In a more recent definition of curriculum Ross (2008:8) simplifies the traditional meaning to what needs to be learned or what is worth knowing. In the South African context, SAQA (2000:6) defines curriculum as all teaching and learning opportunities occurring in learning institutions.

Different kinds of curricula are implied in authors' definitions of the word. Kelly (2009:10) firstly identifies the total curriculum as the overall rationale for any educational programme, over and above its knowledge-content and modules. The hidden curriculum, on the other hand, provides knowledge that students learn from activities that are not regarded as part of the official curriculum (Kelly, 2009:10-11). The hidden curriculum therefore is a by-product of teaching and learning activities (TLAs; Kelly, 2009:11). HE curricula in South Africa facilitate extra-curricular knowledge through the achievement of the mandatory CCFOs of SAQA (SAQA, 2000:18) (see 2.1.1), which prepare graduates for the world of work and also fosters the students' process of becoming responsible citizens (Hay and Marais, 2011:229). According to Kelly (2009:11) a difference exists between the planned and the received curriculum. The planned curriculum is the content captured in official syllabuses, prospectuses and curriculum documents. The received or actual curriculum is what students actually experience in the classroom. They may experience it differently from what was intended. Differentiation can also be made between the formal and the informal curriculum (Kelly, 2009:12). The formal curriculum refers to those materials and content set out to teach and learn, while, in contrast, the informal curriculum falls outside the prescriptive, planned teaching and learning (Schultz, 2010:478; 479). All the different types of curricula contribute to the definition as one cannot exclude the learning that is unplanned.

In the development of the curriculum for a graphic design AAP, one needs to note the roots of the specific discipline. People have searched for ways to visually communicate ideas and concepts since early times (e.g. Egyptian artisans that combined images and words on papyrus manuscripts) (Meggs and Purvis, 2006:ix). Early designers (often also referred to as artists during this period) were taught through apprenticeships until the start of the Industrial Revolution in the early 1800s (Finch and Crunkilton, 1993:4-5). Design as a universal *language of vision* was explored in the 1920s by the Bauhaus which was a well-known art school in Germany during this period (Lupton and Phillips, 2008:8). Graphic design was only established as a separate profession from that of an artist in 1922 by William Addison Dwiggins (Meggs and Purvis, 2006:ix). Graphic design has a vocational curriculum since it prepares students to become professional

practising graphic designers upon graduation. This is in line with the orientation, justification and focus of a vocational curriculum stipulated by Finch and Crunkilton (1993:13). Although Finch and Crunkilton's (1993:17) work seems a bit old, they still highlight one of the most important aspects of a vocational curriculum, namely that the success of a graduate in a vocational curriculum depends on the curriculum's relevance with regard to the profession. This is a very important aspect in graphic design in the light of ever-changing technology and software packages.

Researchers differ in their views on the number of phases which comprises the curriculum development process. In Carl's (2012:40-41) book he investigates the curriculum development cycle of Mostert (1986:8-9 in Carl, 2012) who identifies six phases:

- *initiation;*
- *planning;*
- *development;*
- *testing;*
- *implementation, and*
- *summative evaluation*.

Carl (2012:41-42) bases his curriculum cycle design on Mostert's (1986:8-9 in Carl, 2012), but reduces it to only four phases. Carl (2012:41-42) describes curriculum development as an umbrella term for the ongoing process that includes design, dissemination, implementation and evaluation. These four phases are never ending in the curriculum development process and they interact with each other.

The focus of this chapter will be narrowed down to the first stage of Carl's curriculum development cycle, namely curriculum design (also referred to as programme design in this study), since the first objective of this study calls for the exploration of the design of AAPs in the applied art discipline of graphic design. Approaches and orientation to curriculum development, as well as well-known curriculum development experts' work will also be discussed briefly.

2.2.1 Orientations and approaches to curriculum development

It is important to note that different people interpret the definition of curriculum differently, depending on their own perspective (Breault and Marshall, 2010:179; SAQA, 2000:5). The curriculum development process, including curriculum design, is not one that can be bound to specific boundaries as it is a personalised process depending on the approaches and orientations of the curriculum developer (Carl, 2012:60). Several approaches and orientations are noted in the literature; however, this section will be limited as the focus of the chapter is on curriculum design in accordance with the first objective of this study.

2.2.1.1 Orientations to curriculum development

The orientation of the curriculum developer and designer refers to attitude, beliefs or feelings he/she may have towards the curriculum. Although the study of Eisner (1985) was undertaken a few decades ago, I find a statement he makes extremely relevant, namely that the most important factor that influences the content of the curriculum is the nature of the learning opportunities (Eisner, 1985:84), which in turn are developed according to the orientation of the curriculum developer and designer (*cf.* Carl, 2012:50). Three broad types of orientations are noted by Carl (2012:50-54).

First, a transmission orientation focuses on the transmission of content and is product orientated (Carl, 2012:50). Kelly (1999:45-97)[1] notes that such a curriculum orientation will only result in surface learning. The second orientation that Carl (2012:51) mentions is transaction, which implies that there should be more interaction between the HE teacher and student. A transformation orientation, on the other hand, completely integrates the curriculum in order that it makes meaning to the student and requires a high level of involvement from both the HE teacher and student (Carl, 2012:51). The integration of curriculum and student understanding results in the application and transfer of knowledge and skills to other contexts, which is an indication of deep learning (Kelly, 1999:45-97).

It is important that a curriculum developer and designer know his/her orientation. The Curriculum Orientation Profile of Babin (1981, in Carl, 2012:55) is a useful instrument for this purpose. It classifies orientations into five categories (Carl, 2012:56-59), which differ from those mentioned by Carl (2012:43-49):

- *development of cognitive processes;*
- *technology;*
- *self-actualisation, consummate experience;*
- *social reconstruction – relevance, and*
- *academic rationalism*.

The purpose of the Curriculum Orientation Profile is the development and clarification of the curriculum developer's orientation by identifying the specific focus and role of the curriculum (Carl, 2012:60).

2.2.1.2 Approaches to curriculum development

Four curriculum development approaches are identified and discussed by Carl (2012:43-49), namely academic, experiential, pragmatic and technological approaches. These approaches are discussed with reference to associated curriculum expert (see 2.2.2), as well as research conducted over the past decades, such as by Eisner (1985), Ornstein and Hunkins (2014), and Posner (1992).

[1] A.V. Kelly's 4th edition book is referenced in this paragraph since I could not locate this information in the most recent edition.

The academic approach is characterised by an academic rationality and theoretical logic (Carl, 2012:43-45), and tends to be historical or philosophical (Oliva, 2001:7)[2]. This approach is similar to Eisner's (1985:66-69) academic rationalism, according to which the focus is on setting curriculum goals and identifying suitable content to meet the goals (Eisner, 1985:66-69). Posner (1992:93) refers to this approach as traditional.

The experiential approach is noted by Carl (2012:45-46) and is associated with curriculum experts such as John Dewey, cited several times by Posner (1992:95), and also Lawrence Stenhouse (see 2.2.2.2 and 2.2.2.6 respectively). However, Oliva (2001:7) links Dewey's intellectual and philosophical works to the academic approach rather than the experiential approach. The experiential approach is described by Carl (2012:45) as subjective, personal and heuristic. Carl (2012:45, 51) also describes this approach as transactional since emphasis is placed on the co-operative role of the HE teacher between the curriculum and student. This approach is often used in primary schools as well as human sciences and art modules. A curriculum that focuses on the experiential approach, assigns value to the HE teacher and student's personal feelings, values and experiences. The approach is also related to Stenhouse's process model (see 2.2.2.6), in which he states that curriculum aims should only provide directions and not be final objectives (Carl, 2012:45). The experiential approach also links to Eisner's (1985:69-74) conception of personal relevance. Eisner (1985:69-74) thus supports this approach through his argument that an experience is only educational if students make it their own.

The technological approach is linked by Carl (2012: 46-48) to two of the most predominant curriculum experts namely, Franklin Bobbit and Ralph Tyler (Carl, 2012:46) (see 2.2.2.1 and 2.2.2.3 respectively). The technological approach requires the curriculum developer and designer to follow a scientific approach since a curriculum cannot work efficiently if drawn up only on assumptions or personal opinions (Bobbit, 1918:41-42). Learning is seen as a system that follows specific steps such as portrayed by the Tyler Rationale (Carl, 2012:46) (see 2.2.2.3). Other curriculum experts associated with this approach are Benjamin Bloom, John Dewey and Hilda Taba (Eisner, 1985:79-83) (see 2.2.2.4, 2.2.2.2 and 2.2.2.5 respectively).

The pragmatic approach requires curriculum development to be reactive although it take place *fragmentarily*, and is a combination of the previous three approaches discussed (Carl, 2012:48). A behavioural approach is listed by Ornstein and Hunkins (2014:2) as an additional approach to the ones described above; however, it may be classified as technological. The behavioural approach is based on the

[2] This source, namely Peter Oliva's book titled *Developing the curriculum* currently has eight editions of which the last was published in 2012. The eighth edition is currently trading for R5 256.00 on www.takealot.com. Unfortunately no later edition than the 5th edition, published in 2001, could be located in any South African library on WorldCat. This outdated source is a result of the financial limitations of this study.

concept that objectives, content and activities are already determined (Ornstein and Hunkins, 2014:2); therefore, it is included within the transmission orientation of Carl (2012:51).

Although this section is limited, approaches and orientations have been identified which may influence curriculum developers and designers, depending on their perspective or preference (Breault and Marshall, 2010:179; SAQA, 2000:5). Curriculum developers and designers need to identify their preferred approach and orientation in order to develop a curriculum.

2.2.2 Curriculum experts

This section plays a limited role in this chapter, but is included to provide background to curriculum designers on selected curriculum experts that contributed to the evolvement of the field of Curriculum Studies. Curriculum experts are selected in accordance with their contributions throughout the study. Curriculum experts are introduced in chronological order (i.e. publication dates), as can be seen in Figure 2.2. Sources used in this section might seem outdated since original contributions of experts are referenced.

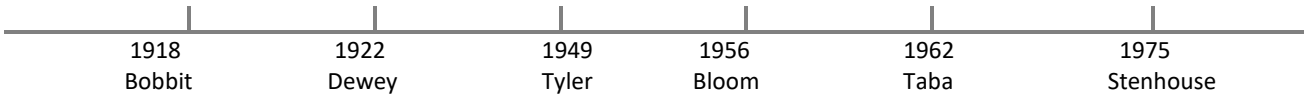


Figure 2.2: Timeline of publications of curriculum experts

2.2.2.1 Franklin Bobbitt

Bobbitt (1918:iv) informs educationists that new duties lie ahead them which require a new vision, methods and materials. This relates to the transformation of the nineteenth-century curriculum in order to address the needs of a new century in which civilisation and humanisation advanced swiftly (Bobbitt, 1918:iii-iv). Due to Bobbitt's association with the transformation in educational curriculum, he is often referred to as the father of curriculum theory (Eisner, 2004:86). Bobbitt advocates a scientific approach to curriculum design since a curriculum that is drawn up on the basis of guessing and personal opinion cannot work efficiently (Bobbitt, 1918:41). Bobbitt (1918:42) defines the objectives of a curriculum as the achievement of specific activities in education that prepare an individual for life. These activities are classified into ten categories which consist of 821 skills in total (Bobbitt, 1924:8-29). Curriculum, in turn, is defined as a series of experiences that meets the objectives of the specific activities (Bobbitt, 1918:42). Bobbitt also places emphasis on the cultivation of citizens through a curriculum. The characteristics of a good citizen need to be noted so that they can be included in the curriculum, as citizens have a specific role within their community (Bobbitt, 1918:117). Bobbitt defined a productive citizen as someone who effectively performs the 821 skills he identified (Null, 2010:454).

2.2.2.2 John Dewey

Tanner (2010:286) claims that Dewey was one of the greatest educational philosophers of the twentieth century. Although Dewey's book was published in 1922, it is based on lectures he presented at the Leland Stanford Junior University in 1918 (Dewey, 1922:preface). Dewey's experimentalist approach advanced the idea for democratic progress since he believed that the school curriculum could create the connection that was needed (Tanner, 2010:287; also see 2.2.1.2 on the experimental approach). Dewey's view advocates that the starting point of a curriculum development journey is the activity; thus learning experiences and not the objectives (Kliebard, 1970:64). Education was defined by Dewey (1922:95) as *an intelligent direction of native activities in the light of the possibilities and necessities of the social situation*.

2.2.2.3 Ralph Tyler

In the *Encyclopedia of Curriculum Studies*, Tyler's work on the basic principles of curriculum and instruction is highlighted as one of the most important publications which influenced the field of Curriculum Studies (Kridel, 2010a:71). This importance is also confirmed in the work of Hunkins and Hammil (1994:7). The work of Tyler was originally used as content for a module he presented at the University of Chicago in the United States, which later became a curriculum model, referred to as the Tyler Rationale (Kridel, 2010a:71) (see 2.3.5.1.1). Tyler's questions are the questions that HE teachers need to ask when evaluating their practice (Kridel, 2010a:71). Kelting-Gibson (2005:27) classifies the approach of the Tyler Rationale as a technical-scientific approach, whereas Carl (2012:46-48) refers to it as a technological approach (see 2.3.5.1.1). This approach is similar to that of Franklin Bobbitt (see 2.2.2.1). Tyler stresses that what the student does in the classroom is important, not what the HE teacher does (Feldmann, 2005:48). This supports the work of Tyler (1949:44) who notes that students are the ones for whom changed behaviour is envisaged in the objectives of the curriculum. Tyler's questions outline the questions that HE teachers need to ask when evaluating their practice (Kridel, 2010a:71).

2.2.2.4 Benjamin Bloom

Bloom was one of the first experts to proclaim that educational activities incorporate a variety of verbs that are used across all subject matter (Anderson, 2010:840). Ralph Tyler acted as a mentor for Bloom at the University of Chicago, and Bloom's focus was to classify educational objectives according their cognitive complexity (Eisner, 2000:2). His rationale for developing such a classification (taxonomy) was to provide examiners with a reliable procedure to assess students' work (Eisner, 2000:2). Bloom believed that students should not be compared to each other; they should rather be assisted to achieve the goals of the curriculum (Eisner, 2000:4). Bloom's efforts were published in 1956 in a book titled, *Educational objectives in the cognitive domain*, and are commonly referred to as Bloom's Taxonomy (Anderson, 2010:840) (see 2.3.6.2.2e). Bloom's Taxonomy is directly linked to the fourth step in the Tyler Rationale (see 2.3.5.1.1). Eisner (2000:3) highlights Bloom's contribution to the field of Curriculum Studies in a publication after his death in 1999. Bloom's scholarship in Curriculum Studies extended beyond his taxonomy: Eisner notes that Bloom believed that the educational environment has an influence on student performance (Eisner, 2000:3). Bloom illustrated this belief in his book titled *Developing talent in young people* (Eisner, 2000:4).

2.2.2.5 Hilda Taba

In 1935, Tyler invited Taba to join the Eight Year Study as the team leader for social sensitivity (Stern, 2010:837). The focus of the Eight Year Study (1930 – 1942) was to articulate the curriculum from high school to college (Kridel, 2010b:323). Taba promoted the design of a curriculum side-by-side with the HE teacher who delivers it (Stern, 2010:847). Taba believed that this enabled HE teachers to better understand their curriculum, which in turn promoted student learning (Stern, 2010:847). Taba (1962:11-12) states that the curriculum is developed so that the student can learn. Curriculum development should also be based on valid criteria that enable curriculum developers to make informed decisions (Taba, 1962:10). Three sources of criteria were identified by Taba (1962:10-11), namely:

- the demands and requirements of present and future cultures and society;
- the information and nature of how specific students learn, and
- the nature of knowledge and discipline specific characteristics.

Taba commented that the development of curriculum requires orderly thinking as the sequence of decisions and that the manner in which these decisions is made, is important. Her seven step model was designed based on this comment (Taba, 1962:11-12) and is referred as the Taba Model: Grassroots Rationale, by Ornstein and Hunkins (2014:186) (see 2.3.5.1.2).

2.2.2.6 Lawrence Stenhouse

Stenhouse is identified by Gleeson (2013:927) as one of the prominent critics of the objectives model of Ralph Tyler (see 2.3.5.1.1). Stenhouse argued that if knowledge was filtered through objectives, it distorted knowledge to the version specified by the institution, HE teacher or curriculum designer (Stenhouse, 1975:72). In Stenhouse's book he attempted to derive at a model that did not start with the identification of objectives, but rather focused on principles that would guide the teaching and learning process (1975:70). Stenhouse (1975:80) began his research at the four stages of education, namely *training, instruction, initiation and induction*. His research indicated that education as induction could contribute towards his model, since *it makes the behavioral outcomes of students unpredictable* (Stenhouse, 1975:82). He reported that content could be selected for a curriculum without first specifying the objectives. To support this finding, Stenhouse (1975:70-71) noted that content could be selected according to the structure of knowledge, namely by including the important procedures, key concepts and criteria of the discipline for which the curriculum was developed, as principles. Therefore, his process model operates on discipline knowledge as it is the essential ingredient (Stenhouse, 1975:93) (see 2.3.5.2.2).

2.2.3 Summary of curriculum development

Curriculum development is the umbrella term that is used to describe the ongoing processes of curriculum design, dissemination, implementation and evaluation (Carl, 2012:41-42). The four phases of curriculum development are never ending and continuously interact with each other (Carl, 2012:41-42). Three orientations and four approaches towards curriculum development have been discussed in section 2.2.1. These provide curriculum designers with relevant background knowledge and direct their actions. They highlight the importance of knowing your preference and perspective of curriculum development, as different people view the concept of curriculum differently (Breault and Marshall, 2010:179; SAQA, 2000:5). Six curriculum experts also have been introduced, namely Bobbit, Dewey, Tyler, Bloom, Taba and Stenhouse, who in the literature are regarded as experts who contributed immensely to the field of Curriculum Studies (see 2.2.2). The discussion of the different curriculum experts in this section also is aimed at providing background knowledge for what is to follow, as well as to highlight the differences in the opinions of these experts. Several of the curriculum experts' curriculum design models are discussed in section 2.3.5.

2.3 CURRICULUM DESIGN

South African HEIs have institutional autonomy which means that institutions may determine curricula at programme, departmental, faculty or institutional level (Bitzer, 2011:34; Le Grange, 2011:81). In the light of the transformation of HE in South Africa (see 2.1.1) most programmes at public HEIs had to be reviewed. I was fortunate enough to be part of this activity in 2008 at my former institution. However, I found curriculum design a daunting activity informed by the opinion and/or expertise of individuals rather than the team. Le Grange (2011:81) cautions exactly against this and identifies institutional autonomy as one of the challenges for South African HE. The importance of curriculum design by a team is noted by Wood (2011:288) who had an experience similar to mine. Ornstein and Hunkins' (2014:161) tips for curriculum design include the establishment of a curriculum design committee that consists of various stakeholders (e.g. HE teachers, parents, community members, administrators and students) to ensure that the curriculum design selected fulfils everyone's needs.

Carl (2012:41) defines curriculum design as the phase where a new curriculum is planned or an existing curriculum is reviewed after an evaluation phase. Ornstein and Hunkins (2014:13) refer to this phase as the frame of reference used to plan a curriculum and arrange the major components as listed in section 2.3.6. Carl (2012:66) notes the interdisciplinary nature of curriculum design since various aspects are taken into consideration during decision-making in this phase. As a result of the various decisions that are made during the process, curriculum design is a flexible process that takes into account all the different relative

variables (Carl, 2012:67). Ornstein and Hunkins (2014:157) provide tips to curriculum designers to aid them in compiling an effective curriculum design plan during this phase of curriculum development:

- Reflect on your personal assumptions (e.g. philosophical, educational and curriculum-related) with regard to aims and goals of a specific HEI.
- Consider the needs and aspirations of the students for which the curriculum is designed.
- Consider the components and their organisation in curriculum design which is discussed in section 2.3.6.
- Align the curriculum design components to the institution's aims and goals.
- Review the curriculum design by sharing it with a colleague for critical feedback.

The first objective of this study calls for the exploration of programme design, and more particularly, AAPs in the applied art discipline of graphic design. However, guidelines and resources for arts disciplines are rarely found in literature. Therefore, often outdated sources are used to link curriculum design to the graphic design discipline. The sections to follow document aspects noted by Carl (2012:66-67), as well as other researchers, regarding curriculum design since it should be grounded by theory by starting with curriculum design in the South African HE context.

2.3.1 Curriculum design in the South African higher education context

The transformation of HE in South Africa post its first democratic election is discussed in section 2.1.1. The most significant change, as a result of the transformation, is the implementation of a single co-ordinated HE system that follows a programme-based approach (RSA DoE, 1997:17). Curriculum design for this approach is informed in most instances by generic and discipline-specific outcomes rather than the academic disciplines (Le Grange, 2011:85). South African literature often uses the term programme design; however, for the purpose of this study the term curriculum design is used synonymously with programme design as stated in the introduction to this chapter.

A programme-based approach in South African HE has two key aspects. First it recognises a vast amount of learning institutions and sites (RSA DoE, 1997:17) which have institutional autonomy regarding matters such as curriculum design (Le Grange, 2011:81). In the second instance the approach is compatible with all the functions of HE such as teaching and learning, research and quality assurance to name but a few. The first criterion for programme design in terms of accreditation by the HEQC is informed by these two key aspects as depicted in Table 2.1. Learning institutions and sites in the South African HE landscape need to meet the first criterion set by the HEQC with regard to the minimum requirements for accreditation listed in Table 2.1 (CHE, 2004:7-8).

Table 2.1: HEQC's first criterion for programme accreditation in South Africa (CHE, 2004:7-8)

Definition
The programme is consonant with the institution's mission, forms part of institutional planning and resource allocation, meets national requirements, the needs of students and other stakeholders and is intellectually credible. It is designed coherently and articulates well with other relevant programmes, where possible.
Minimum criteria

A programme must:
• *align with institution's mission and goals;*
• *be approved by the appropriate institutional structures;*
• *align and adhere to the NQF;*
• *consider the intake student populations' learning needs in order to meet the competences expected of students who successfully complete the programme;*
• *balance theoretical, practical and experiential knowledge and skills with sufficient disciplinary content and theoretical depth at an appropriate level;*
• *provide articulation opportunities with other programmes and institutions for student learning and career pathways;*
• *ensure coherency of modules and/or courses that form part of a programme regarding content, level, credits, purpose, outcomes, rule of combination, weights and delivery;*
• *ensure policy and/or procedures are in place for alignment with programme goals and philosophy of learning material development or evaluation;*
• *provide training opportunities for academic staff where needed in regard to the above mentioned point;*
• *incorporate programme outcomes that meet industry and socio-cultural needs as well as requirements set by professional bodies, and*
• *ensure characteristics and needs of professional and vocational education are catered for in the design of the programme by:*
  • *promoting student understanding of the occupation trained for;*
  • *mastering of techniques and skills of the occupation;*
  • *work-based learning and placement in a work-based environment;*
  • *service learning programmes are integrated into the academic planning, mission and goals, and*
  • *enabling mechanisms are in place to support the implementation of service learning.*

In the light of South Africa's programme-based approach a proper definition is needed to inform curriculum designers. A programme is defined in HE as a *purposeful and structured set of learning experiences that leads to a qualification* (RSA DoE, 2013:7). The five core features of a programme are interdisciplinary, relevance or responsiveness, efficiency, portability and coherence (CHE, 2001:46). Furthermore, a programme must consist of a core, fundamental and/or elective components depending on the programme's purpose (CHE, 2001:46; RSA DoE, 2013:7). Gravett and Geyser (2004:143) distinguish between the function of each of these components. A core component consists of compulsory modules relevant to the particular qualification. Fundamental modules provide students with the educational, training or further learning foundation needed to obtain the specific qualification. Elective modules aid the achievement of the purpose of the qualification and contribute to the credits required for the specific NQF level of the programme.

Since a qualification is the end result of learning experiences within a programme (RSA DoE, 2013:7), defining the meaning of a qualification in the context of HE in South Africa is required. It may be argued that the definition is of importance since it should be considered in learning programme development, delivery and assessment by curriculum designers (SAQA, 2000:14-15). The RSA DoE defines a qualification as the *formal recognition and certification of learning achievement* (RSA DoE, 2013:6).

Furthermore, a qualification should be aligned or *nested* according to its NQF level on the HEQSF when designed (RSA DoE 2013:8). The curriculum designer needs to start the design of the qualification by aligning generic outcomes to the appropriate level descriptors of the qualification's NQF level (RSA DoE 2013:8). Thereafter, discipline-specific outcomes related to the qualification can be aligned (RSA DoE 2013:8). By following the above-mentioned steps, a curriculum designer ensures that adherence to the NQF as set out in the HEQC's minimum requirement for accreditation (CHE, 2004:7-8) (see 2.1.1). AAPs in South Africa are nested on the 5th level of the NQF (see the situation analysis of existing AAPs in section 3.2.2.1.1).

This section highlights important criteria and guidelines for programmes and qualifications of which curriculum designers need to take note when designing programmes for HE in the South African context. However, it is necessary to explore the wider literature on curriculum design in order to provide curriculum designers with global criteria and guidelines.

2.3.2 Levels of curriculum design

Curriculum design occurs at many different levels. Carl (2012:67-68) observes that curriculum design may take place at three levels, namely the *macro* level (e.g. national), *meso* level (e.g. provincial or departmental level), and *micro* level (e.g. institutional level). However, he then maintains that these three terms often are problematic, and proposes the use of the seven levels published in his earlier works (Carl, 1986:157-158, in Carl, 2012:67-68). Oliva (2001:48-49) also proposes seven levels; however, they differ from those of Carl (1986:157-158, in Carl, 2012:67-68), in respect to the tapering of the levels from a world level to a classroom level with no consideration for legislation, policies or procedures that might be applicable. I adapted the levels proposed by Carl (2012:67-68) to represent HE in the South African context, namely:

- The community's philosophy of life and views on HE.
- South African HE legislation (see 2.1.1 and 2.3.1).
- HEIs' programme mix.
- HEIs' programme policies and procedures.
- Individual learning programme design.
- Module design within learning programmes.
- Teaching of the programme (in terms of modules) that results in micro-curriculum design in the classroom.

  (adapted from Carl, 2012:67-68)

Carl's (2012:70) view on curriculum design at classroom level concurs with Oliva's (2001:49-51) stance that curriculum design at classroom level is the foundation of curriculum development at all succeeding levels. Carl (2012:70) actually emphasises the importance of curriculum design at this level by illustrating that it represents more than 25% of curriculum design activities that take place at all levels. The levels of curriculum design provide the curriculum designer with a global view; however, Le Grange (2011:84) notes the challenge of designing curricula which locally and regionally are relevant to South Africa, since HE in our country is dominated by Western epistemologies.

2.3.3 Criteria for curriculum design

It is important to set criteria for a flexible process such as curriculum design, since design rests upon various decisions taken by different experts. Curriculum design is a process which requires *thorough and well-thought-through planning and decision making* (Carl, 2012:66, 73). Over the past decades several researchers compiled criteria for curriculum design; however, there are a limited number of more recent sources. In Table 2.2 I attempt to compare curriculum criteria proposed by Carl (2012:72), Gorton (1976:236-239, in Carl, 2012:71-72), Oliva (2001:28-41) and Ornstein and Hunkins (2014:158-161). Carl bases his own general curriculum design criteria on the criteria provided in the work that he reviewed (Doll, 1978 in Carl, 2012:70-73; Gorton, 1976 in Carl, 2012:70-73; Krüger, 1980 in Carl, 2012:70-73; Walters, 1978 in Carl, 2012:70-73). On reviewing Gorton's criteria, he observed that they were general in nature; they are included in Table 2.2 as they are still deemed as relevant by Carl (2012:71). Oliva (2001:28-41) discusses ten axioms as principles of curriculum development; however, they are included in the comparison in Table 2.2, since they relate to several criteria for curriculum design proposed by Carl (2012:72), Gorton (1976:236-239, in Carl, 2012:71-72), and Ornstein and Hunkins (2014:158-161). Oliva (2001:28) also highlights their application for improving an existing curriculum, which is included in the definition of Carl (2012:41) for curriculum design. Oliva (2001:28) defines an axiom as a guideline that is used to stipulate ways of working as well as solving problems. Ornstein and Hunkins (2014:154-157) refer to the considerations of curriculum design in regard to the relationship between the design components (see 2.3.6).

Table 2.2: Comparison of criteria for curriculum design

CRITERIA	Carl (2012:72)	Gorton (1976:236-239, in Carl, 2012:71-72)	Oliva (2001:28-41)	Ornstein and Hunkins (2014:158-161)
Content criteria take into account				
Correlation of content		x		
Scope of content				x
Sequence of content				x
Demands and needs criteria take into account the needs of/for the				
Community	x	x		
Didactics	x			
Disciplines	x			
Educational administration	x			
Industry and real life	x	x		
General criteria take into account/perform the following				
Inevitability of change			x	
Effective evaluation	x			
Integration of knowledge and experiences				x
Clear and well-defined objectives		x		
Promotion of objectives		x		
Purposeful planning	x			
Process criteria take into account that design is/uses				
A comprehensive process	x	x	x	
A continuous process			x	x
Decision-making processes			x	
Existing curriculum used as a starting point			x	
Interdisciplinary process	x		x	
Method	x			
Systematic development			x	
Student criteria for curriculum design should provide/take into account				
The balance among cognitive, affective and psychomotor domains	x	x		x
Students' developmental levels	x	x		

The comparison of the four literature sources in Table 2.2 highlights the criteria for curriculum design. The curriculum design criteria were divided into five sections, namely content, demands and needs, general, process, and student criteria. Two of these criteria indicate that the curriculum design should address the community's demands and needs, and that the curriculum should be relevant to industry and real life. Among the process criteria, both Carl (2012:72) and Oliva (2001:28-41) note the interdisciplinary nature of curriculum design as a criterion for curriculum design. Other overlapping criteria of the curriculum design process are that it should be a comprehensive and continuous process. Among the student criteria two criteria are listed by two of the authors, namely the consideration of the students' developmental level when designing the curriculum, as well as the balance that should exist among the cognitive, affective and psychomotor domains. Carl (2012:69-70) elaborates on the importance of taking the students' development level into consideration when designing curriculum. He lists five considerations to take note of while designing the curriculum to address this important criterion (Carl, 1986:33 in Carl, 2012:67-68), namely curriculum developers and designers need to:

- consider module content, methods and skills;
- train students in all the modes of communication skills;
- make provision for potential differences among students by making provision for all needs, abilities and skills;
- develop a skill that students can use in their free time through their learning experiences; and
- align the curriculum design with the values of the community and country.

  (Carl, 1986:33, in Carl, 2012:69-70)

2.3.4 Curriculum frameworks

Curriculum frameworks are included as part of the curriculum design process in order to align with objective 4 of this study. However, it is only discussed briefly in this chapter. Marsh (2009:54) posits that a curriculum framework is a tool that may be used by curriculum designers for control and direction. Curriculum frameworks can provide structure for discipline-related subjects or themes, including graphic design; however, most recent curriculum frameworks predominantly are designed for primary and secondary education (Marsh, 2009:54; 56). Curriculum frameworks, similar to curriculum models (see 2.3.5), incorporate the values, principles and assumptions of the individual or group who designed them (Marsh, 2009:56). Ornstein and Hunkins (2014:157) highlight the conceptual framework as a component of curriculum design as it requires horizontal and vertical organisation of the framework components (see 2.3.6). Horizontal organisation involves the scope and integration of curriculum components; for example, taking the content from one module and relating it to the content of another module at the same level, while vertical organisation, on the other hand, involves sequence and continuity of curriculum components (Ornstein and Hunkins, 2014:157). According to these authors, this is achieved by organising the content of the curriculum into different levels of difficulty and complexity for different grades.

2.3.5 Curriculum design models

Marsh (2009:41) emphasises a number of fundamental questions identified by several researchers before the turn of the century which always need to be asked in curriculum development. However, even the most fundamental question about curriculum leads to an infinite regression to sub-questions. As a consequence, Marsh (2009:41) notes that one has to turn to curriculum models to identify the basic considerations that must be accounted for in curriculum decision-making. Models show the interrelationships of these considerations. Oliva (2001:137) defines a curriculum model as a pattern of components/actions that serves as a guideline for actions required. Curriculum models can also help designers to systematically and transparently map out the rationale for the use of particular teaching, learning and assessment approaches (O'Neill, 2010:2). However, curriculum models are usually incomplete, since they do not indicate all steps or actions needed by the curriculum designer (Oliva, 2001:149). They often overlook the personal attitudes, feelings and values of the curriculum designer that informs the design (Ornstein and Hunkins, 2014:2). Therefore, O'Neill (2010:2) suggests that curriculum models should not be used as a fixed recipe. This suggestion is supported by Carl (2012:66), since he notes the flexibility of the process. Curriculum models can provide useful, detailed perspectives on some particulars of the curriculum in action, but not the total picture (Marsh, 2009:41).

Curriculum models are also classified into various categories by different researchers, for example, O'Neill (2010:2) differentiates between process and product models. Oliva (2001:138-139) compares two categories of curriculum models with another, namely deductive versus inductive models, and prescriptive versus descriptive models. Deductive models proceed from the general (for example: community needs) to more specifics (e.g. LOs), whereas inductive models work the other way around (Oliva, 2001:138). Oliva (2001:139) also differentiates between prescriptive (that suggests to the curriculum designer what he/she needs to do), or merely descriptive models. In contrast to Marsh (2009:42), Oliva (2001:138-139) and O'Neill (2012:2) categorise all curriculum models into four broad types, similar to those of Posner (1988, in Marsh 2009:42), namely procedural, descriptive, conceptual and critical models. A procedural model provides steps that should be followed, a descriptive model notes what curriculum designers need to do, a conceptual model clarifies the elements of curriculum design and their relations, and a critical model focuses on whose interest the curriculum serves/should serve (Marsh 2009:42). If these categories are reviewed, it is possible to identify curriculum models which fit into all three researchers' categories. One such example is Tyler's Rationale (see 2.3.5.1.1), which is categorised as a procedural model (Marsh, 2009:42), a deductive, prescriptive model (Oliva, 2001:138-139), and a product model (O'Neill, 2010:2). Most curriculum models were designed for a specific educational context; however, O'Neill (2010:3) notes that many models are transferable across the different contexts.

In an attempt to provide a broad perspective on different models, seven curriculum models are reviewed in this section. The curriculum models are categorised according to Marsh's (2009:42) categories but notes are made in the review of each individual model in terms of its relation to the categories of Oliva (2001:138-139) and O'Neill (2010:2). However, it must be noted that all models discussed in the section to follow are classified either as a procedural or descriptive model. Figure 2.3 is an outline of the models discussed in this chapter.

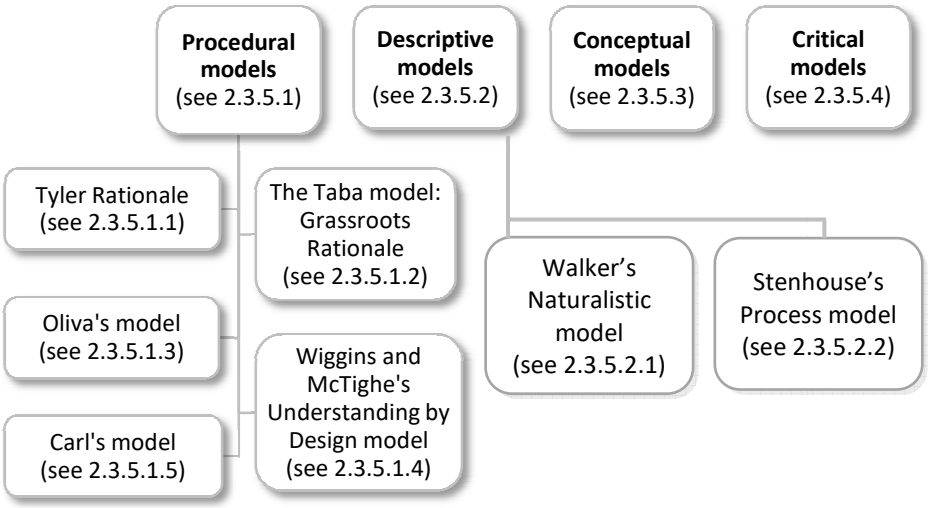


Figure 2.3: Outline of curriculum design models discussed in this chapter

2.3.5.1 Procedural models

Procedural models provide steps that should be followed by the curriculum designer (Marsh 2009:42). This type of model often is referred to as a means-end model since it specifies the means and process to follow to achieve the desired end (Walker, 1971:58-59). This category of curriculum models includes a large number of models of which the most influential is the Tyler Rationale, which Ralph Tyler developed in 1949 (see 2.3.5.1.1). Other curriculum models discussed in this section comprises the Taba Model (Grassroots Rationale), Oliva's model of curriculum development, Wiggins and McTighe's Understanding by Design (UbD) model and Carl's model. Ornstein and Hunkins (2014:184) categorises all these curriculum models, except Carl and Oliva's models, to have a technical-scientific approach since they indicate the learning of specific subject matter that has a specific outcome. However, Carl and Oliva's models are similar in nature to the other three models and therefore are categorised in this research to also take a technical-scientific approach. Curriculum models within this section are discussed according to publication date.

2.3.5.1.1 Tyler Rationale

The Tyler Rationale was developed by Ralph Tyler in 1949 (see 2.2.2.3). This curriculum model provides the curriculum designer with steps to build a curriculum by answering four questions (Marsh, 2009:47). The Tyler Rationale is categorised as linear since the questions are answered in a systematic manner (Oliva,

2001:138), deductive since the questions proceed from general to specifics (Oliva, 2001:138), and as a product model (O'Neill, 2010:2). The four questions of the Tyler Rationale are listed below, followed by a brief explanation of each question.

The four questions are:

- *Which educational purposes should the school seek to attain?*
- *Which educational experiences can be provided which are likely to attain these purposes?*
- *How can these educational experiences be effectively organized?*
- *How can we determine whether these purposes are being attained?*
  (Tyler, 1949:1)

Ornstein and Hunkins (2014:185) note that Tyler actually means objectives when referring to purposes. The first question of Tyler sets the objectives of the curriculum (Kelly, 2009:20). Tyler (1949:45) notes that the purpose of setting objectives is to identify the changes in students that the curriculum designer wants to occur. Objectives need to be stated in terms of the changed behaviour of the student and the content or area of life for such behaviour (Tyler, 1949:46-47). Three sources are used to determine the objectives of the curriculum, namely the community, the student and subject matter (Carl, 2012:74; Kliebard, 1970:57-60; Madaus and Stufflebeam, 1988:200; Oliva, 2001:140; Ornstein and Hunkins, 2014:185). Marsh (2009:47) notes Tyler's use of educational philosophy and psychological principles as screens. This is needed to understand the objectives and identify the most important objectives (Marsh, 2009:47). Tyler does not specify which educational philosophy needs to be used to contribute to this model's popularity (Marsh, 2009:47; Ornstein and Hunkins, 2014:186). However, this is one of the points of criticism of the Tyler Rationale mentioned by Marsh (2009:47).

The second question of Tyler aims to determine the learning experiences of the curriculum in accordance with the objectives. *Learning experiences* is defined by Tyler as the *interaction between the student and external conditions in the environment* (Tyler, 1949:63). The HE teacher is not included in the definition of learning experiences but can fulfil their role by controlling the learning experience through manipulating the environment (Tyler, 1949:63). Tyler (1949:65-68) notes the general principles to abide by for selecting learning experiences, namely:

- *A student must have a learning experience that provides him/her with the opportunity to practise the changed behaviour needed to obtain the objective.*
- *A student must gain satisfaction from the learning experience of the changed behaviour required by the objective.*
- *A student must possess the ability to achieve the changed behaviour through the learning experience.*
- *A variety of learning experiences are available to achieve the same changed behaviour.*
- *One learning experience can result in several outcomes.*

Madaus and Stufflebeam (1988:200) note similar principles as Tyler's documents, but include models of the changed behaviour and continuous evaluative feedback but discard the fifth principle.

The third question of Tyler determines the organisation of the learning experiences identified in the second question (Tyler, 1949:83). The efficiency of instruction and degree of educational changes heavily rely on this aspect (Tyler, 1949:83). Therefore, Tyler (1949:84-86) identifies three categories of organisation of learning experiences, namely:

- *Vertical continuity of curriculum elements.*
- *Sequence of learning experiences that builds upon the preceding experience.*
- *Integration of learning experiences in order for the student to view the unified curriculum and changed behaviours required.*

The fourth question of Tyler (i.e. *how can we determine whether these purposes are being attained?*) requires the evaluation that must be done by curriculum developers/designers to determine whether the objectives of the curriculum have been met (Kelly, 2009:20; Kliebard, 1970:63). Tyler (1949:104-108) defines the evaluation, that is completed by the learning experience, as a preliminary evaluation. In this type of evaluation it is difficult to derive whether the objective is met as learning experiences may have many variables. Therefore, a different approach to evaluation should be used to determine the development of the learning experience, whether the outcomes of the learning experience are aligned with the objectives, and to identify the strengths and weaknesses of the curriculum. The evaluation process begins with the objectives of the curriculum, followed by the identification of situations that allow the student to express the changed behaviour required by the objectives. Once these two aspects have been completed the curriculum designer may employ evaluation instruments such as pen and paper devices, observation and interviews to name only a few. Section 2.3.6.5 discusses assessment in-depth.

However great the impact of the work of Tyler is, critique regarding this model needs to be noted. The Tyler Rationale is classified by Du Toit (2011:67) as an aims-objective model, which he later criticises as it implies that the product is more important than the process. Du Toit (2011:68) also expresses reservations about this model as it over-emphasises cognitive learning, which is not a suitable approach to curriculum design at HE level. Stenhouse (1975:70-83) dedicates an entire chapter in his book to the critique of the objectives model and states that such a model is highly speculative (see 2.3.5.2.2). Furthermore, Kliebard (1970:57-58) critiques Tyler's steps to select objectives for the curriculum as there are many of Tyler's interpretations of the Committee of Ten with which he does not agree. The Committee of Ten was authorised by the National Education Association of the United States to recommend standards for core modules in the secondary school curriculum (Bohan, 2010:125). Marsh (2009:49) adds to the critique of the Tyler Rationale by noting that the model only evaluates the intended objectives and learning experiences, thereby excluding the hidden learning experiences of the curriculum which also have value (see 2.2). Since this model is systematic in nature it discards the interactivity between the different steps/questions which naturally occur in the curriculum design process (Marsh, 2009:49).

Many adaptations of Tyler's model were developed. The most known is the seven-step process of Taba (1962:11-12) (see 2.3.5.1.2). South African curriculum designers that adapted this model are Krüger (1980) and Walters (1978), both, as originally cited in Carl (1986) and discussed in the fourth edition of *Teacher empowerment through curriculum development* (Carl, 2012:76). All adaptations are mere expansions of Tyler's four steps. Carl (2012:76) compares the three South African models with each other in a table format that makes is easy to observe the similarities.

2.3.5.1.2 The Taba model: Grassroots Rationale

This model was developed by Hilda Taba in 1962 (see 2.2.2.5) and is commonly referred to as the seven-step process model. Although this model is an adaptation/expansion of the Tyler Rationale (Du Toit, 2011:69; Hunkins and Hammil, 1994:8) (see 2.3.5.1.1), it differs in its inductive nature since it starts with the needs of the students rather than objectives. Another difference is the interactivity of the five major elements (needs, objectives, content, learning experiences and evaluation), which Marsh (2009:49) criticises in the four questions of the Tyler Rationale. The Taba model entails seven steps, namely:

- *Diagnosis of needs.*
- *Formulation of objectives.*
- *Selection of content.*
- *Organisation of content.*
- *Selection of learning experiences.*
- *Organisation of learning experiences.*
- *Evaluation and means of evaluation.*

  (Ornstein and Hunkins, 2014:186)

Taba's model provides steps to be followed by a curriculum designer and, therefore, the model is categorised by Oliva (2001:138) as a linear model. Taba (1962:3), in her model, elucidates the selection of content and learning experiences with specific criteria. Similar to the Tyler Rationale's sources for objectives, Taba notes the external factors that have an impact on the model, namely the nature of the community, institution and student population, policies of the specific institution and characteristics and approach of the HE teachers involved in the curriculum (Taba, 1962:3). Taba believes that HE teachers have an important role to play in curriculum design; therefore, she indicates in the seven steps what the HE teacher should do; hence the term grassroots rationale (Ornstein and Hunkins, 2014:186).

2.3.5.1.3 Oliva's model of curriculum development

In 1982, Peter Oliva published the first edition of his book *Developing the curriculum*. This book is used as a comprehensive guide to the process of curriculum development (Oliva, 2001:Preface), as he developed a unique model in an effort to tie together essential components (Oliva, 2001:174-177). Oliva's model is included in this literature study as it suggests a systematic approach that curriculum designers can follow,

and this model serves as a comprehensive framework for the different components/phases in the process (Oliva, 2001:150). It is deductive in nature, similar to the Tyler Rationale (Oliva, 2001:138).

Oliva's model of curriculum development consists of twelve main components (Oliva, 2001:150). It can be illustrated as a diagram with squares and circles representing planning and operational phases respectively (Oliva, 2001:150), or as seventeen steps (Carl, 2012:76) (see Figure 2.4). The model's comprehensive nature allows it to be sub-divided into two sub-models for curriculum development and instructional-learning (Carl, 2012:76). Oliva's model is linear, but the components interact with each other at different stages in the curriculum development process (e.g. instructional goals and evaluation of instruction interact to achieve alignment), similar to Taba's model (Oliva, 2001:138).

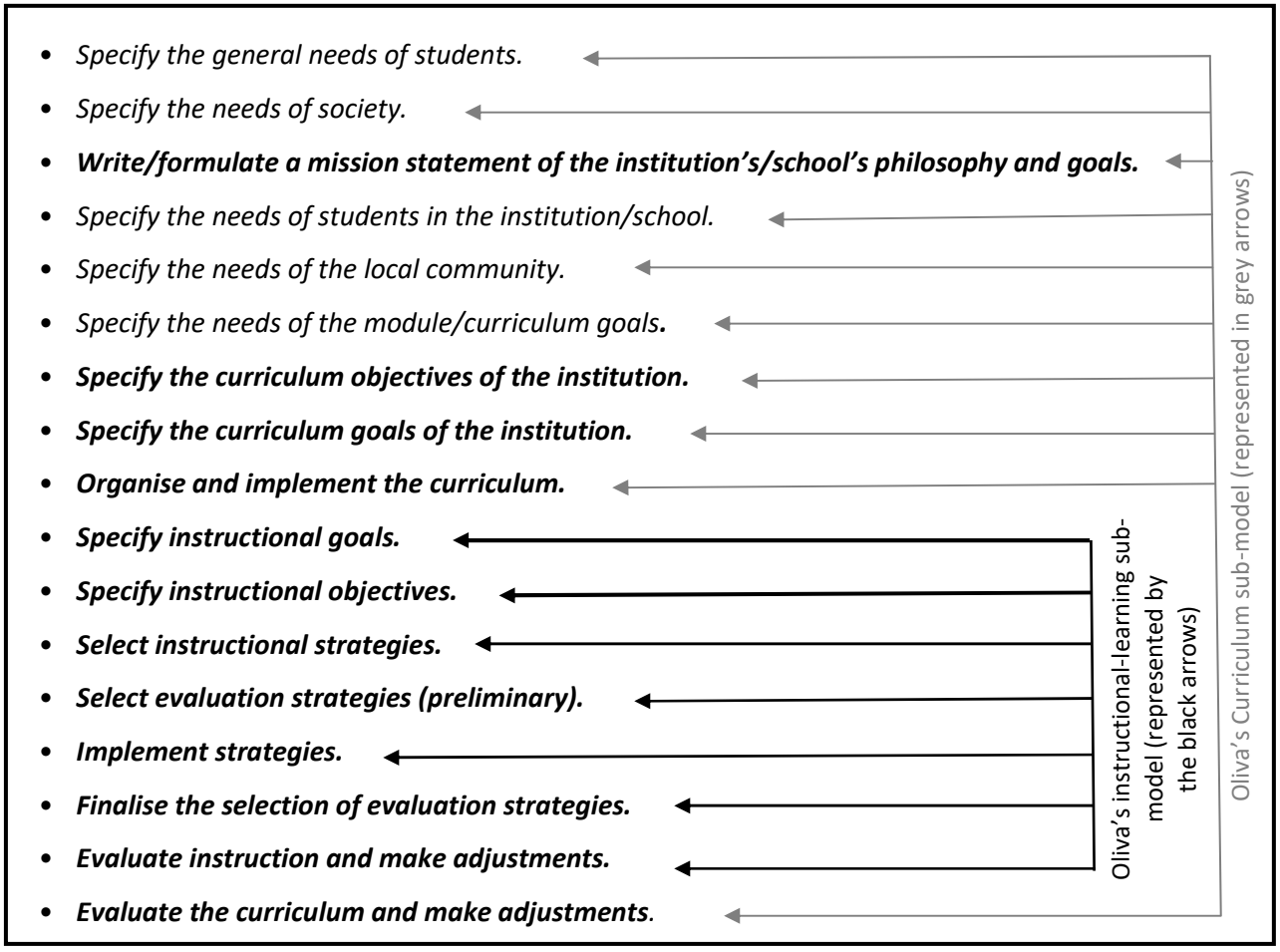


Figure 2.4: Steps of Oliva's model of curriculum development (Carl, 2012:76)

The twelve main components of Oliva's model are indicated in Figure 2.4 in bold italic. The first component of the model is informed by the general needs of students and society (Carl, 2012:75). The second component is informed by the particular needs of the students and the local community (Carl, 2012:75). The two sub-frameworks are indicated by means of different colour arrows that visually point out the steps associated with them.

2.3.5.1.4 Wiggins and McTighe's Understanding by Design (UbD) model

The UbD model was designed by Grant Wiggins and Jay McTighe in 1988 (Marsh, 2009:44) and is also referred to as the Backward-Design model (*cf.* Ornstein and Hunkins, 2014:187). One of the major concepts of the UbD model is that teaching should equip students to use or transfer the knowledge they have obtained (McTighe and Wiggins, 2012:4). Marsh (2009:44,52) posits that the UbD model is not only widely used in the United States of America; it also appears to be well received by HE teachers in a number of countries. The UbD model is similar to the previous procedural models discussed in this section and has a linear approach (Oliva, 2001:138), although the steps interact with each other. This model's popularity in practice may be due to its link with graduate attributes and competences (O'Neill, 2010:5).

As the name suggests, the UbD model states that curriculum design should be done in a backwards manner in three stages. The model starts with the goals/desired results of the curriculum according to the different levels of curriculum design applicable (Ornstein and Hunkins, 2014:187) (see 2.3.2 on levels of curriculum design). The curriculum designer needs to identify the most important learning priorities of the specific curriculum in order to reduce the number of desired results (McTighe and Wiggins, 2012:2). Three different types of goals/desired results are listed by McTighe and Wiggins (2012:2), namely transfer, meaning making and acquisition of knowledge. Therefore, the Wiggins and McTighe model proposes four filters that should be applied by asking the following questions:

- *Filter 1: To what extent does the idea, topic or process represent a 'big idea' having enduring value beyond the classroom?*
- *Filter 2: To what extent does the idea, topic or process reside inside the heart of the discipline?*
- *Filter 3: To what extent does the idea, topic or process require uncoverage?*
- *Filter 4: To what extent does the idea, topic or process offer potential for engaging students?*
  (Marsh, 2009:50)

The second stage of the UbD model determines how the goals/desired results of the curriculum will be evaluated (Ornstein and Hunkins, 2014:187). In this aspect it differs from all the other procedural models since assessment is thought about at the beginning in the UbD model rather than at the end. Wiggins and McTighe argue that it is important to know what evidence students should present to demonstrate achievement of the goals/desired results specified in stage 1 before commencing the design of the learning experiences (Marsh, 2009:50). The UbD model requires alignment among all three stages, showing agreement with the constructive alignment concept of Biggs and Tang (2011:104-109) (see 2.3.6.2.2b). This concept (constructive alignment) of Biggs and Tang (2011:105) may also be regarded as a backward design model. Formal and informal methods are used for assessments (McTighe and Wiggins, 2012:5; Ornstein and Hunkins, 2014:187) (see 2.3.6 for clarification of the use of the term assessment and evaluation).

Once the curriculum designer has determined the acceptable required evidence, he/she proceeds to align and plan the learning experiences (Marsh, 2009:51). The learning experiences should focus on transfer,

meaning making and acquisition of knowledge (McTighe and Wiggins, 2012:4) since this is a focus point of the model. Five questions can be asked to assist the curriculum designer with the selection of learning experiences:

- *What knowledge and skills do students need to perform effectively to achieve the goals/desired results?*
- *What activities enable students to master the needed knowledge and skills?*
- *What needs to be taught and how should it be taught in order for students to achieve the goals/desired results?*
- *What materials and sources are best suited to accomplish these goals/desired results?*
- *Does the overall design of the curriculum fulfil the principles of curriculum development?*
  (Marsh, 2009:51; McTighe and Wiggins, 2012:6; Ornstein and Hunkins, 2014:188)

Many advances can be noted, of which the most important for me is that it puts HE teachers central in the curriculum design process and acknowledges their important role (Marsh, 2009:52). This is similar to Taba's model which also highlights the value of the HE teacher in curriculum design. Another advantage is its flexibility of application in the Outcomes-Based Education (OBE) approach (Marsh, 2009:52) which South African HE follows (see 2.3.6.2.2a). However, Marsh (2009:52) criticises the model in that it focuses too much on the outcomes and neglects the selection of learning experiences.

2.3.5.1.5 Carl's model

Carl (2012:76) reviewed a number of curriculum models based on the Tyler Rationale including three South African models (i.e the Krùger model and the Walters model). Carl (2012:77) identifies some aspects of the reviewed models which he finds problematic, such as that some models are not comprehensive enough, or cannot be utilised at all curriculum levels, or cannot be applied to a specific educational system or community. Therefore, Carl (2012:77) identified the common elements in the models he reviewed and used these as a foundation to design his own model. Carl's model of curriculum design consists of nine elements which are interlaced with each other, namely:

- a situation analysis to determine the needs of students, HE teachers, environment and society;
- intended goals and critical outcomes;
- core content and learning areas;
- learning content;
- LOs based on teaching and learning objectives;
- methodology and teaching media;
- organization and planning of teaching and learning;
- implementation; and
- contextual assessment that is student-centred and curriculum orientated, and specifies techniques and strategies.
  (Carl, 2012:77)

This model of Carl (2012:77) can be used at any curriculum level, but all elements might not be applicable at all levels. The outcomes of Carl's model have a similar focus than the models he used as foundation for his model (Carl, 2009:75). The non-linear approach of the model allows curriculum designers to enter at various points, skip components, reverse the order and work on two or more components simultaneously (Carl, 2012:77).

2.3.5.2 Descriptive models

Descriptive curriculum models explain a process (Hewitt, 2006:139) and describe what curriculum designers need to do (Marsh 2009:42). Procedural and descriptive models differ in nature, in that procedural models (see 2.3.5.1) are based on objectives and goals/desired results, and these are measured through evaluation (Lunenburg, 2011:2). Descriptive models, on the other hand, use objectives only as one method amongst many to guide curriculum designers (Walker, 1971:59). The latter also follow a non-linear approach which allows the curriculum designer to enter at any point of the process, skip components, reverse the order and attend to two or more components simultaneously (Lunenburg, 2011:2). Descriptive models may be classified amongst those processes/models following a non-technical and non-scientific approach, since Ornstein and Hunkins (2014:192) refer to this approach to curriculum design as a subjective approach where discussions or deliberations lead to a curriculum design with some uncertainties. Two descriptive models will be discussed, namely Walker's Naturalistic model and Stenhouse's Process model.

2.3.5.2.1 Walker's Naturalistic model

The naturalistic model was developed in 1971 by Decker Walker (Marsh, 2009:45). Walker developed his curriculum model based on his experiences over a period of three years at the Kettering Art Project during the late 1960s in California (Marsh, 2009:45). Walker's model consists of three major elements: *A beginning (the platform), an end (the design) and a process (deliberation) by means of which the beginning progresses to the end* (Walker, 1971:58).

The platform entails the beliefs or principles that guide curriculum designers at the beginning and is referred to as the platform principles (Lunenburg, 2011:2). At the beginning of the process of curriculum design, a curriculum designer has an idea or notion of what he/she feels is the desirable outcome of the process. A curriculum designer's approach and orientation towards curriculum development may inform his/her beliefs or principles (see 2.2.1.1 for approaches and orientations towards curriculum development). The beginning stage is followed by the curriculum design process which Walker refers to as deliberation. Deliberation is the process that a curriculum designer follows to make curriculum design decisions (Walker, 1971:54). Design decisions are based on the curriculum designer's platform principles and information he/she has available, referred to as data. During this process curriculum designers should formulate decision points with alternatives, consider pro and con arguments for both, and end by choosing the most

defensible alternative within the acknowledged constraints (Walker, 1971:54). The deliberation process often leads to chaos and confusion (Walker, 1971:55). Therefore, should there be any uncertainty regarding a deliberation outcome due to various alternatives or limited information, the curriculum designer needs to seek additional information to justify his/her decision (Walker, 1971:57). The most important aspect of the deliberated outcome (the curriculum design) is that it should be defendable and justified (Walker, 1971:55), which can be confirmed by the use of empirical data (Walker, 1971:57). This justification is referred to by Walker (1971:57) as policy. Thus, deliberation results in an end, namely a curriculum design (Lunenburg, 2011:2; Oliva, 2001:139).

2.3.5.2.2 Stenhouse's Process model

The process model was developed by Lawrence Stenhouse in 1975 as an attempt to illustrate that a model did not need to be a means-end like the Tyler Rationale (see 2.3.5.1.1). In support of his theory, Stenhouse argues that knowledge in itself has a structure, involves procedures, concepts and criteria which can be used as components in such a model (Marsh, 2009:45). Stenhouse's stance is observed in his definition of curriculum as pointed out by James (2012:62): *A curriculum is an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice* (Stenhouse, 1975:4).

The process model uses an experiential approach (see 2.2.1.2), which allocates value to the HE teacher and students' personal feelings, values and experiences. Stenhouse (1975:5) compares curriculum to a recipe that can be varied, within limits, according to one's needs. It is a descriptive model or a naturalistic model according to Walker's (1971:58) definition, which can be interpreted from the work of Stenhouse (1975:86) as a base or platform of principles and beliefs of the HE teacher which inform and guide the curriculum design process. The importance of the HE teacher in the process model is noted by Du Toit (2011:71), and is confirmed in Stenhouse's (1975:9) argument that content for a curriculum should be selected according to what the HE teacher deems worthwhile. Stenhouse (1975:143-144) notes the two definitions of Hoyle (1972) for the different types of HE teachers, namely a *restricted professional* and an *extended professional*. An *extended professional* has similar qualities as the *restricted professional*, but has a wider range of involvement. Stenhouse derived the characteristics of an *extended professional*, from the critical role the HE teacher has in the process model. Stenhouse (1975:96) identifies the greatest strength of this model also as its weakness; it depends on the quality of the HE teacher; therefore, he deems the professional development of the HE teacher extremely important. This view is included in the third and eleventh criteria for programme accreditation for South African HEIs (CHE, 2004:9-10, 18). The eleventh criterion for academic development of staff is aimed at contributing to students' success. Cho and Trent (2010:814) purport that educational standards are the responsibility of these *extended professionals*, since HE teachers need to be held accountable for building knowledge. According to Stenhouse (1975:144), the critical characteristics of HE teachers as *extended professionals* are as follows:

They

- have a commitment to question their own teaching practice;
- have a commitment and the required skills to study their own teaching practice;
- use their skills to question and test theory in practice, and
- allow other HE teachers to observe their teaching practice.

  (Stenhouse, 1975:144)

HE teachers are seen as experts dealing in public knowledge in this model (James, 2012:62). Stenhouse (1975:13) notes that this knowledge is categorised according to disciplines which have their own norms and values outside of the learning institution. These norms and values of a specific discipline contribute to the platform principles and beliefs of the curriculum designer who often is the HE teacher. The process model highlights the worth of curriculum content and teaching and learning experiences since they require students to think within a specific discipline which is based on the key principles, procedures and ethical or pedagogical nature of that discipline (Gleeson, 2013:927). The process model is important for disciplines which promote understanding and discipline criteria (Stenhouse, 1975:96), such as that of graphic design (see Chapter 4).

Stenhouse (1975:85) contends that within the arts area, content for a curriculum can be selected without any reference to student behaviours as happens in procedural models, since it can be based on the discipline's key procedures, concepts and criteria (see Chapter 4). Learning experiences, in alignment with the disciplines' key procedures, concepts and criteria, should be based on pedagogical principles of a process where students learn to:

- pose questions to support the inquiry method;
- conduct research in order to answer questions and apply these findings to other situations;
- use a variety of sources to form hypotheses and to use these to draw conclusions;
- participate in discussions by listening to the views of others and expressing one's own view;
- initiate and participate in open-ended debates which have more questions than answers;
- reflect on their own experiences (see the value of reflection in section 4.4.11), and
- view their HE teachers as a resource rather than an authority figure.

  (Hanley, Whitla, Moo and Walter, 1970:I-5-I-6)

The process model raises problems for the assessment of student work since it focuses on a process rather than an end product (Stenhouse, 1975:94). This is noted in Stenhouse's statement that *the process model is essentially a critical model, not a marking model* (Stenhouse, 1975:95). In other words, *the model pursues understanding rather than grades* (Stenhouse, 1975:96). He elaborates on this statement by adding that

quality is lost when the model is used to direct students towards an assessment, such as an examination. Such assessments, however, are of importance in our society (Stenhouse, 1975:95-96). Stenhouse (1975:96) cautioned that students might pass an assessment which did not necessarily indicate understanding.

The process model is ideally designed to complement the arts disciplines. This is confirmed by Carl (2012:45-46), since he proclaims that the experiential approach of the process model is mainly used in the development of art modules in high school. It can be expanded to HE arts disciplines, since Stenhouse (1975:71) confirmed its use in the selection of content based on a disciplines' key procedures, concepts and criteria. Graphic design is such a discipline, and its procedures, concepts and criteria are summarised in Chapter 4 of this study.

2.3.5.3 Conceptual models

Conceptual models focus on deeper issues of curriculum design rather than its procedures (Marsh, 2009:45). Marsh (2009:45-46) identifies three models that are categorised as conceptual models, namely Gardner's Multiple Intelligence model, Resnick and Klopfer's Constructivist model and Schwab's Deliberation model. Schwab's Deliberation model was published in 1970 and involves deliberation among curriculum designers regarding facts relevant to the curriculum design and the value, cost and consequences of alternative solutions for such a design (Marsh, 2009:45). Curriculum decisions in this model should include Schwab's four considerations of subject matter, student, HE teacher and the environment (Marsh, 2009:45). Gardner's Multiple Intelligence model is quite known in the field of psychology since it focuses on child development and cognitive sciences and was published in the early 1980s (Marsh, 2009:45). The Constructivist model of Resnick and Klopfer was published a few years after Gardner's Multiple Intelligence model and focuses on the process of a HE teacher and a student's inner cognitive conflicts, exploration of ideas and concepts to create knowledge (Marsh, 2009:46).

2.3.5.4 Critical models

Critical models are also referred to as critical-exploratory theorisers by Marsh (2009:259). Marsh dedicates an entire chapter in his book to this type of curriculum models, since it is evident from literature he reviewed that there was a mind shift among curriculum experts from the late 1970s. Critical-exploratory theorisers explore the psychological, political and cultural dimensions of curriculum (Marsh, 2009:260). Curriculum theorising consists of three activities:

- *Being sensitive to emerging patterns in phenomena.*
- *Attempting to identify common patterns and issues.*
- *Relating patterns to one's own teaching context.*

  (Marsh, 2009:259)

Critical models involve several different approaches to curriculum design which were not discussed in section 2.2.1.2. Marsh (2009:269) notes that the approaches that are based on the analysis of social structures or personal experience have gained popularity over the past nearly two decades. These approaches are not relevant to this study since they are not in line with the study's paradigm and will therefore only be mentioned below:

- Social and cultural control, social reproduction and cultural reproduction approach - concerned with the relationship between society or culture and schooling.
- Literacy artist – all stakeholders (e.g. curriculum designers, HE teachers and students) contribute to an ongoing process of personal meaning making which they convey to others.
- Existential and psychoanalytical - the importance of how schooling influences experience.
- Phenomenological theorizing - personal reflection about what you see, feel and believe.
- Autobiographical/biographical theorizing - personal experience in the curriculum.
- Racial theorising - involves race and its concepts (i.e. multiculturalism, identity and marginality).
- Gender analysis and male identity.
- Postmodern theorizing.

  (Marsh, 2009:262-266)

2.3.5.5 Summary of curriculum models

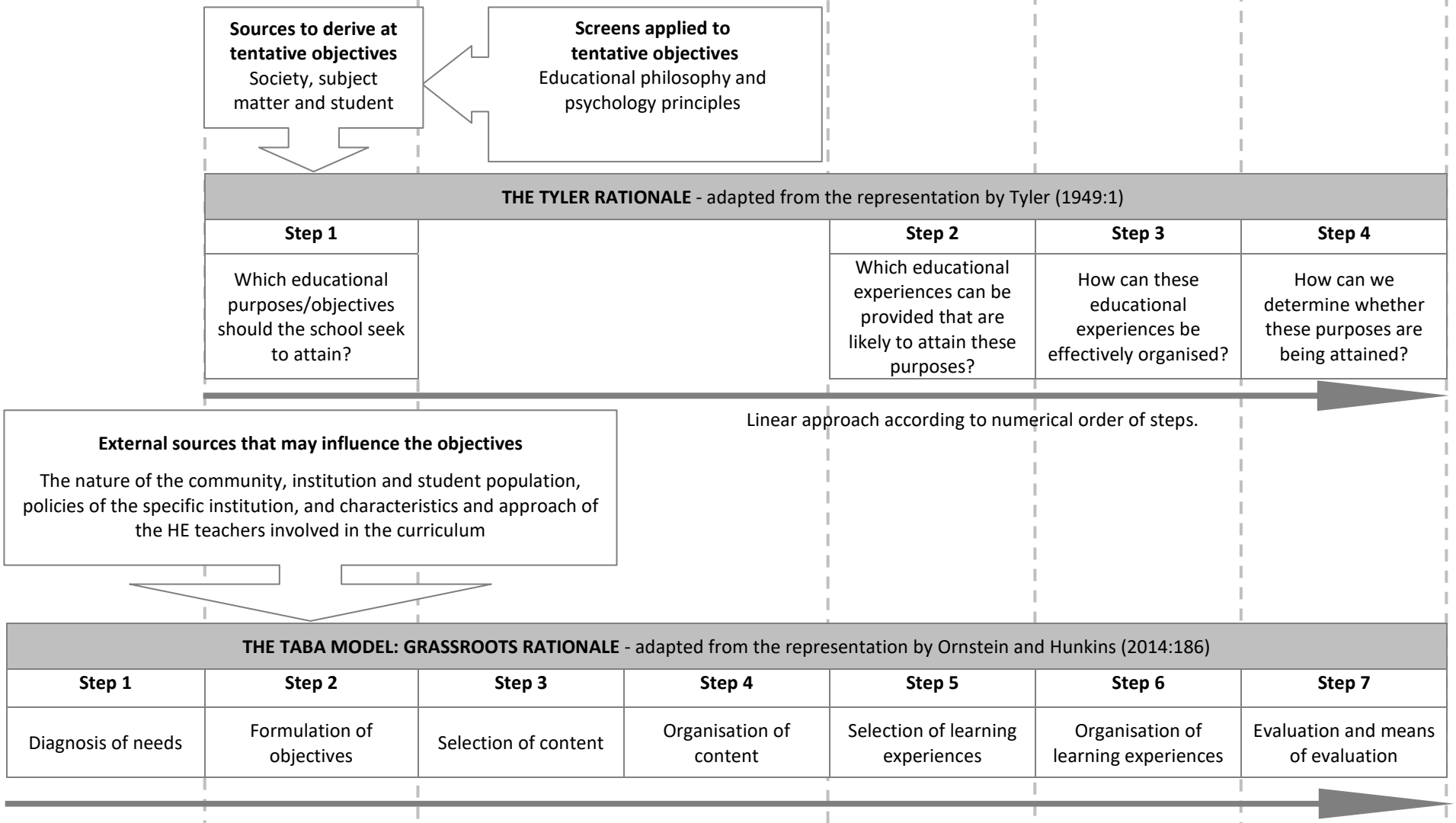
Four different types of curriculum models are identified according to the themes of Marsh (2009: 42). Seven curriculum models have been discussed of which five are procedural models and two descriptive models. Conceptual and critical models have been discussed only briefly since none of the selected curriculum models falls into these categories. The critical model approaches will not be discussed further in this section since these approaches are not applicable within the paradigm of this study.

In writing about these models, one might quickly identify with a particular model according to one's own orientation and approach to curriculum design. However, it is important to take note of Oliva's (2001:149) warning against judging one model as more superior than another, since all models differ in nature. He advocates that curriculum planners should outline the characteristics or criteria that they need to advance before choosing a specific model (Oliva, 2001:149). This is the goal of section 2.3.5.

2.3.5.5.1 Procedural models

Five procedural models are discussed of which the best known is the Tyler Rationale. The models of Carl, Oliva, and Taba, as well as that of Wiggins and McTighe include all four the questions of the Tyler Rationale and therefore may be seen as adaptations of this model. In an attempt to compare the five models I designed a figure in tabular format according to the four questions of Tyler (see Figure 2.5).

Figure 2.5 depicts the different steps of each model and shows their alignment with the Tyler Rationale. It also indicates the applicable filters, questions, screens and sources of each model and their linear approaches. Carl and Taba's models are the only ones that consider the content of the curriculum, whereas Oliva's model dedicates five steps to evaluation. The UbD model also includes a step for evaluation. The steps of Oliva's model are not displayed numerically in the figure due to the interactivity among them. This is similar with the UbD model. However, both models are still linear in nature and should be followed according to their numerical steps. The only exception is Carl's model, which takes a non-linear approach in that the curriculum designer can enter at any stage. The literature on these procedural models point out their implementation at school level; however, they can be applied to South African HE curricula and linked to the OBE approach.


Sources to derive at tentative objectives
Society, subject matter and student
Screens applied to tentative objectives
Educational philosophy and psychology principles
THE TYLER RATIONALE - adapted from the representation by Tyler (1949:1)
Step 1
Which educational purposes/objectives should the school seek to attain?
Step 2
Which educational experiences can be provided that are likely to attain these purposes?
Step 3
How can these educational experiences be effectively organised?
Step 4
How can we determine whether these purposes are being attained?
Linear approach according to numerical order of steps.
External sources that may influence the objectives
The nature of the community, institution and student population, policies of the specific institution, and characteristics and approach of the HE teachers involved in the curriculum
THE TABA MODEL: GRASSROOTS RATIONALE - adapted from the representation by Ornstein and Hunkins (2014:186)
Step 1
Diagnosis of needs
Step 2
Formulation of objectives
Step 3
Selection of content
Step 4
Organisation of content
Step 5
Selection of learning experiences
Step 6
Organisation of learning experiences
Step 7
Evaluation and means of evaluation
Linear approach according to numerical order of steps. Steps interact with each other.

Steps 1 and 2
Informed by the specification of general needs of students and society

OLIVA'S MODEL OF CURRICULUM DEVELOPMENT - adapted from the representation by Carl (2012:75-76)

Step 3	Step 7	Step 8	Step 11	Step 10	Step 12	Step 9	Steps 13	14	15	16	17
Write a mission statement of the institution's philosophy and goals.	Specify the curriculum goals of the institution.	Specify the curriculum objectives of the institution.	Specify instructional objectives.	Specify instructional goals	Select instructional strategies	Organise and implement the curriculum	Select evaluation strategies (preliminary)	Implement strategies	Finalise the selection of evaluation strategies	Evaluate instruction and make adjustments	Evaluate the curriculum and make adjustments

Step 4, 5 and 6
Informed by the specific needs of (1) the students of the HEI, (2) the local community and (3) the module.

Linear approach according to numerical order of steps. Steps interact with each other.

Apply four filters to determine to the extent of the idea, topic or process
(1) Have value beyond the classroom, (2) reside inside the heart of the discipline, (3) requires uncoverage and (4) offer potential for engaging students.
(3) require uncoverage?

Ask the five questions in order to determine whether learning experiences are aligned with the goals/desired results of Step 1.

WIGGINS AND McTIGHE'S UNDERSTANDING BY DESIGN MODEL - adapted from the representation by Ornstein and Hunkins (2014:188)

Step 1	Step 3	Step 2
Identify the goals/desired results	Selection and planning of learning experiences in alignment with step 1 and 2	Determine what evidence is needed to assess if goals/desired results are achieved/ obtained

Implementation is an ongoing process between these three components.

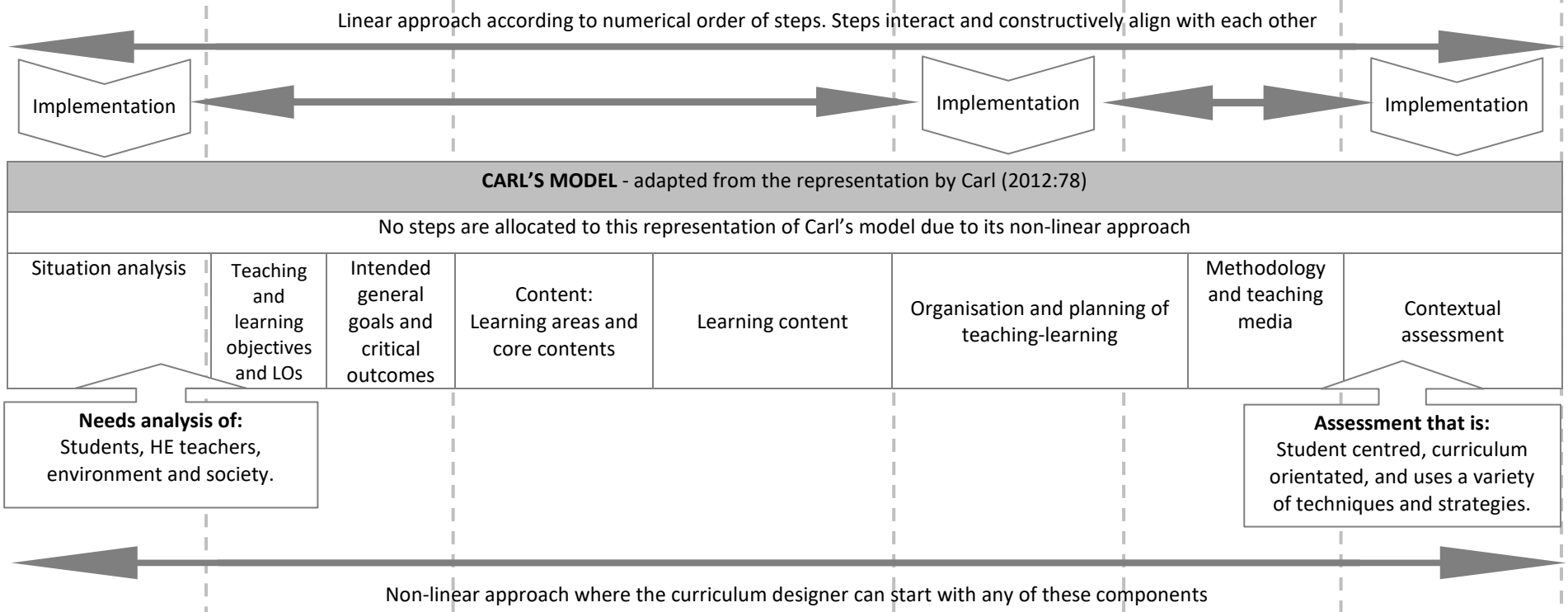


Figure 2.5: A comparison of descriptive models according to the Tyler Rationale

2.3.5.5.2 Descriptive models

Two descriptive models are discussed in this section which are both non-linear in nature. It seems that Walker's (1971) concept for the Naturalistic model aided Stenhouse (1975) in his quest to design a curriculum model that was not a means-end model. The process model's beginning is similar to that of Walker's platform, since the HE teachers' principles and beliefs are used as guidelines for the process to follow. The deliberation phase of the process model specifies more information of which the curriculum designer should take cognisance and which is deeply grounded in a specific discipline, for example the arts. Figure 2.6 is my own representation of the two descriptive models of Stenhouse (1975) and Walker (1971).

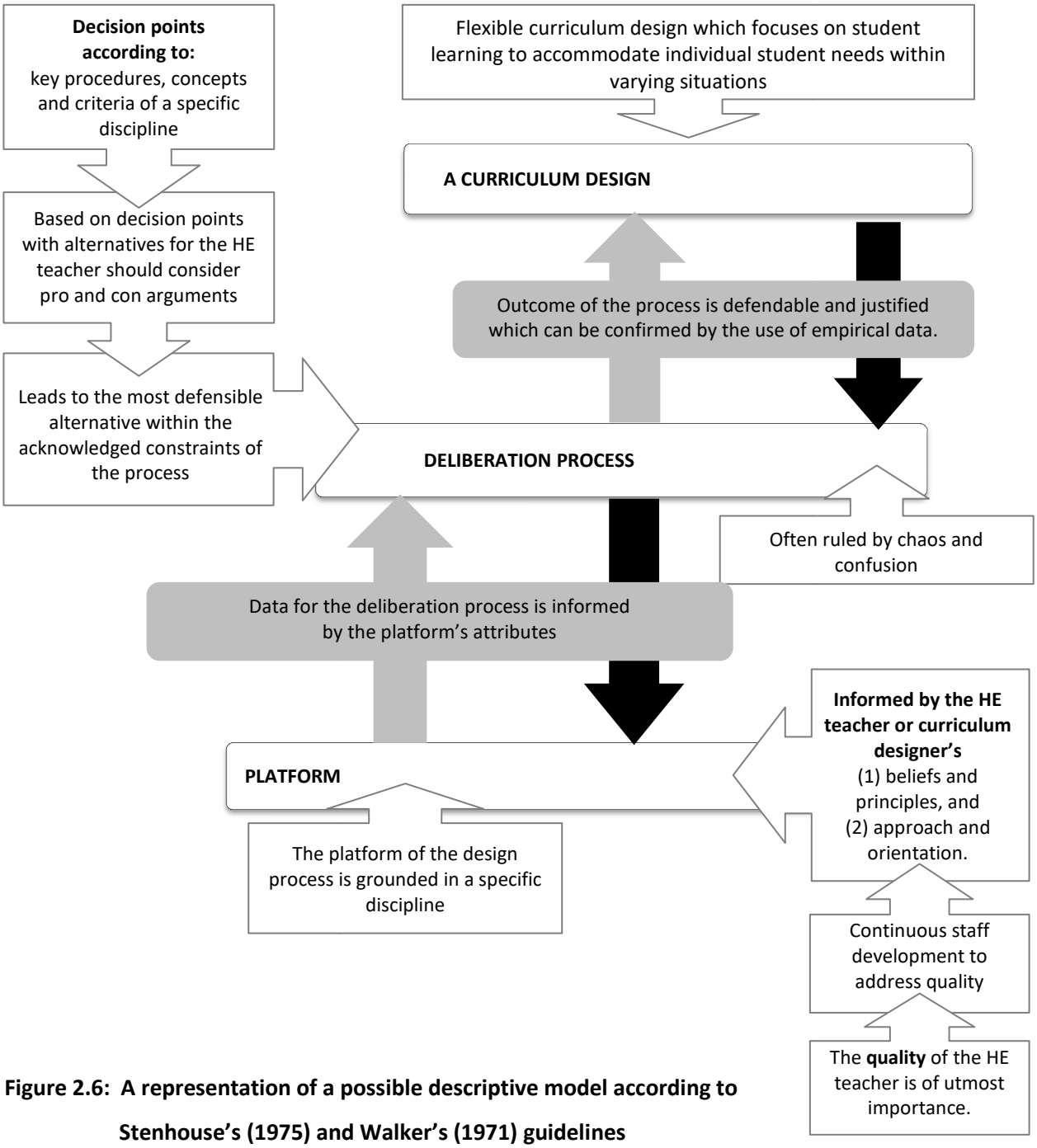


Figure 2.6: A representation of a possible descriptive model according to Stenhouse's (1975) and Walker's (1971) guidelines

Figure 2.6 incorporates the guidelines by the two descriptive model theories, namely those of Lawrence Stenhouse and Decker Walker. This is a mere attempt to make sense of the two models and is my own representation. Walker's Naturalistic model is represented with one-way arrows from the platform to the end (Walker, 1971:58; depicted as grey arrows in Figure 2.6). Stenhouse, however, emphasised that the curriculum designer should be able to enter at any stage of the process, therefore, the black arrows indicate interaction between the principles, process and the end to indicate a continuous process as motivated by Carl (2012:79).

A descriptive model may be ideal to design curricula or programmes in arts disciplines (e.g. graphic design), since the curriculum content can be selected without any reference to student behaviours, such as in procedural models, as it may be based on the disciplines' key procedures, concepts and criteria (Gleeson, 2013:927). Programme design in South African HE requires students to master the techniques and skills of a vocational occupation (e.g. graphic design) (CHE, 2004:8). A content analysis of the competencies of graphic designers (see Chapter 4) is used to identify these key procedures, concepts and criteria for the specific discipline.

2.3.6 Components of curriculum design

As a first-year graphic design student I was taught Gestalt theory as a departure point for my understanding of the essence of design. Gestalt theory in design education draws its foundations from its psychology origins that propose that the human brain organises individual elements, shapes or forms into a holistic whole (Jackson, 2008:66). Similarly, curriculum design components are seen as the elements or parts that contribute to the whole or gestalt, namely the curriculum design (Ornstein and Hunkins, 2014:153).

Curriculum design elements, parts or components (hereafter referred to as components) differ depending on the designer; however, the basic elements remain the same. Ornstein and Hunkins (2014:153) identify four basic components of curriculum design, namely objectives (including aims, goals and LOs), content, learning experiences (including teaching and learning) and assessment/evaluation. Assessment is used synonymously with the term evaluation for the purpose of this study as used by Carl (2012:99). Situation analysis is another component that may be included (Carl, 2012:79-82). Situation analysis provides a useful lens that the curriculum designer can use to select the four basic components (see 2.3.6.1), since it offers an opportunity to analyse the needs for a specific curriculum design. The four basic components also are incorporated into SAQA's definition of curriculum which includes all teaching and learning opportunities in HE (African National Congress, 1994, in SAQA, 2000:6). Curriculum designers' approaches and orientations to curriculum design influence their selection and interpretation of basic elements (see 2.2.1) (Ornstein and Hunkins, 2014:152-153). This makes every curriculum design process unique.

Once the curriculum design components have been identified, they can be organised. Ornstein and Hunkins (2014:161-170) discuss three basic designs according to which curriculum components are arranged, namely subject-centred designs, student-centred designs and problem-centred designs. Subject-centred designs recognise that knowledge and content are integral parts of the curriculum, have an academic approach (see 2.2.1.2), and are often used with curriculum models that have a technical-scientific approach (Ornstein and Hunkins, 2014:184) such as the procedural models (see 2.3.5.1). Student-centred designs focus on the creation of curricula that are of value to the student and more often are used for primary and secondary school education (Ornstein and Hunkins, 2014:166-167). The focus of problem-centred designs is to investigate real-life problems of individuals, their communities and/or society in general (Ornstein and Hunkins, 2014:172). Student-centred and problem-centred designs are mostly associated with a non-technical and non-scientific approach (Ornstein and Hunkins, 2014:191), such as the descriptive models (see 2.3.5.2).

However, discipline design is the most common design used in HE and is located within the subject-centred design approach (Ornstein and Hunkins, 2014:163). Arrance (1990:12) notes that it is also the most common design used in the arts, that also includes digital media design programmes which are linked to graphic design (Fleishmann, 2010:58). Discipline design requires students to study their discipline as an expert (e.g. graphic design student to study his/her discipline as a graphic designer would) (Ornstein and Hunkins, 2014:163). This design places emphasis on the conceptual structures and processes of a specific discipline in order for a student to comprehend and conceptualise the key relationships, concepts and principles of that discipline (Ornstein and Hunkins, 2014:163), in accordance with Stenhouse's process model (see 2.3.5.2.2).

The design of AAPs for graphic design includes generic and discipline-specific modules (see 3.2.2.1). A curriculum's design should make provision for sufficient disciplinary content and theoretical depth to serve the purpose of the programme, which is discussed in section 3.2, and for providing students with an understanding of the specific occupation (e.g. graphic design) (CHE, 2004:8). Each of the curriculum design components is discussed with regard to their generic aspects in the sections to follow, as well as discipline-specific aspects in section 3.2.2.1 in this study report in order to aid the curriculum designer to incorporate the necessary disciplinary knowledge into each component. The literature regarding the different components is quite vast as can be observed from the more than 50% contribution of the literature to this chapter. However, due to the focus of the chapter it will only be discussed briefly to provide the curriculum designer with limited but relevant knowledge regarding the components. Figure 2.7 provides an outline of the components of curriculum design application to this study.

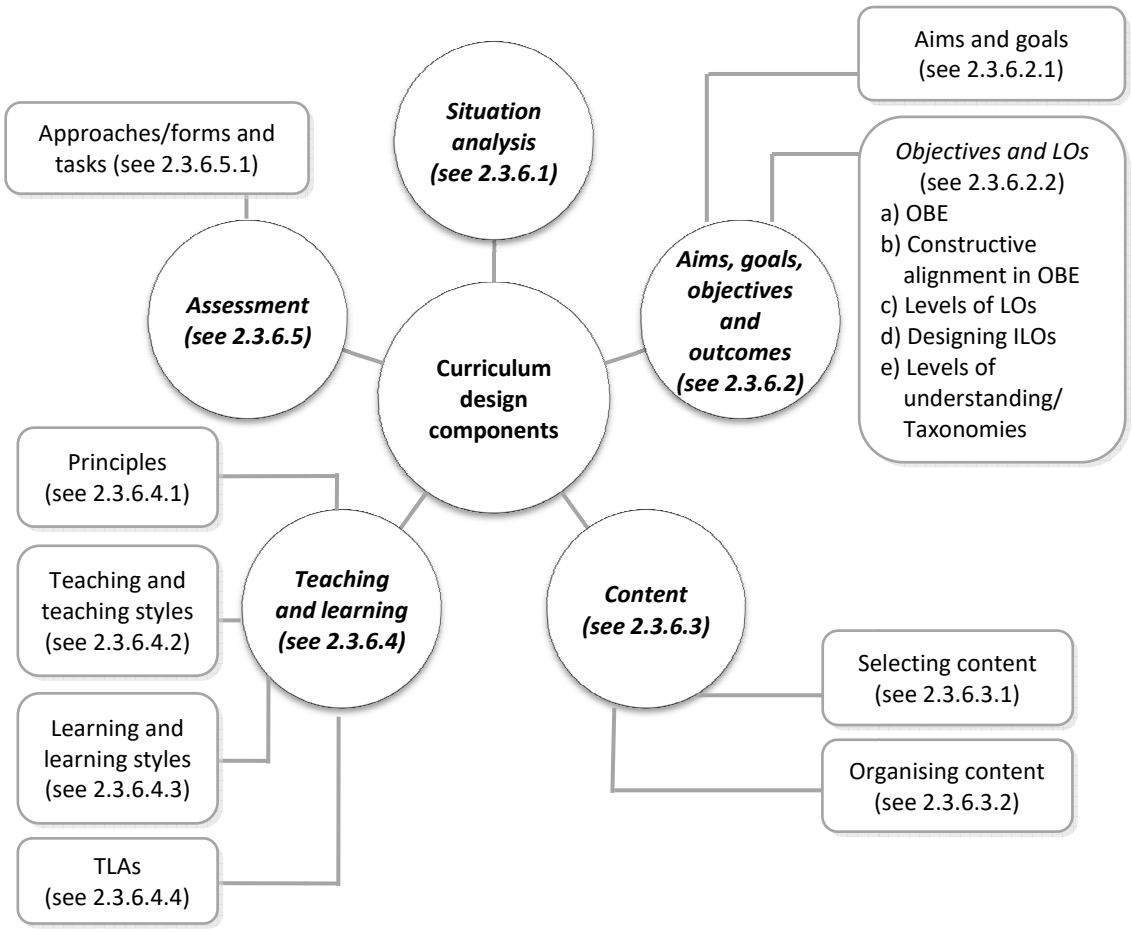


Figure 2.7: Outline of the curriculum design components of this study

2.3.6.1 Situation analysis

A situation analysis is the recommended starting point for a curriculum designer's journey (Carl, 2012:79). A situation analysis is defined as a method of evaluation of a specific situation's information and interpretations which may influence the selection of the four basic components of a curriculum's design (Carl, 2012:79). The analysis should be a continuous process which is done according to the levels of curriculum design in order to ensure alignment (see 2.3.2) (Carl, 2012:79). A situation analysis further promotes the uniqueness of a curriculum's design and may promote relevance of the basic components which are discussed in the remainder of this chapter. An in-depth analysis of existing AAPs for graphic design has been provided in section 3.2.2.1.1.

2.3.6.2 Aims, goals, objectives and outcomes

Curriculum design begins with an awareness of the many challenges that a curriculum designer will face during this process, since there are so many questions that need to be answered (Ornstein and Hunkins, 2014:193). Aims and goals may provide guidance to curriculum designers (Carl, 2012:82; Ornstein and Hunkins, 2014:194). It may inform a top-down curriculum design approach by sketching the larger picture (e.g. what students must learn to achieve success in their occupation and overall in life) (George, 2009:161;

Ornstein and Hunkins, 2014:194). The larger picture in turn aligns with (teaching) objectives and (learning) outcomes to ensure proper alignment between components. Aims, goals, objectives and LOs are discussed and defined in the sub-sections to follow.

2.3.6.2.1 Aims and goals

Aims and goals provide the curriculum designer with direction to ensure alignment among various levels of curriculum design (see 2.3.2) (Ornstein and Hunkins, 2014:194), which is a requirement for programme accreditation in South African HEIs (CHE, 2004:7). It also aids curriculum designers with decisions regarding the other basic components of curriculum design (Carl, 2012:82).

Aims and goals often are used as synonyms but need to be defined as two different aspects. In order to identify aims we can ask what are the aspirations or intentions, which are more accurate synonyms, of South African HE. Aims become goals when they are applied to a specific situation (e.g. graphic design AAPs) (Ornstein and Hunkins, 2014:195). This forms a hierarchy from general aims of education (in accordance with the education system of a specific country and the level of education) to specific goals of a curriculum in a HEI (Carl, 2012:83). Curriculum goals should be determined regularly to address current and future needs of different stakeholders (e.g. students, society and/or a particular community) (Ornstein and Hunkins, 2014:196).

Carl (2012:85) distinguishes between two broad types of aims and goals. Product aims or goals focus on the final product, whereas the process aims or goals rather focus on the promotion of working strategies and/or thought processes. Ornstein and Hunkins (2014:194-195), on the other hand, categorises aims and goals into seven categories, namely:

- aesthetic (e.g. values and appreciation of the arts);
- intellectual/cognitive (e.g. acquisition and comprehension of knowledge);
- moral (e.g. personal values and suitable conduct);
- physical (e.g. development of strong and healthy bodies);
- productive (e.g. functioning within a family, occupation and public);
- spiritual (transcendence of yourself), and
- social-personal (e.g. relationship to families and communities).

The categories listed above do not fully cater for design education since the discipline's aims expand beyond the mere aesthetics to include the development of understanding of the profession (Tovey, 2015:1). Aims and goals for design education need to be derived from the various levels of curriculum design (see 2.3.2), as well as the profession itself. The first objective of the study may provide guidance on generic and discipline-specific competencies to inform the goals of AAPs for graphic design.

2.3.6.2.2 Objectives and outcomes

Objectives and outcomes may seem similar to the novice HE teacher but they differ in nature. Objectives focus on teaching inputs (i.e. what the HE teacher wants students to achieve), whereas outcomes concentrate on teaching outputs (i.e. what students should know, understand and be able to do at the end of their learning) (Carl, 2012:89; Marsh, 2009:65). Teaching inputs (i.e. objectives) are no longer viewed as sufficient evidence to meet the societal demands for accountability of learning (Altbach, et al., 2009:17). On the other hand, teaching outputs (i.e. outcomes) are the accepted evidence of learning across all HEIs (Altbach et al., 2009:17).

In line with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) report (*cf.* Altbach et al., 2009:17), South African qualifications are described in terms of outcomes, rather than objectives (SAQA, 2000:10). Outcomes should be derived from the curriculum, the discipline and the profession's knowledge base (CHE, 2004:24). LOs in design education are not set in stone from the start of students' learning journey in discipline-specific modules. LOs in a discipline such as graphic design can only be finalised once the design product or solution is finished (Giloi and Du Toit, 2013:256; Shreeve, 2015:86). This is a critical factor to encourage students to find a creative solution or approach to the design problem/brief (Giloi and Du Toit, 2013:256; Shreeve, 2015:86). LOs, rather than objectives, are discussed in this sub-section due to their applicability to the South African HE environment.

a) Outcomes-Based Education (OBE)

The implementation of OBE in HE is growing rapidly globally (Altbach et al., 2009:116). This is mainly due to the paradigm shift which many HEIs have undergone since 1999 and which called for a focus on OBE's impact on student learning, curriculum innovation and the alignment between curriculum components (Altbach et al., 2009:116).

William Spady, the father of OBE, defines OBE as the focus and organisation of an institutions' programme mix or departments' programmes and their respective instructional efforts around clearly defined LOs that a student must demonstrate upon graduating (Spady, 1993:ii). This is often referred to as HEIs' graduate attributes and should be in alignment with the CCFOs of SAQA for South African qualifications (see 2.1.1, 2.3.1 and 2.3.6.2.2b). Adequate investment in curriculum resources and professional development of HE teachers is necessary to ensure proper implementation of OBE (Gleeson, 2013:925), which in turn may ensure alignment with different levels of LOs, including graduate attributes. Spady (1994:11) encourages the application of the four essential or power OBE principles in a consistent, systematic, creative and simultaneous manner. These principles are listed as follows:

- clear LOs that can be used to focus other components in the curriculum design;
- backwards design of LOs from the aims and goals of the institution or programme;
- high expectations that students are able to achieve the set LOs, and
- LOs should expand opportunity and support for student success by taking into account students' different learning paces.

  (Spady, 1994:10-20)

Biggs and Tang (2011:10-11) introduce the Outcomes-Based Teaching and Learning model for use in HE. This model serves the sole purpose to enhance teaching and learning by stating what the student should have mastered by the end of the module, what HE teachers must teach in order for the students to achieve the outcomes, and the assessment method to determine whether the outcomes have been achieved (Biggs and Tang, 2011:10-11). This is in line with their constructive alignment theory (see 2.3.6.2.2b), which is also supported by Giloi and Du Toit (2013:263) for graphic design education, as well as by Wiggins and McTighe's UbD model (see 2.3.5.1.4) (*cf.* McTighe and Wiggins, 2012). The four power principles of OBE (*cf.* Spady, 1994:10-20) and actual demonstration of the LO within an authentic context (Marsh, 2009:65) are still requirements within constructive alignment between teaching, learning and assessment. The literature reviewed identified critique towards this approach, namely:

- LOs are deemed more important than the process which is important to Stenhouse.
- Lack of evidence supporting the assumption that OBE has been successful in South Africa as well as in other countries.
- Concerns from stakeholders (e.g. HE teachers, students, parents and communities) that OBE may lead to a lower quality of education.
- Concerns are expressed that curriculum content is regarded as less important than the outcomes in OBE.
- Concerns are expressed regarding the expensive nature of assessment to determine whether outcomes are achieved.

  (Marsh, 2009:65).

b) Constructive alignment in Outcomes-Based Education

Constructive alignment eliminates the guessing game that often occurs between student and HE teacher (Marsh, 2009:64). The term Intended Learning Outcomes (ILOs), as used by Biggs and Tang, 2011), with the focus on *intended* in concurrence with Kelly's (2009:11) definition of the planned (in other words intended) curriculum rather than merely using the term LOs. Constructive alignment is defined as the alignment of ILOs, which stand central in alignment, with TLAs and assessment tasks (ATs) (Biggs and Tang, 2011:104-105) (see Figure 2.8). This encourages alignment between the planned and received curriculum, as mentioned by Kelly (2009:11) in section 2.2.



Figure 2.8: Constructive alignment (Biggs and Tang, 2011:105)

The word *constructive* rests within the constructivist theory that recognises that students *use their own activity to construct their knowledge through their own existing schemata* (Biggs and Tang, 2011:96). The verb within the ILO should indicate the level in the relevant taxonomy, such as Bloom's cognitive taxonomy or Wilson's arts taxonomy, and in the assessment it should measure that level of the ILO which the student has achieved (Biggs and Tang, 2011:105-106) (see 2.3.6.2.2e). From 2010, HEIs in South Africa are required to state the ILOs, TLAs and ATs in students' learning material (Collins, 2015:496). This eliminates the guessing game by providing students with upfront knowledge of what is expected from them.

c) Levels of (intended) learning outcomes

Biggs and Tang (2011:113) identify three institutional levels at which LOs and/or ILOs are used, namely graduate attributes, programme level and module level outcomes, which are discussed shortly below.

- Graduate attributes

  The HE experience instils in its graduates attributes additional to what they have learned in their studies and which are referred to as graduate outcomes or attributes (Biggs and Tang, 2011:10). These often form part of the hidden curriculum since they are a by-product of the TLAs (Kelly, 2009:11). These outcomes/attributes, hereafter referred to as attributes, are skills which students can use in their everyday lives within a specific context (e.g. problem solving skills and critical thinking) (Biggs and Tang, 2011:10). Graduate attributes may differ from institution to institution, depending on the skills set which is required in a country, region, city or town. However, South African HEIs need to align their graduate attributes with the CCFOs and developmental outcomes of SAQA (see 2.1.1). Graduate attributes guide the design of the ILOs for a specific programme or module (Biggs and Tang, 2011:11,14).

- Programme level (intended) learning outcomes

  Two matters are important when developing programme level ILOs, namely the mapping of the graduate attributes to these outcomes, and designing these outcomes according to what is required in the specific discipline, field or occupation (Biggs and Tang, 2011:116-117). Biggs and Tang (2011:118), however, caution against applying graduate attributes too strictly since these outcomes might have varying degrees of relevance within a specific programme.

- Module level (intended) learning outcomes

  A module ILO, sometimes also referred to as a course outcome, states what the student will be able to do after the teaching and learning activity which he/she could not do beforehand. These outcomes should be written from the students' point of view so that they can understand what is expected from them in order to pass the specific module. When designing module ILOs it is important to incorporate the level of difficulty according to a relevant taxonomy of cognitive or other activities (see 2.3.6.2.2e). This is important since a differentiation is needed for different levels of difficulty within a programme (Biggs and Tang, 2011:118-120). Biggs and Tang (2011:120) note a common problem that arises when designing ILOs at this level, namely that HE teachers might try to align ILOs according to their topics and not the other way round.

d) Designing intended learning outcomes at module level

A programme consists of a certain number of modules or 'building blocks', each with a credit weight assigned, that collectively lead to a qualification. SAQA (2000:14-15) specifies that modules should specify planned LOs, in other words ILOs. ILOs should contribute to the purpose/s of the qualification (e.g. programme level LOs) through a variety of TLAs and aligned ATs according to the constructive alignment approach of Biggs and Tang (see 2.3.6.2.2b) (SAQA, 2000:14-15). Furthermore, ILOs should also align with the HEI's graduate attributes that incorporates SAQA's CCFOs and developmental outcomes (SAQA, 2000:14-15) (see 2.3.1 for all the requirements of a programme in South African HEIs). In short, alignment between the three levels of ILOs is of importance (see 2.3.6.2.2c). Biggs and Tang (2011:119-125) and Geyser (2004:152) provide valuable guidelines for designing ILOs at module level within the HE landscape. Suggested guidelines for designing ILOs are summarised as follows:

- Review the level descriptors of the specific NQF level for South African programmes and modules to ensure alignment (see 2.1.1).
- Decide whether the ILO requires declarative (understanding of knowledge) or functioning knowledge (application, creation, solving of problems and lifelong learning).
- Start the ILO with *The student will* ….
- Specify the following in the ILO after the preface:
  - Verb at the appropriate level of understanding or performance (see 2.3.6.2.2e).
  - Object or topic of the verb (i.e. the content).
  - Context in which the verb and object are used (i.e. specific discipline).
- The designed ILOs should be clear and understandable for both the student and HE teacher.

  (Biggs and Tang, 2011: 119-125; Geyser, 2004: 152)

e) Levels of understanding/Taxonomies

Taxonomies enable curriculum designers to specify the level of understanding in the ILO required by students through the use of associated verbs at different levels within the taxonomy. Taxonomies also enable constructive alignment with TLAs and ATs, as within the constructive alignment definition of Biggs and Tang (2011:105). This increases the validity of ATs and the effectiveness of TLAs (Anderson, 2010:840). Five taxonomies are reviewed in this section which is applicable to graphic design AAPs (see Table 2.3). The use of taxonomies dates back several decades when objectives were still the norm. In the late 1970s experts in the field, led by Bloom, started to explore the classification of educational objectives according to their cognitive, affective and psychomotor complexity or behaviours (Marsh, 2009:71). The literature uses the term objectives, but the taxonomies are applied to ILOs in this study as it is applicable to the current South African HE landscape:

- Cognitive domain taxonomy

  Benjamin Bloom was one of the first experts to identify a variety of verbs that are used across all subject matters (Anderson, 2010:840) (see 2.2.2.4). Since the publication of Bloom's cognitive domain taxonomy in 1956, it was revised in 2001 and renamed as the Revised Bloom's Taxonomy (RBT) (*cf.* Anderson and Krathwohl, 2001). The use of RBT provides curriculum developers with a more complete understanding of specific objectives (Anderson, 2010:840).
- Affective domain taxonomy

  This taxonomy was designed by Bloom and colleagues in 1971 to classify affective educational objectives.
- Psychomotor domain taxonomy

  Bloom started with this taxonomy in the late 1970s; however he never finished it. Therefore the taxonomy of Harrow (1972) is used in this study.
- Structure of the Observed Learning Outcome (SOLO) taxonomy

  The SOLO taxonomy is an instructional as well as an evaluative tool to identify students' quality of learning according to their understanding of increasing complexity (Biggs and Collis, 2014:xi;24-25).
- Art education taxonomy

  The arts discipline, that includes graphic design, requires a different taxonomy since creation or creativity which is the highest level in the RBT taxonomy is not necessarily the highest level in this discipline. In my literature review I came across Wilson's art education taxonomy which was developed in 1971. This taxonomy is not well-known, even amongst art and design HE teachers in my circles; however feedback from colleagues was extremely positive since it is a helpful guide for designing ILOs in art and design education. Therefore, it is included in this section.

Table 2.3: Taxonomies used for the classification of educational objectives

Authors of taxonomies	Anderson and Krathwohl, 2001	Bloom, Krathwohl and Masia, 1971	Harrow, 1972	Biggs and Collis, 2014:xi;24-25	Wilson, 1971:502-503;517-523
Domains	**RBT (cognitive)**	**Affective**	**Psychomotor**	**Structure of the Observed Learning Outcome (SOLO)**	**Art education**
Level 1	***Remembering***	***Receiving***	***Reflex movements***	***Prestructural***	***Perception***
	e.g. the recall of specific items	e.g. sensitivity to stimuli such as awareness, willingness to receive and selected attention	e.g. segmental and intersegmental reflexes	e.g. misunderstood	e.g. within, between and among work/s of arts
Level 2	***Understanding***	***Responding***	***Fundamental movements***	***Unistructural***	***Knowledge***
	e.g. paraphrase, define and discuss to some extent	e.g. active attention to stimuli such as acquiescence, willing responses and feelings of satisfaction	e.g. walking, running, jumping, pushing, pulling and manipulating	e.g. memorise, identify and recite	e.g. terminology, facts, conventions, trends and sequences, classifications and categories, criteria, methodology and theories of the arts
Level 3	***Applying***	***Valuing***	***Perceptual abilities***	***Multistructural***	***Comprehension***
	e.g. use abstract information and apply it to situations	e.g. beliefs and attitudes of worth such as acceptance, preference and commitment	e.g. kinaesthetic, visual, auditory, tactile and coordination abilities	e.g. describe and classify	e.g. translation and interpretation work/s of arts

Lower order skills

Authors of taxonomies	Anderson and Krathwohl, 2001	Bloom, Krathwohl and Masia, 1971	Harrow, 1972	Biggs and Collis, 2014:xi;24-25	Wilson, 1971:502-503;517-523
Domains	**RBT (cognitive)**	**Affective**	**Psychomotor**	**Structure of the Observed Learning Outcome (SOLO)**	**Art Education**
Level 4	***Analysis***	***Organisation***	***Physical abilities***	***Relational***	***Analysis***
	e.g. breakdown of communication into its constituent elements or parts	e.g. internalisation of values and beliefs that involves conceptualisation of values and organisation of a value system	e.g. endurance, strength, flexibility, agility, reaction time and dexterity	e.g. apply, integrate, analyse and explain	e.g. parts, relationships of parts as well as the whole of work/s of arts
Level 5	***Evaluating***	***Characterisation***	***Skilled movements***	***Extended abstract***	***Evaluation***
	e.g. makes judgements about the value of materials or methods	e.g. behaviour that reflects a generalised set of values and philosophy of life	e.g. games, sports, dances and the arts	e.g. theorise, invent and create	e.g. empirical and systemic evaluation of work/s of arts
Level 6	***Creating***		***Non-discursive communication***		***Appreciation***
	i.e pull together many disorganised elements or parts to form a whole/gestalt		e.g. expressive movement through posture, gestures, facial expression and creative movements		e.g. valuing, empathising, passionate and active feelings towards work/s of arts
Level 7					***Production***
					e.g. skills/craftsmanship and creativity for the final product

Higher order skills

Table 2.3 provides a summary of five taxonomies which are applicable to AAPs for graphic design. It is interesting to observe that several levels of the cognitive, affective and psychomotor domains as well as the SOLO taxonomy correlate with the arts, which supports Marsh's (2009:71), and Ornstein and Hunkins' (2014:202) remark that in real life, in this case discipline-specific, the domains interact and occur simultaneously. Listed below are several interactions between the different taxonomies in Table 2.3:

- Perception includes many of the behaviours listed in knowledge of the specific taxonomy (Wilson, 1971:517) and is listed in the psychomotor domain.
- Knowledge includes the behaviours of remembering, recalling and recognising listed in the RBT of Anderson and Krathwohl (Wilson, 1971:518) as well as LOs of the multi-structural level of the SOLO taxonomy.
- Comprehension in the RBT is included in Wilson's art taxonomy (Wilson, 1971:519).
- Analysis in Wilson's art taxonomy (1971:520) is on the same level in the RBT; however, it refers to the dissection of the work of arts into its parts, relationships among these parts as well as the whole work/s of art. It may also be associated with the relational level of the SOLO taxonomy where student learning shifts from surface to deep learning.
- Evaluation in art education concerns making reasoned empirical and systematic, critical judgments about the aesthetic quality and value of work/s of art that differs slightly from evaluation in RBT (Wilson, 1971:520).
- Appreciation is the most commonly voiced objective in art education and is seen as a kind of connoisseurship (Wilson, 1971:521). Valuing is one of the sub-objectives of appreciation and is also located in the affective domain taxonomy.
- Lindström (2006:61) and McAllister (2010:88) note the importance of the product in art and design education; therefore, it is no surprise that it is listed at the highest level in Wilson's art taxonomy (1971:523). Wilson (1971:523) includes craftsmanship/skills listed in the psychomotor domain, creativity which is listed at the highest level of the revised cognitive taxonomy and extended abstract listed in the SOLO taxonomy (Biggs and Collis, 2014:25).

Levels in taxonomies are categorised from lower to higher order (see Table 2.3). The design process in graphic design education requires both lower and higher order skills (cognitive, psychomotor and affective) to produce a design product (Arrance, 1990:12) (see 4.4 and 4.5 respectively for more information). Arrance's work is dated several decades ago, but this statement still holds true as will be demonstrated in Chapter 4. A discipline-related example of lower order skills is the manipulation or ordering of formal elements (see 4.5.1) into a whole; whereas the manipulation of these elements into a final integrated and meaningful design product is a higher order skill (Arrance, 1990:23) (see 4.5).

2.3.6.3 Curriculum content

The content of a curriculum determines the nature and extent of a specific curriculum (Carl, 2012:91). Alignment of content with aims, goals and ILOs of a specific HEI, programme and module respectively is also necessary (Carl, 2012:91). The selection and organisation of curriculum content are important actions to which the curriculum designer should attend. Therefore, it is discussed shortly in the two sections to follow.

2.3.6.3.1 Selecting curriculum content

The selection of curriculum content, similar to all other components of a curriculum design, is influenced by the curriculum designer's orientation and approach (Ornstein and Hunkins, 2014:204) (see 2.2.1). Szeto (2010:76) points out the importance of this aspect, since HEIs always are under scrutiny of industry professionals who expect them to produce graduates who are up-to-date with industry needs (e.g. design knowledge and skills for graphic designers).

Carl (2012:91) differentiates between two types of curriculum content. The content of the broad curriculum, which normally is at institutional or programme level, comprises disciplines or categories of modules, whereas the content of the core curriculum is the content that is expanded, refined or developed by the HE teacher at module level and which is also referred to as learning content (Carl, 2012:92). The core curriculum should be aligned with the specific NQF level as required by the CHE (Gravett and Geyser, 2004:149). Based on a review of the literature on the selection of curriculum content to identify the generic modules in graphic design AAPs, Carl's (2012:93) and Ornstein and Hunkins's (2014:204-206) criteria for the selection of curriculum content were selected for the purpose of the study. These criteria are provided in a comparison in Table 2.4.

Table 2.4: Comparison of criteria for the selection of curriculum content

Ornstein and Hunkins (2014:204-206)	Carl (2012:93)
Feasibility	Realistic, manageable, accessible and viable
Interest	Stimulating and motivating
	Possibility of student input and choices
Learnability	Take note of students' existing knowledge and needs
	Achievable
Maximum self-sufficiency	Provide opportunities for self-discovery
	Empower students to achieve their full potential
Significance	Serve the realisation of aims
	Promote cognitive, affective and psychomotor skills
Utility	Address current needs of all stakeholders
Validity	Relevant
	Balance of extent and depth of study
	Integration of contents into a meaningful whole
	Representative of module

2.3.6.3.2 Organising curriculum content

Once curriculum content has been selected, it needs to be organised. Literature sources regarding the organisation of curriculum content are quite scarce, but two sources are cited in this section. The work of Ornstein and Hunkins (2014:204) may be used for guiding the organisation of curriculum content for generic modules. Four organising types for curriculum content is specified, namely logical organisation (e.g. organise according to a specific set of rules and concepts), psychological organisation (e.g. organise to reinforce correct learning responses from students), political organisation (e.g. correct sequencing of content to emphasise specific topics of importance), and practical organisation (e.g. organise content according to cost-effectiveness, availability of resources, etc.) (Ornstein and Hunkins, 2014:204).

2.3.6.4 Teaching and learning

Teaching and learning are the core focus of most of the HE teachers in AAPs for graphic design. Teaching and learning in HE have changed dramatically since the 1960s from the HE teacher as the repository of wisdom, to the student being at the centre (George, 2009:169). The EDUCAUSE Learning Initiative (ELI) identified the Universal Design for Learning Framework as a key theme in higher education teaching and learning (ELI, 2015:1-2). The framework promotes teaching methods and materials that provide students with different needs with ample opportunities to demonstrate mastery (ELI, 2015:1). This framework takes into account the vast student diversity of our country noted by Altbach et al. (2009:111). Furthermore, the framework promotes equal access for all students (ELI, 2015:2). Such a framework supports one of the main purposes of the Higher Education Act 101 of 1997 (RSA, 1997:1).

In order to ensure teaching and learning excellence in South African HEIs, the HEQC included two criteria regarding teaching and learning that HEIs need to comply with to receive programme accreditation (CHE, 2004:11-12, 18). The two criteria stipulate minimum requirements for appropriate teaching and learning strategies (e.g. development of teaching staff and monitoring students' progress in alignment with institution type, mode of delivery and student composition), and teaching and learning interactions (e.g. methods, materials and opportunities). Apart from government requirements students have to satisfy the needs and expectations of the present day. Ornstein and Hunkins (2014:207) note that students need teaching and learning that foster intellectual activities in both hemispheres of the brain for the challenges of this century. However, this is not possible without well-qualified, committed HE teachers (Altbach et al., 2009:89), since the presence or provision of curriculum content will not guarantee that students will learn (Carl, 2012:95). The HEQC stipulates minimum requirements for HE teachers regarding their experience, teaching and assessment competence, research profile and provision of opportunities for development (CHE, 2004:9-10). HEIs are responsible for teaching and learning excellence by ensuring HE teachers are well prepared and capable (Debowski, 2012:264).

Students currently sitting in HE classrooms are often referred to as the Google Generation, Millennials, Generation Next, Generation Y and so forth (Currant, Currant and Hartley, 2011:213). A quick observation of today's students reveals their relationship with technology (e.g. most students have smartphones, mp3 players, laptops and/or social network profiles). Even more so for graphic design students whose profession uses technology (e.g. computers and software) to produce a design for their products (see 4.5.2). Teaching and learning in a design discipline, such as graphic design, should assist students to prepare a portfolio of work which is an entrance requirement to industry (Tovey, 2015:1). A portfolio demonstrates to designers in the industry that students possess the required competencies (i.e. problem-solving, visual communication and design thinking; see Chapter 4 for all competencies required of a graphic designer).

Technology can be used to the advantage of HE teachers and students. Parkay, Anctil and Hass (2014:361-364) observe that HE teachers should use technology as a catalyst for learning by stimulating students' higher-order thinking. The use of learning management systems (e.g. BlackBoard and Moodle), portable educational environments (e.g. cloud-based learning environments) and technological services (e.g. blogs, wikis, collaborative word processing, aggregation tools, social bookmarking, shared calendars and shared content) promote active learning, since students actively engage with the curriculum (Crisp, 2012:490,492,495) (see 2.3.6.4.4). However, technology itself cannot ensure quality teaching and learning. To achieve this we need good learning and assessment designs that are combined with appropriate technology (Crisp, 2012:504).

The CHE (2004:7) specifies that the teaching and learning methods or activities (in other words TLAs) employed by HE teachers should echo the ILOs listed in the curriculum. In other words, adhere to Biggs and Tang's constructive alignment theory (see 2.3.6.2.2b) (Biggs and Tang, 2011:105). However, TLAs are informed by teaching and learning principles, and styles and approaches of HE teachers and students which are discussed in the sub-sections below.

2.3.6.4.1 Principles of teaching and learning in higher education

A good starting point for HE teachers is to review the principles of teaching and learning of important researchers such as Angelo (1993), and Chickering and Gamson (1987) (see Table 2.5). Although both sets of principles discussed here are several decades old, they are still relevant in HE since they are frequently used for training purposes in South African HE.

Table 2.5: A comparison of the principles of Angelo (1993:3-8), and Chickering and Gamson (1987:3-5) for teaching and learning in HE

PRINCIPLES		PROPOSED GUIDELINES TO MEET PRINCIPLES
Chickering and Gamson (1987:3-5)	**Angelo (1993:3-8)**	
Use active learning techniques in class.	Active rather than passive engagement.	• Students explain to their peers a specific topic. • HE teachers use structured exercises, discussions, team projects or peer-critiques (see Table 2.9 for definitions of TLAs) • Students participate in internships, independent study or cooperative job programmes outside of class.
	Focused attention (i.e. awareness of the basic structure of what is to be learned and the priorities in the module content elements).	• HE teachers highlight the landmarks in the body of content, especially for novice students.
	Set and maintain high but realistic expectations and goals (which are aligned with TLAs and ILOs).	• Students write down their specific learning goals which they compare to the goals of their peers and HE teacher.
	Meaningfully links new information to prior knowledge.	• HE teachers provide many examples, analogies, metaphors, etc. and ask students to provide several other examples to aid students in making connections.
	Identify and unlearn erroneous prior knowledge and biases.	• HE teachers probe students' prior knowledge to identify possible erroneous knowledge at an early stage. • HE teachers identify possible aids to assist these students, such as introductory modules, special tutorials and/or counselling where applicable.
Respect the diverse talents and ways of how students learn.	Organise module content in meaningful methods that are personally and academically appropriate. Awareness of own learning style.	• HE teachers illustrate various methods to organise the same knowledge. Students attempt to use a suitable method to organising content afterwards. HE teachers provide feedback on methods used by students. • HE teachers incorporate all learning styles (see 2.3.6.4.3b) into their TLAs through a diverse range of teaching methods (see Table 2.9 for a variety of TLAs).
Prompt HE teacher feedback to students.	Feedback on student learning. Students must also learn how to give feedback to themselves.	• HE teachers investigate how students incorporate their feedback in order to enhance understanding. • HE teachers assess students' knowledge through assessment at the beginning, during and at the end with appropriate feedback.
	Availability in advance of standards used in assessment and evaluation and the nature of the instruments.	• HE teachers provide sample exams, study questions and/or ACs to students to attempt in class. HE teachers provide feedback on students' answers. • Mock assessments and evaluations are done for preparation purposes.

PRINCIPLES		PROPOSED GUIDELINES TO MEET PRINCIPLES
Chickering and Gamson (1987:3-5)	**Chickering and Gamson (1987:3-5)**	
Emphasise time on task.	Invest adequate and quality time with a focused effort.	• HE teachers need to advise students of real-world time requirements to achieve mastery of the content by giving appropriate examples. • HE teachers or student services teach students' time management skills. This skill is included in the foundation provision of graphic design AAPs since it is regarded as a generic competency (see Chapter 3). • Students integrate these skills into their studies as well as the rest of their lives.
	Apply knowledge to real-world situations (within different contexts).	• HE teachers direct students' attention to general and specific real-world situations with examples.
High expectations of students.	Students must perceive and adopt high expectations of achievement.	• HE teachers determine students' expectations and voice their own. • HE teachers or student services present academic workshops on topics such as study skills which are included in the foundation provision component of graphic design AAPs (see 3.2.2.1.1 and 3.3.1).
	Students need to experience a balance of intellectual challenges and academic support in order to create scaffolding of knowledge.	• HE teachers assist in the fine tuning of students' scaffolding of knowledge.
	Perceive the value of what is to be learned.	• HE teachers communicate the value of the content and how it aligns with important goals.
Encourage contact between students and HE teachers.	Students must interact frequently with HE teachers and other students.	• HE teachers learn students' names and engage with them in dialogue. • HE teachers challenge students with assignments where they can interact with their peers by means of learning groups (see Table 2.9 for definition). • Students make use of learning communities in larger classes (see Table 2.9 for definition). • HE teachers and students have contact in and out of class to promote motivation and involvement. • HE teachers use student seminars early in an academic year to expose students to all HE teachers within a programme, school or faculty to promote connections.
Develop reciprocity and cooperation among students to increase involvement.		

Chickering and Gamson (1987:2-6) identify seven principles of good practice in undergraduate qualifications in HE which are based on 50 years' research into teaching methods and student learning (Chickering and Gamson, 1987:3). On the other hand, Angelo (1993:1-9), identifies fourteen general, research-based principles that HE teachers should incorporate into their classroom to improve learning. Angelo's principles assume that HE teachers know how their students learn; they are therefore able to identify whether and how these principles can be applied to their students' learning as well as to their specific discipline (Angelo, 1993:1) (see 2.3.6.4.3b for students' learning styles). Proposed guidelines are also included in Table 2.5 to assist HE teachers in meeting the principles. These guidelines can be fostered through various TLAs. Table 2.10 provides a summary of TLAs to achieve declarative and/or functioning ILOs.

2.3.6.4.2 Teaching and teaching styles

Teaching in HE has changed dramatically since the 1960s from HE teacher-centred teaching to student-centred learning (George, 2009:169). This resulted in the change from teaching objectives to ILOs (see 2.3.6.2.2a). South African HEIs offer various discipline-specific programmes which are grouped in schools, departments and faculties.

a) Teaching in generic and discipline-specific modules of AAPs

The impact of technology on teaching for any generic and discipline-based modules can be observed when HE teachers glance over their class. Students are constantly busy on their smartphones, texting or interacting on social networks. Parkay et al. (2014:364) encourage HE teachers to use this (technology) to enhance students' learning since it is part of their daily lives. The following guidelines may assist HE teachers to integrate technology in their curricula:

- Facilitate and inspire student learning and creativity through the use of technology in TLAs (see 2.3.6.4.4).
- Design and develop digital-age authentic learning experiences that align with ATs (see 2.3.6.5.1).
- Represent an innovative professional role model in the present age of technology.
- Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices.
- Continuously improve their teaching by demonstrating the use of new digital tools and resources. (International Society for Technology in Education, 2008:1-2).

Students, parents and the community expect of HE teachers to excel in their work. By means of a review of literature I identified professional and personal characteristics of good HE teachers which may guide them (HE teachers) to live up to expectations of these stakeholders (see Table 2.6).

Table 2.6: Summary of professional and personal characteristics of good HE teachers

	Buskist, Silkorski, Buckley and Saville (2012:32)	Paolini (2015:21-30)	Fry, Ketteridge and Marshall (2009:22)	Wheeler (1967:130-131)
Occupational characteristics of excellent HE teachers				
Acknowledge other learning that occurs during TLAs.				x
Acknowledge that student motivation may increase when there is an element of choice between TLAs (see Table 2.9 for variety of TLAs).			x	
Activate access and use students' prior knowledge in TLAs.			x	
Always be prepared for class.	x			
Be authoritative in the classroom (e.g. maintains class order by establishing clear rules).	x			
Communicate clearly and effectively during TLAs.	x	x		
Create a stimulating, engaging and supportive environment for learning.		x		x
Encourage students to take responsibility for and make an effort with their own learning.		x	x	
Ensure TLAs are aligned with ILOs and ATs by means of clearly disseminating, mapping, organising and sequencing the curriculum content.		x		
Be enthusiastic about teaching and topic presented.	x			
Establish academic goals for students in every class and module.	x			
Focus on important topics for the achievement of ILOs.		x		
Have realistic expectations of students.	x			
Illustrate agreements and differences among various situations for students to promote comparison.				x
Manage class time effectively.	x			
Note that different students experience various TLAs differently.			x	x
Be aware that students entering a new discipline might struggle to think in an appropriate discipline-orientated manner.			x	
Be cognisant of students' observations and impressions influencing their learning.				x
Possess appropriate knowledge about subject matter.	x			
Promote critical thinking and stimulate students' intellectual thinking.	x			
Promote students' learning by formal and informal group discussions in class.	x		x	
Provide constructive feedback to students.	x			
Repeat and reinforce TLAs for acquiring skills and promoting learning.				x
Realise that students' approach (e.g. deep or surface) to learning is dependent on the HE teacher's teaching style (see 2.3.6.4.2b).			x	

	Buskist, Silkorski, Buckley and Saville (2012:32)	Paolini (2015:21-30)	Fry, Ketteridge and Marshall (2009:22)	Wheeler (1967:130-131)
Use a variety of TLAs to accommodate different learning styles (see Table 2.9).		x		x
Use creativity to make TLAs interesting (e.g. experimenting with different TLAs and use technology to enhance TLAs).	x			
Use current information (e.g. relate topic to current and real-world experiences).				
Use fair assessments that align with ILOs (see Table 2.10).	x			
Use technology to enhance TLAs and provide additional learning material.	x	x		
Use TLAs that promote active learning (e.g. student engagement and involvement in learning; see Table 2.9 for definition).	x		x	x
Use TLAs that promote declarative knowledge (see Table 2.9).			x	
Use TLAs that promote functioning ILOs (see Table 2.9).		x		
Use TLAs with social relevance to students to aid the application of knowledge outside of the classroom.		x		
Utilise and self-asses classroom management skills to transform weaknesses into strengths.	x	x		
Personal characteristics of excellent HE teachers				
Be accessible to students outside of the classroom (e.g. consultation times, e-mail and telephone).	x			
Be approachable and personal (e.g. smile, greet students and invite questions).	x			
Show awareness and respect for students and their diversity (e.g. culture, background, beliefs, values, motives, objectives).	x	x	x	x
Be confident (e.g. make eye contact with students and speak clearly).	x			
Dress professionally and neatly.	x			
Encourage and care for students (e.g. praise good work and assist students who need it).	x			
Flexible regarding changes in calendars and consultation times.	x			
Foster positive HE teacher and student relationships (e.g. respect for student diversity, and interactions with students are respectful, compassionate, understanding and provide assistance).	x	x		
Good listener; don't interrupt students while they are talking.	x			
Humble (e.g. admit mistakes and don't brag).	x			
Open-mindedness (e.g. accept criticism from others and pay attention to students' opinions).				
Display a positive attitude (e.g. be happy, use humour and laugh with students).	x			
Be punctual.	x			
Act sensitive and persistent regarding students' learning.	x			
Show understanding for students' circumstances outside of the classroom.	x			

Table 2.6 summarises the professional and personal characteristics of good HE teachers. All of the characteristics listed are cited by one or two of the sources, except for two characteristics (use TLAs that promote active learning, and show awareness and respect for students and their diversity). Awareness and respect for students and their diversity is noted by all four sources and is an important characteristic in a multi-racial and multi-cultural population such as in South Africa.

b) Teaching styles

Teaching styles impact the type of TLAs HE teachers might use in the classroom and may differ depending on the type of module (e.g. generic or discipline-specific module). Teaching styles also have to be aligned with students' learning needs to eliminate failure and frustration for both parties (Peacock, 2001:15; see 2.3.6.4.3 for learning and learning styles).

HE teachers have their own teaching style preferences (Gilakjani, 2012:52), similar to curriculum designers' preferences regarding their approach or orientation (see 2.2.1). Different teaching styles require different roles from HE teachers and students pertaining to decisions to achieve specific ILOs (George, 2009:172; Kirby, Byra, Readdy and Wallhead, 2015:522). It is important for HE teachers to identify their style since it might impact students' learning, which Berthiaume (2009:215) maintains, depends on the effectiveness of the HE teacher. There are many surveys available on the world-wide web to assist HE teachers with the identification of their own teaching style; however, the classification of teaching style differs from one survey to another. The most common teaching style survey available is the Grasha-Riechmann survey that I came across in my search of the world-wide web, as well as in the literature review (*cf.* Amir and Jelas, 2010:680; Frunză, 2014:346; Grasha, 2002:153; Grasha, 1994:143) (see Table 2.7).

Table 2.7: Summary of the Grasha-Riechmann survey's categories of teaching styles

Expert
• Knowledge and expertise
• Status of expert among students due to knowledge
• Main concern is transmitting information
• Information, knowledge and skills of the expert are of value
• Does not illustrate thought processes of the expert
• Intimidating to less experienced students if overused
Formal Authority
• Status of authority among students due to knowledge
• Provide positive and negative feedback
• Establish learning goals, expectations and rules of conduct
• Highlight the accurate, acceptable and standard approaches
• Provide structure for student learning
• Focus on clear expectations
• Lead to rigid, standardised and less flexible student management
Personal Model
• Teaching by personal example
• Illustrate how students should think and behave
• Guide and direct students to complete tasks
• Teach through student observation of HE teacher in order that students can mimic the HE teacher
• Role model for students
• May let students feel inadequate if they cannot live up to the expectations of the HE teacher
Facilitator
• HE teacher-student interactions are personal
• Guide by asking questions and exploring alternatives
• Encourage students to develop criteria on which to base their decisions
• Focus to develop capacity for independent action, inventiveness and accountability
• Consultation approach to students' projects, with support and encouragement
• Often time consuming
• Employ in a positive and affirming manner
Delegator
• Develop students' independent functioning capacity
• Available as a resource at students' request
• Assist students to become independent
• Too early independence for students who are not ready for it might make them anxious

Grasha (2002:153, 155) notes that all HE teachers are able to use the five teaching styles listed in Table 2.7; however, he identifies the four most common teaching style clusters which are presented in chronological order below:

- Cluster 1 - Primary styles are the expert and formal authority with secondary styles of personal model, facilitator and delegator.
- Cluster 2 - Primary styles are the personal model, expert or formal authority with secondary styles of facilitator or delegator.
- Cluster 3 - Primary styles are the facilitator, personal model and expert with secondary styles of formal authority and delegator.
- Cluster 4 - Primary styles are the delegator, facilitator and expert with secondary styles of formal authority and personal model.

  (Grasha, 2002:155)

Frunză (2014:346) concludes that for HE teachers to develop an effective (combination of) teaching style/s for their specific disciplines requires sufficient time and effort, experimentation with teaching methods, and examination of one's own practice. It is important for HE teachers to develop their teaching style since, in the end, they are responsible to ensure and determine the success of their teaching by ensuring that the learning style preferences of the students are met (Berthiaume, 2009:215; Peacock, 2001:15) (see 2.3.6.4.3b). As argument in support of the alignment of teaching and learning styles, George (2009:172) states that students' needs should be the starting point for every HE teacher.

2.3.6.4.3 Learning and learning styles

Learning happens when we actively work with ideas and knowledge, and reconstruct them in our own minds, ... forms and ... words (George, 2009:169).

In the sections to follow learning and learning styles applicable to students in HE are discussed.

a) Learning in generic and discipline-specific modules of AAPs

Learning in generic as well as discipline-specific modules can be categorised into two broad approaches, namely surface learning (i.e. meeting module outcomes), and deep learning (i.e. building understanding; Biggs and Tang, 2011:21-22; Marton and Säljö, 1976, in Case, 2015:626). Students that have a deep approach to learning typically want to understand what they are learning by using higher-order thinking skills to make meaning of concepts, themes and knowledge (Fry et al., 2009:10-11). On the other hand, students who have a surface approach to learning want to complete the task at hand as soon as possible, for example by using memorising skills and not really engaging with the knowledge at a higher level (Fry et al., 2009:11). Surface learning commonly is associated with students' misconceptions that learning progress in HE is achieved if they master large amounts of factual knowledge, steps or rules of a specific module (Fry et al., 2009:11). These students often only learn what they think will be assessed. This phenomenon is referred to as the 'backwash effect' that assessment has on student learning (Biggs and Tang, 2011:197). The backwash effect, however, may be used positivily by applying constructive alignment (see 2.3.6.2.2b),

which should then result in deep learning. The selection of ILOs (see 2.3.6.2.2) (Stefani, 2009:40), the selection of ATs (see 2.3.6.5) (Fry et al., 2009:9), and student motivation (see 3.3.5) (Fry et al., 2009:9) are factors which impact students' approaches to learning.

Another aspect that effects learning in general is students' culture (Ismail and Hassan, 2012:279), especially in a diverse country such as South Africa. Cultural aspects that may influence curriculum design are politics, social trends, economics, religion, gender, content delivery strategies and environmental issues (Ismail and Hassan, 2012:289). In order to facilitate successful learning opportunities, it is important for HE teachers to know their students' personalities and cultural values (Witte and Witte, 2012:333).

b) Learning styles

Appreciation of different styles of learning encourages a student-centred approach in HE teaching (Kinchin, 2012:314). Learning styles convey information about an individual and HE teachers who acknowledge learning preferences are able to structure more successful learning experiences for their students (Witte and Witte, 2012:336).

Students' preferred learning styles provide HE teachers with a better understanding of which TLAs to use in the classroom. The literature searched identified far more learning style survey categorisations than for teaching styles. The four most prominent categorisations of learning come across are those of Fleming (Fleming and Baume, 2006:1-3); Gardner (1983:73-276), Grasha (2002:169), Reid (1987) and Visual, Aural, Read/write and Kinaesthetic (VARK, 2016:online) (see Table 2.8). Gardner's multiple intelligences theory is not a learning style in essence, but are included since it is a common categorisation of learning. Although some of these categorisations of learning/learning styles were originally published in the 1980s, they still are widely used and commonly discussed in the reviewed literature (*cf.* Kara, 2009:3; Parkay et al., 2014:231).

The focus of each of the four categorisations of learning/learning styles differs in essence. Firstly, the VARK learning model of Flemming, originally developed in 1987, reflects the experiences of the students and HE teachers and is very popular (Fleming and Baume, 2006:1-3; VARK, 2016:online). Secondly, Gardner's multiple intelligences theory focuses on how the human mind understands world content, specifically according to the eight intelligence categories identified by Gardner (2014:248). It was first published in 1983 and was since revised several times with changes and additions (*cf.* Mustafa, Jado and Onoz, 2014:141-142). Thirdly, Grasha-Reichmann's student learning style scales are widely used in international HE and are based on students' behaviours and responses (Grasha, 2002:168). Lastly, Reid's (1987) research focused on the learning styles of native and non-native English-speaking students in the United States of America. His categories are applicable to this study since English is the first language of only 9.6% of the South African population (RSA Statistics South Africa, 2011:23).

Table 2.8: Summary of four categories of learning/learning styles

SIX LEARNING STYLES	MULTIPLE INTELLIGENCES	VARK MODEL (FOUR STYLES)	GRASHA-REICHMANN STUDENT LEARNING STYLE SCALES
Reid (1987: 96-98)	**Gardner (1983:73-276)** **Mustafa et al. (2014:141-142)**	**Fleming and Baume (2006:1-3)** **VARK (2016:online)**	**Grasha, 2002:169**
Visual learners See ideas in writing (e.g. reading handouts and sketches).	***Visual-spatial intelligence*** Awareness of environment and space (e.g. models, drawings and multimedia).	***Visual learners*** Learn through visual cues (e.g. maps, charts, graphs, colour and pictures.)	***Avoidant*** Avoid face-to-face sessions (often absent from class).
Auditory learners Listening (e.g. oral explanations and discussions).	***Linguistic intelligence*** Highly developed auditory skills and often think in words (e.g. word games).	***Aural learners*** Explain and discuss ideas and topic with other students and HE teachers.	***Participative*** Adherence to work requirements.
Kinaesthetic learners Active participation (e.g. drama and role-play).	***Bodily-kinaesthetic intelligence*** Communicate through body language (e.g. physical activities such as role-play).	***Kinaesthetic learners*** Learn by doing and use their senses (e.g. fieldtrips).	***Competitive*** Attention from HE teacher and achieve high grades.
Tactile learners Hands-on work (e.g. handling materials and taking notes).	***Musical intelligence*** Sensitive to rhythm and sound (e.g. musical instruments and radio).	***Read/write learners*** Learn by reading and writing (e.g. lists, write reports, read textbooks and take notes).	
Group learners Study with others.	***Interpersonal intelligence*** Learn through interaction (e.g. group activities, seminars and dialogues).		***Collaborative*** Work with others since they enjoy it.
			Dependent Don't work alone since they depend on the HE teacher and friends with activities.
Individual learners Study alone.	***Intrapersonal intelligence*** Study alone and independently (e.g. books and diaries).		***Independent*** Work alone with little or no direction and attention from the HE teacher.
	Logical – Mathematical intelligence Calculating and conceptual thinkers (e.g. experimentation and solving puzzles).		
	Naturalist intelligence *(new 1999)* Empathy and categorisation of organisms and entities in the natural world.		

A quick observation of the light grey highlighted cells in Table 2.8 highlights the similarities between the four categories of learning/learning styles. However, not all of these are exactly the same, but rather should be seen as similar in meaning. Although the collaborative and competitive learning styles are most dominant in HE (Amir and Jelas, 2010:680), it is important to note that students might have one or a blend of different styles or categories, such as is confirmed in the Multiple Intelligences theory (Parkay et al., 2014:231). In the light of the student diversity noted in the UNESCO report of 2009 (Altbach et al., 2009:111), HE teachers are encouraged to use different TLAs in class to force students to apply a variety of learning styles or categorisations (Fry et al., 2009:18).

2.3.6.4.4 Teaching and learning activities

Effective and appropriate teaching varies from one learning situation to the next (George, 2009:172) and should be appropriate for the purpose of the programme (CHE, 2004:10). Hence it is important that curriculum designers are informed about the different TLAs available so that they can make an informed selection of TLAs (Carl, 2012:97). HE teachers' concept of the curriculum and its design also may impact the selection of TLAs (Stefani, 2009:40). However, there are principles for the selection of TLAs that may guide curriculum designers. Carl (2012:95-96) reviews various principles for the selection of appropriate TLAs from those referred by Gow and Casey (1983), Oliva (1988), Steyn (1982) and Tyler (1977) as cited in his book. HE teachers may use these principles as a broad guideline to identify suitable TLAs. Figure 2.9 represents a summary of the principles that Carl (2012:95-96) identified.

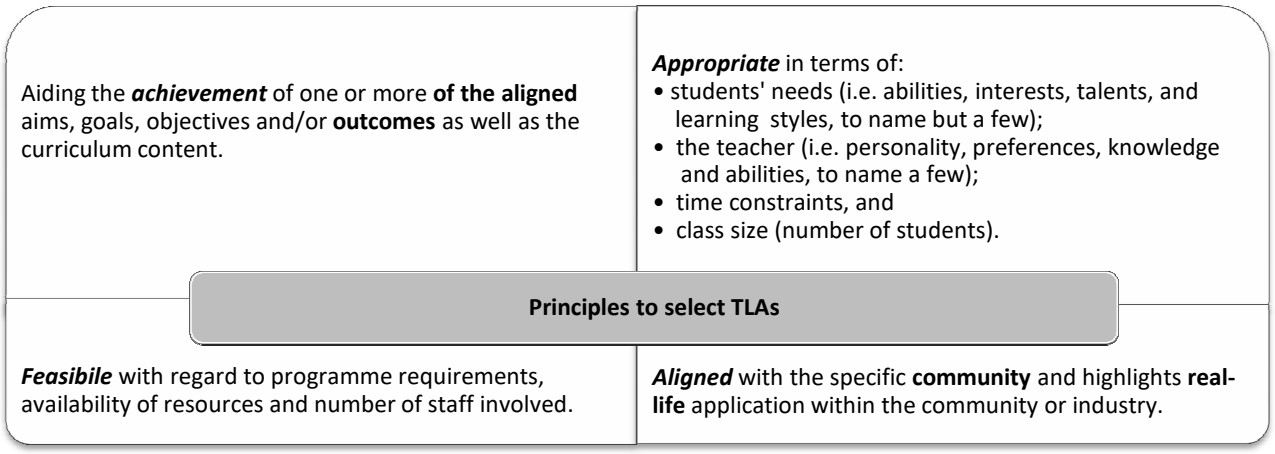


Figure 2.9: Summary of principles to select TLAs (Carl, 2012:95-96)

A variety of TLAs are available for use by HE teachers (see Table 2.9). TLAs aid the achievement of the aligned ILOs; however, if only one activity is used to achieve all the ILOs of a module, students are most likely to only memorise the work and not understand it (Biggs and Tang, 2011:135). The types of TLAs are categorised in accordance with their aligned declarative and functioning ILOs within a constructive alignment approach (Biggs and Tang, 2011:133-156, 160-185). TLAs for declarative ILOs focus on understanding knowledge, whereas TLAs for functioning ILOs focus on application, creation, solving of problems and lifelong learning which are all related to SAQA's CCFOs (see 2.1.1).

Gonczi (2013:1302) emphasises the importance of integrating declarative knowledge in practical application through TLAs for functioning knowledge (e.g. case studies and simulations) in professional programmes (e.g. graphic design). These programmes require students to use the declarative knowledge learned by applying knowledge to a specific situation in order to create, plan or solve problems (*cf.* Biggs and Tang, 2011:160). There are two approaches to building students' declarative knowledge for functioning ILOs, namely fill-up-the-tanks (i.e. declarative knowledge is learned and the application follows), or just-in-time learning (i.e. declarative knowledge is built up as needed for application). The latter is a more popular approach and has a connection with lifelong learning in real-life (Biggs and Tang, 2011:161). Biggs and Tang (2011: 146) remind HE teachers to change their TLAs for facilitating declarative ILOs every fifteen minutes for maximum student concentration. They (Biggs and Tang, 2011:161-162) note that when it comes to using declarative knowledge for facilitating functioning ILOs, HE teachers often illustrate or talk about applying knowledge; however, the problem with this is that in most cases students do not really apply their declarative knowledge. Therefore, when HE teachers plan their TLAs they must ensure that they focus on what the student does rather than what they (as HE teachers) do (Biggs and Tang, 2011:161).

Art and design education requires types of TLAs that mimic real world situations in order for students to learn by practical doing (McCarthy and De Almeida, 2002:105; Tovey, 2015:1). Types of TLAs commonly associated with art and design education are categorised under the category of TLAs for functioning ILOs, e.g. case-, simulation- and problem-based learning to name only the most common (see Table 2.9). However, students' declarative knowledge base still needs to be built sufficiently in order for students to engage with TLAs for functioning knowledge.

Table 2.9 is a summary on the different types of TLAs for declarative and functioning ILOs. Biggs and Tang's (2011:133-156, 160-185) two chapters on these types of ILOs were used as a foundation for this summary.

Table 2.9: Summary of teaching and learning activities for declarative and functioning intended learning outcomes

TEACHING AND LEARNING ACTIVITIES	DEFINITION
Teaching and learning activities for declarative intended learning outcomes	
Audio-visual materials	Audio-visual materials, also referred to as teaching aids, appeal to more than one sense of students (Ode, 2014:195). Examples: arts and study prints, billboards, charts, filmstrips, illustrations, maps, microform, photographs, posters, pictures, slides and transparencies (Ode, 2014:197-198).
Concept maps	Concept maps are a useful activity for revision purposes, planning assignments, seeing the outline/whole of learned knowledge, to identify relationships between topics, and to integrate and organise learned knowledge. The HE teacher presents students (individually or in a group) with a core concept or principle for which they need to generate related sub-concepts. This can also be provided by the HE teacher. Students are required to arrange the sub-concepts according to their perceived degree of interrelation with the core concept/principle by different distance lines which illustrate the degree of interrelation (Biggs and Tang, 2011:141-142). Concept maps are useful TLAs for access programme students to construct their own knowledge and understanding (Short and Jürgens, 2011:28).
Concept tests	Multiple-choice questions are asked about a specific concept. Options include incorrect responses that represent common student misconceptions about the concept (Felder and Brent, 2009:3).
Demonstration	Use examples, experiments and/or processes to illustrate a principle or how to do something (Wiles and Bondi, 1989:185).
Discussions	Discussions can consist of free and/or controlled class discussions as well as forums (Cawood, Strydom and Van Loggerenberg, 1980:33, in Carl, 2012:98). Students can exchange their points of view on a topic, question or problem (Wiles and Bondi, 1989:186).
Fieldtrips	An educational outing where students can study the content of the curriculum in its functional setting (e.g. newspaper, printing press or professional graphic design studio) (Wiles and Bondi, 1989:186).
Learning partners	Learning partners can be used in various TLAs and offer partners a support network. Partners can be allocated by the HE teacher according to suitability of various factors or by students themselves. Partners are seated next to each other in lecturers and consult with each other outside of class via telephone, e-mail and various other methods of communication. However, some students may not want to have learning partners which should also be respected (Biggs and Tang, 2011:142-143).
Lecture	Teaching in the HE environment is commonly referred to as lecturing since knowledge is shared with students via a lecture (Biggs and Tang, 2011:133). Carl (2012:97) also refers to this type of TLA as a recital. However, Biggs and Tang (2011:133) note that the term lecturing refers to a situation rather than a TLA. The lecture often is complemented by a tutorial (Biggs and Tang, 2011:135-136). The only advantage that Biggs and Tang (2011:138) note of this type of TLA is the discipline perspective and knowledge that an active researcher communicates with his/her students. This is included in the third criterion for programme accreditation (CHE, 2004:10). Although mastery of one's discipline is necessary the lecture definitely is not sufficient for teaching in HE (Angelo, 1993:1). Active engagement should enhance the traditional lecture (George, 2009:169). Kinchin (2012:326) notes that the lecture needs to evolve around the potential of technology (such as clickers and power-point) since digital technologies have a large role to play in HE TLAs.
Minute papers	The minute paper requires students to answer the HE teacher's question in a brief statement during the lecture. Thereafter, students swop their answers with their neighbouring student or learning partner. The minute papers may be handed in at the end of the lecture for the HE teacher to study and subsequently provide formative feedback (Biggs and Tang, 2011:143).
Note taking	Note taking is very general in a lecture; however it is often misused by HE teachers. Not all students can listen to the HE teacher and take notes simultaneously. This results in them doing either one of the two activities. Note taking should rather be used as a comprehension exercise of knowledge learned at the end of a lecture (Biggs and Tang, 2011:143-144).
Peer teaching	Large classes can be daunting. However, perceiving your students as your teaching assistants are quite powerful (Biggs and Tang, 2011:146). Schlicht and Klauser (2014:1021) refer to this approach as learning by teaching. By using peer teaching the content is taught from the perspective of the students which enables the HE teacher to observe students' understanding of the content and possible misconceptions

TEACHING AND LEARNING ACTIVITIES	DEFINITION
	(Biggs and Tang, 2011:146-147), as well as to emphasise the responsibility of students for their own learning process (Schlicht and Klauser, 2014:1021). However, a HE teacher should create and maintain a learning environment that supports peer teaching by focusing on students' intrinsic motivation, interests, and social interactions, and assist them in gaining independence (Schlicht and Klauser, 2014:1021).
Reading	Gathering information from different sources (e.g. books, articles and world wide web) (Wiles and Bondi, 1989:187).
Think-aloud model	The think-aloud model of teaching requires the HE teacher to think aloud when presenting new tasks or problems to his/her class. This allows students to experience the thought process of the HE teacher's self-analysis and reflection publically (Biggs and Tang, 2011:144). Felder and Brent (2009:3) discuss the thinking-aloud pair problem solving approach where one student is the explainer and the other the questioner. HE teachers can use a problem situation or case study for the purposes of this approach (see TLAs for functioning ILOs).
Venn diagrams	Venn diagrams are similar to concept maps since students are asked to explain relationships of concepts to each other by means of circles or ellipses. It can also be used as an AT (Biggs and Tang, 2011:246-247) (see Table 2.11).
Work-along exercises	Work-along exercises can be incorporated into modules such as Mathematics or Accounting to help students to follow the HE teacher and visualise the application of concepts (Biggs and Tang, 2011:144).
Teaching and learning activities for functioning intended learning outcomes	
Case-based learning	Case-based learning is applicable to all professional education disciplines and its application to design education (e.g. graphic design), as noted by Roworth-Stokes and Ball (2014:181-213). It bridges the gap between theory and practice by applying declarative knowledge to functioning ILOs (Biggs and Tang, 2011:163). Case studies are an effective tool to practise the application of theory in design disciplines (Breslin and Buchanan, 2008:36). The structure of a case study requires students to identify the problem, make an initial hypothesis, conduct necessary research by gathering suitable information and theory, and derive a solution which may/may not require the revision of the hypothesis (Breslin and Buchanan, 2008:38). When selecting a case, HE teachers must ensure it is aligned with one or more ILOs (Biggs and Tang, 2011:163). To effectively use case studies in design education, HE teachers should assist students to enter into conversation about the case and relevant theories that might apply. HE teachers should also guide students with the application of theory in the practical situation. Thereafter students need to reflect on the application process (Breslin and Buchanan, 2008:39). Case-based learning focuses on the role of teamwork, collaboration, critical thinking and creativity (Biggs and Tang, 2011:163). These are important competencies for a graphic designer to possess (see Chapter 4).
Experimentation	Experimentation is an activity involving a planned procedure with variables which students follow to observe and discover relations as well as evaluating a hypothesis (Wiles and Bondi, 1989:186).
Experiential learning	Experiential learning is increasingly required in all South African qualifications (CHE, 2012:45). Experiential learning is a mixed form of learning that includes all other types of TLAs listed in this table (Carl, 2012:97). This type of learning is also referred to as placement, attachment, practicum or internship according to a specific discipline (Biggs and Tang, 2011:168). Students focus on integrating and applying theory to real-life situations which promotes linking classroom learning and the workplace with each other (Biggs and Tang, 2011:169). The most important aspect to guarantee success is to ensure that TLAs set by placement sites align with the ILOs of the programme and/or module (Biggs and Tang, 2011:169). ILOs pertaining to this type of learning are the integration of knowledge and skills, application of theories and skills, collaboratively working with various parties, to practise with professional attitudes, and social and ethical responsibilities (Biggs and Tang, 2011:168).
Group work	Group work uses student-student interaction to apply declarative knowledge in discussions and applications. Wang (2010:155) noted improved learning when students engaged and interacted with each other during this type of learning. It is important for HE teachers not to correct students when groups are discussing the activity at hand, since this decreases the value of the exercise (Biggs and Tang, 2011:165). Many types of group work can be done online (Biggs and Tang, 2011:167), via platforms such as whatsapp, facebook, twitter, blackboard or moodle, e.g. platforms that HEIs use for sharing curriculum content and TLAs. Below eight different types of group work are summarised in bullet format.

TEACHING AND LEARNING ACTIVITIES	DEFINITION
	Types of group work
	Buzz groups (Biggs and Tang, 2011:166). • Discuss a question, problem or issue. • Apply theory to analyse and solve a case study. • Brainstorm possible answers and solutions (see the brainstorming technique in section 4.4.13.1).
	Jigsaw groups • Collaborative classroom group learning model (Wang, 2007:153). • Allocate a sub-task of the main task to each student group (Biggs and Tang, 2011:166). • Use jigsaw groups for complex tasks (Biggs and Tang, 2011:166). • Encourage responsibility and sharing of expertise with other students (Wang, 2007:153). • Each group only deals with a sub-section and may miss the main task. Therefore, it is important to use assessment or concept maps to ensure all students reach the ILO/s (Biggs and Tang, 2011:166).
	Learning cells (Biggs and Tang, 2011:166). • Work jointly on a problem or skill. • Useful in laboratories (e.g. computer and practical).
	Problem-solving groups (also see problem-based learning) • Apply theory to a specific situation or problem (Biggs and Tang, 2011:166). • Construct a hypothesis and reach a solution by using evidence (Biggs and Tang, 2011:166-167). • Increased professional competence (Biggs and Tang, 2011:167). • Emphasizes collaborative learning (Wang, 2007:155). • Deep learning is facilitated by the exploration of the process to solve problems (Wang, 2007:155).
	Reciprocal questioning • Students interact with each other by asking each other questions (Biggs and Tang, 2011:167). • Questioning provides the basis for discussion (Wang, 2007:153). • Use pedagogic strategies related to the topic of discussion (e.g. questioning, clarifying, summarising and predicting) (Wang, 2007:153). • Ensure a clear and high-level agenda (Biggs and Tang, 2011:168).
	Spontaneous collaboration (Biggs and Tang, 2011:168). • Students form unofficial, informal groups by themselves.
	Syndicate groups (Biggs and Tang, 2011:167) • Assign a task to each group that might be part of a larger task, problem or case study. This is similar to Jigsaw groups. • Intensive debate is important amongst group members. • Groups report back to the class on their task with guidance from the HE teacher.
	Think-pair-share (Felder and Brent, 2009:3) • Pose a problem for your students to solve. This is an individual activity for the first few minutes; thereafter students form pairs to discuss, reconcile and improve their solutions.

TEACHING AND LEARNING ACTIVITIES	DEFINITION
Lifelong learning	Lifelong learning is a common graduate outcome of HEIs and is included as one of the CCFOs of SAQA (see 2.1.1). Students engage in lifelong learning after having graduated in their chosen discipline (Biggs and Tang, 2011:174). Ornstein and Hunkins (2014:200) classify objectives that foster students' individual development for lifelong learning as metacognitive knowledge objectives. Biggs and Tang (2011:175-176) discuss three levels of self-directed learning that foster lifelong learning according to the personal and intellectual autonomy of Barrie (2004, in Biggs and Tang, 2011). Generic and specific study skills are included in the curriculum of graphic design AAPs (see 3.2.2.1.1). Reflective/metacognitive learning skills are required in the graphic design profession (see 3.2.2.1.4 and Chapter 4).
	Levels of self-directed learning for lifelong learning
	Generic study skills (Biggs and Tang, 2011:175)*:* • Systematic filing of notes and references for later use. • Effective time management skills with regard to deadlines. • Exploring information available through the use of strategic and relevant searches.
	Specific study skills for learning particular content (Biggs and Tang, 2011:175-176) • Underlining and highlighting important words/paragraphs. • Reading to identify the main idea of the particular content. • Taking proper notes. • Use concept maps. • Plan, review and revise assignments.
	*Reflective/metacognitive learning (*Biggs and Tang, 2011:176-177) • Learning is self-evaluated, -managed/-monitored and -directed. • The situation or problem often needs to be clarified since ILOs are not clear at the beginning. • Student uses prior knowledge in an attempt to provide a solution or explore information that might be of value. • Implement solution and revise if necessary.
Problem-based learning	Problem-based learning is a common approach in education for professions (e.g. graphic design) (Biggs and Tang, 2011:179). HE teachers and/or students identify real-life problems which students then attempt to solve by using declarative knowledge to conclude their own opinion which they need to asses (Lenkauskaité and Mazeikiené, 2012:78). Lenkauskaité and Mazeikiené (2012: 86) proclaim that when using problems, the HE teacher should select real, non-structured problems that assist students to understand the ILO/s. This is an important factor since it influences the learning process and the student's role in it (Lenkauskaité and Mazeikiené, 2012:79, 86). Designers often are viewed as problem-solvers that use a variety of methods and techniques (Breslin and Buchanan, 2008:37). The use of Buchanan's fourth order design model as a tool in problem-based learning may assist designers to discover new possibilities and opportunities (Bresline and Buchanan, 2008:40). See section 4.4.13.3 for a further explanation of Buchanan's fourth order design model.
Reflective journals	Reflective journals are ideal to combine with technology mediums such as blogs or wikis. Azer (2008:151-152,154) stipulates the many benefits of the use of reflective journals for student learning, namely: • define overall goals and identify related objectives; • highlight students' strengths and identify skill shortages or developmental areas; • create an action plan to achieve identified objectives; • reflect on personal learning experience; • illustrate a wide range of tasks for deep learning; • evaluate students' progress and achievements, and • develop thinking, reflective and analytical skills. (Azer, 2008:151-152, 154)

TEACHING AND LEARNING ACTIVITIES	DEFINITION
Research-based learning	Research-based learning links research with TLAs to assist students to gain scholarly techniques, attitudes and inclinations. Learning occurs within an authentic research context with no sample solutions to the problem. Therefore, students must apply research-based activities to find a solution. Authentic research-based learning starts with real-world issues generated by researchers and HE teachers in cooperation with the community (Schlicht and Klauser, 2014:1017-1019). Research activities may include: • understanding fundamental knowledge of research-related principles and mechanisms; • applying declarative knowledge and research methods; • planning of research projects; • accepting responsibility for findings; • learning to work self-determinedly, and • contributing to self-development, learning success, academic capabilities and scientific progress. (Schlicht and Klauser, 2014:1019)
Role play	Role play is an activity in which students and/or their HE teacher take on the behaviour of a hypothetical person in order to solve a problem or gain insight into a situation (Wiles and Bondi, 1989:187). Role-play often is used in the graphic design discipline to prepare students to work with clients.
Simulation-based learning	Simulation-based learning involves TLAs that imitate a system, entity, phenomenon or process (Lean, Moizer, Towler and Abbey, 2006:228). Simulation refers to presenting authentic representations of any model or device that joins elements from different realities (an everyday example is the use of a green screen for motion capture as in the movie *Avatar*; Hopwood, Rooney, Boud and Kelly, 2016:167). Simulations represent a key feature in professional education disciplines in HE and aims to prepare students for a specific profession (Hopwood et al., 2016:167). Hopwood et al. (2016:167) note an increase in the use of simulations in the HE curriculum, as well as in the financial investment by HEIs to purchase associated technologies (e.g. motion capture equipment for graphic design and animation programmes). Lean et al. (2006:229) identify five types of simulations which are listed below.
	Types of simulation-based learning
	Lean et al. (2006:229) identify the following types of simulations in HE: *Computer-based learning* • Gaming simulations; • training simulations, and • modelling simulations. *Non-computer-based learning* • Interactive and non-interactive role play, and • educational games (e.g. field, paper-based, card and board games).
Tutorial	Applies the knowledge learned in the lecture and eliminates confusion or misconceptions that students might have (Biggs and Tang, 2011: 135-136).

Table 2.9 summarises various TLAs which can be used by HE teachers in their striving to promote the achievement of ILOs by students. The identified TLAs merely are those I came across during my literature review; however, there might be several TLAs that are not included in the table. The twelfth criterion for programme accreditation specifies, in sub-section ii, that a variety of TLAs are required (CHE, 2004:18). Carl (2012:89) lists specific aspects which HE teachers need to consider during their presentation of TLAs, namely:

- a positive and safe classroom environment;
- student knowledge of the aligned ILOs and ATs;
- student learning styles (see 2.3.6.4.3b);
- opportunity and sufficient time to master skills, and
- to reflect on the achievement of ILOs and their contribution to student knowledge.

Ornstein and Hunkins (2014:207) note the necessary change in TLAs from didactic HE teacher presentation (e.g. the traditional lecture) to interactions between the HE teacher, student and outside experts (e.g. active learning) to ensure teaching and learning that aligns with this century's needs. This is also included in the CHE's (2004:18) twelfth criterion. Active learning is anything course-related that all students in a class session are called upon to do other than simply watching, listening and taking notes (Felder and Brent, 2009:3). Several types of TLAs relate to active learning, including problem-based learning and group work (see Table 2.9 for other suitable TLAs). Felder and Brent (2009:4), however, caution HE teachers not to make active learning activities too long or ask volunteers to respond after every activity.

2.3.6.5 Assessment

Assessing students' learning is a curriculum design component and also overlaps with the evaluation phase in curriculum development (Parkay et al., 2014:402) (see 2.4). Marsh (2009:87) defines student assessment as activities which the HE teacher conducts to obtain information about the knowledge, skills and attitudes of students. The South African CHE (2004:12, 19) sets two criteria for programme accreditation regarding assessment policies, procedures and practices of South African HEIs. It is important to understand why we need to assess students; for example, society requires more accountability from education authorities and HE teachers (*cf.* George, 2009:173; Parkay et al., 2014:407). Assessment also has other functions, apart from accountability, namely:

- to determine the success and/or quality of the TLAs and ILOs;
- to monitor students' progress which is a requirement for accreditation by the CHE (2004:12);
- to predict students' future achievements;
- to motivate students;
- to determine the appropriateness of the curriculum, and
- to identify curriculum problems in a timely fashion in order to remedy them.

  (Carl, 2012:100; Marsh, 2009:88).

The functions of assessment listed above highlight the important role of assessment in determining the success of teaching and learning (Carl, 2012:99). Assessment in the South African HE context should adhere to the appropriate NQF level descriptors as well as the four principles of good assessment (SAQA, 2001:8,16-19) that are also included the CHE's (2004:12) programme accreditation criteria (see Table 2.10).

Table 2.10: SAQA's four principles of good assessment (SAQA, 2001:16-19)*

PRINCIPLE	DESCRIPTION
Fairness	• Assessment should be clear, transparent and available to all students. • Appeal mechanisms and re-assessment opportunities should be available. • Appropriate TLAs should be used to acquire knowledge, understanding and skills. • Equal opportunities and availability of resources should exist for all students. • Unbiased assessment approaches and tasks should be used.
Practicability	• Resources should be available (e.g. financial, facilities, equipment and time).
Reliability	• Assessment instructions should be clear, consistent and unambiguous. • Assessment should not be influenced by variables (e.g. assessor bias towards students, interpretations and/or fatigue, to name but a few). • Assessment results should be consistent (e.g. assessment of a similar group of students under the same circumstances should result in the same assessment result if the same assessment instrument is used). • Assessment should adhere to the relevant criteria (e.g. CHE's programme accreditation criteria) and guidelines (e.g. NQF level descriptors). • A variety of assessment instruments should be used. • Internal and external moderation procedures should be in place. This is also a requirement for programme accreditation (CHE, 2004:19). • Assessors should be competent (and therefore properly trained) in the use of the assessment approach and task. This is also a requirement of programme accreditation (CHE, 2004:12). • Assessors should be discipline experts. • More than one assessor should assess students' work. • Reliable recording procedures should be in place. This is also a requirement for programme accreditation (CHE, 2004:20).
Validity	• The assessment should measure what it is meant to measure. • The assessment should evaluate the ILOs of the module. • The assessment should use an appropriate approach and task.

* See comment in section 7.3.5.1 pertaining to the expansion of the principles of good assessment.

The combination of the four principles of good assessment leads to credible assessment (SAQA, 2001:19). ACs should be stipulated at the start of students' learning experience in alignment with ILOs, TLAs and ATs within a constructively aligned approach. ACs should specify the following:

- the evidence required (e.g. knowledge, skills and values) to illustrate the achievement of or competence in the specific ILO/s;
- the level of understanding/taxonomy and quality required, and
- the context and conditions.

(SAQA, 2001:21).

Altbach et al. (2009:121) highlight the change in assessment practices of several countries towards the constructive alignment OBE approach that South Africa implemented (see 2.3.6.2.2a and 2.3.6.2.2b). If assessment is constructively aligned, it may promote deep learning since students learn according to how they think they will be assessed (e.g. the backwash effect) (Biggs and Tang, 2011:191). Over assessment or inappropriate assessment often leads to surface learning, whereas using different types of assessments and ATs may also lead to deep learning (George, 2009:168) (see 2.3.6.5.1). Assessment may also have a positive effect on students' motivation (Parkay et al., 2014:403) (see 3.3.5).

Technology also influences assessment. Computer-assisted assessment is used commonly with e-learning platforms (e.g. BlackBoard, WebCT or Moodle) for declarative (e.g. standard convergent questions) and functioning ILOs (e.g. constructing models, using web pages, blogs and charts) (Biggs and Tang, 2011:268,275). E-assessment also makes the process more flexible since students can attempt tests online in the comfort of their own home; it provides several attempts at a specific test, provides students with immediate results (depending on the assessment), and stimulates students who are familiar with technology (Marsh, 2009:105). E-learning technologies are listed as a generic competency in Table B.1.

2.3.6.5.1 Assessment approaches/forms and tasks

Curriculum designers may use more than one assessment approach and/or task to measure students' learning (Carl, 2012:106). However, system-level values (e.g. institutional or national preferences) and classroom teaching preferences have a major influence on assessment approaches and tasks used by HE teachers (Marsh, 2009:92).

A literature review exposed various assessment approaches and tasks which are summarised in Table 2.11 and Table 2.12 respectively and which are relevant AAPs for graphic design. Several assessments approaches may also be categorised as ATs. A variety of ATs are desirable to determine student learning (Marsh, 2009:100), which is stipulated in section 3.2.1.4.iv in the South African CHE's programme accreditation guidelines (2004:20). ATs should be aligned with ILOs in accordance with Biggs and Tang's constructive alignment approach (see 2.3.6.2.2b), as well as in accordance with the South African CHE's thirteenth criterion (CHE, 2004:20).

Table 2.11: Types of assessment approaches/forms

TYPE OF APPROACH	DESCRIPTION
Analytical assessment	Assess the different components of an AT (e.g. the content, referencing, styling, etc. of an assignment), rather than viewing an AT holistically. This is normally used in formative assessment; however, a holistic view of the AT is necessary to show high and reliable competence of specific knowledge, skills and/or attitudes (Biggs and Tang, 2011:213-214).
Assessment for learning	Focus on how and how well students learn; is also referred to as formative assessment (Carl, 2012:106). However, summative assessment, under certain conditions, may be used for formative purposes.
Authentic assessment	Authentic assessment is particularly important for assessing functioning ILOs (Biggs and Tang, 2011:212). This is a common approach in design education (Giloi and Du Toit, 2013:265). Authentic assessment requires students to complete ATs in a real world context (Carl, 2012:105). It is also seen as contextualised assessment which includes TLAs of experiential, case-based and work-based learning (Biggs and Tang, 2011:213) (see Table 2.9). Authentic ATs such as portfolios (see Table 2.12) can deepen and broaden students' interests and in turn enhance their learning (Marsh, 2009:101). Characteristics of this type of assessment include: • Collection of evidence through several ATs. • ATs imitate real-world experiences which reveal how students approach problem-solving in an authentic context. • ATs have several acceptable solutions or answers to problems or questions respectively. • Assessments are derived from students' learning and reflect local values, standards and control. (Marsh, 2009:98)
Continuous assessment	Assess students on a continual basis by using a variety of different forms of assessment (e.g. summative, formative and diagnostic assessments), as well as ATs (Carl, 2012:105).
Convergent assessment	Convergent assessment is related to declarative ILOs where students are expected to only memorise and understand (Biggs and Tang, 2011:215).
Crit	The crit is a key assessment technique and signature pedagogy in design education (Shreeve, 2015:88; Shreeve, Wareing and Drew, 2009:346). This is a well-established method to assess the design outcome of the brief and students' way of thinking (Shreeve, 2015:88-89). The crit's purpose is to establish standards, highlight thought processes, demonstrate appropriate design language, and share alternative perspectives and solutions through a critical analysis of students' work in order to assist them to become professional designers (Shreeve, 2015:88-89). Furthermore, the crit is supposed to provide positive feedback to students regarding their performance, rather than traumatising them (Shreeve, 2015:88-89). Unfortunately, this is seldom the case from my own personal experience as a design student.
Criterion-referenced assessment	Compare students' performance with predetermined ACs, rather than with the class average (Biggs and Tang, 2011:208; Carl, 2012:104; Marsh, 2009:94). This approach is more difficult to follow in creative disciplines (Marsh, 2009:94).
Critical incidents	Records are kept of critical incidents in students' workplace experience, which may be used to determine how they interpret what they have learned and how they use this information (Biggs and Tang, 2011:254).
Decontextualised assessment	Used for assessing declarative ILOs by means of written exams and tests (Biggs and Tang, 2011:213).
Diagnostic assessment/ pre-assessment	Used to identify the scope and level of the students' prior knowledge, skills and attitudes (Carl, 2012:105; Marsh, 2009:93). Often also referred to as baseline assessment if it establishes the starting point of a student's learning journey and provides the HE teacher with insight in planning learning experiences (Stassen, Doherty and Poe, 2001: 24).
Divergent assessment	Use ATs that allow for unintended ILOs which are commonly associated with functioning ILOs. This type of assessment is more in line with real world experiences where unintended learning also occurs (Biggs and Tang, 2011:215-216).
Expert/connoisseur assessment	Mostly applicable to art and design education where an expert or connoisseur assesses students' work. In most cases in graphic design education this is the individual HE teacher or a panel of HE teachers for internal assessment and an industry expert or academic from another institution for external assessment. External examiners have knowledge of the ILOs but do not know the students personally; therefore, they provide an impartial assessment (Giloi and Du Toit, 2013:263).

TYPE OF APPROACH	DESCRIPTION
External assessment	External assessment normally is completed at an exit level (e.g. upon the completion of a degree, diploma or certificate to ensure quality at a national level) (Marsh, 2009:97).
Formal assessment	Planned assessment such as tests, exams or assignments (Marsh, 2009:94), in other words, according to a schedule.
Formative assessment	Results of formative assessments are used for feedback during learning, improvement of teaching and learning, student progress and to form the final curriculum product (Biggs and Tang, 2011:195; Carl, 2012:102; Marsh, 2009:93). Also referred to as assessment for learning.
Holistic assessment	Assess the students' understanding of the whole in the light of the different components (Biggs and Tang, 2011:214). This is an important approach in design education (Giloi and Du Toit, 2013:264).
Illuminative assessment	Illuminative assessment forms part of process assessment since changes in programmes or renewal of programmes is reviewed in a holistic fashion (e.g. programme's rationale, development, progress, success and problems) (Carl, 2012:105) (see 2.4).
Informal assessment	Informal assessment is ongoing and very useful since it provides important information about students in natural situations (Marsh, 2009:94). It is, however, not necessarily planned, and is not part of a formal schedule.
Internal assessment	Internal assessment involves the primary participants in the teaching and learning process (e.g. HE teachers and students) (Marsh, 2009:97).
Learner judged/peer assessment	Learner judged assessments may include peer marking in the classroom (Marsh, 2009:95). This is also referred to as peer assessment. The value of this type of assessment is that students may accept critique more openly and feedback is given at a level that students understand (Parkay et al., 2014:411).
Norm-referenced assessment	Compare the performance of students with the performance of the class in general at the end of the learning experiences (e.g. with the class average). Results are used to evaluate students' varied performances on a specific task (Biggs and Tang, 2011:208; Carl, 2012:103; Marsh, 2009:94).
Outcomes-based assessment	See section 2.3.6.2.2a on OBE.
Performance-based assessment	Usually occurs by means of HE teacher observation of students' processes, thinking skills, actions and learning products. It focuses on students' ability to apply knowledge and skills by performing AT/s (Parkay et al., 2014:408). Students must demonstrate their competence.
Portfolio assessment	Portfolio assessments are identified by Parkay et al. (2014:410) as a type of assessment. However, it will be discussed in detail in types of ATs (see Table 2.12).
Post-modernist assessment	A narrow view of the purpose of assessment in that it promotes only the outcomes of the academic curriculum. ATs include the general written exams at the end of the learning experience (Marsh, 2009:98).
Process assessment	Assessments with the focus on the process to achieve the product (e.g. thinking skills, collaboration and problem solving) (Marsh, 2009:95). The process, especially in design education, is as important as the product or outcome (see Chapter 4).
Product assessment	Assessments with a focus on the product (e.g. assignment, projects, designs or objects) (Marsh, 2009:95).
Self- and peer-assessment	Conducted by the student to evaluate his/her own learning (Carl, 2012:107) and thought process during the completion of AT/s (Parkay et al., 2014:411). Self-assessments allow students to reflect on their learning process (e.g. factors that promote or hinder their learning) (Parkay et al., 2014:411). Used to assess a variety of TLAs, especially those for functioning ILOs (e.g. teamwork). Biggs and Tang (2011:245) propose that HE teachers explain the use of peer- and self-assessment to students in order for them to see the benefit of this AT. Advantages include: • active student involvement with ACs to achieve ILOs; • students learn to select appropriate and good evidence to support their achievement of ILOs, and • self-assessment is vital in the real world (see Table 2.12 for self-assessment). (Biggs and Tang, 2011:245).
Standards-referenced assessment	Students are compared to a specific level (or standard) of achievement of the outcomes of the curriculum. This approach to assessment may lead to greater student motivation (Carl, 2012:104).
Summative assessment	Used to assess/grade students at the end of the learning experience. Results of summative assessment are used to make decisions regarding students' futures and are final (Biggs and Tang, 2011:196; Carl, 2012:102; Marsh, 2009:93).
Teacher-judged assessment	HE teacher does the assessment of ATs (Marsh, 2009:95).

Table 2.12: Types of assessment tasks

TYPE OF ASSESSMENT TASK	DESCRIPTION
ATs to assess declarative intended learning outcomes	
Cloze tests	Designed originally for reading comprehension - words in a common passage are deleted for the students to fill-in (Biggs and Tang, 2011:243).
Concept maps	Provide a holistic view of the content. HE teachers can use them to determine if students have achieved the ILO/s; may also be used as a TLA (Biggs and Tang, 2011:243-244) (see Table 2.9).
Constructed-response questions	Open-ended, short-answer questions to measure cognitive skills and understanding of content. Use a wide range of stimuli (e.g. timelines, graphs, charts, images, etc.). May also be used for application of knowledge in functioning ILOs (Azer, 2008:169).
Extended-matching questions	Similar to multiple-choice questions but differ that questions are organised into sets which include a list of answers/options for all questions in a set (Azer, 2008:168).
Gobbets	Gobbets focus on the bigger picture, similar to concept maps, but use a significant chunk of curriculum content which students need to identify, explain, classify or discuss (to name but a few verbs associated with the first two levels of the revised cognitive taxonomy) to demonstrate understanding (Biggs and Tang, 2011:244).
Group assessment tasks	Common approach in larger classes; however, caution should be exercised to eliminate plagiarism and freeloading. May involve peer-assessment, as well as reflective reports (Biggs and Tang, 2011:244-245).
Letter-to-a-friend	Students write a letter to a friend about the content of a module or programme (e.g. relationship/s of content that portray/s the holistic view), or write a personal reflection on what has been learned. Such a letter/reflection also provides feedback to the HE teacher regarding course specifics for the sake of improvements (Biggs and Tang, 2011:245).
Minute paper	See TLA for description in Table 2.9. HE teachers need to inform students what the specific purpose of the minute paper is (e.g. TLA or AT), since their strategies may differ (Biggs and Tang, 2011:245).
Multiple-choice questions	Test factual knowledge rather than deeper understanding. Used in assessment for the following purposes: • Test a broad range of topics. • Possible to mark electronically which saves time and money. • Results are analysed regarding the degree of difficulty per question to provide information to the HE teacher. • Suitable for a large number of students writing an exam. (Azer, 2008:168)
Random assessment	A method to motivate student efforts for a series of ATs (e.g. the HE teacher selects only specific ATs for students) (Biggs and Tang, 2011:246).
Short-answer questions	Require active recall of knowledge rather than recognition, since students interpret diagrams, charts or tables in note form (Biggs and Tang, 2011:246). Limitations include that this type of AT does not allow for testing cognitive skills, and allows testing of a limited number of topics per unit of time (Azer, 2008:169).
Venn diagrams	Similar to concept maps, since students are asked to explain relationships of concepts to each other by means of circles or ellipses. These may also be used as a TLA (Biggs and Tang, 2011:246-247) (see Table. 2.9).

TYPE OF ASSESSMENT TASK	DESCRIPTION
ATs to assess functioning intended learning outcomes	
Capstone projects	Version of a final-year project that addresses both programme and module ILOs. Use synoptic assessment where students are expected to integrate their experiences into the project (Biggs and Tang, 2011:254).
Case study	Requires students to apply their knowledge and professional skills to solve a problem (case) and may be presented as a project or portfolio in formative or summative assessment (Biggs and Tang, 2011:254).
Individual and group projects	Focus on functioning knowledge applied either individually or as a group. Group projects are becoming more popular and are in line with graduate attributes of HEIs (e.g. collaboration and/or group/team work). They also reduce the workload of HE teachers (Biggs and Tang, 2011:254).
Modified-essay questions	This type of AT starts with a scenario followed by two or three questions based on the scenario. Modified-essay questions test application of knowledge, interpretation of findings, etc. (Azer, 2008:169).
Oral assessment	Provides students with the opportunity to verbally elaborate on their knowledge to illustrate deeper understanding. Students are confronted with different styles of questioning from assessors/examiners (e.g. supportive, aggressive or confrontational; Azer, 2008:171). This type of assessment or examination, also is referred to as the viva and is often used in doctorate programmes where students need to defend their thesis to the examiners after the examination process (*cf.* Trafford and Leshem, 2011).
Portfolios	Marsh (2009:101) and Parkay et al. (2014:410) describe portfolios as ATs in detail. Portfolios are seen as central to the movement towards authentic assessment (see Table 2.11; Marsh, 2009:101). It is a common AT in art and design education where students are required to compile a portfolio of their latest and best work (Parkay et al., 2014:410). Tovey (2015:1) refers to portfolios as students' passport to enter the profession. Portfolios, in general, may include essays, journals, self-assessments (e.g. rating forms), demonstration of skills, rough drafts, finished products and creative works to name but a few (Marsh, 2009:102). Parkay et al. (2014:410) propose the following guidelines for portfolios: • Individual activity that focuses on ILOs important for the student. • Showcase a student's highest level of ILOs attained through the inclusion of best work. • Evaluation should be collaborative between HE teacher and student.
Presentations (e.g. student and poster presentations)	HE teacher and peers evaluate the students' presentations, and where applicable posters, to assess the student's functioning knowledge of the specific topic (Biggs and Tang, 2011:260-261).
Problem-based style questions	Start with a scenario followed by a question which is aligned to one or more of the ILOs. This type addresses ILOs aimed at applying knowledge in real situations (Azer, 2008:169).
Reflective journal	Students write personal reflections about incidents or their thoughts on the curriculum content or attainment of ILOs. This is a useful tool for ILOs regarding application of content, professional judgement and reflections or solving problems (Biggs and Tang, 2011:261).
Scenario-based multiple-choice questions	The scenario description in the question provides a question that does not include grammatical clues for students (e.g. may, never or always). Students usually are required to choose the single best answer from five options. Used to test analytical, problem-solving, knowledge integration, application, justification and reasoning skills (Azer, 2008:168).
Simulations	Authentic simulation that is reflective of real-world practices (Azer, 2008:169). Often used in medical professions (e.g. clinical simulations) but may also be applicable to several disciplines that use simulation-based learning.

2.3.6.6 Summary of the components of curriculum design

Five curriculum design components are discussed in section 2.3.6 and are summarised in Figure 2.10. Situation analysis may be used as a screen rather than a component since a specific situation influences the aims, goals and outcomes of a curriculum's design. Aims and goals of a community, country and HEI inform outcomes for a programme and its constituent modules. Module outcomes in turn inform the selection and organisation of curriculum content. Figure 2.8 portrays the constructive alignment between TLAs and ATs to align to ILOs (Biggs and Tang, 2011:105). Teaching and learning principles and styles may guide HE teachers to select more appropriate TLAs for their students in a specific module in alignment with ILOs.

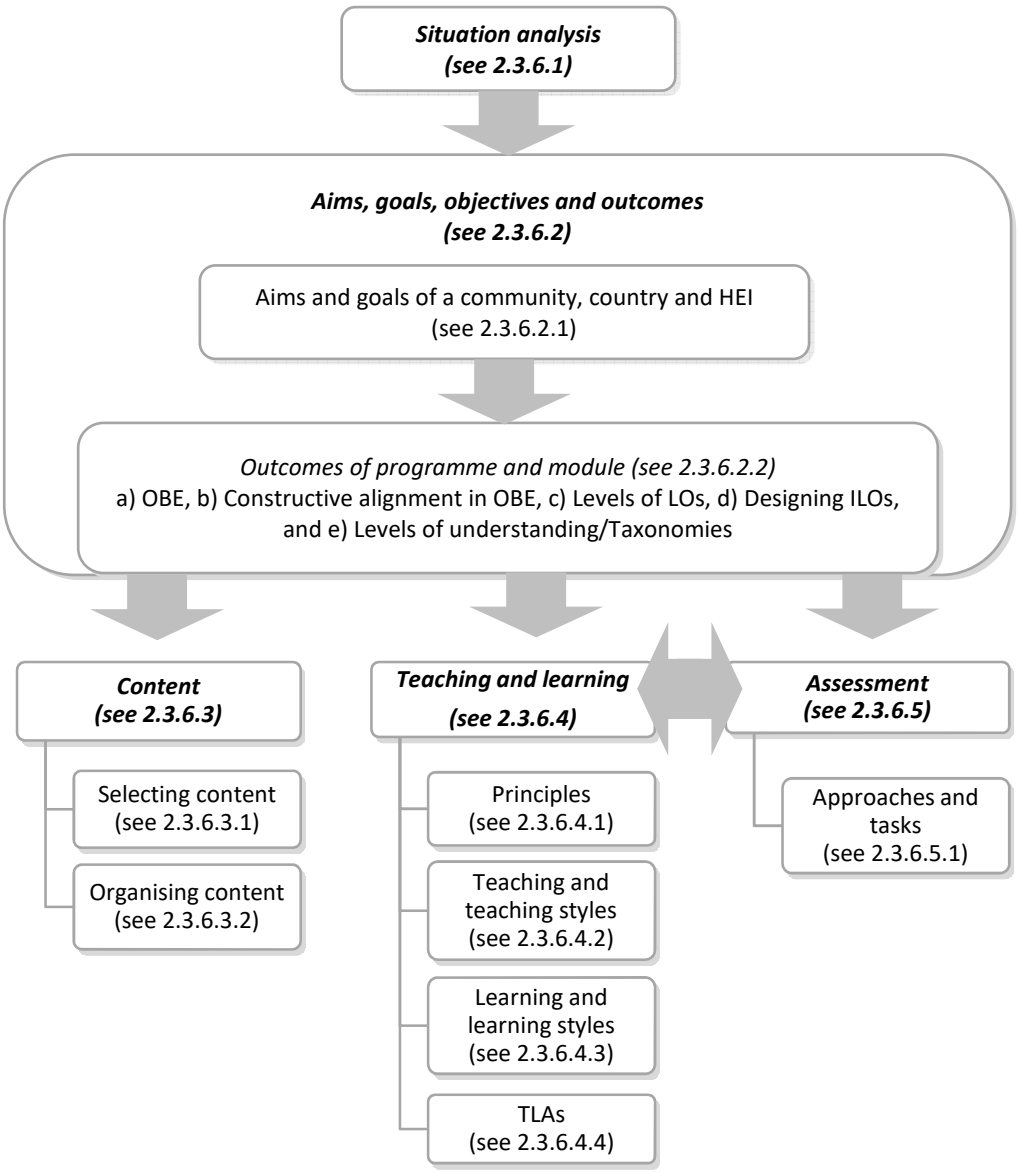


Figure 2.10: Summary of the curriculum design components

2.3.7 Summary of curriculum design

Curriculum design is a phase within the process of curriculum development during which a new curriculum is planned or an existing curriculum is reviewed after an evaluation phase (Carl, 2012:41). This phase's function is to plan the curriculum and arrange the major components of a specific curriculum's design (Ornstein and Hunkins, 2014:13). The components of curriculum design have been identified and discussed in section 2.3.6 with a visual summary in Figure 2.10.

The first objective of this study calls for the exploration of curriculum design and more particularly, access programmes in the applied art discipline of graphic design. The exploration of curriculum design literature has been visually summarised in Figure 2.11. The selection of an appropriate curriculum design model is the starting point for the curriculum designer since it identifies basic considerations which should be accounted for in curriculum decision-making (Marsh, 2009:41) (see 2.3.5). Seven curriculum design models have been discussed and categorised as either procedural or descriptive models (see 2.3.5.1 and 2.3.5.2 respectively). Curriculum design models have been visually summarised in a comparative way in Figure 2.5 and Figure 2.6 in order to highlight differences. In this chapter it has been demonstrated that a descriptive model is ideal for designing curricula in arts disciplines (e.g. graphic design), since the curriculum content can be based on the key procedures, concepts and criteria of the discipline (Gleeson, 2013:927) (see 2.3.5.2.2 for Stenhouse's process model).

Important criteria that may inform the curriculum design process have been summarised in Table 2.1. These criteria may guide curriculum designers regarding the most important aspects which they need to consider during the design process (e.g. curriculum design models and components), such as community needs, relevance to industry and real life, students' developmental level and an appropriate balance between the different domains (see 2.3.6.2.2e).

Five components of curriculum design have been identified and discussed in section 2.3.6, namely situation analysis, aims, goals, objectives and outcomes; content; teaching and learning, and assessment. A situation analysis is the recommended starting point for a curriculum designer's journey (Carl, 2012:79). However, a situation analysis is a screening process rather than a component, since the specific situation influences the aims, goals and outcomes of a curriculum's design. Aims, goals, objectives and outcomes are important at the various levels of curriculum design (see 2.3.2). The aims and goals of curriculum design in a specific country are informed by the country's policies and legislation. Section 2.3.1 explores curriculum design in the South African HE context. It was found that South African HE follows a programme-based approach (RSA DoE, 1997:17); therefore, this study of programme design and curriculum design is viewed as synonymous. Programme design in South African HE requires students to master the techniques and skills of a vocational occupation (e.g. graphic design) (CHE, 2004:8). A content analysis of the competencies of

graphic designers (see Chapter 4) eventually is used to identify these key procedures, concepts and criteria for the specific discipline, which in turn may also inform the use of a descriptive curriculum design model.

In the context of curriculum design objectives focus on teaching inputs (i.e. what the HE teacher wants students to achieve), whereas outcomes concentrate on teaching outputs (i.e. what students should know, understand and do at the end of their learning; Carl, 2012:89; Marsh, 2009:65). South African qualifications are described in terms of LOs, rather than objectives (SAQA, 2000:10). Therefore, the five sub-sections of 2.3.6.2.2 focus on OBE, constructive alignment in OBE, levels and design of LOs and levels of understanding/taxonomies. Content is selected and organised according to ILOs in an OBE approach. The constructive alignment concept of Biggs and Tang (2011:105) is an important theoretical aspect in this study, since it informs the selection of TLAs and ATs in alignment with ILOs (see 2.3.6.2.2b).

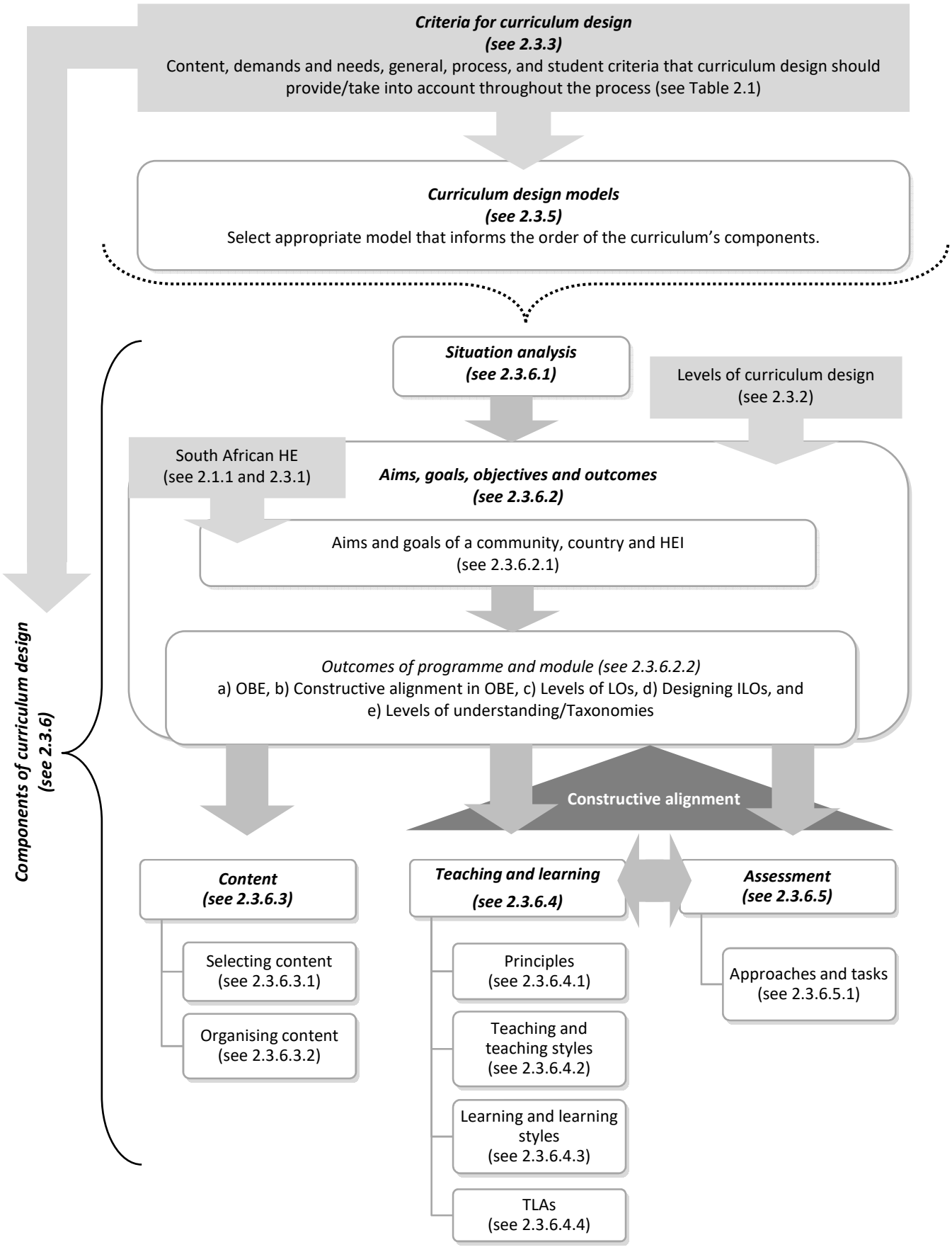


Figure 2.11: Summary of curriculum design

2.4 CURRICULUM EVALUATION

Curriculum evaluation is the phase within curriculum development where the effectiveness of the curriculum is determined (Carl, 2012:42). Evaluation should be a continuous process but should also be done during and after each stage in the curriculum development process (Carl, 2012:140; Ornstein and Hunkins, 2014:246). It is also regarded as an essential element in curriculum design (Ornstein and Hunkins, 2014:244). Criterion nineteen for programme accreditation in South African HEIs specifies that curriculum evaluation should be undertaken at regular intervals through user surveys, reviews and impact studies in order to enhance a programme's design (CHE, 2004:24). Curriculum evaluation has been discussed briefly in this chapter since the third objective of this study calls for the analysis of the status of an existing AAP for graphic design by means of a strengths, opportunities, aspirations and results (SOAR) analysis questionnaire (see 5.3.4). Curriculum evaluation also includes students' assessment in order to determine if ILOs of the curriculum have been achieved or not (Carl, 2012:140; Parkay et al., 2014:402) (see 2.3.6.5).

Evaluation of the curriculum at the start of the design phase should determine the worth and merit of the curriculum (Ornstein and Hunkins, 2014:246). This is also referred to as the rationale for the curriculum and filters through to the aims, goals and outcomes of a curriculum (Carl, 2012:143). Curriculum evaluation involves evaluating the aims, goals and outcomes (e.g. immediate and long-term) of a curriculum (Carl, 2012:141). Evaluation of immediate goals indicates whether the minimum acceptable number of students indeed have achieved the minimum number of ILOs of a module. Evaluation of long-term outcomes determines the implications of graduate attributes of an institution and/or SAQA's CCFOs for individuals, communities and industry (see 2.3.6.2). Ornstein and Hunkins (2014:248-249) identify five aspects that may guide the curriculum evaluator during this process, namely:

- Intrinsic value of the curriculum: The evaluation of the soundness and appropriateness of a curriculum. Evaluators' personal approaches and orientations to curriculum development may have an impact (see 2.2.1.1).
- Instrumental value of the curriculum: The evaluation of the aims, goals and outcomes of a curriculum in terms of the planned/intended curriculum and the achievement of the aims, goals and outcomes by the intended audience (i.e. students).
- Comparative value of the curriculum: The comparative evaluation of a new curriculum against an existing curriculum that is inadequate, or student achievement in similar programmes at other but similar HEIs and/or countries.
- Idealisation value of the curriculum: The evaluation of curriculum improvement through students' achievements and/or HE teachers' instructions on a continuous basis.
- Decision value of the curriculum: The evaluation of the role of the previous four aspects in the evaluation of a curriculum.

Curriculum evaluation is not the responsibility of only the curriculum designer/developer. In South Africa, the HEQC manages programme accreditation and re-accreditation in South African HE (CHE, 2004). South African HEIs' themselves manage their curricula through internal quality assurance committees, educational leaders in faculties, departments, schools and HE teachers. Various evaluation models can be used by these parties. However, these models are not included in this chapter since a SOAR analysis was selected to analyse the status of the existing graphic design access programme from the perspective of previously enrolled students and HE teachers (related to generic and discipline specific modules) within the time period of 2011 to 2013. The rationale for the use of this type of analysis is discussed in section 5.3.4.

2.5 CHAPTER SUMMARY

The first objective of this study requires an exploration of graphic design access programme design in HE in order to identify generic and discipline-specific competencies. This chapter explored the design of HE programmes in general by exploring the concept of curriculum development and, in particular, curriculum design. Curriculum development is exposed as the umbrella term used for the design, dissemination, implementation and evaluation of a curriculum (Carl, 2012:41-42). Curriculum development is discussed in section 2.2 to lay the foundation for the remainder of the chapter which mainly focuses on curriculum design (see 2.3), which in turn is aligned with the first objective of this study (i.e. to explore the constitution/design of existing AAPs and graphic design programmes and the generic and discipline-specific competencies that are cultivated through these respective programmes; see 1.3.3). Curriculum evaluation is briefly discussed in support of my choice of a SOAR analysis as a type of evaluation, as well as the design of a curriculum and the third objective of this study (see 2.4). Figure 2.12 is a visual summary of the major sections of this chapter and their relationships to each other is discussed in this conclusion.

Curriculum is defined in the South African context as all teaching and learning opportunities occurring in learning institutions including public and private HEIs (SAQA, 2000:6). The South African HE landscape underwent several major changes since the country's first democratic election, as discussed in section 2.1.1. South African HE is governed by the HEQC as far as quality assurance, programme accreditation and re-accreditation are concerned (Le Grange, 2011:82), and SAQA is responsible for the advancement, development and implementation of the NQF and the HEQSF, namely the sub-framework of the NQF for HE (SAQA, n.d. (b): online). It is important for the curriculum (or programme) designer of a South African programme to adhere to the country's policies and procedures as specified in section 2.3.2, since these influence the aims and goals of a curriculum's design. The interpretation of the definition of curriculum (or programme) depends on the orientation and approach of the curriculum designer/developer as applicable in the different phases of the curriculum process (Breault and Marshall, 2010:179; SAQA, 2000:5) (see 2.2.1). Major contributors to the field of curriculum studies are discussed in section 2.2.2 as background knowledge since several of these authors' curriculum design models are discussed in section 2.3.5.

Curriculum design is the predominant phase of curriculum development. During this phase a new curriculum is planned or an existing curriculum is reviewed (Carl, 2012:41), and the major components (re-)arranged (Ornstein and Hunkins, 2014:13). The selection of an appropriate curriculum design model is the starting point for the curriculum designer (Marsh, 2009:41) (see 2.3.5). A descriptive model, in particular Stenhouse's process model, was identified in this chapter to be ideal to design a curriculum for art and design disciplines such as graphic design, since the curriculum content can be based on the key procedures, concepts and criteria of the curriculum (Gleeson, 2013:927), as identified in Chapter 4. This type of model can also be used within AAPs for graphic design if the listed generic competencies of Table B.1 are included.

Five components of curriculum design have been identified and discussed in section 2.3.6. A situation analysis is the recommended starting point for a curriculum designer's journey (Carl, 2012:79). However, a situation analysis is used as a screening device, rather than a design component. The first component involves aims, goals, objectives and outcomes. Curriculum design also takes place at various levels which are tapered down from a world level to a classroom level. Each level influences the curriculum aims, goals and/or outcomes. South African qualifications are described in terms of outcomes, rather than objectives (SAQA, 2000:10); therefore, OBE is discussed in section 2.3.6.2.2a. The constructive alignment approach of Biggs and Tang (2011:105) is another fundamental aspect in the theoretical framework of this study (see 2.3.6.2.2b). This approach requires alignment of TLAs and ATs with regard to ILOs, thereby eliminating the guessing game between HE teacher and student (Marsh, 2009:64). ILOs need to be properly formulated and should adhere to a specific level of understanding or taxonomy (see 2.3.6.2.2d and 2.3.6.2.2e). TLAs are influenced by principles of teaching and learning, as summarised in Table 2.4. Teaching and learning styles are discussed in sections 2.3.6.4.2 and 2.3.6.4.3 respectively. ATs, on the other hand, are influenced by assessment approaches (see 2.3.6.5.1).

Curriculum evaluation is the phase in curriculum development during which the effectiveness of the curriculum is determined; this should happen on a continuous basis (Carl, 2012:42, 140; Ornstein and Hunkins, 2014:246). Among others, curriculum evaluation includes students' assessment since the latter serves to determine whether ILOs have been achieved or not (Carl, 2012:140; Parkay et al., 2014:402) (see 2.3.6.5).

The literature I reviewed on programme/curriculum design and review in HE discussed in this chapter provided me with a comprehensive background on this topic. In the following chapter I will focus my literature exploration on programme/curriculum design pertaining specifically to good AAPs for graphic design in HE, which may serve as a possible mechanism for student success. Chapter 2 and Chapter 3's context regarding curriculum design is highly integrated since the components of curriculum design are discussed in general in Chapter 2 and focused on AAPs (for graphic design) in Chapter 3. Chapter 4 focuses on the key procedures, concepts and criteria of graphic design in order to identify generic and discipline-specific competencies apart from those cultivated in AAPs.

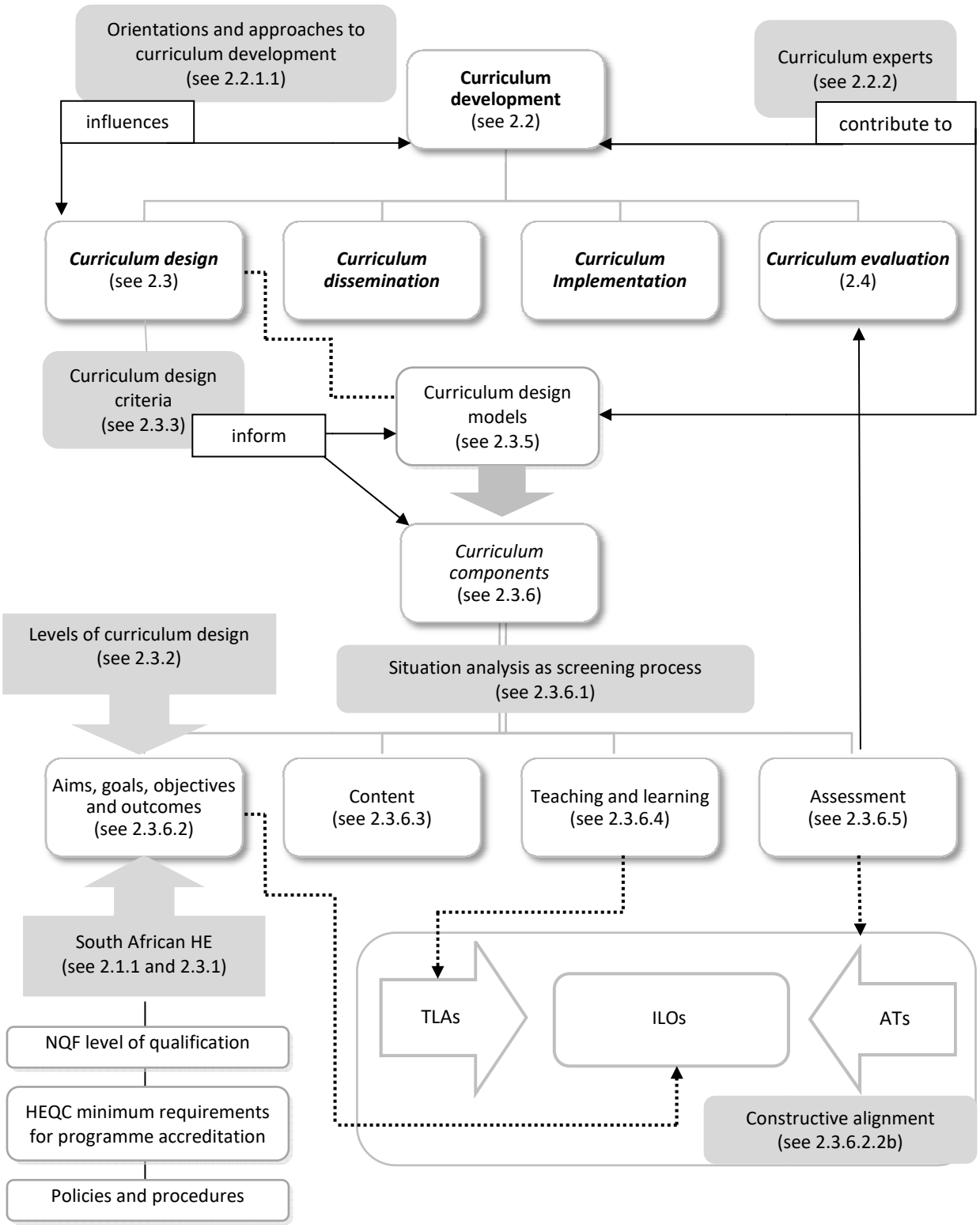


Figure 2.12: Summary of major sections in this chapter with associated relationships

CHAPTER 3

3

CONSTITUTION OF ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN, AND STUDENT SUCCESS MECHANISMS WHICH SUPPORT THESE PROGRAMMES

3.1 INTRODUCTION

Student access, success and throughput rates are focus areas in South African higher education (HE) in the light of the Republic of South Africa's (RSA) Department of Higher Education and Training's (DHET) forecasted population participation rates for HE in 2030 (RSA DHET, 2016:5). In connection with quality, these aspects should be inseparable from one another when programmes are to be fit for their purpose (Boughey, 2007:9; CHE, 2013b:31; Walton, Bowman and Osman, 2015:267). Several higher education institutions (HEIs) use alternative access programmes (AAPs) as a mechanism in order to widen access for non-traditional students who do not comply fully with admission criteria. The Council on Higher Education (CHE) notes that this student population is less prepared because of the articulation gap and therefore they have a higher risk of not succeeding than students that are successful in entering the mainstream directly (CHE, 2013a:72). However, Young (2015:3) proclaims that this does not mean that all traditional students are not at-risk; therefore, student success mechanisms should be available to all students in HE.

Walton et al. (2015:263) report that AAPs are not as successful as hoped; however, their success should also be evaluated against opportunities and support that are available within in these programmes (Hlalele and Alexander, 2012:488,490). Therefore, it is important to explore the constitution of AAPs as well as additional student success mechanisms which may be employed together with these programmes in order to address the key issues of access, success, throughput rates and quality in HE (*cf.* CHE, 2013b:31). Section 3.2 of this chapter aims to explore the constitution of AAPs for graphic design in order to identify programme characteristics which may be used in a framework to promote student success; whereas 3.3 explores five possible student success mechanisms which may support AAPs, namely academic advising, the learning environment, teaching and learning strategies, student engagement and student motivation.

3.2 CONSTITUTION OF ALTERNATIVE ACCESS PROGRAMMES

The terminology of AAPs is defined as extended or augmented diploma or degree programmes in HE (CHE, 2013a:70). AAPs include ample foundation provision to support underprepared students by providing academic foundations they need to succeed in their studies (CHE, 2013a:70). This is in line with criterion eleven of the CHE's programme accreditation guide (CHE, 2004:18). Foundation provision may consist of

modules that provide students with an introduction to discipline-specific competencies, academic literacies and learning skills (CHE, 2013a:70). Foundation provision is selected according to the extended or augmented diploma and degree. Figure 3.1 provides an outline of how the design and construction of AAPs for graphic design were approached as discussed in the section to follow.

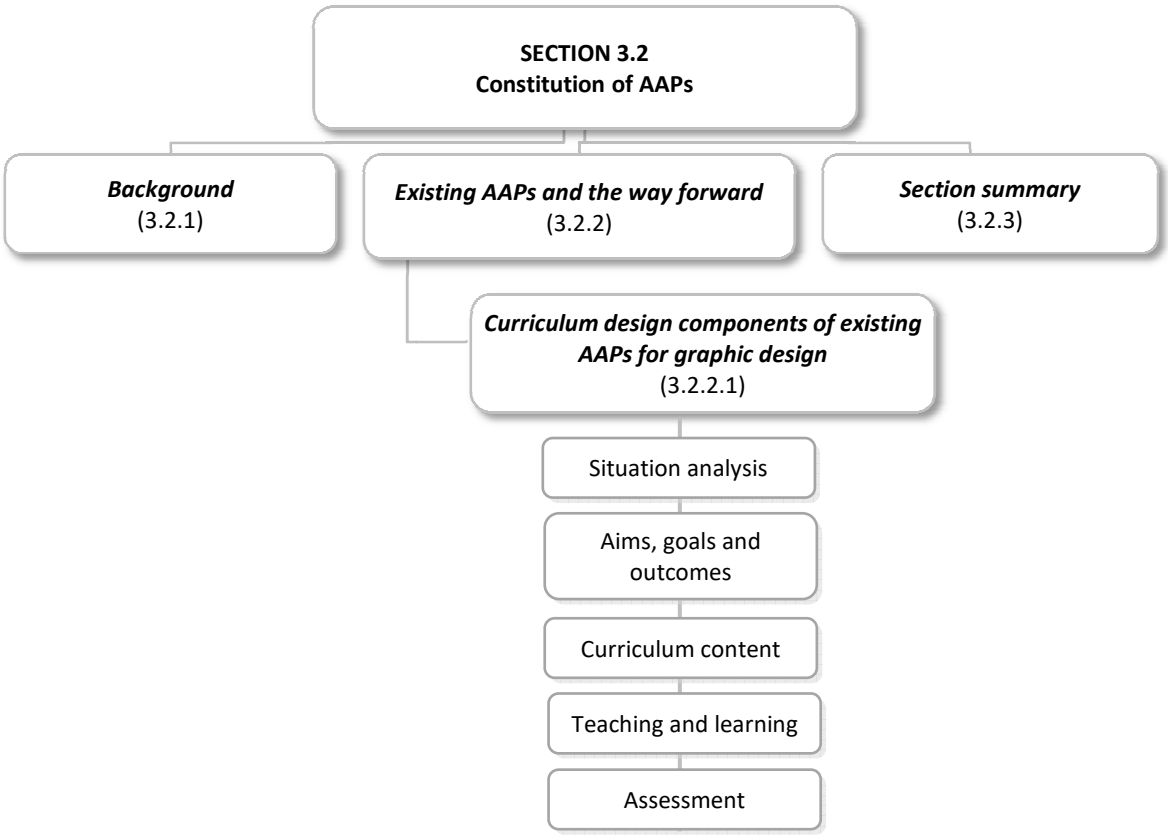


Figure 3.1: Outline of section 3.2

3.2.1 Background to alternative access programmes in South Africa

South African HE underwent many changes since the country's first democratic election in 1994 (see 2.1.1 and 2.3.1 for background to South African HE and curriculum design). One of the main purposes of the Higher Education Act 101 of 1997 is to provide equal access opportunities to all students in order to redress past discriminations (RSA, 1997:1). AAPs are one mechanism to address this redress by increasing access to HE, address the articulation gap between secondary and tertiary education (referred to as HE in this study), as well as a possible mechanisms to enhance student success (CHE, 2013a:70). The past decade shows the extensive expansion of this form of intervention in all South African HEIs (CHE, 2013a:71), which has resulted in different levels of maturity of these programmes in our country.

AAPs, originally referred to as extended curriculum programmes, existed in various forms since the early 1980s in South Africa (Kloot, Case and Marshall, 2008:803-807; CHE, 2013:70) (see Figure 3.2). Early programmes provided academic support to non-traditional students termed as the basic skills model (Boughey, 2007:1; CHE, 2013:70). The basic skills model focuses on the development of students' cognitive,

communication and study skills and was termed by practitioners as academic support (later referred to as foundation provision). Communication skills are incorporated to improve non-native English-speaking students' reading, writing and comprehension skills in English (Kloot et al., 2008:803-804). Communication skills are also highly valued as a generic and discipline-specific competency in graphic design (see 4.6.1; Table B.1). The curriculum of these programmes originally was designed as deficit models which concentrated on skills development with almost no theoretical underpinning (Kloot et al., 2008:801).

The focus then shifted away, internationally, from student support to academic development, also referred to as educational development, to transformation; in South Africa specifically, this happened in tandem with the political changes taking place from the early 1990s (Boughey, 2012:641; Boughey, 2007:1). Academic development since then has focused on the development of the curriculum and appropriate teaching methodologies to meet the needs of non-traditional students admitted into AAPs (Boughey, 2007:1). Kloot et al. (2008: 812) termed this phase of academic development the integrated model, since it comprises both foundation provision (earlier referred to as academic support) and discipline modules (Kloot et al., 2008:804-805). Introductory discipline modules presently also are referred to as foundation provision (CHE, 2013a:70). This was a step towards improved student success since the inclusion of discipline-specific modules was believed to improve students' retention and success rates (Garraway, 2010:31).

Closer to the end of the 1990s, the academic development focus shifted towards the demands of globalisation with a neo-liberal agenda influencing HEI policy development (Boughey, 2007:2), leading to what is known as the holistic model (Kloot et al., 2008: 812). The holistic model takes into account that students cannot overcome their disadvantaged background in one year. Students enrolled in AAPs often require assistance beyond their foundation year in order to be successful in their studies (Kloot et al., 2008: 812). The holistic model integrates foundation provision skills and the South African Qualification Authority's (SAQA) critical cross-field outcomes (CCFOs; see 2.1.1) through discipline-specific modules which are all intertwined to form a holistic curriculum (Kloot et al., 2008:805-807). This model provides students with a better understanding of the applicability of foundation provision skills to their discipline. Furthermore, it eliminates what I experience as students' tendency to spend less time on foundation provision matter since it is seen as not relevant to what they are studying. This is in line with Shreeve, Wareing and Drew (2009:346) conclusion that design students often view theory as unrelated to the practical component which is their main focus. An example of the holistic model is seen in the research of Kizito (2015).

Presently, however, an infusion model is used which is based on the transformation of these programmes from academic support to academic development programmes (see Figure 3.2). The present model is

referred to as AAPs in South Africa, since these programmes all are diploma or degree programmes which are extended or augmented with foundation provision (CHE, 2013a:70,73). Foundation provision may consist of modules that provide students with an introduction to discipline-specific competencies, academic literacies and learning skills (CHE, 2013a:70). These modules are developed and designed by the specific discipline/department, but with support from the HEI's academic development unit to ensure the required transformation (see 2.1.1) (CHE, 2013a:70,73). The current foundation provision occurs through integrating teaching methodologies, ensuring discipline alignment, and including credit-bearing intervention modules (Clarence-Fincham, 2009:71; Garraway, 2015:27). AAPs therefore have the opportunity to contribute to student success and improve retention rates (Boughey, 2005:230; Clarence-Fincham, 2009:78), but they are resource intensive (Shay Wolff and Clarence-Fincham, 2016:32).

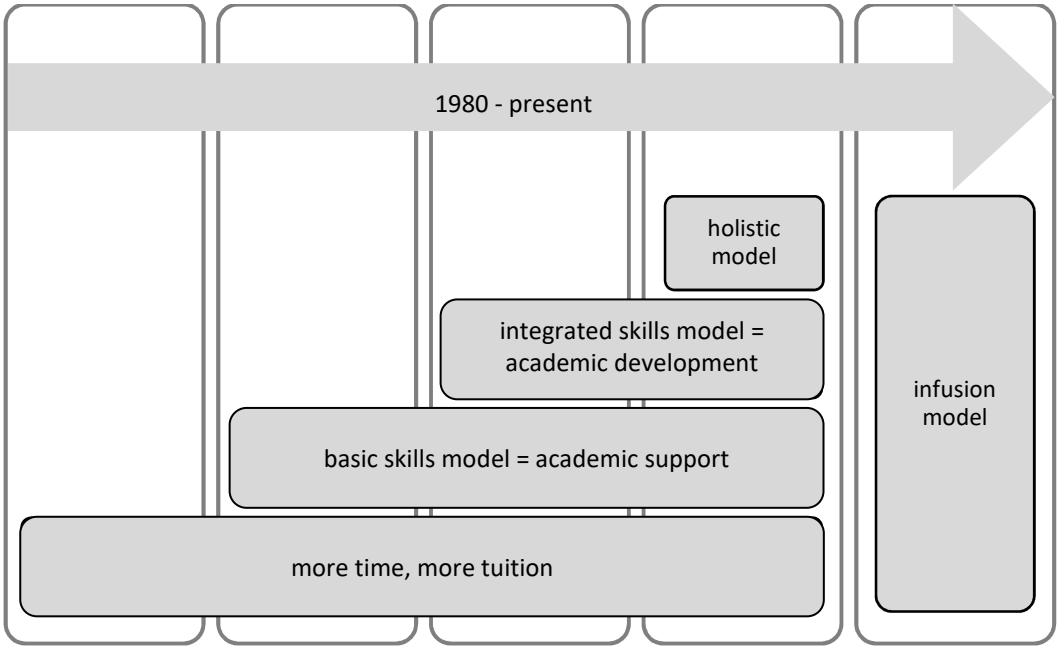


Figure 3.2: The progression of extended programmes over the past three decades in South Africa (adapted from Kloot et al., 2008: 812).

3.2.2 Existing alternative access programmes in South Africa and the way forward

Although the infusion model is currently used in South African AAPs, a desktop search of the world-wide web highlighted the differences in terminology currently used in South African HEIs, namely bridging, extended curriculum, extended degree, foundation, pre-degree, and university preparation programmes. The use of different terminologies is a reflection of the different levels of maturity of AAPs in the country (CHE, 2013a:71). However, one needs to note that these terminologies often are used synonymously by uninformed parties, which contributes to the use of different terminology. For the purpose of this study the term AAP is used as an umbrella term that includes all the different terms used for these programmes.

My desktop search highlighted the use of previous models for AAPs for graphic design (see the situation analysis of existing AAPs in section 3.2.2.1.1). AAPs, within the correct use of the term in the infusion model, offer the first year of a degree programme's curriculum over a period of two years with foundation provision to aid students to adapt to their new learning environment (Hay and Marais, 2011:234; Kloot et al., 2008:802). Bridging and preparation programmes mostly are one-year stand-alone programmes that provide students with access to HE (Hay and Marais, 2011:234), which also is the premise of foundation programmes and pre-degree programmes. However, there are slight differences between these one-year stand-alone programmes. The term *foundation* surfaced to describe academic programmes that attempt to lay academic foundations which students need in their future HE studies (Kloot et al, 2008:801), such as in the basic skills model. On the other hand, bridging programmes aim to bridge the articulation gap between secondary and HE (Kloot et al., 2008:802). Extended programmes provide access, foundation provision, and address the articulation gap, and therefore include all the functions of the prior models (CHE, 2013a:72); however, they include credits toward students' diplomas or degrees (Clarence-Fincham, 2009:71; Garraway, 2015:27).

Evidence suggests that AAPs are successful systemic interventions with regard to widening access and improving student success (CHE, 2013a:73). These programmes are even more successful if academic staff takes ownership of and responsibility for these programmes, rather than seeing these programmes as the responsibility of the academic development unit (Shay et al., 2016:32). However, the limitations of AAPs influence the effectiveness of these programmes. The limitations are listed as follows:

- Curriculum design difficulties due to the application of foundation provision into a rigid traditional curriculum framework.
- Epistemic transition problems from AAPs to mainstream programmes.
- Lower admission requirements for underprepared students impact the success of AAPs.
- Intervention funding is available for only 15% of student intake per year.
- Marginalisation of students and staff in AAPs.

  (CHE, 2013a:72)

One of the major limitations of AAPs, as mentioned previously, is the marginalisation of students and HE teachers (CHE, 2013a:72). In my personal experience, marginalisation is a harsh reality which often is voiced through formal and informal student and HE teacher feedback. Students feel marginalised by stakeholders such as HE teachers (AAP and mainstream), mainstream students and bursary donors (Boughey, 2007:9; Kloot et al., 2008:808; CHE, 2013:72). Students admitted directly into the diploma or degree programmes are referred to as mainstream students (Kioko, 2010:45). The marginalisation by HE teachers and mainstream students commonly is due to the two groups being facilitated by different teaching staff

(Kloot et al., 2008:808), at different sites of delivery (Hlalele and Alexander, 2012:498), having different accessibility to student support (Hlalele and Alexander, 2012:498) and accessibility to resources and capacity (Young, 2015:1) between AAPs and mainstream programmes. AAP and mainstream HE teachers are reported to marginalise AAP students with their attitude when offering student support for AAP students who need the support by leaving students with the feeling that they are being looked down upon for being non-traditional students (Greenbank, 2007:95). The marginalisation by bursary donors against AAP students happens when donors show an unwillingness to allocate bursaries when students are accepted into an AAP rather than the mainstream programme (CHE, 2013a:72). AAP students need the support and encouragement of their peers and HE teachers (McGhie and Du Preez, 2015:178), which is difficult if they are being marginalised. Student marginalisation results in mixed student attitudes towards AAPs since they perceive the value of the programme, but are intimidated by the stigma attached to the programme (Kloot et al., 2008:808; CHE, 2013:72).

Unfortunately, AAP HE teachers also are marginalised by their mainstream peers. They often are not regarded as full-fledged academic staff since they are employed mainly for their teaching dedication and passion, rather than research (Boughey, 2007:9; Young, 2015:1). A further contribution to this sense of stigmatisation is the professional discrepancies between the two types of HE teachers regarding the development of the curriculum materials, as well as being granted adequate time for in-depth training (Clarence-Fincham, 2009:77). However, funding of AAPs since 2007 has made provision for the academic training of AAP HE teachers (Garraway, 2015:28). Marginalisation is a limitation worth noting since it is a reality that HE teachers and students face on a daily basis and which undermines the purpose of these programmes. AAPs that are successful often display greater organisational coherence between AAP and mainstream HE teachers, which in turn reduces marginalisation (Shay et al., 2016:32).

Another stumbling block for AAPs is found in these programmes being designed for a minority of students with funding for only approximately 15% of the total student intake per year in HEIs (CHE, 2013a:72). However, student performance statistics indicate that this innovation actually is required for the majority of the student population intake by HEIs in South Africa (CHE, 2013a:72). Therefore, the CHE proposes a flexible framework for curriculum reform in South Africa which will impact the curriculum design of all HE programmes (CHE, 2013a). The prevailing rigid traditional curriculum framework is listed as a limitation for AAPs since it poses a systemic obstacle to both student access and success, which are the two main purposes of AAPs (CHE, 2013a:72). AAPs are one of the key strategies for improving student success in South African HE (Shay et al., 2016:ii).

A flexible curriculum framework thus is proposed to improve graduation output by addressing the curriculum structure which is not effectively and fairly aligned with students' prior knowledge in South

Africa (CHE, 2013a:107). The three fundamentals of the proposed flexible curriculum framework on which the principles of this framework are build, are duration, flexibility and standards (CHE, 2013a:108). In essence, the framework proposes an additional year (duration) of 120 credits to be added to undergraduate diplomas and degrees with integrated foundation provision to address the articulation gap between secondary and higher education, as well as the epistemic transition problems that are reported when students move from AAPs to mainstream (Shay et al, 2016:29). The additional time may not be used to insert additional conventional content (CHE, 2013a:112). This is in line with Boughey's (2005:241) warning against AAP curricula that are too content heavy, since this will result in insufficient time for real student engagement.

The proposed framework provides flexibility in the duration of students' studies in alignment with the diverse student intake population of South Africa (CHE, 2013a:108). The duration and flexibility fundamentals of this framework are in alignment with Boughey's (2007:9) proposal, which includes a ladder of foundation provision throughout a diploma or degree programme. Students may select foundation provision modules as needed, although underprepared students are advised to take the maximum number of foundation modules (Boughey, 2007:9). Kloot et al (2008:802) interpret the current AAP model to be similar to Boughey's proposal and the definition of a programme provided in section 2.3.1. Thus, foundation provision may be included in the curriculum for the full duration of a programme. The standard fundamental is in alignment with the articulation gap and epistemic problems mentioned previously, since it promotes a realistic starting point and progression paths for students (CHE, 2013a:108). In order to meet the three fundamental components of a flexible curriculum framework the following curriculum design parameters are recommended:

- An appropriate starting point according to students' prior knowledge and with sufficient foundation provision is needed to address the articulation gap.
- The core curriculum should achieve the same exit levels and standards as the registered mainstream programme with an enhancement of graduate attributes.
- A steady increase of intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree to address the epistemic problems associated with the transition from AAPs to mainstream programmes.
- Curriculum pathways for students who may complete a diploma or degree in the minimum duration by exemption from a maximum of 120 credits of foundation provision in alignment with the Recognition of Prior Learning (RPL) policy (see 2.1.1).
- Integration of foundation provision in the core curriculum as well as greater exposure to the discipline (without overloading) in order to enhance the curriculum.

  (CHE, 2013a:112-114)

The flexible framework recommended by the CHE may follow an AAP structure approach; however, it is expected to increase student success if the limitations of AAPs could be discarded (CHE, 2013a:114). The proposed framework is viewed as a solution to various concerns raised about AAPs. Firstly, it heeds the warning of Trewartha (2008:37) that AAPs cannot fix students under-preparedness in one year before they enter mainstream programmes. Secondly, it promotes the viewpoint of Greenbank (2007:93) that AAPs should focus on the students' holistic journey from access to graduation. Thirdly, a flexible framework may eliminate the marginalisation of students and HE teachers. Fourthly, a flexible curriculum framework addresses the concern of McGhie and Du Preez (2015:178) that one year of foundation provision is not enough for AAP students to guarantee success. Lastly, the integration of foundation provision in the core curriculum is in line with the successful mixed model where language and literacy skills are integrated in discipline-specific modules (Duker, 2011:3).

The South African student protests of 2015 and 2016 highlight the need for curriculum transformation for systemic and structural reform that the flexible curriculum framework proposes. The integrated approach proposed by the flexible framework is in alignment with Boughey's (2007:9) and Kloot et al.'s (2008:802) suggestions of an integrated skill model. This framework at this point still was in a proposal stage: however, I explored the curriculum components of existing AAPs for graphic design in order to identify additional programme characteristics that might be included in a framework to promote student success.

3.2.2.1 Curriculum design components of existing alternative access programmes for graphic design

In order to identify the programme characteristics of existing AAPs for graphic design, I explored the components of the curriculum design of these programmes as introduced in section 2.3.6. In the sections to follow I discuss generic and discipline-specific aspects of AAPs for graphic design, since AAPs are a mere extension of a diploma or degree in graphic design (CHE, 2007:43), and I also pay attention to the identified emphasis placed on discipline knowledge and practices in such a discipline (*cf.* Garraway, 2010:31).

3.2.2.1.1 Situation analysis

A situation analysis for a particular programme is the recommended starting point in the curriculum design journey (Carl, 2012:79). Section 2.3.6.1 provides a brief summary of this component.

As a starting point, I analysed AAPs of qualifications for graphic designers in South Africa, including graphic design and visual communication design, to name but a few (see Table 3.1). A desktop search of SAQA's accredited qualifications search table exposed 21 HEIs that offer such qualifications. Five HEIs offer AAPs (see Table 3.2). Five HEIs offer higher certificate programmes which are not relevant to this study since a certificate's purpose is an exit directly into industry rather than providing alternative access to a diploma or degree. I further explored which of these HEIs are institutional members of the Design Education Forum of Southern Africa (DEFSA). Only eleven HEIs listed in Table 3.1 were DEFSA members at the specific time of compiling the table. I also double checked the list of DEFSA members with the President of the forum.

Table 3.1: South African higher education institutions that offer qualifications for the education and training of graphic designers

HIGHER EDUCATION INSTITUTION	TYPE OF QUALIFICATION	SAQA IDENTIFICATION NUMBER	NQF LEVEL	CREDITS	SAQA REGISTERED	DEFSA MEMBER	ALTERNATIVE ACCESS	TYPE OF AAP
AAA School of Advertising	Diploma: Visual communication	35997	6	385	x			n/a
Cape Peninsula University of Technology	National Diploma: Graphic design	78636	6	360	x		x	Extended programme
Cape Town Creative Academy	Bachelor of Arts: Communication design	93546	7	360	x			n/a
Central University of Technology, Free State	Diploma: Design and studio art	91719	6	360	x		x	Extended programme
CTU Training Solutions	Diploma: Visual communication	94158	6	360	x			n/a
Damelin	Diploma: Media and graphic design	84946	6	370	x		x	Certificate
Design School of Southern Africa	Bachelor of Arts: Graphic design	59870	7	360	x	x	x	Higher certificate
Durban University of Technology	National Diploma: Graphic design	72237	6	360	x	x	x	Extended programme
Greenside Design Centre	Bachelor of Arts: Graphic design	62760	7	524	x	x	x	Higher certificate
Inscape Education Group	Bachelor of Arts: Design	79809	7	360	x	x	x	Higher certificate
	Diploma: Graphic Design	48438	6	390	x	x	x	
Pearson Institute of Higher Education	Bachelor of Arts: Graphic design	48842	7	524	x	x	x	Pre-degree
Nelson Mandela Metropolitan University	National Diploma: Graphic design	97097	6	360	x	x	x	Extended programme
North West University (NWU)	Bachelor of Arts: Graphic design	72771	8	512				n/a
Prestige Academy	Bachelor of Arts: Visual communication design	80448	7	370				n/a
Ruth Prowse School of Art	Diploma: Graphic design	49863	6	360				n/a
Stellenbosch Academy of Design Photography	Bachelor of Arts: Visual communication	97175	7	385				n/a
The Open Window School of Visual Communication	Bachelor of Arts: Visual communication design	60470	7	360	x			n/a
Tshwane University of Technology	National Diploma: Graphic design	72594	6	360	x	x		n/a
University of Johannesburg	National Diploma: Graphic design	74091	6	360	x	x		n/a
University of South Africa	Bachelor of Visual arts	20924	7	480				n/a
Vaal University of Technology	National Diploma: Graphic Design	72735	6	360	x	x		n/a

Table 3.2 lists five South African HEIs that offer AAPs as derived from Table 3.1. The purpose of this table was to identify specific components of these programmes that might inform my proposed framework to promote student success. A quick observation highlights that the admission requirements are similar in nature for all the AAPs. This is an important aspect, especially for such a programme in graphic design since students must display talent through a portfolio for admission into these programme (*cf.* Richards, 2015; Reeves, Mashiloane, Bowman, Richards and Koen, 2015). All the AAPs documented in Table 3.1 are listed on the National Qualifications Framework (NQF) level 5 with duration of one year (120 credits approximately). Unfortunately, access to the exact credit structure was not available online. Another observation from Table 3.2 highlights the different emphasis of these programmes' foundation provision in generic and discipline-specific competencies respectively. Foundation provision for discipline-specific competencies is present in all AAPs, whereas, foundation provision modules that promote academic literacy and learning skills (e.g. generic competencies), differ vastly among different institutions.

I continued with my desktop exploration on the world-wide web to identify similar AAPs for graphic designers in other countries in support of the observations from Table 3.2 (see Table 3.3). I subsequently tabled three United Kingdom and three Australian AAPs with similar programme information as in Table 3.2. Once again I was able to observe the different degrees of importance put on discipline-specific competencies in these programmes.

Table 3.2: South African alternative access programmes for qualifications for the education and training of graphic designers

INSTITUTION AND NAME OF ALTERNATIVE ACCESS PROGRAMME	ADMISSION REQUIREMENTS	EXTENDED OR AUGMENTED DIPLOMA OR DEGREE	MIN ADMISSION POINT SCORE	FOUNDATION PROVISION MODULES				
				Introductory discipline-specific modules	Computer literacy	Academic and life skills	English language skills	HEI specific elective
Central University of Technology, Free State (CUT) Extended Curriculum Programme: Art and design (CUT, 2016:online; CUT, 2014:online;Nel, 2013:4,6)	National Senior Certificate (NSC) or equivalent with specific and recommended modules and achievements.	National Diploma: Graphic design	22	x	x	x		
Cape Peninsula University of Technology (CPUT) Extended Curriculum Programme: Graphic design (CPUT, 2016:online; CPUT, 2015:67-72)	NSC or equivalent with specific and recommended modules and achievements, as well as a prescribed portfolio, questionnaire and interview.	National Diploma: Graphic design		x				
Pearson Institute of Higher Education (PIHE) (formerly Midrand Graduate Institute [MGI]) Pre-Degree: Graphic design (MGI, 2016:online)	NSC or equivalent with specific achievement marks for modules.	Bachelor of Arts: Graphic design	17	x	x	x	x	x
Nelson Mandela Metropolitan University (NMMU) Extended Programme for art and design (NMMU, 2015:online)	NSC or equivalent with specific and recommended modules and achievements, as well as a portfolio, questionnaire and placement assessment.	National Diploma: Graphic design	28	x		x		
Durban University of Technology (DUT) National Diploma: Graphic design (extended course) (DUT, 2016:3,13)	NSC or equivalent with specific and recommended modules and achievements as well a portfolio and entrance examination.	National Diploma: Graphic design		x				

Table 3.3: Australian and United Kingdom alternative access programmes for qualifications for the education and training of graphic designers

INSTITUTION AND NAME OF EXTENDED PROGRAMME	ADMISSION REQUIREMENTS	EXTENDED OR AUGMENTED DIPLOMA OR DEGREE	FOUNDATION PROVISION MODULES				
			Introductory discipline specific modules	Computer literacy	Academic and life skills	English language skills	HEI specific elective
Sheffield Hallam University – United Kingdom Extended Degree Programme: Art and design (Sheffield Hallam University, 2016:online)	Specific modules and marks with a selection event and a portfolio of work.	Bachelor of Arts (Hons): Graphic design	x			x	
Plymouth College of Art – United Kingdom BA (Hons) Graphic design (extended degree) (Plymouth College of Art, 2016:online)	Specific modules and marks with a selection interview and a portfolio of work.	Bachelor of Arts (Hons): Graphic design	x				
University of Sunderland – United Kingdom Art and design extended BA (Hons) (University of Sunderland, 2016:3,6,12-13)	Specific modules and marks with a selection interview and a portfolio of work.	Bachelor of Arts: Graphic design	x				
Design College Australia (DCA) – Australia Foundation in Visual communication (DCA, 2016a:online; DCA, 2016b:online)	Interview, portfolio of work and motivation essay.	Diploma: Visual communication	x				
University of Sydney, Australia Foundation Programme: Visual art and design (Taylors College, 2016a:online; Taylors College, 2016b:online)	Specific modules and marks.	Bachelor of Design computing	x	x	x	x	x
Royal Melbourne Institute of Technology (RMIT), Australia Foundation Studies: Art, design, and architecture (RMIT, 2016a:online; RMIT, 2016b: online)	Specific modules and marks, as well as portfolio and interview.	Diploma: Graphic design OR Bachelor of Design (communication design)	x			x	

Admission requirements to South African AAPs are important for curriculum designers in the light of the flexible framework's design specifications, as well as the limitations of existing AAPs noted in section 3.2.2. Reeves et al. (2015:298) note the delicate process of developing selection criteria. Diagnostic assessment (e.g. interview, portfolio and/or questionnaire) is applied for all new students in AAPs as part of the admission requirements given in Table 3.2 (see Table 2.11 for the definition of diagnostic assessment). Walton et al. (2015:264) and Richards (2015:281) note that students are selected on the basis of academic and creative talent for AAPs. The identification, definition and description of talent are a complicated task, especially in unequal societies such as in South Africa (Walton et al., 2015:264). Internationally, talent is defined as *unusual* or *exceptional* qualities (Richards, 2015:284). In the South African context, academic talent is defined as the potential in individuals from disadvantaged backgrounds (Richards, 2015:284). Creative talent may have a definition similar to that of academic talent. AAPs for graphic design often set additional admission requirements such as a selection interview and a portfolio of work (see Table 3.2). These two additional admission requirements often are used as a diagnostic assessment by HE teachers to determine students' talent in AAPs for graphic design.

In summary, the situation analysis of current AAPs for graphic design shows that only 24% of South African HEIs offer AAPs for qualifications for graphic designers. Cadle (2009:7) notes the trans-disciplinary nature of design. Therefore, it is no surprise that AAPs in the design discipline often are umbrella programmes that include a variety of art and design disciplines (as observed in Table 3.2 and 3.3). Furthermore, current AAPs focus more on introductory discipline-specific modules (that promote discipline-specific competencies), rather than foundation provision modules (that promote generic competencies). This might have a negative impact on the purpose of AAPs (see 3.2.2). However, Garraway (2010:31) affirms that AAPs with a focus on discipline knowledge and practices improves students' retention and success rates in programmes such as graphic design.

The current discussion in this section concentrates only on a comparison of existing AAPs and their competencies. In line with the third objective of this study, I analysed one of the existing AAPs for graphic design at a private HEI by means of a self-structured web-based strengths, opportunities, aspirations and results (SOAR) web-based questionnaire. See section 5.3.4 for the methodology and section 6.3 for the empirical results and interpretation.

3.2.2.1.2 Aims, goals and intended learning outcomes

Aims, goals and intended learning outcomes (ILOs) provide the curriculum designer with direction to ensure alignment at various levels of the curriculum design process (see 2.3.2). The purpose of AAPs is to provide previously disadvantaged but talented students with alternative access to HE by building academic foundations to assist them to succeed with their studies (CHE, 2007:43,70-71; referred to as foundation

provision in this study). Aims and goals of AAPs are derived from the purpose of these programmes in accordance with the country's legislation regarding increased access mentioned in the Higher Education Act of 1997 (RSA Department of Education [DoE], 1997:7). Aims, goals and ILOs further are informed by the specific HEI's programme mix, policies and procedures as well as the specific programme's development, modules and teaching approaches (Carl, 2012:67-68).

With reference to the discussion on learning outcomes (LOs) in section 2.3.6.2, South African AAPs follow an Outcome-Based Education (OBE) approach (see 2.3.6.2.2a for more information related to this approach). Biggs and Tang's (2011:105) constructive alignment in OBE is of value to AAPs since it strengthens and supports the foundation provision of these programmes (Mashiyi, 2015:194) (see 2.3.6.2.2b for constructive alignment). ILOs are further derived based on the programme level of the outcome (e.g. graduate outcomes, programme outcomes, module outcomes, etc.; see 2.3.6.2.2c). On the other hand, the level of understanding and performance is determined against NQF standard levels in South Africa. The first year of South African AAPs is offered at NQF level five. SAQA (2012:8-9) lists descriptors for level five on the NQF according to ten categories. These descriptors are an important guideline for curriculum designers to consider when embarking on the journey to design AAPs for graphic design or for the additional 120 credits (e.g. additional year) in the flexible framework proposed by the CHE. Table 3.4 attempts to align level five descriptors of the NQF with Bloom's revised taxonomy (RBT; see 2.3.6.2.2e) to indicate the level of understanding/ performance which students should display upon progressing into the main stream of a study programme. NQF level five requires more lower order thinking skills than higher level skills, which is congruent with idea that the purpose of this type of programme is to lay a foundation for students' diploma or degree studies. Table 2.3 provides a valuable summary of the four taxonomies for the classification of educational objectives applicable to AAPs for graphic design. Please see section 2.3.6.2.2e for the discussion and applicability of these taxonomies.

Table 3.4: Alignment of the National Qualifications Framework level five descriptor with Bloom's revised taxonomy

<table>
<tr><th colspan="6">BLOOM'S REVISED TAXONOMY</th></tr>
<tr><th>Remember</th><th>Understand</th><th>Apply</th><th>Analyse</th><th>Evaluate</th><th>Create</th></tr>
<tr><td></td><td>Scope of knowledge
Demonstrate an informed understanding of the core areas of one or more fields, disciplines or practices.</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Knowledge literacy
Demonstrate the awareness of how knowledge or a knowledge system develops and evolves within the area of study or operation.</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>Method and procedure
Demonstrate the ability to select and apply standard methods, procedures or techniques within the field, discipline or practice.</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Problem solving
Demonstrate an ability to identify, evaluate and solve defined, routine and new problems within a familiar context.</td><td></td></tr>
<tr><td></td><td></td><td>Ethics and professional practice
Demonstrate the ability to account for actions in accordance with an employer's ethical codes of conduct as well as those of a relevant professional body (see 4.6.2).</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td colspan="2">Accessing, processing and managing information
Gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task, and to apply basic processes of analysis, synthesis and evaluation on that information.</td><td></td></tr>
</table>

BLOOM'S REVISED TAXONOMY					
Remember	***Understand***	***Apply***	***Analyse***	***Evaluate***	***Create***
Producing and communicating information Demonstrate the ability to communicate information reliably, accurately and coherently, using conventions appropriate to the context, in written and oral or signed form or in practical demonstration.					
	Context and systems Demonstrate the ability to operate in a range of familiar and new contexts, demonstrating an understanding of different kinds of systems, their constituent parts and the relationships between these parts, and to understand how actions in one area impact on other areas within the same system.				
				Management of learning Demonstrate the ability to evaluate your own performance or those of others.	
		Accountability Demonstrate the ability to account for your actions as well as those of others which report to you in order to work effectively as a group or team member.			

3.2.2.1.3 Curriculum content

The content of a curriculum determines the nature and extent of a curriculum (Carl, 2012:91). AAPs are mere extensions of existing degree and diploma programmes, therefore their aims, goals, LOs and content should be in alignment (Carl, 2012:91; CHE, 2013:70). AAP curricula are limited in scope to the existing qualifications, but aim to assist students to deal with systemic obstacles to equity and success (CHE, 2013a:70). AAP curricula are designed to build on students' prior knowledge to assist them with the articulation gap as well as the epistemic transition from the AAP to mainstream programmes (CHE, 2013a:70,72,75).

AAPs for graphic design programmes often are dedicated to provide discipline-specific competencies through introductory discipline foundation provision modules (see Tables 3.2 and 3.3). Although this foundation seems most important, foundation provision modules are also required to assist students to deal with the obstacles (CHE, 2013a:70), to master skills (Boughey, 2007:8; Young, 2015:2) and to provide motivation (Boughey, 2007:8; Young, 2015:2). Tables 3.2 and 3.3 in my analysis of existing AAPs for graphic design (see 3.2.2.1.1) highlight the three foundation provision modules that might be included in AAPs for graphic design to foster generic competencies such as academic literacy and life skills, computer skills and English language skills. The inclusion of language and academic skills modules is one of the characteristics of AAPs (Boughey, 2013:26; Hay and Marais, 2011:234). A quick search and analysis of a variety of articles, prescribed textbooks and study guides highlighted several topics associated with academic literacy and life skills. Table 3.5 provides a comparison of these topics with the CCFOs of SAQA, which include the five developmental outcomes as well as generic and/or discipline-specific competencies identified in Chapter 4.

Table 3.5: Comparison of academic literacy and life skill topics with the critical cross-field outcomes of the South African Qualification Authority as well as generic and/or discipline-specific competencies identified in Chapter 4

CRITICAL CROSS-FIELD OUTCOMES OF THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY (2000:18-19)	GENERIC AND/OR DISCIPLINE-SPECIFIC COMPETENCIES LISTED IN CHAPTER 4	ACADEMIC LITERACY AND LIFE SKILLS TOPICS	Nel (2013:21)	NWU (2015:online)	Siewierski (2015:ii)	Thonney and Montgomery (2015:71)	Copeman and Keightley (2014:6-12)	Hallett (2013:519)	Boughey (2013:26-30)
Identification and solving of problems that display responsible decision-making using critical and creative thinking	Critical thinking skills (see 4.4.13.2)	Critical thinking	x	x		x			
	Creative thinking skills (see 4.4.13.1)								
	Problem solving (see 4.4.10)	Problem solving	x		x				
Effectively work as a member of a team, group, organisation and/or community	Collaboration with individuals and group work/team work (see 4.4.1)	Teamwork	x						
Organising and managing yourself and your activities responsibly and effectively	Deadline orientated (see 4.6.1)								
	Multi-tasking (see 4.6.1)								
	Organisational and planning skills (see 4.6.1)	Study planning skills			x		x		
	Prioritise workload/tasks (see 4.6.1)	Self-management	x						
	Self-motivated (see 4.6.1)	Motivation	x						
	Time management skills (see 4.6.1)	Time management	x				x		
	Work independently (see 4.6.1)								
	Work under pressure (see 4.6.1)	Stress management	x						
Collect, analyse, organise and critically evaluate information	Interpretation of information (see 4.4.5)								
		Information literacy		x	x	x			
		Research skills			x		x		
		Referencing		x	x		x		x
	Organisational and planning skills (see 4.6.1)				x		x		
Effectively communicate through oral and/or written presentations by using visual, mathematics and/or language skills	Communication skills (written and oral; see 4.6.1)	Communication skills (includes academic writing and English language)		x	x	x	x	x	x
		Presentation skills		x	x				
		Reading skills		x	x		x		x
	Visual communication (see 4.5.3)								

CRITICAL CROSS-FIELD OUTCOMES OF THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY (2000:18-19)	GENERIC AND/OR DISCIPLINE-SPECIFIC COMPETENCIES LISTED IN CHAPTER 4	ACADEMIC LITERACY AND LIFE SKILLS TOPICS	Nel (2013:21)	NWU (2015:online)	Siewierski (2015:ii)	Thonney and Montgomery (2015:71)	Copeman and Keightley (2014:6-12)	Hallett (2013:519)	Boughey (2013:26-30)
Effectively and critically using science and technology that shows responsibility toward the environment and health of others	Applying design techniques (see 4.5.2)			x					
		Computer skills							
		E-learning technologies							
		Information literacy			x	x			
	Responsibility towards the community (see 4.6.2)								
Demonstrating an understanding of the world as a set of related systems by the recognition that problem-solving does not exist in isolation	Thinking skills (see 4.4.13)								
Reflecting on and exploring a variety of strategies to learn more effectively (learning skills)	Reflection (see 4.4.11)						x		
		E-learning technologies					x		
		Learning styles and strategies	x	x					
		Listening and note-taking	x	x					
		Memory	x						
		Study skills		x					
		Revision and examination techniques	x		x		x		
		Emotional intelligence	x				x		
Participating as a responsible citizen in life, locally, nationally and globally	Responsibility towards the community (see 4.6.2)								
	Responsibility towards the clients/employers (see 4.6.2)								
Being culturally and aesthetically sensitive to a range of different social contexts	Responsibility towards the profession (see 4.6.2)								
Exploring education and career opportunities	Responsibility towards the profession (see 4.6.2)								
Developing entrepreneurial opportunities	Entrepreneurial skills (see 4.6.1)								

Table 3.5 highlights the many academic literacy and learning skills topics that correspond with generic and/or discipline specific competencies exposed in Chapter 4, as well as with SAQA's CCFOs and developmental outcomes. The proposed flexible framework makes provision for the allocation of additional 120 credits per qualification toward the development of these competencies (Boughey, 2013:31). However, the topics in Table 3.5 are derived from generic academic literacies and learning skills articles, prescribed textbooks and study guides. Therefore, the methodology of this research also aims to identify which of the generic competencies are deemed most important by graphic design AAPs and mainstream HE teachers of graphic designers.

The selection and organisation of the curriculum content need to take place in accordance with section 2.3.6.3, elucidating curriculum content. However, I reviewed discipline-specific literature for the selection of curriculum content for foundation provision modules in AAPs for graphic design. Since graphic design qualifications can be classified as vocational programmes, programme content also needs to be selected according to its relevance to the present and future skills needs of graduates required by the industry (Finch and Crunkilton, 1993: 131). Finch and Crunkilton's point still is valid for present-day graphic design programmes, since it is in accordance with Stenhouse's (1975:85) and Tovey's (2015:1) statement that art and design programme content is selected according to the key procedures, concepts and criteria of the specific discipline. McCarthy and De Almeida (2002:105) identified curriculum content specifically for graphic design programmes which includes topics such as design methodology, computer technology, semiotics, semantics, critical theory, design history and contemporary criticism, combined with aesthetics and craft, which in turn require student engagement through reading, writing and incorporating the curriculum content in their design outcomes (McCarthy and De Almeida, 2002:105-106).

Current and relevant literature on the selection of content for the curricula of graphic design programmes is scarce, but George (2009:166) maintains that competence has been receiving more attention than content over the past decade or so. Competence, as explained in the clarification of terminology used in this report, is the ability to do something well or efficiently. Therefore, competencies (see the clarification of terminology in the preface to this report) required of graphic designers have been studied and are reported on in Chapter 4 in order to identify which of these are deemed competencies which graphic designers should possess. Chapter 4 also contains information that will assist the curriculum designer in selecting relevant curriculum content in accordance with the views of Finch and Crunkilton (1993:131), Stenhouse (1975:85) and Tovey (2015:1) as referred to above.

Regarding the organisation of discipline-specific content, Arrance (1990:59) makes use of the monograph of Greer, Day and Clark (in Arrance, 1990:59) for organising the curriculum content for discipline-based art education. The monograph states that curriculum content should be organised in a sequential and articulated manner to promote student learning and understanding at appropriate developmental levels (see 2.3.6.2.2e). However, Wilson (1971:512) is of the opinion that curriculum content in art education often is non-sequential due to the highly complex nature of artistic production, multiple solutions to a

single problem, and the fact that aesthetically successful works can be produced by students who do not possess all the abilities/competencies (see Table B.1). The monograph further specifies that the art outcome (e.g. the design product) is central to the organisation of curriculum content. This rings true since the product (e.g. skills used and creativity of the outcome) is the highest level of understanding in Wilson's art education taxonomy.

3.2.2.1.4 Teaching and learning

This section provides a brief discussion on teaching and learning in AAPs for graphic design in addition to the general discussion in section 2.3.6.4. Teaching and learning are discussed in the sections to follow with a view to identify the discipline characteristics related to teaching and learning in alignment with the integration of foundation provision in the core curriculum as recommended in the CHE's proposal of the flexible framework (CHE, 2013a:112-114). Table 3.6 provides a summary of the characteristics of teaching and learning in the context of graphic design education.

Table 3.6: Characteristics of teaching and learning in graphic design education programmes

General discipline-specific characteristics	
Students are expected from the start of their HE period to be independent, self-analytical and critical thinkers.	Shreeve et al., 2009:346
Students are uncomfortable with theory and writing since both are viewed as unrelated to the practical component of graphic design.	Shreeve et al., 2009:346
The design community has its own culture, networks and languages.	Shreeve, 2015:85
Characteristics related to teaching and learning activities (TLAs)	
Learning is dialogic in nature since HE teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision.	Shreeve, 2015:88
Learning is unconstrained since it puts emphasis on a variety of solutions to a specific problem. The HE teacher guides and advises the student during this solution phase, rather than dictates.	Shreeve, 2015:87; Shreeve et al., 2009:346
Materiality is a fundamental aspect of learning (e.g. doing and making of a traditional or digital design product) and also the highest level of understanding (see 2.3.6.2.2e).	Shreeve, 2015:87
Students learn from peers and senior students within the informal studio setting.	Shreeve, 2015:85; Shreeve et al., 2009:346
Students work for long periods on projects through which they learn a variety of key technical, personal and professional skills for employment.	Shreeve et al., 2009:346
The core principles of the discipline are taught through practice as rules-of-thumb and knowledge from HE teachers or masters of the discipline.	Breslin and Buchanan, 2008:38-39
TLAs are started with a written brief in project-based learning which provides a focus for students' learning. The brief will specify the time period, format, restraints, parameters and presentation requirements of the design product.	Shreeve, 2015:86
Characteristics related to ILOs	
The outcomes of students' learning (e.g. the design product) are open-ended and mostly unknown to the HE teacher at the time of writing the brief. This is essential to the development of a creative response from students.	Shreeve, 2015:86

a) Teaching

In HE there is a long tradition of creative practice teaching through design practice in a studio environment for disciplines such as media, fine arts and design (Drew, 2015:99; Tovey, 2015:1). According to Garraway (2010:31), AAPs with a focus on discipline knowledge and practices improve students' retention and success rates. This was observed in the situation analysis of existing AAPs for graphic design (see 3.2.2.1.1).

HE teachers' role in studio practice disciplines (e.g. graphic design) often are that of nurturers to contribute to the holistic development of students (Clarke and Budge, 2010:156). Teaching at HE level in design education should be student-focused or student-centred since such approaches enable alignment when HE teachers encourage students to learn by means of real-world projects (Drew, 2015:108). This enables HE teachers to spend most of their time on real-world and practitioner-related problems (Drew, 2015:108). Drew (2015:99-102) identifies and discusses five student-centred approaches to teaching in design education, namely:

- Teaching that offers students a range of practical and technical skills through demonstration to show ways of making or doing.
- Teaching that aims to develop students' critical, practical and technical skills through student interaction by means of individual, group, or team work, to form opinions and ideas.
- Teaching that encourages peer learning to develop students' skills and conceptions in preparation for professional practice.
- Teaching that emphasises original research and conceptual thinking skills to improve self-directed research, practice and conceptual skills.
- Teaching that is a manner to enable students to change themselves as persons or to make changes in their life world.

AAP HE teachers must have a passion to teach (CHE, 2013a:72), as well as an understanding of the teaching and learning requirements in their own discipline (Berthiaume, 2009:215). Discrepancies between AAP and mainstream HE teachers' approach to teaching contribute to epistemic transition problems as noted in section 3.2.1. AAP class sizes are approximately 30 students per class (Kloot et al., 2008:808), whereas mainstream class sizes normally count 40 to 60 students per class, depending on various conditions. In mainstream programmes this results in a change of teaching styles from a facilitator approach with more class discussions to a more traditional lecture approach due to an increased staff:student ratio in the mainstream (Greenbank, 2007:93) (see 2.3.6.4.2b). This may be applicable to theory modules (e.g. design culture, research methodology, history and production); however, practical modules lend themselves to a creative practice teaching approach.

The creative practice teaching approach lends itself to case-based, problem-based and simulation-based learning that supports the development of the student as a professional practitioner (see Table 2.9 for definitions of these types of TLAs). First-year design HE teachers are tasked to develop students' baseline capabilities (e.g. basic visualisation of two and three dimensions, being imaginative and developing concepts) in order to help them to recognise their own skills and capabilities (Bull, 2015:119). Bull (2015:124) refers to this process as the transformation from student to practitioner. Tovey (2015:1) notes that often many HE teachers are practising artists or designers, which fosters simulation-based learning. Much of the HE teacher's contact time is spent in the studio environment with the students while they are working on their projects. This provides students with the opportunity to engage in informal conversation with HE teachers and other students about their work (Shreeve et al., 2009:346).

Teaching in AAPs for graphic design requires HE teachers to take into account students' epistemological conditions when selecting TLAs (Morrow, 2007:20). Furthermore, HE teachers also need to take into consideration the design student. An adventurous, enjoyable and stimulating teaching method is recommended that eliminates drudgery and repetition in order to stimulate the creativity of the designer (Chakradeo, 2010:109-110). Strickfaden and Heylighen (2010:123) define teaching methods in art and design education as cultural capital (e.g. HE teachers are required to make sense of the design discipline together with their education and experience). HE teachers need to evaluate different TLAs in order to determine which are the most successful to foster learning (Morrow, 2007:20). Bozalek, Garraway and McKenna (2011) compiled an electronic book with nine best practice case studies by various authors to promote epistemological access in AAPs in South Africa. Art and design education requires types of TLAs that mimic real world situations in order for students to learn by practical doing (McCarthy and De Almeida, 2002:105; Tovey, 2015:1). Types of TLAs commonly associated with art and design education are categorised under TLAs for functioning ILOs such as case-based, simulation-based and problem-based learning, to name the most commonly used (see Table 2.9). However, students' declarative knowledge base still needs to be built up in order for students to be able to engage with TLAs for functioning knowledge.

b) Learning

Kloot et al. (2008:803) note the common idea that students need *more time and more tuition* to successfully learn in HE AAPs. Students' learning may be enhanced if they have a vocational identity since it (vocational identity) highlights an individual module's contribution to the overall programme in graphic design AAPs (Garraway, 2010:33, 37). Learning within discipline specific modules is characterised by specific graphic design aspects. Lindström (2012:168) and the Quality Assurance Agency (QAA) of the United Kingdom (QAA, 2008:3) proclaim that learning in arts and design develops creativity which is one of the dominant discipline-specific competencies identified in Chapter 4. Graphic design educators mostly facilitate a project-based, experiential learning approach which also has been a central feature of design education since the early twentieth century (Breslin and Buchanan, 2008:38; Shreeve, 2015:85-86). The importance of the design process is highlighted in section 4.4. Students' engagement with the design process facilitates learning in design education through reflection that forms the foundation (Lee and

Breitenberg, 2010:59). HE teachers demonstrate techniques and skills in the studio environment which students master through participating in the design process (Park, 2011:178). Techniques are normally demonstrated by the facilitator to an individual student or a group of students in the design studio (Park, 2011:178)

3.2.2.1.5 Assessment

This section provides a brief discussion on assessments in AAPs for graphic design, in addition to the general discussion in section 2.3.6.5. Assessment in design education differs from other disciplines since it does not fit exactly into existing assessment approaches (Giloi and Du Toit, 2013:256). Lindström (2006:59) cautions that there is a tendency in design programme assessment to place emphasis on the students' use of their techniques which should be avoided.

In the light of constructive alignment, final achievement of ILOs can only be determined once the design product or solution is completed and demonstrated (Giloi and Du Toit, 2013:256; Shreeve, 2015:86). It is critical to encourage students to find a creative solution or approach to the brief (Giloi and Du Toit, 2013:256; Shreeve, 2015:86). Assessment in design education is categorised as subjective and requires skilled judgements to determine whether students have achieved the aligned ILO(s) as well as to judge the quality of the product (Cheng, 2015:195). This may be due to the creative problem-solving approach of the discipline (Giloi and Du Toit, 2013:256), when it is accepted that there are more than one answer to any problem, since a designer will use subjectivity and self-reflection as a tool (Ings, 2011:227-228). Many advantages are associated with subjective assessment, such as the assessment of functioning ILOs (e.g. organisation, synthesis, problem-solving, creativity and originality) and the promotion of deep learning to name but a few (Gurung and Landrum, 2012:40). Giloi and Du Toit (2013) reviewed current assessment approaches used in graphic design in HE. These were included in the types of assessment approaches and tasks discussed in section 2.3.6.5.1.

Giloi and Du Toit (2013:263-264) highlight the need to include the design process and design person in assessment in order to assess the student's learning rather than the quality of the design product, as noted previously by Cheng (2015:195). The value of the design process and the person is mentioned again in the conclusion of Chapter 4, which highlights the influence that a person's competence has on the design process, which in turn influences the design product (see 4.4, 4.5 and 4.6).

The so-called *crit* (see 2.3.6.5) is a trademark of design education (Park, 2008:229), and is at the centre of studio efforts (Temple, 2010:121). A *crit* session is a formative assessment method that comprises informal feedback (Souleles, 2013:50-51). In formative assessment students need to apply and critique their work using knowledge which was learned through applied teaching methods (Nabih, 2010:91). It may be used as

an assessment task (AT) and/or a TLA to illustrate the thought processes, critical analysis and language needed to become a professional designer (Shreeve, 2015:88-89). During such a session judgement is made by peers and/or superiors about a specific artwork or design product and is communicated verbally (Orr and Bloxham, 2013:3).

The main principles of a *crit* session were summarised by Orr, Blythman and Blair (2008:3) as awareness, clarification, learning and reflection (see 4.4.11), to name a few. One of the design studio's primary aims is to develop group critique as a skill that can be used in problem solving (Smith and Smith, 2012:93) (see 4.4.10). Students need to apply and critique their work using knowledge that was learned through applied teaching methods (Nabih, 2010:91). Peer critique is an integrated part of the teaching and learning processes of creative practice and often is used in art and design programmes in HE (Budge, Belae and Lynas, 2013:147).

Critiquing may take place at different stages of the design process. Kuhn (2001:2) noted that the critique of a students' design must be allowed fairly early in the process and should be done frequently, whereas Souleles (2013:50-51) describes the *crit* as a process that normally takes place once the process has been completed, which means that the design product is critiqued. Although the *crit* process is an integrated part of teaching and learning within art and design programmes (Budge et al., 2013:147), the process is not without problems. Within this discipline learning is done by doing, whereas *crit* sessions often represent the dominant view of the HE teacher or industry expert (Souleles, 2013:250-251). In the staff guide of Orr et al. (2008:7-8) on *crit* as studio-based formative or summative feedback between students and lecturers several problems are raised. An introvert student may not benefit from this process due to the lack of participation, whereas other students may feel victimised if the lecturers' *crit* session becomes too personal (Orr et al., 2008:7). Time management and student participation were highlighted as key organisational challenges (Orr et al., 2008:8).

The key characteristics of assessment in design education listed in this section are also the challenges that design HE teachers face (Ellmers, 2006:5-6). However, if a suitable assessment approach is used in design education it may promote creativity (Dineen and Collins, 2005:45), which is one of the dominant discipline-specific competencies.

3.2.2.1.6 Summary of curriculum design components of existing alternative access orogrammes for graphic design

Figure 3.3 displays a visual summary of section 3.2.2.1 in addition to the literature reviewed in section 2.3.6. In summary, the analysis of existing AAPs in section 3.2.2.1.1 revealed the emphasis which is placed on discipline-specific competencies in the curriculum design of AAPs for graphic design. Foundation provision modules at different institutions differ; however, academic literacy and life skills, computer skills, English language skills and introductory discipline-specific skills may be included to provide students with the academic foundations needed to succeed in their studies (see 3.2.2.1.1).

The aims, goals and outcomes of AAPs (see 3.2.2.1.2) should be aligned with the purpose of these programmes, and also correlate with those of the augmented or extended diploma or degree in graphic design. In order to address the epistemic transition between AAPs and mainstream programmes (see 3.2.2.1) the ILOs, curriculum content, TLAs, and ATs should be aligned to eliminate this limitation. This may be achieved by the use of a flexible framework with greater organisational coherence among AAP and mainstream HE teachers (Shay et al., 2016:29,32). TLAs and ATs should show discipline-specific characteristics since AAPs with a focus on discipline knowledge and practices improve students' retention and success rates (Garraway, 2010:31). Therefore, HE teachers need to have an understanding of teaching and learning requirements in their own discipline (Berthiaume 2009:215). The importance attached to the HE teacher's discipline knowledge is related to the weight that the professional development of the HE teacher carries in Stenhouse's Process model (Stenhouse, 1975:96) (see 2.3.5.2.2).

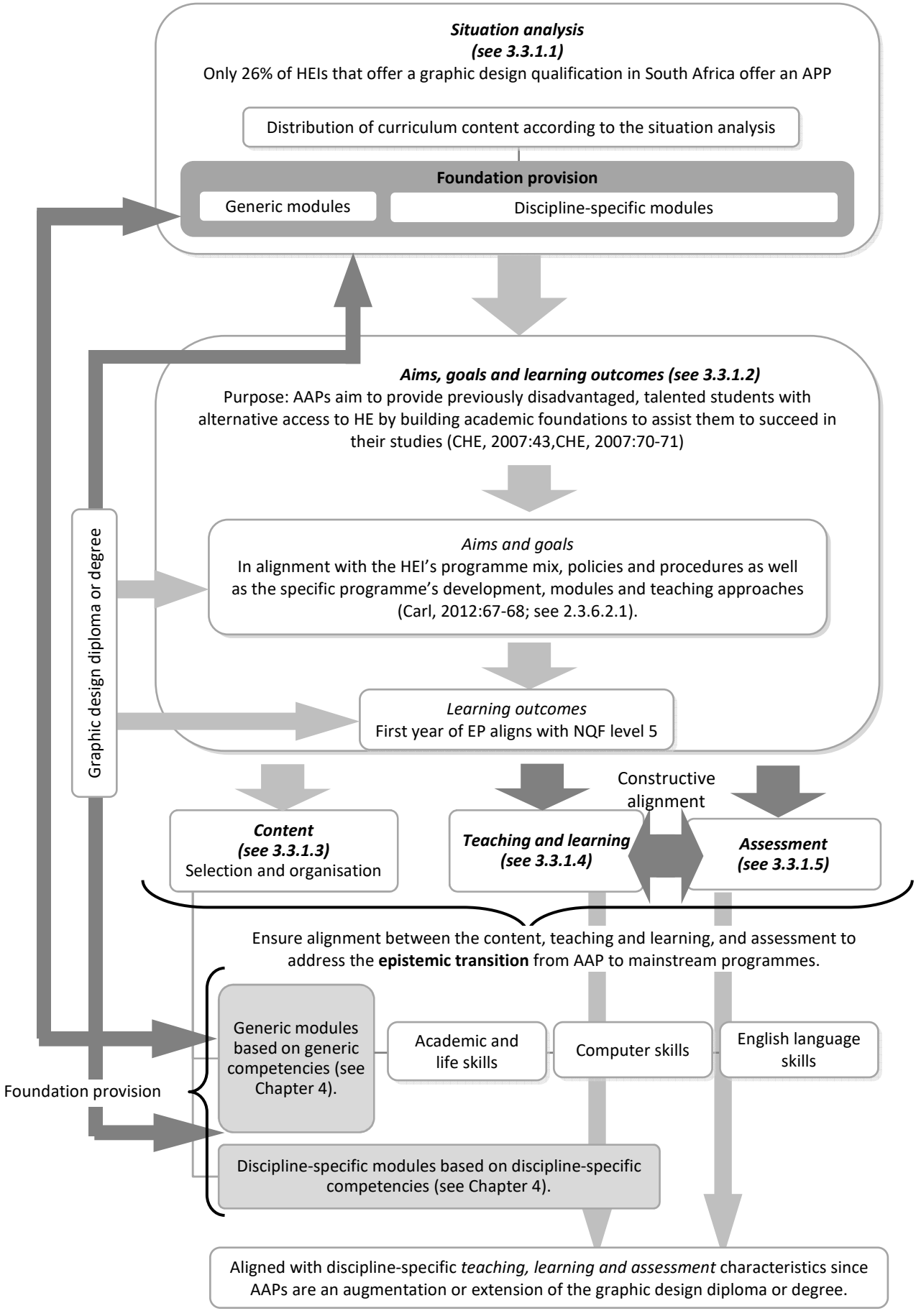


Figure 3.3: Summary of the curriculum design components of existing alternative access programmes for graphic design

3.3 STUDENT SUCCESS MECHANISMS FOR HIGHER EDUCATION

Five possible student success mechanisms for HE are discussed in this section in order to explore mechanisms which may support students in AAPs in order to enhance their success. Shay et al. (2016:32) note that student success mechanisms often are resource intensive and require HE teachers to develop themselves on an on-going basis. This is in line with Stenhouse's process model for which the professional development of the HE teacher is of utmost importance (Du Toit, 2011:71; Stenhouse, 1975:96). Figure 3.4 provides an outline of the section to follow.

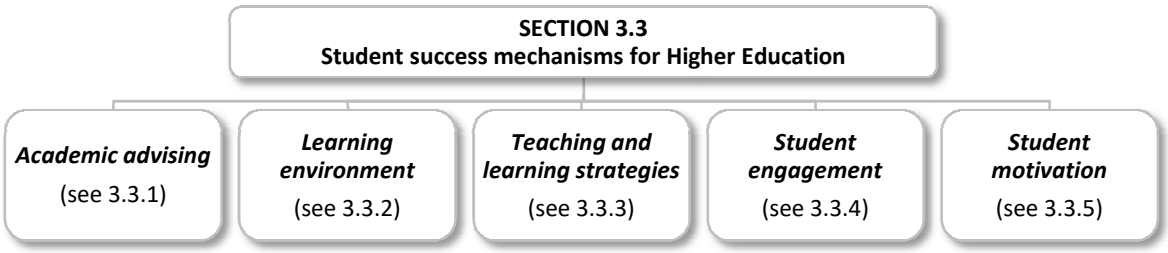


Figure 3.4: Outline of section 3.3

3.3.1 Academic advising

Strayhorn (2015:61) highlights the importance of academic advising as a student success mechanism in HE. The majority of students usually experience academic advising positively (Workman, 2015:9). Academic advising may be done by a psychologist, programme coordinator (Slabbert and Friedrich-Nel, 2015:48), and/or a member of the academic community. Hartley, Hilsdon, Keenan, Sinfield and Verity (2011:98) advocate for one-on-one sessions of academic advising since these offer students the opportunity to make a connection with the academic community of their institution. This approach is highly recommended for underprepared students in AAPs, as well as for students who lack academic confidence (Hartley et al., 2011:100). However, Copeman and Keightly (2014:2) advocate for the dissemination of academic skills through the design of a programme, since disciplinary knowledge cannot be separated from the knowledge students need to learn, communicate and use in order to graduate from a specific field of study.

Academic advising involves several functions. Firstly, it provides students with resources and tools to efficiently navigate through HE, such as time management skills, learning strategies to promote deep learning, and active involvement through deep engagement and purposeful activities (Strayhorn, 2015:61-62). One-on-one academic advising sessions also enable advisers to identify the most suitable resources and tools for specific students in the light of their strengths and weaknesses (Hartley et al., 2011:99). Secondly, academic advising informs students about the rules of the HE culture (e.g. definitions of terminology and what it means to them) (Strayhorn, 2015:61). Lastly, it serves to advise students regarding their future careers, including the selection of appropriate majors (Strayhorn, 2015:61; Workman, 2015:5). Workman (2015:10), however, cautions that such selections need to be in accordance with the student's particular development capacity.

3.3.2 Learning environment

Paolini (2015:27) states that a stimulating and engaging learning environment is an essential mechanism that will contribute to student success. A learning environment may influence students' emotions, which in turn affect their learning and motivation (see 3.3.5) (Williams, Childers and Kemp, 2013:220). The learning environment, also referred to as the studio environment in design education (Budge et al., 2013:147), also is a critical mechanism to foster student success in design disciplines.

The studio environment is a unique and supportive environment for design students (Smith, 2011:165). It should create a space that fosters discipline-specific competencies such as collaboration (Lee, 2014:142; Wang, 2010:176), creativity (Budge et al., 2013:147,153) and observation (Clarke and Budge, 2010:156). Creativity is a predominant discipline specific competency in graphic design (see 4.4.2). Budge et al. (2013:147) note that the development of creativity needs consideration as the stimulation of this competency is a challenge for HE teachers. Craft (2006:346) highlights the importance of an environment that stimulates design students' creativity, which may be fostered by the creation of a safe haven where students may break the rules without being punished (Cropley, 2006:129), The environment should include an atmosphere which also is supportive and open to new ideas (Danvers, 2003:52).

3.3.3 Teaching and learning strategies

Rotellar and Cain (2016:1) report on the need for teaching and learning strategies to change in the light of technology, student demographics and the economy, which also was highlighted in sections 2.3.6.4 and 2.2.2.1.4. This section broadly discusses two aspects that facilitate change and contribute to student success in HE, namely flipping the classroom and high impact teaching and learning practices (sometimes referred to through the acronym HIPs).

3.3.3.1 Flipping the classroom

Flipping the classroom, also called the inverted classroom, has become a fashionable approach in HE since 2000 (Porcaro, Jackson, McLaughlin and O'Malley, 2016:345; Rotellar and Cain, 2016:1). Flipping the classroom simply means to reverse the order of classroom activities (Rotellar and Cain, 2016:1), as well as shifting the focus from the HE teacher to the student (Mehring, 2016:2). Flipping the classroom is not a new approach in HE; however, the advancement of technology aided the feasibility of applying this approach (Mehring, 2016:9; Porcaro et al., 2016:345; Rotellar and Cain, 2016:7). To convert HE teachers and students from a traditional to a flipped classroom, however, may be challenging (Rotellar and Cain, 2016:4).

This approach to teaching and learning requires students to review fundamental facts and concepts before the actual class takes place (Mehring, 2016:9; Rotellar and Cain, 2016:7), thus building their declarative knowledge. Thereby, contact time may then rather be used to focus on the application of knowledge (Mehring, 2016:2,9; Rotellar and Cain, 2016:7) and other TLAs for functioning ILOs (see Table 2.9 for a summary of functioning ILOs). This is an important aspect for professional programmes such as graphic design, since the practical application of declarative knowledge is deemed of utmost importance, also in class time (Gonczi, 2013:1302). The flipping approach therefore fosters a deep and active learning approach (McLean, Attardi, Faden and Goldszmidt, 2016:54) (see 2.3.6.4.3a). Furthermore, the flipped classroom approach reduces students' browsing and texting time during class time since they are more engaged in the class through different TLAs that are fit for purpose (Rotellar and Cain, 2016:1). The flipping approach links very well with the student success mechanism of student engagement (Mehring, 2016:3) (see 3.3.4). However, in order for HE teachers to flip their classrooms they need to note the student-centred design principles of this approach (Rotellar and Cain, 2016:2), as summarised in Table 3.7.

Table 3.7: Summary of design principles for a flipped classroom approach

DESIGN PRINCIPLE	Kim, Kim, Khera, and Getman (2014:43-46)	Rotellar and Cain (2016:9)
Administrators need to budget for additional teaching staff for more engaged approaches (e.g. flipped classroom).		x
Adopt TLAs of the flipped classroom according to what works well.		x
Allow sufficient time for students to complete pre-class, in-class and out-of-class activities by not over-burdening them.	x	x
Allow students to evaluate their understanding through informal assessments prior to class.	x	x
Do not re-teach for students who have not prepared pre-class activities adequately.		x
Educate students regarding the rule changes of this approach.		x
Highlight alignment between pre-class, in-class and out-of-class activities for students.	x	x
In-class activities should facilitate the building of a learning community where students think like experts.	x	x
Provide students with an incentive to prepare for class by means of informal assessment of declarative knowledge as part of the preparation.	x	x
Provide students with an opportunity to clarify their declarative knowledge gaps relating to the pre-class activities in the class.		x
Provide students with clear guidelines by using an instructional designer to assist in the design of the activity.	x	x
Schedule flipped classroom development opportunities for HE teachers.		x
Students should have access to declarative knowledge and understand what knowledge is required prior to attending class.	x	x
Timely feedback on individual or group work is needed for students to learn.	x	
Use technologies that are familiar to and are easy for students to access (e.g. tools of the flipped classroom).	x	

Parkay, Anctil and Hass (2014:364) encourage HE teachers to use technology to their advantage within a learning situation, especially for a generation of students who is always online. Mehring (2016:6) highlights the use of video applications (e.g. eduCanon, Zaption and EDpuzzle) and student response systems/clicker

applications (e.g. Pear Deck, Kahoot and Socrative) as technology tools in a flipped classroom teaching approach. The video applications allow HE teachers to embed web-links, questions and images in their selected video to enhance students' pre-class learning activities (Mehring, 2016:6). Student response systems/clicker applications provide HE teachers with immediate feedback on questions posed to their students during in-class learning activities by answering by means of their smart devices (e.g. smart cell phones and tablets) (Mehring, 2016:6). The Pear Deck student response system/clicker application also provides participating students with out-of-class activities upon completion as a *takeaway* (Mehring, 2016:6).

A flipped classroom approach often is met with resistance by students and HE teachers at first (Rotellar and Cain, 2016:7). An increased workload often is given as one of the main reasons for this resistance (McLean et al., 2016:54; Rotellar and Cain, 2016:3). However, the benefits of this approach should not be overshadowed by the amount of work since students deserve to be taught by means of a teaching approach that sufficiently prepares them for a high-demanding world (Rotellar and Cain, 2016:7). Many fears of and pitfalls for students and HE teachers may be overcome by adhering to the design principles (Rotellar and Cain, 2016:7) in Table 5.1. The benefits of the adoption of this approach include gaining active, independent and deep learning skills; enhanced student engagement, time management skills; problem-solving skills, and less multi-tasking during class (McLean et al., 2016:54; Mehring, 2016:3; Rotellar and Cain, 2016:7).

3.3.3.2 High impact practices for teaching and learning

The potential of HIPs is recognised to address key education issues globally since these practices are research evidence based (Bonet and Walters, 2016:231). These practices may lead to an increase in undergraduate student engagement (see 3.3.4) and retention (Kilgo, Sheets and Pascarella., 2015:511,523; Kuh, 2008:9), which is the core focus in HE currently. Kuh (2008:9-11) identifies ten high impact practices for teaching and learning that benefit students in HE, namely:

- Application of theory to a real-world context through service learning/community-based learning to promote students' preparation as a citizen of a community and for work and life in general.
- Collaborative assignments and projects through various forms of group work (see Table 2.9) to enhance students' problem solving skills.
- Common intellectual experiences through a core curriculum or common modules for students in different disciplines.
- Exploration of global diversity (e.g. cultures, life experiences and worldviews).
- Internships provide students with the opportunity to apply their knowledge in a work setting under the guidance of a professional.

- Regular small first-year student seminars/programmes presented by HE teachers, entailing intellectual and practical competency development through student experiences (e.g. information literacy, critical inquiry, etc.).
- Summative courses and projects (also called capstone courses and projects), which require students to integrate and apply their knowledge learned throughout a course or programme, such as an artwork exhibition, portfolio of evidence, or a research paper.
- The encouragement of integrating students' learning outside of the classroom through learning communities.
- The incorporation of research into the undergraduate curriculum in HE.
- Writing-intensive assignments throughout the curriculum to improve communication skills (e.g. oral and written), information literacy and reasoning skills.

  (Kuh, 2008:9-11)

Reviewed literature provides specific implementation requirements for these practices to be truly high impact. Kilgo et al. (2015:523) motivate the inclusion of high impact practices in all HEIs with the facilitation of these practices in accordance with Chickering and Gamson's (1987:3-5) principles of good teaching and learning in HE (see Table 2.5). I believe that these practices should not only adhere to Chickering and Gamson's principles, but also to those of Angelo (1993:3-8; also presented in Table 2.5).

In addition, Tukibayeva and Gonyea (2014:20) note six requirements for HE teachers and students to gain from high impact practices, namely time and effort dedication; willingness to share knowledge with peers and superiors; stepping out of one's environment to obtain exposure to a diversity of ideas, worldviews and practices; HE teachers providing frequent and continuous feedback about students' performance; application of knowledge in different settings, and the synthesis of ideas and concepts in order to foster deep learning. Several of Tukibayeva and Gonyea's (2014:20) requirements overlap with Chickering and Gamson's (1987:3-5) and Angelo's (1993:3-8) principles (e.g. timely feedback, active participation, application of knowledge). McNair and Albertine (2012:4) remind HEIs to develop their HE teachers in order for them to implement high impact practices in effective ways. Students also need to experience these practices more than once throughout their curriculum (McNair and Albertine, 2012:4). In order for these practices to achieve their full potential, four core aspects (peer communication, teamwork, HE teacher-student interaction and curriculum design) need to function in harmony (Bonet and Walters, 2016:231), supplemented by a vision or purpose (Tukibayeva and Gonyea, 2014:31).

3.3.4 Student engagement

Student engagement is a *buzzword* in present global HE as a student success mechanism, especially in South African HE in the light of our low graduation rates. Student engagement is explored as a third success mechanism by Strydom and Mentz (2010:3), apart from academic preparation and motivation.

Vuori (2014:509) asks whether the term student engagement is a *fuzzword* rather than a *buzzword*, since its definition is not always clear and consistent. This is evident in the work of various authors (*cf.* Kahn, 2014:1014; Kahu, 2013:758; Strydom and Mentz, 2010:3). Strydom and Mentz (2010:3) define student engagement in the South African context in terms of what students do (e.g. time and energy dedicated to educational activities) and what institutions do (e.g. effectiveness of educational practices).

Kahu (2013:758) notes four perspectives regarding student engagement, namely behavioural (e.g. focusing on student behaviour and teaching practice), psychological (e.g. focusing on internal individual processes), socio-cultural and holistic (e.g. combination of all three the afore-mentioned perspectives). The behavioural perspective is the most common association with student engagement (Kahu, 2013:759). The psychological perspective of engagement should be explored in relation to an individual's behaviour and includes focusing on student motivation (see 3.3.5) (*cf.* Kahu, 2013:761). The socio-cultural perspective provides insight into possible reasons why students, especially non-traditional students, are either passive or engaged students (Kahu, 2013:764). HEIs must therefore consider their culture and the political and social debates of their community as possible factors that may impact student engagement (Kahu, 2013:764).

The rationale of this holistic exploration is that academic preparation and motivation alone require more severe admission requirements if they are to address low graduation rates (Strydom and Mentz, 2010:3). However, to apply more severe admission requirements is not viable for a diverse global HE sector (Strydom and Mentz, 2010:3) and do not meet the main purpose of the Higher Education Act 101 of 1997, namely equal access opportunities (RSA, 1997) (see 3.2.1). Student engagement, according to Strydom and Mentz (2010:5) is promoted through a flexible framework for a four-year undergraduate curriculum (see 3.2.2). It should directly influence the graduation rates which are one of the aims of all student success mechanisms. Strydom and Mentz (2010:5) also argue in support of a flexible framework that provides additional support, such as student engagement. It requires additional time in order not to make compromises on content and quality of the academic curriculum.

As a HE teacher, my questions in class often are met with a silent response from my students. I quickly learned that the transformation from passive to active or engaged students is of essence in order to meet my teaching goals. Witkowski and Cornell (2011:56) note that this is the reason why HE teachers investigate alternative TLAs. Active learning is one of the key principles in teaching and learning in HE (Angelo,

1993:3-8; Chickering and Gamson, 1987:3-5) (see Table 2.5). Furthermore, it is also a characteristic of excellent HE teachers (Buskist, Silkorski, Buckley and Saville 2012:32; Fry, Ketteridge and Marshall 2009:22; Wheeler; 1976:130-131) (see Table 2.6). Student engagement, therefore, requires of students to actively participate in learning and teaching activities, including partaking in decisions regarding the amount of time dedicated to teaching and learning, and when and where to complete these activities (Kahn, 2014:1007). According to Kahn (2014:1014), the learning environment also plays an important role in the transition from passive to active or engaged learning (see 3.3.2 regarding the learning environment). Strydom and Mentz (2010:6) finally note six properties or conditions to promote student engagement that institutions should promote, namely:

- *a living mission and lived educational philosophy;*
- *an unshakeable focus on student learning;*
- *creating learning environments that promote educational enrichment;*
- *clarifying the pathways that maximise student success;*
- *facilitating an improvement-orientated institutional culture and ethos, and*
- *making sure that the quality of learning and student success is owned by everyone in the institution.*

3.3.5 Student motivation

In an article, Williams and Williams (2011:1) maintain in the opening statement that student motivation is the *most important factor that HE teachers can target in order to improve learning*. Students learn very little if they are not motivated on a continuous basis (Williams and Williams, 2011:2). A significant relationship exists between student motivation and academic success (Amrai, Motlagh, Zalani and Parhon, 2011:401). This is also evident from the study of Martin, Galentino and Townsend (2014:17), who concluded that every graduate they interviewed during their research, displayed an intense level of motivation to succeed.

Students' motivation is impacted by five factors, namely: the student, their HE teacher/s, the content of the curriculum, the teaching and learning approach and the classroom environment (Williams and Williams, 2011:2). Factors relating to the student him-/herself include intrinsic and extrinsic motivation, individual and social factors, needs, study time, lecture attendance, and more. Students' motivation is influenced by their emotions (Williams et al., 2013:220). Positive emotions impact students' learning since they are more likely to engage with academic activities which may promote their academic success (Williams et al., 2013:220). Higher motivational levels also are linked to higher academic achievement goals (Williams et al., 2013:220). HE teacher enthusiasm, motivation level and discipline knowledge are factors listed with regard to the HE teacher. Table 2.6 in section 2.3.6.4.2a summarises the professional and personal characteristics of good HE teachers which may further inform this factor. The organisation and selection of curriculum

content are discussed in detail in section 2.3.6.3. Williams and Williams (2011:23) include student ownership of their learning, thinking skills, relevancy of content, and technology (internet, Facebook, Twitter, YouTube and smartphones) as aspects which contribute to student motivation. Aspects of the teaching and learning factor which contribute to motivation are similar to those mentioned in the review in sections 2.3.6.4 and 3.2.2.1.4, together with the flipped classroom (see 3.3.3.1), and high impact practices for teaching and learning (see 3.3.3.2). The classroom environment is described as an empowering, engaging and emotionally literate environment. Other aspects playing a role in student motivation, particularly pertaining to design education, are discussed in section 3.2.2.1. These factors are similar to the four factors of context (e.g. classroom environment, and teaching and learning approaches), temper (e.g. the student's internal condition), goal (e.g. reason for studying), and instruments (e.g. resources and content of the curriculum) that human beings need to achieve their goals (Amrai et al., 2011:399). Furthermore, McGhie and Du Preez (2015:167) highlight the use of Keller's four-step motivation theory to strengthen students' intrinsic and extrinsic motivation levels. The four steps are attention (e.g. stimulating curiosity), relevance (e.g. relevant examples to industry), confidence (e.g. realistic academic goals and development), and satisfaction (e.g. student feedback). This theory is closely related to Williams and Williams' (2011:23) student factor.

3.4 CHAPTER SUMMARY

The background to AAPs in South Africa highlights the development of AAPs from the early 1980s towards an infused model where a diploma or degree is augmented or extended with foundation provision (CHE, 2013a:70,73). Various AAP terminologies currently are used in South African HEIs as identified in section 3.2, ensuing from past AAP models. AAPs, in the context of the infusion model, comprise the curriculum of the first academic year of a diploma or degree programme, to be completed over a period of two years and with foundation provision being included (Hay and Marais, 2011:234; Kloot et al., 2008:802). AAPs represent one of the key strategies for improving student success in South African HE (Shay et al., 2016:ii), as well as a successful systemic intervention to widen access without jeopardising success rates (CHE, 2013a:73). However, the CHE (2013:72) notes several limitations (as discussed in section 3.3) which may impact the success of these interventions (see Figure 3.4). In response to these limitations the CHE proposes a flexible curriculum framework with specific curriculum design parameters as the way forward (CHE, 2013a:107,112-114). Such a framework may follow an AAP structure; however, new programmes designed in terms of this framework are expected to increase student success, since the limitations of AAPs then are eliminated (CHE, 2013a:114).

Since the flexible framework still is a mere proposal, I explored the characteristics of existing but successful AAPs which might be incorporated in such a framework to promote student success. Successful AAPs rely on the cultivation of appropriate generic and discipline-specific competencies which students must possess

in order to succeed in mainstream programmes (Trewartha, 2008), as well as to succeed in their diploma or degree (see Chapter 4). AAPs are a mechanism to address the articulation gap between secondary and higher education through the inclusion of foundation provision (CHE, 2013a:70). However, an analysis of existing AAPs for graphic design in section 3.2.2.1.1 highlights the emphasis that needs to be placed on discipline-specific knowledge in these programmes. Stenhouse's Process Model is found to be ideal for curriculum design in the arts disciplines since the selection of content is based on the key procedures, concepts and criteria of the discipline (Stenhouse, 1975:71) (see 2.3.5.2.2). However, this results in a limited focus on generic modules (see Table 3.2 and 3.3). Although the discipline emphasis is important, generic competencies still are required to assist students in dealing with obstacles (CHE, 2013a:70), learning the required skills (Boughey, 2007:8; Young, 2015:2) and staying motivated (Boughey, 2007:8; Young, 2015:2).

The curriculum design components of existing AAPs are aligned with the curriculum design of the augmented or extended diploma or degree programmes. Thus, the aims and goals of existing AAPs are aligned with the purpose of the programme, and the programme mix, policies and procedures of the HEI, as well as with the development, modules and teaching approaches of the specific augmented or extended programme (Carl, 2012:67-68). The aims, goals and ILOs inform the curriculum content, teaching, learning, and assessment components of the design. The components of teaching, learning and assessment of AAPs for graphic design further are aligned with discipline characteristics which address the epistemic transition limitation noted between an AAP and a mainstream programme. Figure 3.3 provides a visual summary of the curriculum design components of existing AAPs for graphic design discussed in section 3.2.2.1.

An integrated approach to foundation provision in the core curriculum is recommended, since AAPs with a focus on discipline knowledge and practices improve students' retention and success rates (Garraway, 2010:31). This is in alignment with the CHE's proposed flexible framework (CHE, 2013a:112-114), as well as with Boughey's (2007:9), Kloot et al.'s (2008:802) and McGhie and Du Preez's (2015:178) recommendations. Graphic design students commonly are uncomfortable with theory and writing (Shreeve et al., 2009:346). These generic competencies (see Chapter 4) are seen by students as unrelated to the discipline-specific (practical) component of their studies, which they believe is their main focus (Shreeve et al., 2009:346). Therefore, the proposed flexible framework is welcomed by programmes such as graphic design.

Figure 3.5 is a visual summary of AAPs for graphic design and includes the existing curriculum structure of these programmes and how the proposed flexible framework impacts the curriculum design components. The figure highlights the current AAP structure based on the analysis of AAPs in section 3.2.1, the proposed flexible framework as the way forward with its design parameters (see 3.2.2), and a proposal for the integration of generic competencies (derived from Chapter 4) in discipline-specific modules. The student success mechanisms outlined in this chapter are used in the first self-structured web-based questionnaire of this study in alignment with the second objective of the study.

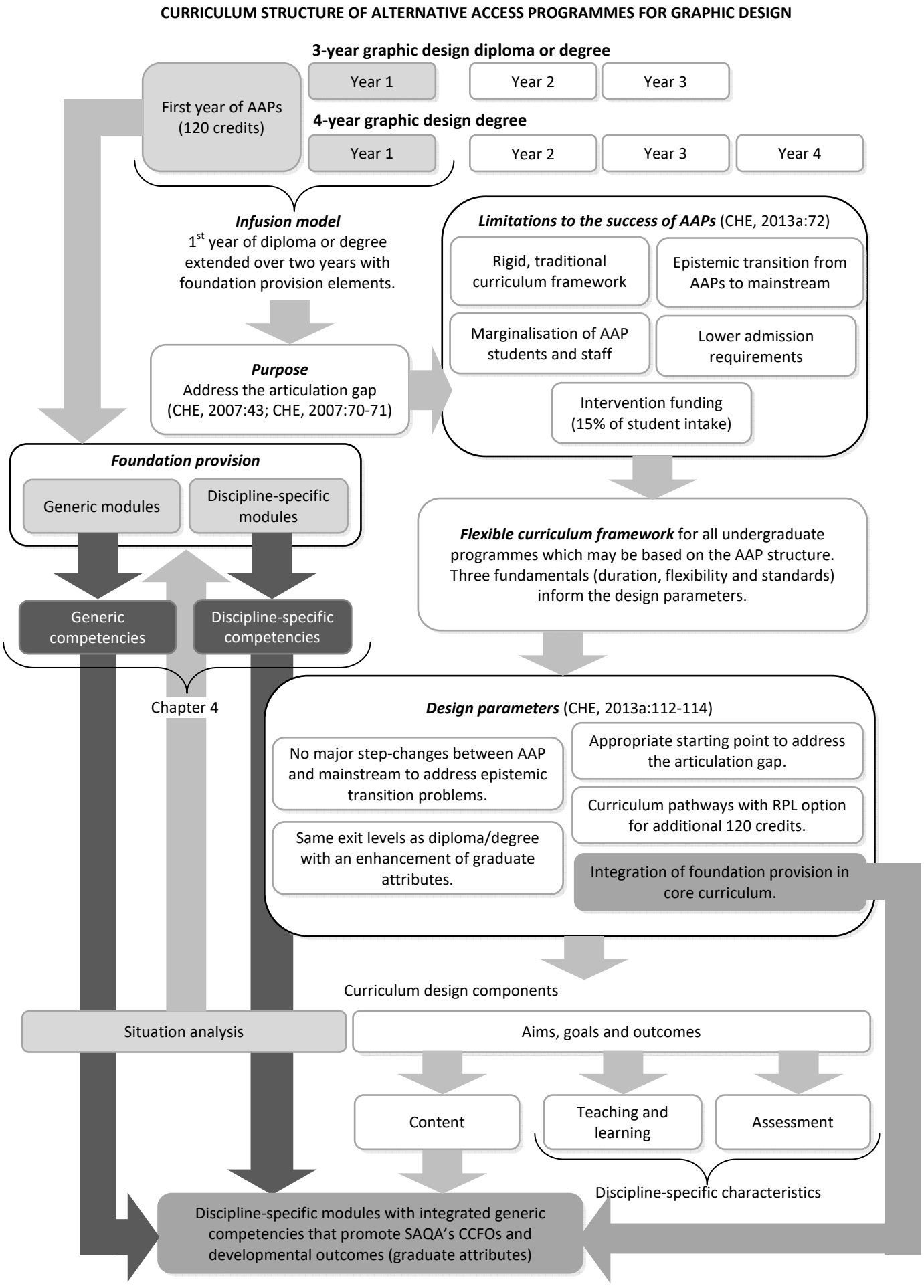


Figure 3.5: Summary of alternative access programmes for graphic design

In addition to the exploration of AAPs, the purpose of this chapter also has been to highlight additional student success mechanisms which may be employed together with AAPs to address current key issues in HE (e.g. access, success, throughput rates and quality). Five student success mechanisms have been explored in this chapter which may serve as additional support within the proposed flexible curriculum framework (CHE, 2013a:112-114). Figure 3.6 highlights the most important elements of the proposed flexible curriculum framework. The student success mechanisms explored in this chapter may be applied to the curriculum components highlighted in Figure 3.6 throughout the duration of the programme.

The literature I reviewed on constituting AAPs and student success mechanisms in HE in this chapter provided me with an in-depth focus of the curriculum structure for AAPs for graphic design in a flexible framework (see Figure 3.5). In the following chapter I will explore the competencies required of graphic designers in order to fuse the competencies into the curriculum structure for AAPs for graphic design.

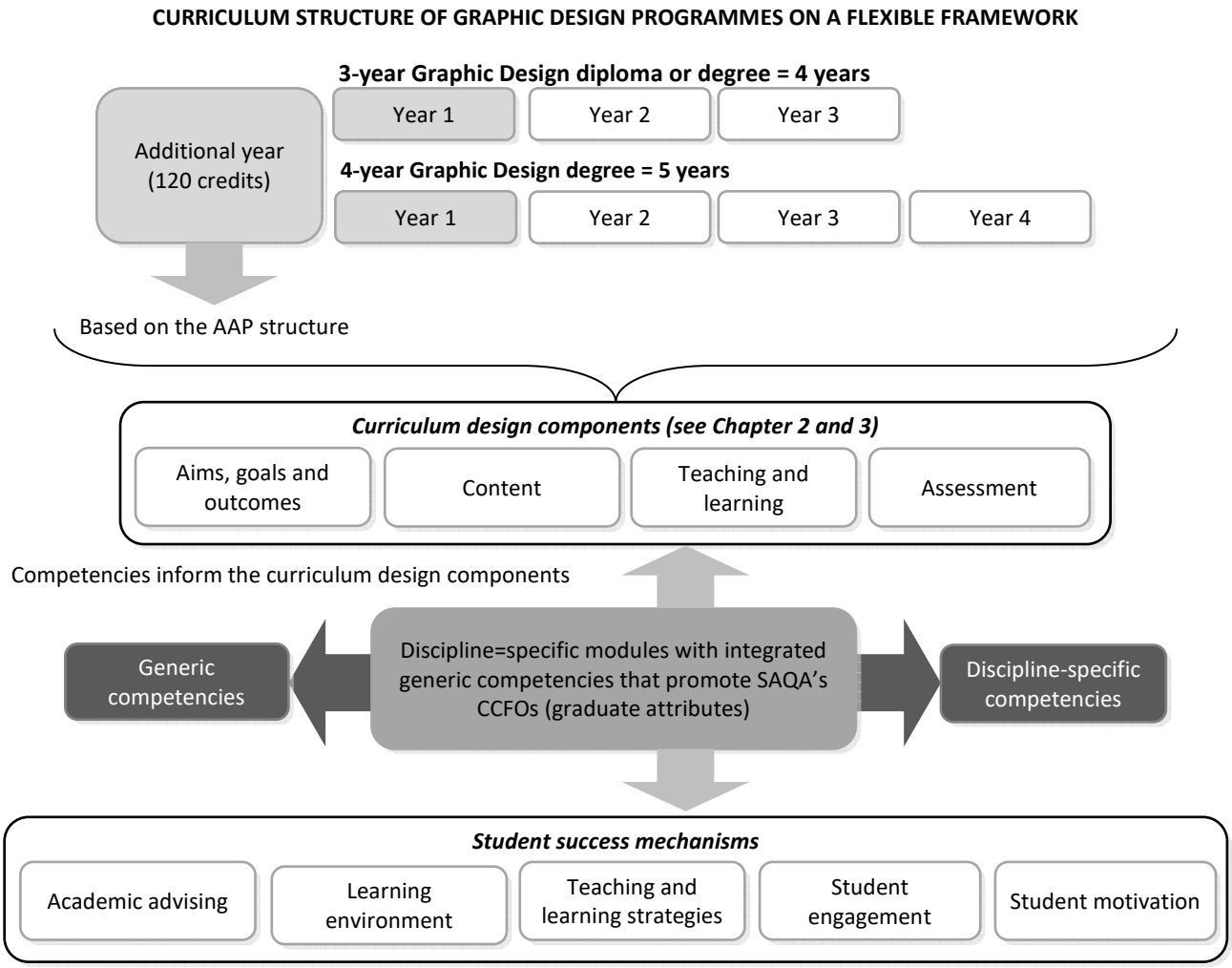


Figure 3.6: Summary of graphic design programmes on a flexible curriculum framework with added student success mechanisms

CHAPTER 4

GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS

4.1 INTRODUCTION

In this chapter the competencies which are required of graphic designers will be discussed, as well as the discipline-specific competencies that are cultivated through this discipline in alignment with the first objective of this study. Three senior graphic designers, with a combined experience of 21 years, were asked to critically review this chapter from their perspective of the needs of the graphic design industry. Comments pertaining to the completeness of competencies identified, the identification of any missing competencies with motivation, and the categorising of the competencies into their respective themes formed part of their feedback. Their feedback is integrated in this chapter and their full reports are included as Appendix B.1. The chapter starts with a background to the discipline, followed by a discussion of the three themes, namely competencies for the design process and product, and personal competencies required of a graphic designer.

4.2 BACKGROUND TO THE DISCIPLINE

According to the Classification of Educational Subject Matter (CESM) of South Africa, graphic design is classified within the third category of visual and performing arts under the sub-section of design and applied arts (Republic of South Africa [RSA] Department of Education [DoE], 2008:50). The third CESM category defines the disciplines within this category as fields of study that focus on the creation and interpretation of works to express ideas in various forms (RSA DoE, 2008:50). The Design Education Forum of Southern Africa (DEFSA), on the other hand, classifies graphic design in the visual communication design category, which is one of five broad creative industries into which all design fields are classified in accordance with the national design curriculum (Stassen, 2014b:online). Although different categories are noted here, the connection is obvious as both sources include graphic design in their design category. Several design disciplines are commonly referred to under the umbrella term of design (*cf.* Adams, 2013:158; Mendoza, Bernasconi and MacDonald, 2007:313; Stassen, 2014a:online; Stassen, 2014b:online; Zumthor, 2006:65). For the purpose of this study, graphic design is categorised under the category of applied arts and is defined as an area of study *which prepares individuals to apply design principles and computer techniques to the interpretation of technical and commercial concepts* (RSA DoE, 2008:51).

Jackson (2008:68) indicates that graphic design in essence is a visual and creative discipline; however, Davis (1998:3) asserts that the final product requires a technical approach and is *user-centred, not artist-centred*. This concurs with Buchanan's (1998:12) purposes of the design discipline for the 21st century, namely being good (e.g. establishing humans' place in the spiritual and natural order of the world), just (supporting fair relations among people), pleasurable (e.g. fulfilling humans' physical and psychological needs), and useful (e.g. supporting humans to accomplish their intentions). Although Buchanan's research was conducted almost two decades ago, but he is an established researcher in the design discipline, and has published widely on this theme.

Teaching and learning activities (TLAs) within the discipline of graphic design include computer-assisted art and design, printmaking, concepts sketching, technical drawing, colour theory, imaging, studio technique, still and live modelling, communication skills, and commercial art business operations (RSA DoE, 2008:51). The South African TLAs listed above are in line with the shift that digital technology has brought (Amiri, 2011:201) (see 4.5.2). However, these TLAs do not clearly explicate the integration of design as a strategic planning mechanism in design thinking, which forms part of the well-known Buchanan's fourth order of design (Buchanan, 1998:13), and which is discussed in section 4.4.13.3. TLAs in a graphic design curriculum must enable graduates to enter specialisation areas within the graphic design industry such as business/corporate, education, packaging, e-commerce (web design), multi-media/3D animation, illustration and character design (Cezzar, n.d.:online). Teaching and learning in a design discipline, such as graphic design, should assist students to prepare a portfolio of work which is an entrance requirement to industry (Tovey, 2015:1). A portfolio demonstrates to designers in industry that graduates applying for employment possess the necessary competencies as listed in this chapter.

Although I have highlighted the educational category and TLAs of the discipline of graphic design, it is also necessary to note what a graphic designer must be able to do, as this is a reoccurring question that is asked by potential students and their parents. The American Institute of Graphic Arts (AIGA, 2001:6) summarises the function of a graphic designer as *making the complex clear, using text and images in ways that will transform information into understanding*. Resnick (2003:16) defines the job of a graphic designer as the executing of a design to communicate a message to a specific audience, whereas Poljacek (2010:493) describes it as the motivation of the intended audience to do something (e.g. buy a specific product). These definitions are similar in thought of what a graphic designer's main purpose is; however, to achieve this purpose, a process is required that leads to the final outcome which is commonly referred to as the design product.

4.3 CONTENT ANALYSIS

In congruence with the first objective of this study a content analysis of applicable literature was completed to explore the competencies that are required of a graphic designer. The content analysis eventually exposed competencies which were then categorised into three main themes, namely the competencies

required for the design process and the design product, as well as the personal competencies required of a graphic designer.

For the purpose of this research, as outlined in the clarification of terminology used in this report, a competency is defined as knowledge, skills, abilities, attitudes, values and/or behaviour that an individual must possess within a specific discipline to successfully perform a particular task. The plural form is competencies. Competence, on the other hand, is the ability to do something well or efficiently and represents a cluster of competencies.

To ensure that *all* competencies of a graphic designer were identified, a further content analysis of job descriptions of graphic designers outlined in current job advertisements was done. A total of twenty advertisements were analysed, with an equal split in number between national and international advertisements, in a similar manner as the content analysis of the literature. Figure 4.1 outlines the structure of this chapter, according to the identified competencies required of graphic designers. Table 4.1 and Table 4.2 indicate the competencies required of a graphic designer according to job descriptions in advertisements and the literature respectively. The analysis of the job descriptions in advertisements in Table 4.1, Table 4.4 and Table 4.6 was shared with a private HEI in South Africa for the curriculum review of their Bachelor of Arts: Graphic design programme in 2015 (see Appendix C.7 for e-mail communication).

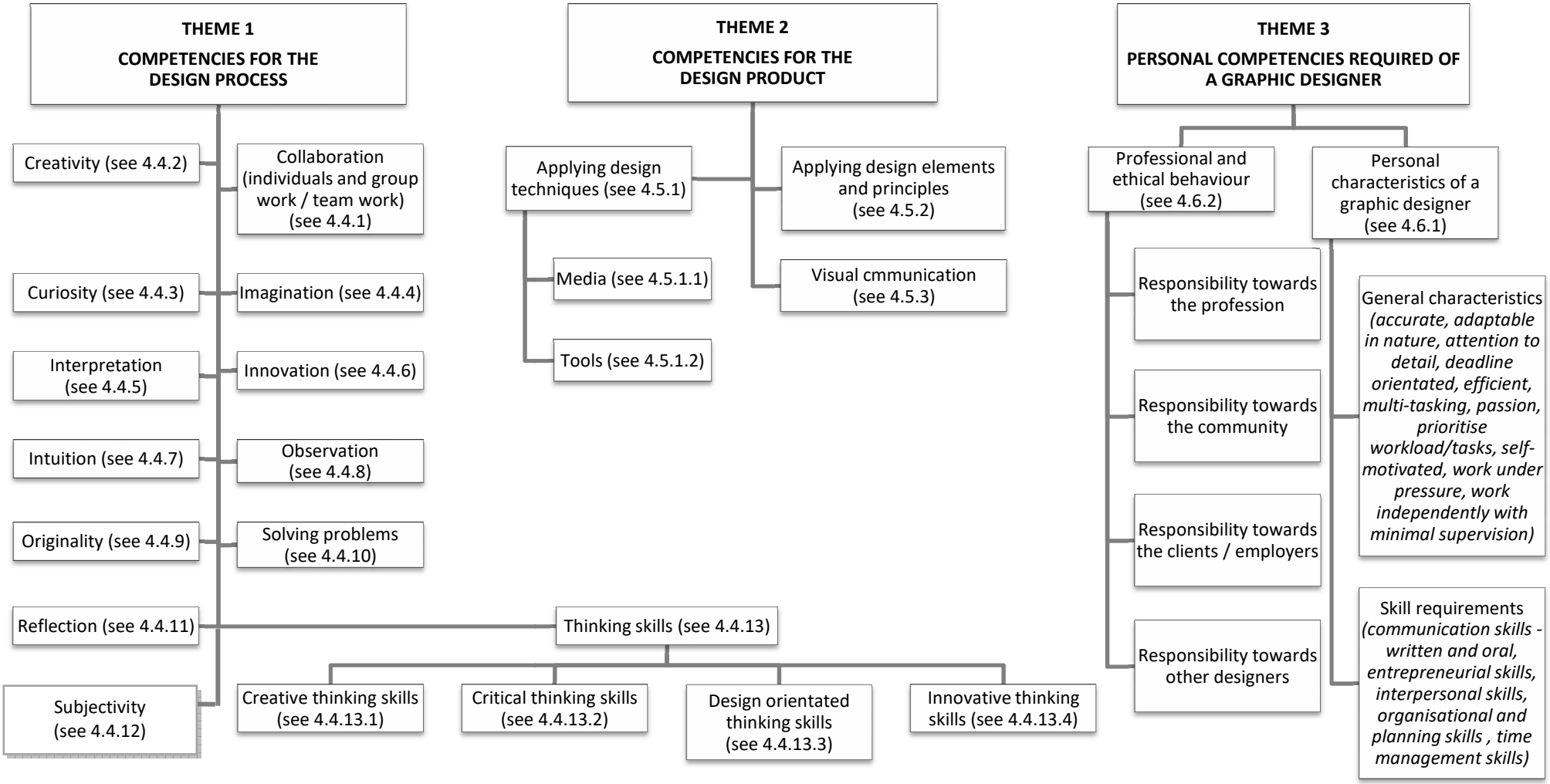


Figure 4.1: Outline of chapter according to the competency structure of the identified themes

Table 4.1: Competencies of a graphic designer according to job descriptions in advertisements

	INTERNATIONAL ADVERTISEMENTS										NATIONAL ADVERTISEMENTS									
COMPETENCIES OF A GRAPHIC DESIGNER CRITERIA	Career Builder (2015:online)	Droga5 (2015:online)	Gensler (2015:online)	SEEK (2015a:online)	SEEK (2015b:online)	Simply Hired (2015a:online)	Simply Hired (2015b:online)	Simply Hired (2015c:online)	Smart Recruiters (2015:online)	Realogy (2015:online)	Bizcommunity (2015a:online)	BizCommunity (2015b:online)	Careers24 (2015a:online)	Careers24 (2015b:online)	Careers24 (2015c:online)	Careerjet (2015:online)	Career Junction (2015a:online)	Career Junction (2015b:online)	Career Junction (2015c:online)	PNet (2015:online)
Design process competencies		x	x		x	x					x		x	x	x	x		x		x
Collaboration with individuals and in group work/team work	x	x	x	x	x	x	x	x	x			x	x	x	x					x
Creativity	x		x	x				x		x		x			x					
Innovative													x	x						
Originality											x									
Solving problems						x		x			x				x					
Thinking skills							x	x			x				x					
Design product competencies	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x
Applying design elements and principles			x	x	x		x				x									
Applying design techniques	x	x		x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x
Visual communicator			x													x		x		
Personal competencies																				
Personal characteristics of a graphic designer (see Table 4.3)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x
Professional and ethical behaviour (see Table 4.5)	x		x	x			x		x	x	x		x	x	x			x	x	x

Table 4.2: Competencies of a graphic designer according to literature reviewed

COMPETENCIES OF A GRAPHIC DESIGNER CRITERIA	LITERATURE SOURCES
Design process competencies	
Collaboration with individuals and in group work/team work	Giloi and du Toit, 2013:260; Lee, 2014:142; Nabih, 2010:97-98; QAA, 2008:7; SAQA, 2000:18; Souleles, 2013:250; Wang, 2010:176
Creativity	Budge, Belae and Lynas, 2013:153; Claxton, 2006; Jackson, 2006:3; NACCCE, 1999:6,30,31-33; Osche, 1990:35, 148; QAA:2008:6
Curiosity	QAA, 2008:6; Smith, 2011:161
Imagination	Eisner, 2002:xi, xiv; Jackson, 2006:3; NACCCE, 1999:30,31-33; Park, 2009:188; QAA, 2008:3
Innovativeness	Clarke and Budge, 2010:154; Danvers, 2003:52; Gustina and Sweet, 2014:52; Jeffery, 2006:401; Knight and Yorke, 2003:36; Lee and Breitenberg, 2010:55; NACCCE, 1999:6; QAA, 2008:5
Intuition	Danvers, 2003:52; Dineen and Collins, 2005:47; Steers, 1988:14; Wang, 2010:176
Observation	Cezzar, n.d:online
Originality	Jackson,2006:3; NACCCE, 1999:30,31-33; Osche, 1990:22; Oxford, 2015:online; Ryan, n.d.:1
Solving problems	Davis, 1998:3,5; Ings, 2011:227-228; Jackson, 2008:64; Park, 2009:191; QAA, 2008:4; SAQA, 2000:18; Waks, 2001:48
Reflection	Bell and Gillett, 1996:47; De la Harpe, Peterson, Frankham, Zehner, Neale, Musgrave and McDermott, 2009:42; Jackson, 2008:64; Kuhn, 2001:5; Lee and Breitenberg, 2010:59; Park, 2008:223; Schön, 1992:11; Schön, 1988:4; Schön, 1987:31; Winters, 2011:98
Subjectivity	Mayo, 1988:49; McAllister, 2010:78
Thinking skills	Cassim, 2013:197; Demirbas and Demirkan, 2007:345; Dineen and Collins, 2005:44; Gustina and Sweet, 2014:49; Knight and Yorke, 2003:36; Koch, Schwennsen, Dutton and Smith, 2002:3; Lampert, 2007:17; Lau, Ng and Lee, 2009:74,80; Lee and Breitenberg, 2010:54; Lee and Kolodner, 2011:3; Lewis, 1999:46; Paul, 1990:6; Paul and Elder, 2006:34; Smith and Smith, 2012:93; Tan and Melles, 2010:473; Turnali, 2013:online; Vanada, 2013:113; Winters, 2011:98
Design product competencies	
Design principles and elements	Adams, 2013:158; De la Harpe et al., 2009:45-46; Giloi and du Toit, 2013:260; j6design, 2015; Jackson, 2008:64; Kristaponis, 2014:101; Lindström, 2006:56; Sjöberg, 2009:75; Strickfaden and Heylighen, 2010:125
Techniques	AIGA, 2001:7-8; Amiri, 2011:201; Bulduk, 2010:2019-2023; Eskilson, 2007:397; García-Hípola, 2011:256; Gilloi and du Toit, 2013:260; Harland, 2011:22; Johnson, 2011:online; Jonson, 2005:622; Lindström, 2006:56,61; Manovich, 2007:70-72; Meggs and Purvis, 2006:488; Öztürk and Türkkan, 2006:96; Pan, Kuo and Strobel, 2013:786,800; Rand, 1993:184; Resnick, 2003:20; Steers, 1990:11; Stones and Cassidy, 2007:70; Stones and Cassidy, 2010:439; Zhao, 2014:2220-2221
Visual communication	Chan, 2011:69; Davis, 1998:3; Giloi and Du Toit, 2013:260; Jackson, 2008:64; Khoury and Khoury, 2011; Lindström, 2006:56; Lee and Breitenberg, 2010:59; QAA, 2008:4,8; Resnick, 2003:17
Personal competencies	
Professional and ethical behaviour	AIGA, 2001:online; AGDA, n.d.:online; DIA, n.d.:online; GDC, 2012:online; IDI, n.d.:online; Owens, 2006:163; Stassen, 2014a:online

4.4 COMPETENCIES REQUIRED FOR THE DESIGN PROCESS

The process to produce a product is referred to by using different terms, such as design process, design method or design methodology (Ranjan, 2005:2). For the purpose of this study the term *design process* will be used. The design process can be defined as the way in which a procedure is completed by the designer (Chakradeo, 2010:109) and involves the transformation of an idea through sketches and plans into a product (Sjöberg, 2009:73). Nevertheless, most designers have their own characteristic trade and personal design process, which they have developed over years (Smith and Smith, 2012:93). In the past the product overshadowed the process in design education; however, a shift can be observed in the literature that reports that researchers' focus have shifted to the importance of the design process (Cassim, 2013:192; De la Harpe et al., 2009:42; Fernando, 2006:10). One such source that I want to highlight in particular is the study of De la Harpe et al. (2009:42), who reviewed 118 articles on architecture, art and design. They found that the design process was cited as the most important overall category in 59 of the 118 sources, as well as the most important category within design. The design process therefore was found to be the main focus of design students (De la Harpe et al., 2009:46), since it is a skill which they can take into the workplace (McAllister, 2010:78).

Unfortunately, higher education (HE) design students are not always enthusiastic about the design process, as noted by one of the peer reviewers of this chapter. A possible reason may be the relationship that the generation of students currently sitting in our classes have with technology (e.g. most students have smartphones, mp3 players, laptops and/or social network profiles). Therefore, they are wired to produce design solutions digitally rather than spending hours with traditional tools (see 4.5.2.2.1). Phillips (2008:10) complains that too often designers turn to their digital tools without going through the motions of the design process. This results in surface design solutions that exclude innovation. The design process also is the prominent section within this chapter as literature reviewed for this study highlighted the importance of the design process and its associated competencies.

The design process starts with the clarification of the expected outcome, namely the design product. The designer then needs to work backwards from the product to identify the process needed to achieve it (Chakradeo, 2010:109). The outcome and process that must be achieved/attained normally is written down, and this is referred to as the design brief. The design brief assists the designer in the management of the project by defining the design problem (Resnick, 2003:17). The design brief also connects objectives with relevant strategies, aligns expectations and defines goals (Aquent, 2011:online).

Resnick (2013:15-20) indicates that in the graphic design profession, many factors such as deadlines, budgets, production and logistical concerns, and client-imposed restrictions may influence the design process. Although this process is unique, graphic designers decide to follow design process models.

Examples of such models are the Tim Brown, The Double Diamond and Analysis, Design, Development, Implementation and Evaluation (ADDIE) models. Tim Brown's process model, known as the Innovation, Design Engineering Organisation (IDEO) model calls for design thinking that incorporates the desirability, feasibility and viability of a concept in order to produce an innovative design solution (IDEO, 2016:online). The Double Diamond model is a design model created by the British Design Council to map the modes of thinking that designers use (e.g. understand, define, explore and create). This process enables the designer to produce design solutions which are near perfect (Schneider, 2015:online). The intended purpose of the ADDIE model is instructional design and content development (TrainingIndustry, 2016:online). Graphic designers may opt to use the ADDIE model due to its flexibility.

The visual and performing arts CESM category (see 4.2) defines the disciplines within it as fields of study that focus on the creation and interpretation of works to express ideas in various forms (RSA DoE, 2008:50). Various art and design disciplines share similar academic and professional processes which need to be followed to achieve the product (Zumthor, 2006:65). Their definitions also are similar (RSA DoE, 2008:47,50-51). For the purpose of this study the following disciplines are used under the umbrella term of design within this section: architecture, fashion design, graphic design, industrial design, and interior design.

Literature reviewed to gain information on the competencies required for the design process discussed in this section exposed the following major competencies: collaboration with individuals, collaboration in group work/team work, creativity, curiosity, imagination, innovation, intuition, observation, originality, problem solving, reflection, subjectivity, and thinking skills. Each competency subsequently is discussed briefly in order to highlight its role in the design process. These discussions finally will be followed by a summary in which the design process competencies are integrated with each other (see Table 4.3).

4.4.1 Collaboration with individuals and in group work/team work

Collaboration is a process which is closely related to the design process (Lee, 2014:143). It is listed as a soft skill (De la Harpe, Peterson, Horvat, Berry and Anastasiou, 2007:46) and has become the centre of attention in professional practice (Lee, 2014:142). Wang (2010:176), in an article on design studio education, notes that it generally is assumed that collaboration is fundamental in the graphic design discipline. Collaboration as a competency is listed by the Quality Assurance Agency (QAA) for HE of the United Kingdom (2008:7) in the category of module-specific knowledge, attributes and skills of art and design education, because students need to use this competency to collaboratively generate ideas in response to briefs or activities in a group or team.

The ability to work with others in a group or team is included as one of the critical cross-field outcomes (CCFOs) for all qualifications on the South African National Qualifications Framework (NQF) set by the South African Qualifications Authority (SAQA, 2000:18). In design education, group work is indeed placed in the centre of the design process (Cheng, 2000:1). A graduate that displays this competency to potential employers increases his/her chances of employability (Giloi and du Toit, 2013:260). Therefore, the competency to work collaboratively with others in a group or team often is used to simulate a real-world experience for graphic design students during their studies (Souleles, 2013:250), since it develops a student's professional practice by encouraging debates and collective decision making (Nabih, 2010:97-98).

The importance of collaboration further was confirmed through the content analysis of job descriptions in advertisements (see Table 4.1), as it was listed by fourteen advertisements as a competency which a graphic designer should possess. The importance of this competency further can be motivated due to its relation to several other competencies of the design process (see Table 4.1).

4.4.2 Creativity

Creativity is a concept which is often associated with art and design disciplines, and therefore is one of the prominent competencies exposed in the literature review of the design process. Apart from the literature review, the job descriptions of graphic designers and the relation of this competency to other competencies (see Tables 4.1 and 4.3) confirm its important role. According to the National Advisory Committee on Creative and Cultural Education (NACCCE, 1999:6), this is a competency which should be possessed by all graphic designers, but it emerges differently in individuals, as everyone is unique (Budge, Belae and Lynas, 2013:153). Therefore, the assumption that the competency of creativity is not only associated with art and design disciplines, has merit since the literature cited identifies the expansion of creativity to sciences and all areas of life (NACCCE, 1999:6). The literature also highlights the impact it may have on a societal level (Cropley, 2006:126; Sternberg and Lubart, 1999:3). However, it must be noted that Gross and Do (1997:3) warn against placing too much emphasis on creativity rather than ensuring the quality of the design product. As noted in section 4.5, the design product is what finally counts in society as this is the only output that the public can see (Lindström, 2006:61).

Definitions of creativity also vary from one researcher to the next. Originality is a word commonly associated with this competency (Jackson, 2006:3; Osche, 1990:22; Oxford, 2015:online; NACCCE, 1999:30,31-33) (see 4.4.9). According to Arrance (1990:23), creativity encompasses four aspects, namely boundary pushing (e.g. extension of the ordinary into original combinations), inventing (e.g. producing new subject matter), boundary breaking (e.g. producing new subject matter), and aesthetic organizing (e.g. ordering of a specific form so as to constitute a coherent, harmonious and balanced whole/gestalt). Other words found to be associated with creativity are:

- curiosity (Jackson, 2006:3; QAA, 2008:6);
- enquiry (QAA, 2008:6);
- imagination (Jackson, 2006:3; NACCCE, 1999:30,31-33; Oxford, 2015:online; QAA, 2008:6);
- inventiveness (Oxford, 2015:online);
- purposefulness (NACCCE, 1999:31-33);
- resourcefulness (Jackson, 2006:3);
- thinking skills (Claxton, 2006, Jackson, 2006:3; QAA:2008:6), and
- value oriented (Osche, 1990:35, 148, NACCCE, 1999:30,31-33)

(see 4.4.3, 4.4.4, and 4.4.13).

Although I have highlighted that the term *originality* is commonly associated with the competency of creativity, it is of importance to note that the creative outcome also must be judged as valuable (Dineen and Collins, 2005:44; Radford, 2004:57). This supports the association made by several authors (NACCCE, 1999:30, 31-33; Osche, 1990:35, 148). In the light of the above definitions, the definition of creativity for the purpose of this research can be summarised as a competency that focuses on an original and imaginatively creative outcome which has value for an individual or a group.

4.4.3 Curiosity

The history of the term *curiosity* was recorded as early as the eighth century in the myth of Pandora (Smith, 2011:163). Curiosity is defined as a strong desire to know (Oxford, 2000:285). Student curiosity in the design studio is an individual process which is considered as the foundation for learning in creative disciplines, as postulated by Smith (2011:161). In art and design education, intellectual curiosity is one of the competencies required in the practice of art (QAA, 2008:6). Curiosity may encourage personal and professional growth, which may aid a graphic designer to keep up with technological changes, as noted by one of the peer reviewers of this chapter. Curiosity also is mentioned in relation to the competencies of creativity and creative thinking skills (see Table 4.3).

4.4.4 Imagination

Imagination is more important than knowledge. For knowledge is limited whereas imagination embraces the entire world, stimulating progress, giving birth to evolution - Albert Einstein
(in Dineen and Collins, 2005:44).

Eisner (2002:4) presents imagination as an image of possibilities on a platform of reality which is viewed from a fresh perspective. Imagination is one of the fundamentals in the creative process as it enables the development of other competencies such as being observant, solving problems, and having the ability to make judgments (QAA, 2008:3) (see 4.4.8 and 4.4.10). Literature reviewed for this study showed limited

focus on this competency; however, it does highlight that imagination has a role to play in art education (Park, 2009:188), and that it is one of the key elements of creativity (Jackson, 2006:3; NACCCE, 1999:30,31-33) (see 4.4.2). Imagination is a capability that a designer should possess to create, and it is a competency which should be emphasised in education (Eisner, 2002:xi,xiv).

4.4.5 Interpretation

Interpretation, in the context of graphic design, is defined as the graphic designer's unique representation of a brief presented by the client. Interpretation has value in the design process to ensure that the graphic designer is orientated toward his/her client's needs. In the words of Davis (1998:3): *design is user-centred, not artist-centred*. This has a bearing on the responsibilities of a graphic designer towards his/her clients/employers listed in Table 4.5.

4.4.6 Innovation

The nature of design often is described as innovative and creative (Knight and Yorke, 2003:36). Jeffery (2006:401) defines innovation as the creation of something new, such as a new skill, insight, understanding, or knowledge, but with a radical shift. As innovation is a graduate attribute in art and design education (Clarke and Budge, 2010:154), it is no surprise that it is also one of the common attributes listed by Danvers (2003:52) and the QAA (2008:5). Creativity and innovation, therefore, seem to go hand-in-hand. Cross references often are made between creativity, creative thinking, innovation, and innovative thinking, and these competencies often are cited together (Gustina and Sweet, 2014:52; Jeffery, 2006:401; Lee and Breitenberg, 2010:55; NACCCE, 1999:6) (see Table 4.3 for the relation between these competencies). The role that innovation plays beyond this discipline is noted in the studies of Gustina and Sweet (2014:53) and Lee and Breitenberg (2010:55) that refer to the economic potential of innovation.

4.4.7 Intuition

Intuition is a feeling or knowing that something is right or complete (Dineen and Collins, 2005:45; Oxford, 2000:631). As early as 1988, Steers (1988:14) noted in an article on design and technology in the national curriculum of Britain that recognition is needed for the role that intuition plays in the development of designs from ideas into something tangible. Designers have to use their creative intuition as a guide for exploration during the transformation of ideas into a design product (Dineen and Collins, 2005:47). The intuition of a designer during learning and doing (Danvers, 2003:52), as well as problem solving (Wang, 2010:176), is an important competency as it provides the designer with a tool to discover solutions to complex problems (Ings, 2011:228) (see 4.4.10).

4.4.8 Observation

Observation is a primary method which infants and pre-schoolers use to explore the world (Eisner, 2002:20). In line with the definition of observation (Oxford, 2015:online), a graphic designer has to observe something in significant detail in order to draw a conclusion or make a statement. Cezzar (n.d:online) notes in an article for AIGA that graphic designers need to be keen observers. This supports the link of observation with personal characteristic of a graphic designer, namely to pay attention to detail as identified by current graphic design job advertisements (see Table 4.3). A peer reviewer of this chapter noted that observation may go beyond what the graphic designer sees, hears and/or feels to include the audience's reactions and impact of the design product.

4.4.9 Originality

The Oxford Dictionary (2000:825) defines originality as something that is new and interesting and that has not been done before. Ryan (n.d.:1) defines originality similarly but also notes that this competency is synonymous with innovation, novelty and ingenuity. Originality is also often included in the definition of creativity (Jackson, 2006:3; Osche, 1990:22; Oxford, 2015:online; NACCCE, 1999:30,31-33) (see 4.4.2). This relationship between originality and creativity is an echo of the words of Azikiwe (1961:23), who wrote: *Originality is the essence of true scholarship. Creativity is the soul of the true scholar*. Originality is also classified by Howard-Jones (2002:262) as part of the creative outcome, namely the design product.

4.4.10 Problem-solving

Problem-solving was identified as the competency which is most closely related to the other competencies for the design process (see Table 4.3). Jackson (2008:64) notes that the ultimate aim of problem-solving is to transfer the skills and knowledge which have been learned to new situations. Its importance as a competency can be seen in the immense value as emphasised by SAQA (2000:18) and the QAA (2008:4). Problem-solving is listed as one of SAQA's (2000:18) CCFOs for all qualifications (and thus all students), and is particularly important for art and design students (QAA, 2008:4), since it enables students to identify, solve, and redefine problems to address problematic issues.

Problem-solving is also applicable to the daily lives of all humans. Davis (1998:5) explains that design projects are based on our daily problems such as the planning and creation of our cities, parks, playgrounds, and newspapers. Park (2009:191) holds a similar view, but within the context of art education. Whereas the problem-solving process unites the different art and design disciplines, the origin and priorities of a problem may differ between disciplines (Davis, 1998:3; Waks, 2001:48). Designers often are viewed as problem-solvers that use a variety of methods and techniques (Breslin and Buchanan, 2008:37). Graphic design requires a creative problem-solving approach as there might be more than one answer to any problem (Ings, 2011:227-228). Problem-solving should encourage designers to break the limits of

current technology in their solutions (Davis, 1998:6), as technology can be developed to accommodate their solution. The use of Buchanan's fourth order design model as a tool in problem-based learning may assist designers to discover new possibilities and opportunities (Bresline and Buchanan, 2008:40).

4.4.11 Reflection

Reflection is also seen as one of the graduate attributes which art and design students should possess (Winters, 2011:98), as it is one of the key features of a studio course such as graphic design (Kuhn, 2001:5). Reflection as a competency within the design process is motivated by Lee and Breitenberg (2010:59), since reflective practice is the foundation of design-based learning. Reflective practice is a process whereby designers can recreate their experiences and highlight possible actions within their professional practice (Bell and Gillett, 1996:47). The most influential thinker of reflective practice, Donald Alan Schön (1992:11), describes the action of designing as a reflective conversation. It is also necessary to note the two types of reflection highlighted by De la Harpe et al. (2009:42), namely reflection-in-action and reflection-on-action. Reflection-in-action is defined by Jackson (2008:64) as a cognitive action during the process of graphic design education. It involves discussion and debates during the design process (Park, 2008:223). This type of reflection is important as the designer or the design student will be able to improve their skills from an interaction between thinking and doing (Schön, 1987:31). Reflection-on-action, on the other hand, is action taken after the process (Jackson, 2008:64). Finally, Schön (1988:4) also states that *designing is a reflective conversation with the materials of the situation*.

4.4.12 Subjectivity

Subjectivity refers to a person's own ideas or opinions (Oxford, 2015:online), thereby stating that no one can ever be fully objective. Subjectivity is a term which is associated with the art and design discipline as well as with qualitative research. Subjectivity is categorised in this study as part of the design process, which is described by McAllister (2010:78) as subjective, messy and not thought out in a logical way. Mayo (1988:49) proclaims that subjectivity is an aspect which is interlaced with the love to create that which is good. However, graphic designers must apply disciplined-controlled subjectivity in their process and product. Subjectivity, as noted by a peer reviewer of this chapter, allows a designer to develop her or his own unique design style and personality.

4.4.13 Thinking skills

Thinking is a general activity that we do several times per day. Winters (2011:98), however, states that this general activity is actually a valued attribute in art and design as it is essential to become reflective, self-reliant and independent. It is also needed to find solutions to design problems (Demirbas and Demirkan, 2007:345), which is one of the prominent competencies required in design education (see 4.4.10). This view is supported by a recent study by Vanada (2013:113) on perseverance in art education programmes,

conducted on pre-service programmes, after which she concluded that art and design were essential in the training of balanced thinkers for the 21st century. Lee and Kolodner (2011:3) also point out that the general claim is made that individuals who are innovative and creative thinkers contribute more to society, as they are better citizens and more productive. This is a competency which is extremely difficult to measure, since it is only evident once the design process has been completed. Thinking actually is a broad term that includes the application of several thinking skills in art and design education. The prominent thinking skills associated with this discipline and highlighted in the literature reviewed for this study are being creative, critical, design-orientated and innovative. These thinking skills will be discussed in the paragraphs to follow. Other thinking skills also mentioned include convergent thinking (QAA, 2008:3,7), divergent thinking (Danvers, 2003:50; QAA, 2008:6,7), and holistic thinking (Sjöberg, 2009:74).

4.4.13.1 Creative thinking skills

Creative thinking skills are needed for creativity (Lewis, 1999:46), which supports the link between this type of thinking skill and creativity. Creative thinking can assist with the identification and solving of problems (Resnick, 2003:20; SAQA, 2000:18) and might contribute to the economic success of a country, if combined with innovation (Lee and Breitenberg, 2010:55) (see 4.4.6 and 4.4.10). Lau, Ng and Lee (2009:71) contend that creativity cannot be taught. However, creative thinking can be realised through techniques and procedures such as identification of and mapping problem attributes, production of more ideas and possibilities, and associative and analogical thinking (Lau et al., 2009:80). The brainstorming technique, used since the 1950s in design education, is one of the most popular creative thinking techniques due to its effectiveness (Lau et al., 2009:74). Traditionally, in the design process of graphic design, thumbnail sketches, for example, help designers to brainstorm in their effort to create new ideas (Tan and Melles, 2010:473).

4.4.13.2 Critical thinking skills

Critical thinking often is associated with fault-finding, scepticism and hypercriticism (Paul and Elder, 2006:34). However, Paul (1990:4) defines critical thinking as disciplined and self-directed thinking that demonstrates accurate, clear, logical, relevant and specific thoughts. Critical thinking as a competency, in this study may be motivated by its inclusion as part of the CCFOs that refer to identifying and solving problems (SAQA, 2000:18). It is also viewed by authors as a transferable skill (Dineen and Collins, 2005:44), desired outcome of undergraduate art education (Lampert, 2007:17), and essential to studio teaching in art (Gore, 2004:39). It is required for negotiating the unpredictable (Smith and Smith, 2012:93), which is a given in art and design education.

Paul (1990:6) further identifies seven interdependent traits of mind that need to be fostered for students to think critically. In short, these traits are noted as knowing your own limit of knowledge (intellectual

humility); openness to ideas, beliefs or viewpoints that are beyond your comfort zone (intellectual courage); placing yourself in another's shoes (intellectual empathy); having integrity (intellectual good faith); being willing to overcome obstacles (intellectual perseverance); developing your own conclusions (faith in reason), and to exclude your personal feelings or interests to entertain all ideas/viewpoints equally (intellectual sense of justice).

Critical thinking and creative thinking commonly are perceived as worlds apart; however, both these thinking skills are competencies required in art and design disciplines. The relationship between critical and creative thinking is noted as they not only are intertwined with one another but also with creativity, which has a prominent role in art and design education (Jackson, 2006:3; Paul and Elder, 2006:34-35,37).

4.4.13.3 Design-orientated thinking skills

Design-orientated thinking is accomplished by expanding one's thoughts beyond the design discipline into other disciplines such as education, engineering and technology. Design thinking is the foundation for exploration in art and design education (Koch et al., 2002:3), and contributes to the problem-solving process (Cassim, 2013:197; Turnali, 2013:online) (see 4.4.10). In the words of Koch et al. (2002:26), *our challenge now is to design a studio culture that promotes design thinking*.

Buchanan's fourth order of design theory is an example of the use of design thinking within the design discipline as a strategic planning tool or action-orientated design (Buchanan, 1998:13-14). Although this source is almost two decades old, Buchanan's theory is well-known amongst design educators. Buchanan illustrates his fourth order of design theory as four broad areas of design which designers use to focus and reinvent their professions at the intersections of ability (e.g. inventing, judging, deciding and evaluating), and discipline (e.g. communication, construction, strategic planning and systemic integration) (Buchanan, 1998:13) (see Figure 4.2). This theory and the resulting matrix may be used as a tool to rethink the shifting nature of design within a contemporary world (Buchanan, 1998:13). Strategic planning is located within the third order of design where designers use the process of deliberation for the incorporation of knowledge and values to solve problems (Buchanan, 1998:14). However, the highest order is reserved for systemic integration or system thinking which uses the previous three orders for guidance during the decision-making process for systems, environments, ideas and values (Buchanan, 1998:14-15). Values within this order are closely related to the professional and ethical behaviours listed in section 4.6.2.

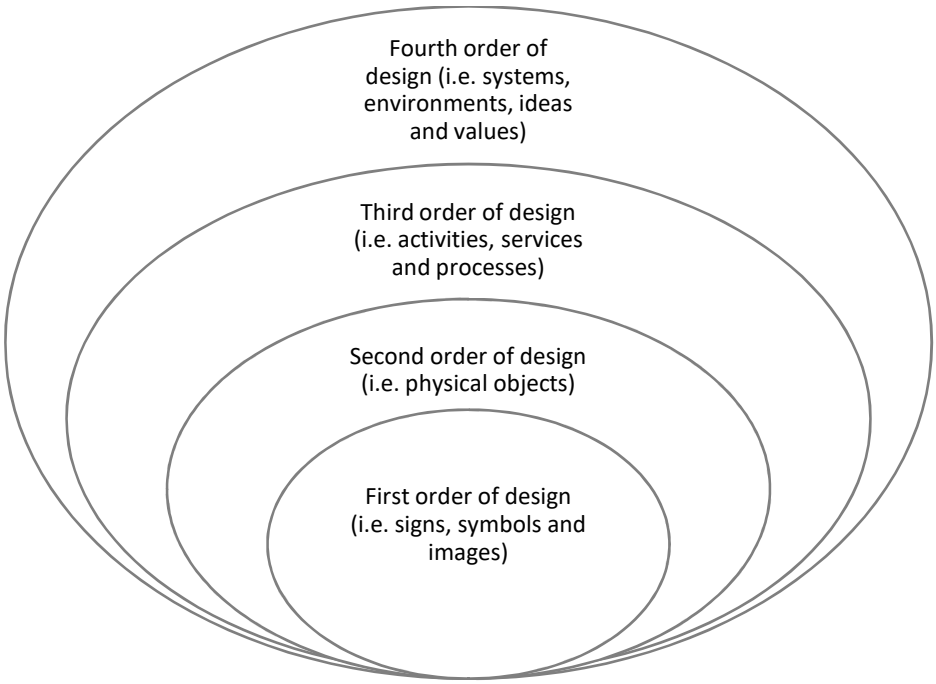


Figure 4.2: Buchanan's four orders of design theory (Buchanan, 1998:13)

4.4.13.4 Innovative thinking skills

Innovative thinking skills are linked to the competency of being innovative (see 4.4.6). Currently the focus in education is shifting more and more to creativity and innovative thinking due to the growing importance of these skills (Gustina and Sweet, 2014:49; Lee and Breitenberg, 2010:54). Knight and Yorke (2003:36) highlight the view that designers are expected to demonstrate innovative thinking skills due to the innovative and creative nature of design.

4.4.14 Summary of competencies required in the design process

The design process refers to the method(s) that a graphic designer uses to produce the design product. The starting point of this process normally is the clarification of the desired outcome as designers need to work backwards from the expected outcome to identify the process required to produce the product (Chakradeo, 2010:109). The function and production specifications of the outcome (e.g. the design product) are included in the design brief to which a graphic designer must adhere (Oxford, 2015:online). As noted by one of the peer reviewers of this chapter, often the graphic designer will draw up a questionnaire regarding the client's desired outcome. This questionnaire may clarify the needs of the client or highlight aspects of the desired outcome which the client has not yet thought about.

The competencies for the design process discussed in section 4.4 were identified through content analysis of literature, with confirmation of certain competencies in the additional analysis of current job advertisements for graphic designers (see Table 4.1). The most prominent competencies for the design process identified in this section are collaboration (with individuals and as part of a group/team), creativity,

solving problems and reflection. That these are the most prominent competencies in the design process became evident from literature, as well as the relationship of these competencies with one another (as shown in Table 4.3), and with competencies included in job advertisements (see Table 4.1). That the overall design process also is a competency that a graphic design applicant should possess became clear from eleven of the twenty advertisements investigated. . However, each designer's process differs, as it is personal and a character trait (Smith and Smith, 2012:93).

As can be observed in Table 4.3, these competencies are very closely related to each other; therefore the design process competencies need to be looked at holistically. Together they comprise the process which the graphic designer will use. Table 4.3 highlights the integration of all the design process competencies with each other and includes specific reference to literature that supports these relations.

Table 4.3: Integrated design process competencies

	Collaboration (individuals and groups/teams)	Creativity	Curiosity	Imagination	Interpretation	Innovation	Intuition	Observation	Originality	Problem-solving	Reflection	Subjectivity	Thinking skills	Creative thinking skills	Critical thinking skills	Design-orientated thinking skills	Innovative thinking skills	References	
Collaboration with individuals and groups/teams	x	x								x	x				x	x		***Creativity***: ***Solving problems***: ***Reflection***: ***Critical thinking skills***: ***Design orientated thinking skills***:	Barak, Maymon, and Harel, 1999:85 Dineen and Collins, 2005:49 Barak, et al., 1999:85 Lee, 2014:154 Nabih, 2010:95 Nelson, 2003:42 Weiss, 2003:28 Davis, Hawley, McMullan and Spika, 1997:24 Kuhn, 2001:5 Souleles, 2013:250 Cassim, 2013:197, 200 De la Harpe et al., 2007:44
Creativity	x		x	x		x			x	x				x	x	x	x	***Collaboration***: ***Curiosity***: ***Imagination***: ***Innovation***: ***Originality***: 	Barak et al., 1999:85 Dineen and Collins, 2005:49 Jackson, 2006:3 QAA, 2008:6 Jackson, 2006:3 NACCCE, 1999:30,31-33 Oxford, 2015: online QAA, 2008:6 Gustina and Sweet, 2014:52 Jeffery, 2006:401 Lee and Breitenberg, 2010:55 NACCCE, 1999:6 Jackson, 2006:3 Osche, 1990:22 Oxford, 2015:online NACCCE, 1999:30,31-33

	Collaboration (individuals and groups/teams)	Creativity	Curiosity	Imagination	Interpretation	Innovation	Intuition	Observation	Originality	Problem-solving	Reflection	Subjectivity	Thinking skills	Creative thinking skills	Critical thinking skills	Design-orientated thinking skills	Innovative thinking skills	References	
																		Solving problems: ***Creative thinking Skills***: ***Critical thinking skills***: ***Design orientated thinking skills***: ***Innovative thinking skills***:	Sternberg and Lubart, 1999:3 Lau et al., 2009:71-72 Jackson, 2006:3 Cassim, 2013:197, 200 Gustina and Sweet, 2014:49 Lee and Breitenberg, 2010:54
Curiosity		x												x				***Creativity***:	Jackson, 2006:3 QAA, 2008:6
Imagination		x						x		x								***Creativity***: ***Observation***: ***Problem-solving***:	Jackson, 2006:3 NACCCE, 1999:30,31-33 Oxford, 2015:online QAA, 2008:6 QAA, 2008:3 QAA, 2008:3
Interpretation																			
Innovation		x									x					x	x	***Creativity***: ***Reflection***: ***Design-orientated thinking skills***: ***Innovative thinking skills***:	Gustina and Sweet, 2014:52 Jeffery, 2006:401 Lee and Breitenberg, 2010:55 NACCCE, 1999:6 Davis et al., 1997:24 Cassim, 2013:197, 200 Knight and Yorke, 2003:36
Intuition										x	x							***Solving problems***: ***Reflection***:	Ings, 2011:228 Wang, 2010:176 Ings, 2011:228
Observation				x														***Imagination***:	QAA, 2008:3
Originality		x																***Creativity***:	Jackson, 2006:3 Osche, 1990:22 Oxford, 2015:online NACCCE, 1999:30,31-33

	Collaboration (individuals and groups/teams)	Creativity	Curiosity	Imagination	Interpretation	Innovation	Intuition	Observation	Originality	Problem-solving	Reflection	Subjectivity	Thinking skills	Creative thinking skills	Critical thinking skills	Design-orientated thinking skills	Innovative thinking skills	References	
Solving problems	x	x		x			x				x	x	x		x	x	x	***Collaboration***: ***Creativity***: ***Imagination***: ***Intuition***: ***Reflection***: ***Subjectivity***: ***Thinking Skills***: ***Critical thinking skills***: ***Design-orientated thinking skills***: ***Innovative thinking skills***:	Barak et al., 1999:85 Lee, 2014:154 Nabih, 2010:95 Nelson, 2003:42 Weiss, 2003:28 Sternberg and Lubart, 1999:3 QAA, 2008:3 Ings, 2011:228 Wang, 2010:176 Davis et al., 1997:34 Ings, 2011:227-228 Demirbas and Demirkan, 2007:345 Dineen and Collins, 2005:44 Cassim, 2013:197 Turnali, 2013:online Buchanan, 1998:13-14 Knight and Yorke, 2003:36
Reflection	x					x	x			x		x	x			x		***Collaboration***: ***Innovation***: ***Intuition***: ***Problem-solving***: ***Subjectivity***: ***Thinking skills***: ***Design thinking skills***:	Davis et al., 1997:24 Kuhn, 2001:5 Davis et al., 1997:24 Ings, 2011:228 Davis et al., 1997:34 Ings, 2011:227-228 Winters, 2011:98 Cassim, 2013:197, 200 Davis et al., 1997:111
Subjectivity										x								***Problem-solving:***	Ings, 2011:227-228
Thinking Skills										x	x							***Problem-solving:*** ***Reflection***:	Demirbas and Demirkan, 2007:345 Winters, 2011:98
Creative thinking skills		x													x			***Creativity***: ***Critical thinking skills***:	Lau et al., 2009:71-72 Paul and Elder, 2006:34

	Collaboration (individuals and groups/teams)	Creativity	Curiosity	Imagination	Interpretation	Innovation	Intuition	Observation	Originality	Problem-solving	Reflection	Subjectivity	Thinking skills	Creative thinking skills	Critical thinking skills	Design-orientated thinking skills	Innovative thinking skills	References	
Critical thinking skills		x								x				x				***Collaboration:***	Souleles, 2013:250
																		Creativity:	Jackson, 2006:3
																		Problem-solving:	Dineen and Collins, 2005:44
																		Creative thinking skills:	Paul and Elder, 2006:34
Design thinking skills	x	x				x				x	x							***Collaboration***:	Cassim, 2013:197, 200
																			De la Harpe et al., 2007:44
																		Creativity:	Budge et al., 2013:154
																		Innovation:	Cassim, 2013:197, 200
																		Problem-solving	Cassim, 2013:197
																			Turnali, 2013:online
																			Buchanan, 1998:13-14
																		Reflection:	Cassim, 2013:197, 200
																			Davis et al., 1997:111
Innovative thinking skills		x				x				x								***Creativity***:	Gustina and Sweet, 2014:49
																			Lee and Breitenberg, 2010:54
																		Innovation:	Knight and Yorke, 2003:36
																		Problem-solving:	Knight and Yorke, 2003:36

4.5 COMPETENCIES FOR THE DESIGN PRODUCT

Poljacek's (2010:493) proclaims that design products can be seen everywhere in our daily lives. Although a shift currently can be observed in the importance from the design product to the design process in design education (Cassim, 2013:192; De la Harpe et al., 2009:42; Fernando, 2006:10), the design product remains the end product of the process (McAllister, 2010:88). The design product, therefore, is what counts in society as it is the only output that the public can see (Lindström, 2006:61). This became evident from the job specifications for graphic designers in the job advertisements analysed. Nineteen of the twenty advertisements analysed and reported in Table 4.1 noted the design product. The job descriptions describe a graphic designer that follows his/her design process in order to produce a design product according to the design brief.

In a study of problem solving through design, Nelson (2003:42) notes that design studios supported the design student to design a practical product in order to address a need or problem as indicated in the design brief. It is important that the graphic designer produces a design product that is in line with the design brief, since it might have an influence on consumer behaviours, as also highlighted in the study of Kim, Sim and Hahm (2014:2). According to Lindström (2006:56), the design product criteria may comprise the visibility of intent, visual elements and principles, as well as craftsmanship. The product criteria for the purpose of this study are in accordance with what Lindström (2006:56) advocates, but also include additional competencies under each category as identified in the literature. The competencies that are discussed in this section are classified as design principles and elements (similar to visual elements and principles); design techniques (media and tools), and visual communication (which is similar to visibility of intent).

4.5.1 Design principles and elements

The principles and elements associated with the discipline of graphic design are similar to those of other art and design disciplines (Jackson, 2008:64). They also are not stand-alone competencies, but must be used in combination with each other (Adams, 2013:158); therefore they are discussed as one *clustered* competency in this section.

A graphic designer should be able to use the elements of design to adhere to the principles by means of application and manipulation in the design process (Adams, 2013:158). Various authors cite specific design elements in their research reports. These include colour and tone; composition/layout; direction; form/shape; light; point and line; rhythm; size; space; texture, and typography (De la Harpe et al., 2009:45-46; Giloi and du Toit, 2013:260; j6design, 2015; Jackson, 2008:64; Lindström, 2006:56; Lupton and Phillips, 2008:12-231; Sjöberg, 2009:75).

The main principles of graphic design, as cited by Kristaponis (2014:101), and supported by the website article of j6design (2015:online), are contrast; space (in particular white space); repetition; alignment, and proximity. Two additional principles that are also noted by different authors are harmony (Sjöberg, 2009:75) and balance (j6design, 2015:online). The importance of this *clustered* competency is noted in the research of Strickfaden and Heylighen (2010:125), where they refer to design principles and elements as *design specific capital*.

4.5.2 Techniques

Technique is defined by the Oxford Online Dictionary (2015:online) as a specific manner of executing a task. If this definition is applied in the context of graphic design, technique refers to the manner in which the graphic designer creates the design product by using different media and tools. Steers (1990:11) investigated the practice of art and design and reports that the understanding of art and design practice rests on techniques. According to Lindström (2006:56, 61) and Öztürk and Türkkan (2006:96), the competency of technique is associated with the design product since the craftsmanship of the design product relies on the designer's ability to master the media and tools to be used. The importance of this competency is reflected in it being listed as a requirement in eighteen of the twenty advertisements analysed.

4.5.2.1 Media used by graphic designers

The competency of media usage refers to how information is communicated (Oxford, 2015:online). The media associated with the design product of the discipline of graphic design have changed over time. The traditional media for graphic design are typography, illustration, photography and print (Harland, 2011:22), whereas new-age media include time-based or interactive media (AIGA, 2001:8). This shift in media usage is due to the digital revolution which has occurred since the last quarter of the twentieth century and which changed many areas, including graphic design, through digital computer hardware, software and the growth of the internet (Meggs, 2006:488).

Amiri (2011:201) supports Meggs and Purvis's reference to the digital revolution shift as he notes the inclusion of new-age media in other disciplines such as animation and cinematography. Increased emphasis indeed is placed on graphic designers to master the technology behind motion graphics. Eskilson (2007:397) notes that this type of interactive media combines the skills of a traditional graphic designer with those of an animator, which in turn are linked to the creation of a meta-medium as reported by Manovich (2007:70). The *meta-medium* is a result of the common software environment that technology has created and which allows a designer to use techniques from different disciplines (Manovich, 2007:70). This becomes evident when observing the list of products and services provided by graphic design companies and currently available on the internet. The mastery of various media is of importance to the

graphic designer (Giloi and du Toit, 2013:260) in the light of the current products and services that are required. Thus graphic design media for the creation of design products include traditional media, as well as the new-age interactive media (animation and broadcast design), web design and digital services that are similar to print, but only for online or digital use.

4.5.2.2 Tools used by graphic designers

Stones and Cassidy (2010: 439) maintain that it is vital that (graphic) design students be equipped with the ability to make well-informed decisions about their tool choice and use. In reporting a study conducted by Pan et al. (2013:786) they emphasise that designers use different tools to aid their thinking skills (as discussed), and that each type of tool has its own advantages. Tools often are combined for problem-solving purposes (see 4.4.10). Two types of tool were identified during the literature review, namely traditional tools and digital tools.

Most traditional tools were the only tools available for graphic designers before the introduction of digital tools (e.g. computers and software) into the discipline. Phillips (2008:10) notes that prior to this era, graphic design solutions often had to be outsourced at almost every stage. Typesetters were used for manuscripts, photos were corrected by re-touchers and finished design solutions were finished off by paste-up artists. However, digital tools now allow graphic designers to complete all these activities by themselves in a reduced time period within the comfort of their own offices or homes (Phillips, 2008:10). The graphic design curriculum for first-year students in most cases still involves the mastering of traditional tools before students move on to digital tools. The reasons for this will come to the fore in the discussion of the traditional tools.

4.5.2.2.1 Traditional tools

Drawing is classified by the AIGA (2001:7) as a tool which a graphic designer can use during the design process. Bulduk (2010:2019-2020) highlights the importance of the training of a graphic designer with drawing as a tool as it improves the skills of perception, reflection and hand-brain-eye coordination. Drawing can be used early in the design process as a conceptual tool by the designer (Jonson, 2005:622). This can be done by visually brainstorming ideas by means of thumbnail sketches which are groups of small drawings (Johnson, 2011:online). These aid with the thinking skills of the graphic designer as discussed in section 4.4.13. Traditional methods of drawing may include the use of chalk, copy markers, ink, pen and pencil, to name but a few of the most used traditional tools by graphic designers. TLAs for using traditional tools in South African graphic design curricula include printmaking, technical drawing, colour theory (often illustrated by using paint as a medium), and imaging (e.g. photography) (RSA DoE, 2008:51). The traditional tools mentioned in this section may be used for design purposes and not only as mere conceptual tools which may spark creativity in designers as mentioned by one of the peer reviewers.

4.5.2.2.2 Digital tools

This type of tool is an outcome of the impact of the digital revolution as noted earlier when referring to the work of Meggs and Purvis (2006:488). Computers are a common design tool which graphic designers use to render services and create design products (Pan et al., 2013:788). Manovich (2007:71-72) advocates the new *meta-medium* that allows graphic designers (and designers from other disciplines) to manipulate different media via software rather than using their traditional tools.

Drawing was traditionally done by hand, but with the impact of technology this traditional tool has now been transformed into a digital tool (García-Hípola, 2011:256). Zhao (2014:2220) explains that the use of the computer is more beneficial than the traditional tools used for drawing because the computer broadens the designer's thinking, saves time, displays more conveniently, is more accurate and faster, and places the design process into more objectivity. Digital tools therefor contribute to progress in graphic design; however, several authors caution against only using digital tools and overlooking traditional tools (Bulduk, 2010: 2019-2023; García-Hípola, 2011:256; Pan et al., 2013:800; Rand, 1993:184; Resnick, 2003:20; Stones and Cassidy, 2007:70).

Some of the disadvantages of using digital tools include its large dependence on the internet. Often too much emphasis is placed on computer skills, rather than on the design skills of designers (Zhao, 2014:2220-2221). A concern raised by Amiri (2011:201) is that students associate software skills with discipline-specific skills, rather than see it as a tool used in the design process to successfully complete the design product.

In conclusion, I want to quote from Paul Rand's (1993:184) book:

When to use computers is certainly as important as how to use them … they should be a part of the curriculum but not the curriculum: nothing can replace the hand on the early stages of design education.

4.5.3 Visual communication

Giloi and Du Toit (2013:260) emphasise that communication is a skill required of graphic design graduates since it is highly valued in the design profession. The QAA (2008:8) classifies communication in art and design disciplines in terms of generic knowledge, attributes and skills that artists and designers should possess and stresses that these practitioners should be able to work with a variety of audiences. The definition of communication as a competency differs in the art and design disciplines. Graphic designers require a specific audience for whom a design product is created, since it communicates a specific message (Jackson, 2008:64; Resnick, 2003:17). This view supports Davis's (1998:3) notion dated a decade earlier that *design is user-centred, not artist-centred*.

The designer's intended message must be visible to the audience; hence the term *visual communication* (Lindström, 2006:56). Visual communication refers to the relationship between word and image in the design (Lee and Breitenberg, 2010:59), and is a recognised term for use in the discipline of graphic design, as elucidated by Khoury and Khoury (2011). In order for a message to be communicated successfully to its audience, the designer must place it within an appropriate context (Jackson, 2008:64). Khoury and Khoury (2011) note that the designer needs to read and interpret the content of the required message as well. The word or language aspect of visual communication often is neglected by graphic designers as identified by one of the peer reviewers of this chapter. In my own experience as graphic design lecturer I also noted this neglect. Often an assessor or moderator in this discipline will come across students' work with spelling errors. Written and oral communication skills are therefore included in the personal characteristics of a graphic designer (see Table 4.4).

Davis (1998:3) notes that design is a social production aimed at a specific audience that will derive meaning from it. Furthermore, communication in art and design disciplines is reliant on the aesthetics and functionality of the design product (QAA, 2008:4). An example of the impact of visual communication as an instrument for mass communication is found in the study by Chan (2011:69) titled *Visualizing multi-racialism in Singapore: Graphic design as a tool for ideology and policy in nation building*.

4.5.4 Summary of competencies required to deliver an effective design product

Lindström (2006:61) and McAllister (2010:88) confirm the importance of the design product in graphic design. The literature review on competencies for the design product highlighted the importance of design principles and elements, techniques and visual communication. In section 4.5 each of these competencies was discussed in order to emphasise the role these competencies have to play in producing the design product. The relevant design product competencies were defined on the basis of information obtained from literature in the context of graphic design and, where necessary, they were combined under one competency. This section on the design product differs from the section on the design process since the focus in this section was on the variety of products in the disciplines of art and design, whereas the design process is similar for both. Figure 4.3 outlines the three competencies pertaining to the second theme of this chapter with its subcategories.

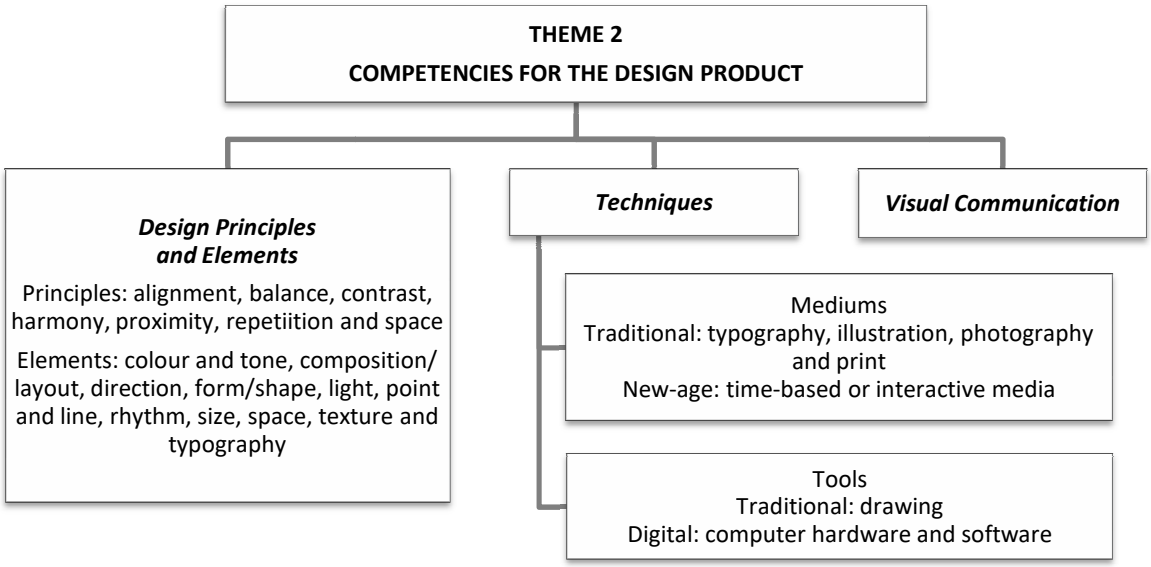


Figure 4.3: Competencies required for producing the design product

4.6 PERSONAL COMPETENCIES OF A GRAPHIC DESIGNER

This theme explores the competencies of a graphic designer which are closely related to personal characteristics, as well as professional and ethical behaviours of graphic designers.

4.6.1 Personal characteristics of a graphic designer

The content analysis of relevant literature for this study exposed the possible role that a graphic designer's personal characteristics may play in this profession. The competencies of creativity, curiosity, imagination, intuition and originality as related to the design process, overlap with the personal characteristics of a graphic designer (see 4.4.2, 4.4.3, 4.4.4, 4.4.7 and 4.4.9). Additional personal characteristics are mentioned only vaguely in the literature; therefore, the job descriptions found in current advertisements for graphic designers were further analysed to identify the specific characteristics that have a role to play in this category (see Table 4.4). Characteristics eventually were divided into two sub-categories, namely general characteristics and skill requirements. Only characteristics listed three or more times in the set of advertisements were listed in Table 4.4.

Table 4.4: Personal characteristics expected of a graphic designer according to job descriptions in advertisements

	INTERNATIONAL ADVERTISEMENTS										NATIONAL ADVERTISEMENTS									
COMPETENCIES OF A GRAPHIC DESIGNER CRITERIA	Career Builder (2015:online)	Droga5 (2015:online)	Gensler (2015:online)	SEEK (2015a:online)	SEEK (2015b:online)	Simply Hired (2015a:online)	Simply Hired (2015b:online)	Simply Hired (2015c:online)	Smart Recruiters (2015:online)	Realogy (2015:online)	Bizcommunity (2015a:online)	BizCommunity (2015b:online)	Careers24 (2015a:online)	Careers24 (2015b:online)	Careers24 (2015c:online)	Careerjet (2015:online)	Career Junction (2015a:online)	Career Junction (2015b:online)	Career Junction (2015c:online)	PNet (2015:online)
General characteristics																				
Accurate		x	x	x							x				x			x		
Adaptable in nature			x	x				x	x				x	x						
Attention to detail		x			x					x			x	x	x		x			x
Deadline orientated		x	x	x	x			x		x	x	x	x	x			x	x		x
Efficiency		x		x															x	x
Multi-tasking	x	x		x	x	x				x										x
Prioritise workload/tasks	x				x			x		x	x									
Self-motivated					x								x							x
Work under pressure	x			x				x			x	x								x
Work independently	x				x			x	x	x										
Skill requirements																				
Communication skills (written and oral)	x	x	x		x		x		x	x	x	x	x	x				x		x
Interpersonal skills	x		x		x				x	x	x	x								
Organisational and planning skills		x			x			x	x	x	x		x	x						x
Time management skills		x		x					x			x	x	x						x

Table 4.4 summarises the personal characteristics of a graphic designer as identified by means of an analysis of ten international advertisements and ten national advertisements. It shows that the two most popular personal characteristics of a graphic designer are to be orientated towards achieving deadlines for design products and to have good written and oral communication skills. This finding is in accordance with two of the peer reviewers' comments. Communication skills are an important generic competency for graphic design students to master since discipline graduates should be analytical writers (Duker, 2011:68). Apart from being listed in seven of the advertisements, time management also was identified as a core competency which graphic designers should possess by these two peer reviewers. I am in agreement with the importance of this personal competency, since it is required to achieve deadlines - a predominant personal competency listed in Table 4.4.

Some characteristics may be interrelated with other characteristics or competencies discussed in this chapter. One example of such a competency is ensuring accuracy of information and specifications, attention to detail, and coordination of organisational and planning skills from the brief to rendering the final design product. Two dual purpose competencies which are also mentioned in the job descriptions are creativity and originality (see Table 4.1). Passion and entrepreneurial skills are two personal characteristics mentioned by two peer reviewers of this chapter and do not feature in Table 4.4. Passion is another essential characteristic, since graphic designers are personally involved in many of their briefs and dedicate many hours to the completion of these, and entrepreneurial skills (e.g. business and sales skills) are indispensable for graphic designers wishing to start their own businesses to contribute to the country's economy. These two features may be included in the personal characteristic of organisational and planning skills, mentioned in Table 4.4.

4.6.2 Professional and ethical behaviour

Graphic design, like many other disciplines, has its own established professional association in South Africa, namely the Graphic Design Council of South Africa, which is more commonly known as the Brand Council of South Africa (BCSA; Stassen, 2014a:online). There also are many other international professional associations for graphic designers such as the AIGA, the Australian Graphic Design Association (AGDA), the Design Council of the United Kingdom, the Design Institute of Australia (DIA), and Graphic Designers of Canada (GDC), to name only a few. All such associations mention that their members must adhere to a code of conduct for professional and ethical behaviour. Some have their own code of conduct. The competencies of professional and ethical behaviour were not identified in the original content analysis of literature, but their importance became evident through the content analysis of the job descriptions for graphic designers in the advertisements analysed, as depicted in Table 4.1. Fourteen of the twenty advertisements analysed referred to these behavioural traits.

Owens (2006:163) notes that once a designer enters the professional environment he/she will need to navigate through this environment as there will be challenges regarding the interpretation of ethical guidelines. AIGA (2001:10), a professional association, states that *a designer shall at all times act in a way that … encourages the highest standards of design professionalism*. Since no literature consulted referred to this as a competency, an internet search was conducted on all available professional associations for graphic designers to retrieve their codes of conduct. Only five codes of conduct could be retrieved at that time and all of them were codes of international associations. No code of conduct could be retrieved from the BCSA's website, thus making comparisons with other associations impossible. Table 4.5 displays various aspects of professional and ethical behaviour addressed in the different codes of conduct. Each code of conduct was analysed in a similar manner as done during the content analysis of literature and job descriptions of graphic designers that are reported in this chapter (see Table 4.1). Themes were used as a guideline to identify the professional and ethical behaviours listed in the job descriptions of graphic designers (see Table 4.6).

Table 4.5: Comparative table of various aspects of professional and ethical behaviour addressed in the different codes of conduct

PROFESSIONAL AND ETHICAL BEHAVIOURS	GRAPHIC DESIGN PROFESSIONAL ASSOCIATIONS				
	AIGA, 2001:online	AGDA, n.d.:online	DIA, n.d.:online	GDC, 2012:online	IDI, n.d.:online
Responsibilities towards the profession					
General					
Code of conduct	x			x	
Constitution and laws				x	
Declaration of bankruptcy				x	
Design competencies	x				
Experience and knowledge	x			x	
Professional conduct		x	x	x	x
Non-disclosure of confidential information				x	
Strategic Process	x				
Authorship and intellectual property					
Association with changed original work		x	x	x	x
Copyright and plagiarism		x		x	x
Credit for specific design product if not sole author	x	x		x	
Design credits	x			x	
Electronic Files	x				
Property and reproduction rights	x			x	
Samples	x				
Usage of design product	x				
Publicity					
Association with original work	x	x	x		x
Fair and open competition				x	
Speculation				x	
Media exposure			x		
Participation in competitions		x			
Public resource consultants					x
Truthful statements	x	x	x		x

PROFESSIONAL AND ETHICAL BEHAVIOURS	GRAPHIC DESIGN PROFESSIONAL ASSOCIATIONS				
	AIGA, 2001:online	AGDA, n.d.:online	DIA, n.d.:online	GDC, 2012:online	IDI, n.d.:online
Remuneration					
Appropriate fees	x	x		x	x
Benefits of referrals	x	x	x	x	
Description of services to be rendered		x			
Disclosure of fees	x	x	x	x	x
Financial interests	x	x	x		x
Free work for non-profit organisation/charity				x	x
Payment schedule	x				
Presentations for securing commissions	x	x			
Reduced charges		x		x	x
Subcontracting	x	x			x
Terms and Conditions of service	x	x			
Responsibilities towards the community					
Communication lines				x	
Conflict of interest		x	x	x	x
Conservation of resources					x
Design standards		x	x	x	
Environment		x		x	x
Health and Safety				x	x
Human and property rights				x	
Implications of work					x
Privacy				x	
Responsibilities towards the clients/employers					
Act in best interest	x	x	x	x	x
Client Approvals	x				
Conflict of interest	x	x	x	x	x
Conditions of engagement				x	x
Consent for information release				x	
Deliver professional products				x	x

PROFESSIONAL AND ETHICAL BEHAVIOURS	GRAPHIC DESIGN PROFESSIONAL ASSOCIATIONS				
	AIGA, 2001:online	AGDA, n.d.:online	DIA, n.d.:online	GDC, 2012:online	IDI, n.d.:online
Misrepresentation				x	
Non-disclosure of information	x	x	x	x	x
Protection of confidential products					x
Schedules/overtime/rush work	x				
Withdrawal of services	x			x	
Responsibilities towards other designers					
Bribery and corruption					x
Code of conduct of current country	x			x	
Criticism and degeneration	x	x	x	x	x
Fair competition	x			x	x
Free pitching		x		x	
Unethical inducements	x			x	x
Work on existing commissions	x	x	x	x	x

Table 4.6 on the other hand, contains professional and ethical behaviours of graphic designers obtained from the job descriptions in advertisements. The structure of Table 4.6 is similar to that of Table 4.4 in order to indicate the overlapping behaviours.

Table 4.6: Professional and ethical behaviours expected of a graphic designer according to job descriptions in advertisements

	INTERNATIONAL ADVERTISEMENTS										NATIONAL ADVERTISEMENTS									
COMPETENCIES OF A GRAPHIC DESIGNER CRITERIA	Career Builder (2015:online)	Droga5 (2015:online)	Gensler (2015:online)	SEEK (2015a:online)	SEEK (2015b:online)	Simply Hired (2015a:online)	Simply Hired (2015b:online)	Simply Hired (2015c:online)	Smart Recruiters (2015:online)	Realogy (2015:online)	Bizcommunity (2015a:online)	BizCommunity (2015b:online)	Careers24 (2015a:online)	Careers24 (2015b:online)	Careers24 (2015c:online)	Careerjet (2015:online)	Career Junction (2015a:online)	Career Junction (2015b:online)	Career Junction (2015c:online)	PNet (2015:online)
Responsibilities towards the profession																				
Design competencies (including trends and competitor analysis)									x		x		x	x						
Experience and knowledge				x					x		x							x		x
Professional behaviour	x																			
Strategic process			x												x				x	
Responsibilities towards the community																				
Implications of work	x																			
Responsibilities towards the clients/employers																				
Act in best interest	x																		x	x
Client approvals													x	x						
Deliver professional products (including adherence to brief and corporate identity, integrity of product, meeting of design targets, quality of product, rationale for concept and relevance of product)			x				x		x	x	x		x		x			x	x	x
Withdrawal of services													x	x						

The comparison of graphic design associations' codes of conduct eventually enabled me to identify four themes in the category of professional and ethical behaviour of graphic designers, namely responsibilities towards the profession, community, clients/employers and other designers (see Table 4.5). The following five competencies were mentioned in all of the reviewed code of conducts, namely:

- to act in the best interest of your client/employer;
- to avoid conflict of interests by not working simultaneously for a client/employer and their competitors;
- to not disclose your clients'/employers' information;
- unfair criticism and degeneration of another designer's work, and
- to not work on existing commissions of other designers.

Other predominant aspects which were identified can be observed in Table 4.4, since they may also contribute to the behaviours of professional and ethical graphic designers. It was interesting to note the different degrees of importance of these behaviours derived from the different associations' codes of conduct when compared with the job descriptions in current advertisements.

The professional and ethical behaviours listed in this section were highly valued by one of the peer reviewers of this chapter, who felt that more emphasis should be placed on these during TLAs for the graphic design curriculum in HE. Table 4.6 shows that the delivery of a professional design product is a major theme. This supports the analysis portrayed in Table 4.1 with nineteen of the twenty advertisements analysed referring to the design product. Research conducted by Lindström (2006:61) confirms that the design product is what counts in society, as this is the only output that the public can see. Furthermore, this aspect (the outcome of the design process) also was noted as the main requirement of a graphic designer in industry by one of the peer reviewers.

4.6.3 Summary of personal competencies of a graphic designer

This section on personal competencies expected of a graphic designer relies mostly on the job descriptions found in current advertisements of graphic design positions, as well as the analysis of international professional associations' codes of conduct. Although the literature analysed made vague mention of these competencies, namely job descriptions and professional codes of conduct, confirmed their importance. These competencies, therefore, represent the personal characteristics needed by an individual in order to become a successful graphic designer. In addition, they may serve as a guideline for current graphic designers to ensure that they adhere to the professional and ethical behaviours expected of this discipline.

4.7 CHAPTER SUMMARY

This chapter focused on the competencies which are required of graphic designers - as required in the first research objective of this study. The discipline of graphic design is categorised within the applied art

category according to the CESM classification (RSA DoE, 2008:51). The content analysis of the literature and job descriptions highlighted three major themes, namely the design process, the design product, and personal competencies required of a graphic designer (see Figure 4.4).

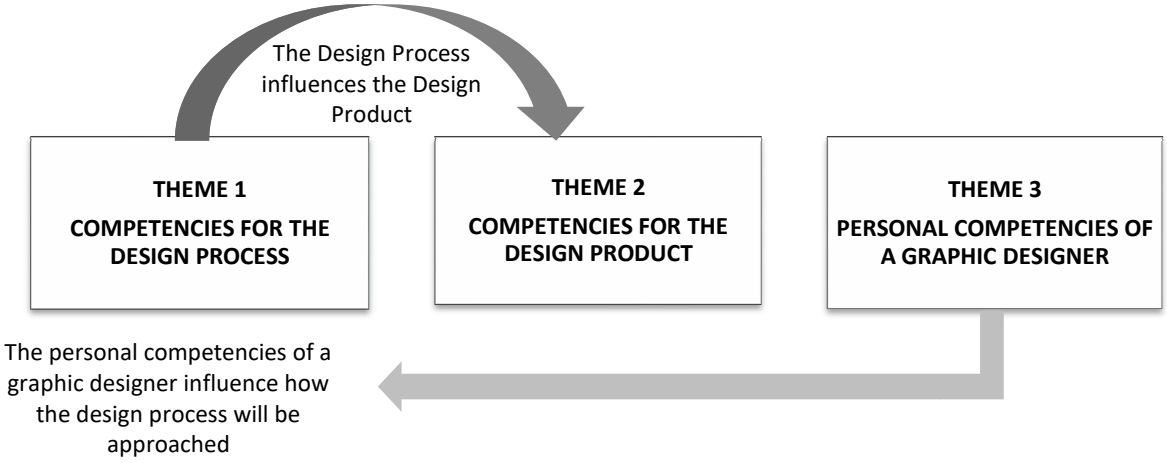


Figure 4.4: Outline of the themes in this chapter and the influence they have on each other

The design process is the starting point of the journey for a graphic designer to produce the design product. The competencies discussed in section 4.4 are required for the design process and clearly are interrelated. Although the literature studied highlights the increasing importance of the design process (*cf.* Cassim, 2013:192; De la Harpe et al., 2009:42; Fernando, 2006:10), the design product remains the end product (McAllister, 2010:88) that the public sees (Lindström, 2006:61). However, it also can be derived that the design process will have an influence on the design product, since a graphic designer actually works backwards to identify the process required to produce the envisaged product (Chakradeo, 2010:109).

The third theme discussed in this chapter dealt with the personal competencies required of a graphic designer. These are the personal characteristics and professional and ethical behaviours required of graphic designers. These competencies will influence the approach to the design process as the professional and ethical behaviours are dictated by professional associations. Therefore, it may be concluded that the three themes in this chapter are interrelated, as summarised in Figure 4.4.

Furthermore, the identification of generic and discipline-specific competencies as identified in this chapter is important to the curriculum design framework for AAPs for graphic design as in alignment with the first and second objectives of this study. Figure 4.5 visually summarises the competencies required of successful graphic designers that may lead to competence in this discipline per specific section. Table 4.7 highlights the generic and discipline-specific competencies for AAPs for graphic design in alignment with the first objective of the study reported here. A total of 54 competencies were identified; 25 of which have a twofold (dual) purpose since they are generic and discipline-specific competencies. These competencies will inform the first self-structured web-based questionnaire used in the study (see 5.3.3).

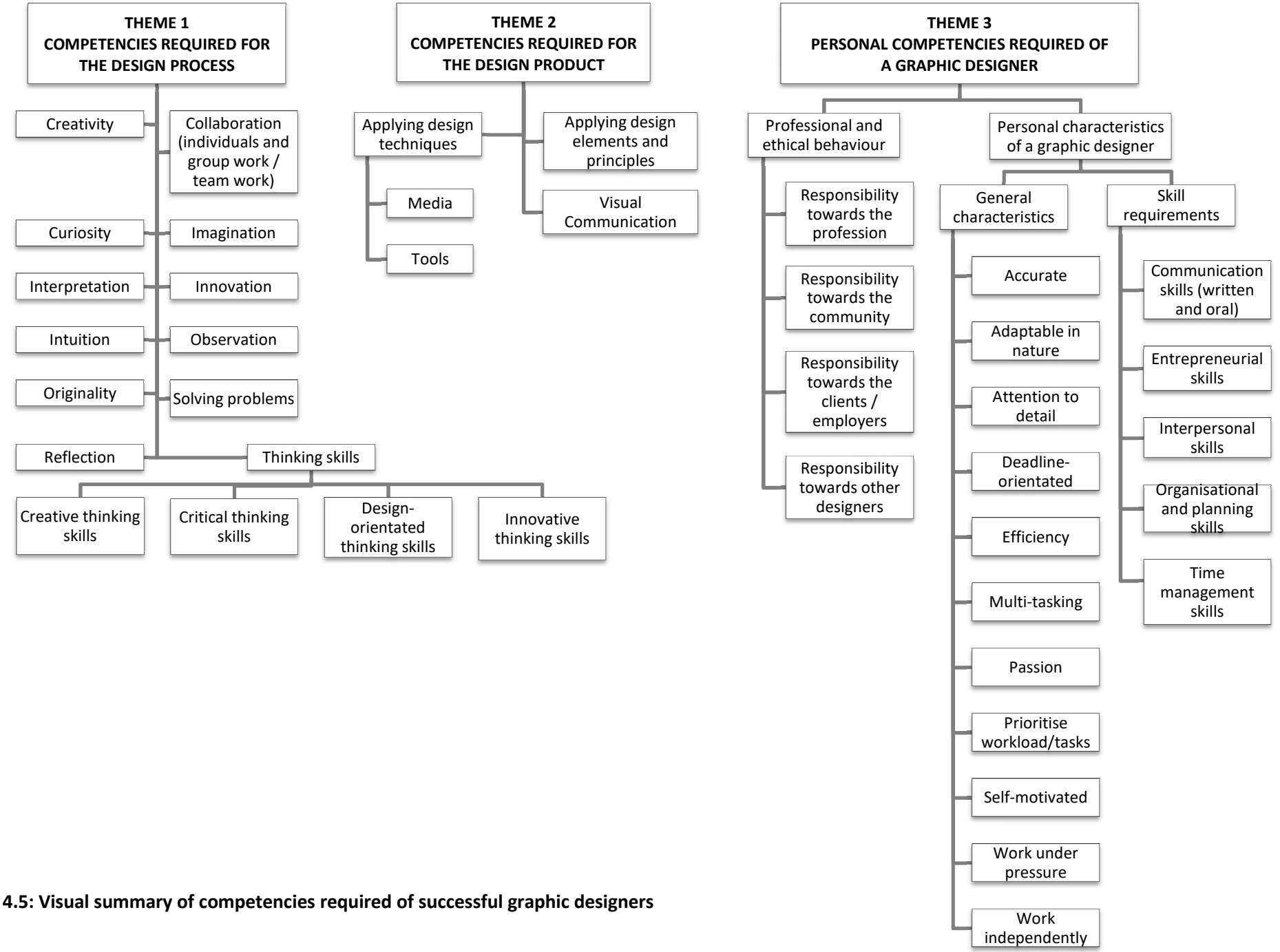


Figure 4.5: Visual summary of competencies required of successful graphic designers

Table 4.7: Proposed generic and discipline-specific competencies for alternative access programmes for graphic design derived from the non-empirical literature study

DISCIPLINE-SPECIFIC COMPETENCIES	DUAL COMPETENCIES	GENERIC COMPETENCIES
Adaptable by nature	Accuracy	Computer skills
Attention to detail	Collaboration with individuals and group work/team work	E-learning technologies
Applying design elements and principles	Communication skills (written and oral)	Emotional intelligence
Applying design techniques	Creative thinking skills	Information literacy
Creativity	Critical thinking skills	Learning styles and strategies
Curiosity	Deadline orientated	Listening and note-taking
Imagination	Design-orientated thinking skills	Memory
Innovation	Efficiency	Presentation skills
Intuition	Entrepreneurial skills	Reading skills
Observation	Innovative thinking skills	Referencing skills
Originality	Interpretation of information	Research skills
Passion	Interpersonal skills	Revision and examination techniques
Prioritise workload/tasks	Multi-tasking	Study skills
Responsibility towards other designers	Organisational and planning skills	
Subjectivity	Problem solving	
Work under pressure	Reflection	
	Responsibility towards the clients/employers	
	Responsibility towards the community	
	Responsibility towards the profession	
	Self-management	
	Self-motivated / motivation	
	Stress management	
	Time management skills	
	Visual communication	
	Work independently	

SECTION B

SUMMARY OF THE LITERATURE REVIEWED IN CHAPTERS 2, 3 AND 4

B

The aim of the literature review was to explore the constitution/design of existing AAPs and graphic design programmes to identify the generic and discipline-specific competencies that are cultivated through these respective programmes (objective 1), as well as explore ways in which AAPs for graphic design can ensure student success (objective 2). Figure B.2 highlights by means of colour coding how each chapter contributed towards the partial achievement of these objectives.

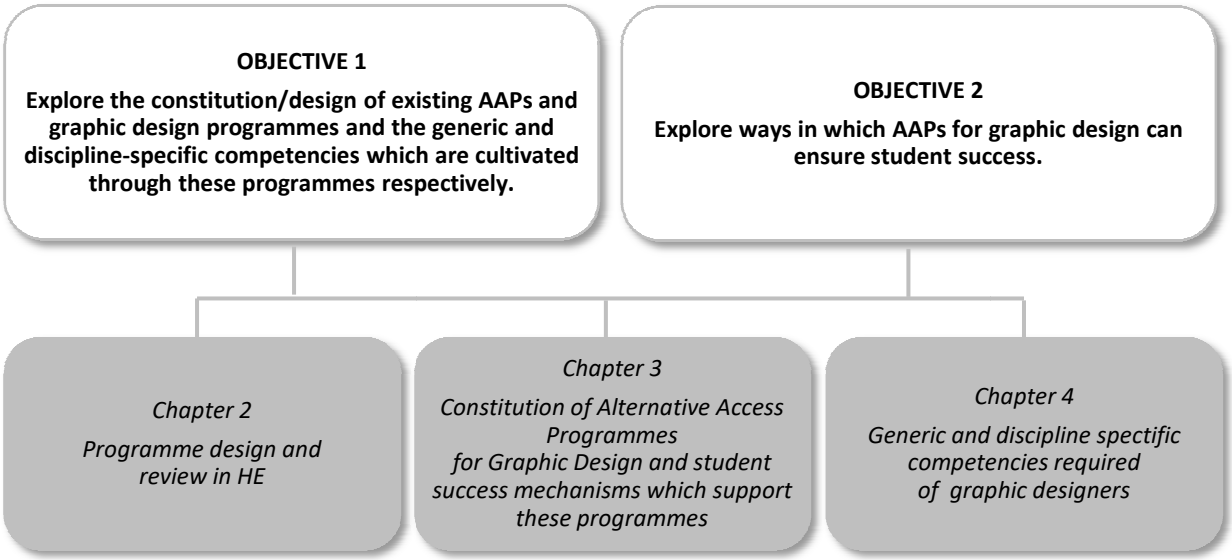
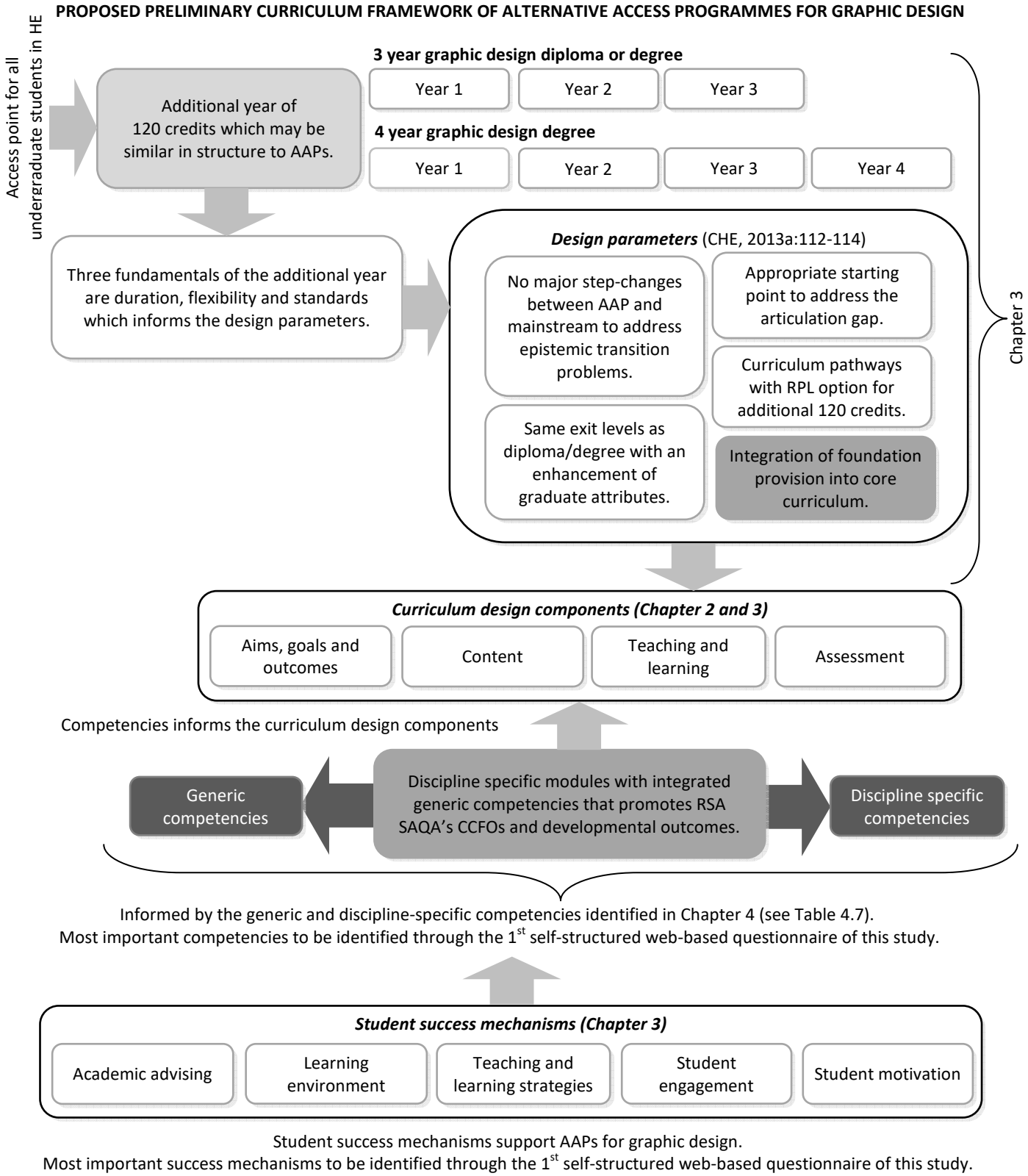


Figure B.2: Distribution of literature chapters in relation to the specific literature objectives

The fourth objective of this study calls for the identification of features, competencies and/or factors which can be embedded in AAPs for graphic design in order for them to serve as a mechanism for student success. This objective is only attainable if all three prior objectives of this study have been explored. However, preliminary features, competencies and/or factors have been identified in this section which may provide a preliminary framework for AAPs for graphic design to serve as a student success mechanism. The preliminary framework needs to be based on the flexible framework proposed by the Council on Higher Education (CHE) to sufficiently address the limitations of AAPs (CHE, 2007:43; CHE, 2007:70-72). Figure B.3 provides a visual summary of a proposed preliminary framework for AAPs for graphic design, which will be refined on the basis of the results and findings of this study as provided in the methodology section.


PROPOSED PRELIMINARY CURRICULUM FRAMEWORK OF ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN
Access point for all undergraduate students in HE
Additional year of 120 credits which may be similar in structure to AAPs.
3 year graphic design diploma or degree
Year 1
Year 2
Year 3
4 year graphic design degree
Year 1
Year 2
Year 3
Year 4
Three fundamentals of the additional year are duration, flexibility and standards which informs the design parameters.
Design parameters (CHE, 2013a:112-114)
No major step-changes between AAP and mainstream to address epistemic transition problems.
Appropriate starting point to address the articulation gap.
Curriculum pathways with RPL option for additional 120 credits.
Same exit levels as diploma/degree with an enhancement of graduate attributes.
Integration of foundation provision into core curriculum.
Chapter 3
Curriculum design components (Chapter 2 and 3)
Aims, goals and outcomes
Content
Teaching and learning
Assessment
Competencies informs the curriculum design components
Generic competencies
Discipline specific modules with integrated generic competencies that promotes RSA SAQA's CCFOs and developmental outcomes.
Discipline specific competencies
Informed by the generic and discipline-specific competencies identified in Chapter 4 (see Table 4.7).
Most important competencies to be identified through the 1st self-structured web-based questionnaire of this study.
Student success mechanisms (Chapter 3)
Academic advising
Learning environment
Teaching and learning strategies
Student engagement
Student motivation
Student success mechanisms support AAPs for graphic design.
Most important success mechanisms to be identified through the 1st self-structured web-based questionnaire of this study.

SECTION C

RESEARCH DESIGN AND METHODOLOGY

C

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

The research design and methodology described in this chapter served as the blueprint for my empirical investigation and subsequent development of a framework for the design of alternative access programmes (AAPs) for graphic design, with components that could serve, in conjunction with the other chapters of this study, as mechanisms for student success. I start this chapter by highlighting the research aim and objectives of the study (see 1.3.3), and their alignment with the research design and methodology (see 5.2). I continue to discuss the research design and methodology aimed at each research objective (see 5.3), followed by the value of this research (see 5.4). This chapter also forms part of an audit trail to enhance the trustworthiness of this study (see 5.3.7) (*cf.* Lincoln and Guba, 1985:318-319). Figure 5.1 provides an outline of this chapter.

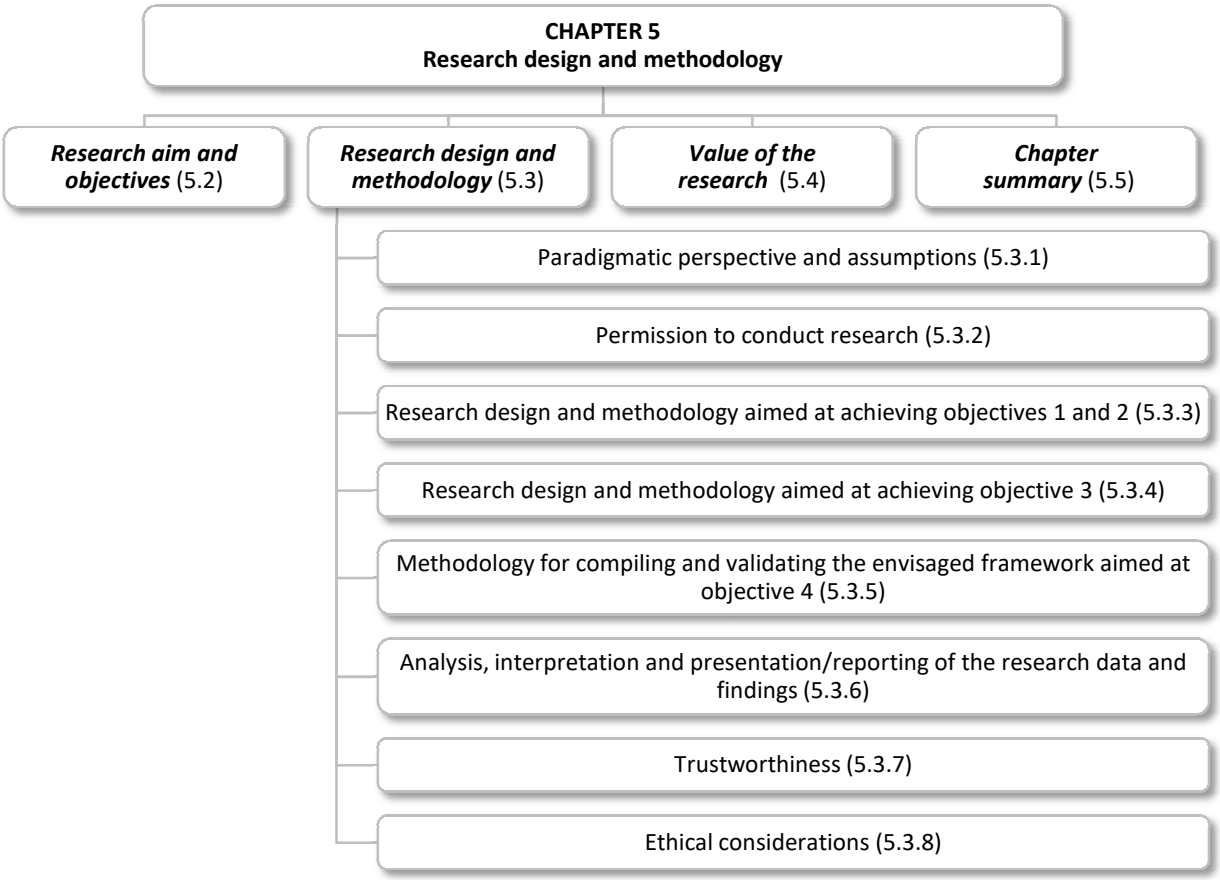


Figure 5.1: Outline of research design and methodology chapter

5.2 RESEARCH AIM AND OBJECTIVES

The aim of this study was to investigate and develop a framework for the maintenance and/or improvement of AAPs for graphic design in order for these programmes to be utilised as mechanisms for student success. The objectives of this study were to:

1. Explore the constitution/design of existing AAPs and graphic design programmes and the generic and discipline-specific competencies which are cultivated through these programmes respectively.
2. Explore ways in which AAPs for graphic design can ensure student success.
3. Analyse the status of one private HEI's existing AAP for graphic design by means of a strengths, opportunities, aspirations and results (SOAR) analysis.
4. Compile a curriculum design framework for embedding critical elements in AAPs so that they can support student success in graphic design.

Figure 5.2 outlines the alignment of the research design and methodology described in this chapter with the objectives of the study stated above and in Chapter 1.

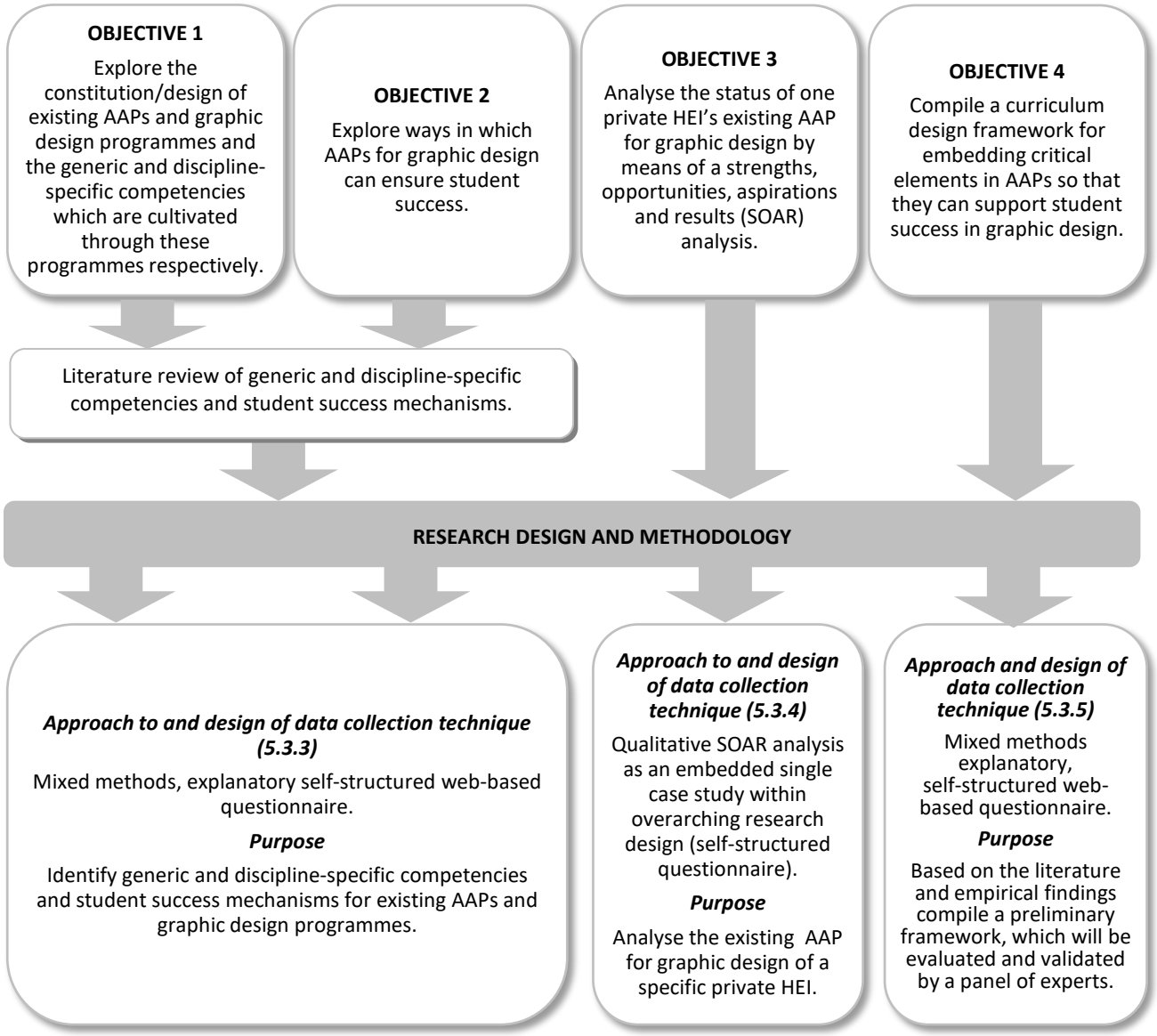


Figure 5.2: Alignment of the objectives with each aspect of the research design and methodology listed in this chapter

5.3 RESEARCH DESIGN AND METHODOLOGY

A mixed methods research approach was followed in this study by integrating quantitative and qualitative data collection methods and analyses in the research design and methodology. Mixed methods research has several benefits since it uses the strengths of quantitative and qualitative research in order to obtain a clearer, holistic picture of the study since the accuracy of the two sets of data is increased (Denscombe, 2008:272). Delport and Fouché (2015:435-436) also note the scientific value of mixed methods research, namely that it includes the practicality of the approach, the elimination of bias, and the provision of comprehensive evidence. However, researchers are also warned that this approach is not easy, since it is time consuming and resource intensive (Delport and Fouché, 2015:436).

Researchers differ on the types of mixed methods research designs which can be followed (Cohen, Manion and Morrison, 2011:441-443). I did not use a single mixed methods research design, since my study changed as it progressed over the study period. This is in line with the associated paradigm, namely pragmatism which focuses on the practicality of the research rather than the ideal (Cohen et al., 2011:23; Denscombe, 2008:280).

An explanatory mixed methods design (reported on in section 5.3.3) was employed to inform research objectives 1 and 2. An explanatory mixed methods design prescribes the collection of quantitative data from participants who afterwards explain or expand on their responses by means of qualitative data (Delport and Fouché, 2015:441-442). The focus of this particular research design is mainly on the quantitative data (Delport and Fouché, 2015:441). The third objective necessitated an embedded mixed method design with the focus on the collection and analysis of qualitative data, augmented by means of quantitative data (e.g. nominal variables – the faculty and HEI, and ordinal variables – the level of involvement in programme, years of teaching experience, etc.), which are embedded in the qualitative data collection and analysis process. This was done by doing a SOAR analysis as a single case study of an AAP for graphic design at the specific private HEI (*cf.* Delport and Fouché, 2015:250,443) (see 5.3.4). The results of the literature study and the above-mentioned two research processes eventually were compared, merged and integrated in a preliminary curriculum design framework for student success in AAPs for graphic design. This preliminary design framework subsequently was evaluated and validated by a panel of experts in order to meet research objective 4 of the study (see 5.3.5). Although the data collection did not occur at the same time, it was aimed at the same study/purpose; therefore, a triangular mixed methods design also was followed to achieve objective 4 (*cf.* Delport and Fouché, 2015:442). Most of the questionnaires used in this study were web-based survey questionnaires, as explained in sections 5.3.3.1, 5.3.4.1 and 5.3.5.1, since web-based survey questionnaires have the potential to reach remote participants (Cohen et al., 2011:276). A paper-based questionnaire was only used in the data collection of the student participants of the SOAR analysis (see 5.3.4.1).

The following sections document the paradigmatic perspectives on and assumptions of the study (see 5.3.1); obtaining permission to conduct research at various HEIs (see 5.3.2); the research design and methodology employed for informing each objective (see 5.3.3, 5.3.4 and 5.3.5); the analysis, interpretation and presentation of the data collected (see 5.3.6), trustworthiness of the data collected (see 5.3.7), and ethical considerations attended to during the study (see 5.3.8).

5.3.1 Paradigmatic perspectives and assumptions

Mixed methods research designs are driven by pragmatist ontology and epistemology which allows for a more practical approach to social research (Cohen et al., 2011:23; Denscombe, 2008:280). The pragmatic paradigm allows flexibility and a multi-layered methodological approach (Denscombe, 2008:271). Denscombe (2008:272) and Morgan (2014:1046), however, warn not to over simplify pragmatism, but to focus on its philosophy for social research rather than the practicality. Pragmatism is a relatively new paradigm that bridges the individual research paradigms of post-positivism (e.g. a quantitative research design) and constructivism (e.g. a qualitative research design) by recognising their different strengths and employing their different approaches in order to explore and achieve the objectives of the study (Morgan, 2014:1049). The pragmatist philosophy focuses on the human experience of the participants' and researchers' actions, and the belief that research does not take place in isolation. These human experiences influence a researcher's decisions (Morgan, 2014:1051). The paradigmatic perspective and assumptions are supported by the theoretical framework reported in Section B of this thesis.

5.3.2 Permission to conduct research

Higher education (HE) in South Africa is classified as either public or private. The Department of Higher Education and Training (DHET) lists seventeen traditional or comprehensive universities and eleven universities of technology as public HEIs (Republic of South Africa [RSA] DHET, n.d: online). There are 90 registered and 26 provisionally privately registered HEIs in South Africa (RSA DHET, n.d: online).

An application for ethical clearance to conduct the planned research first was submitted to the Ethics Committee of the Faculty of Education at the University of the Free State (UFS), in July 2012. Ethical clearance was given on 17 October 2012 with several extensions of the clearance allowed under the ethical clearance number UFS-EDU-2012-0053 (see Appendix C.1).

Thereafter, all public HEIs were approached for institutional permission to conduct research with their students and staff (where applicable), as well as to get ethical clearance from the relevant faculty that hosts the relevant programmes. Eight public HEIs expressed interest in the study. Two of these are traditional universities, three are universities of technology, and three are comprehensive universities. However, only one private HEI was approached to analyse its AAP for graphic design students. This institution has twelve campuses across South Africa. Further motivation for the selection of the one particular private HEI includes my personal employment at this institution for the major part of my study duration in an administrative role (i.e. 2012 to 2015). Another reason was that the population and sample would be sufficient to address the first three objectives of my study. Nevertheless, applications to conduct the research were submitted to all ten the HEIs at different points in time during my study. Permission was granted by all ten the above-mentioned HEIs but with different, stipulated recommendations, which are

also documented in this chapter (see Appendix C.2 for the permission documentation obtained from the various HEIs). The institutions, however, are not identified in this report, due to the rollout of the Protection of Personal Information Act (POPI) number four of 2013 (RSA, 2013:2), and since declarations of anonymity had to be completed and signed by the researcher at various institutions.

5.3.3 Research design and methodology aimed at achieving objectives 1 and 2

This section documents the description of the research tools used for data collection (including the pilot study), the recruitment and selection/sampling of research participants and the response rate obtained in these processes.

5.3.3.1 Data collection technique aimed at objectives 1 and 2

The explanatory mixed methods design involved a self-structured web-based questionnaire that was designed based on the literature review done in view of the first and second objectives. The purpose of this data collection tool was to establish which generic and discipline-specific competencies and support mechanisms were deemed vital by the HE teacher participants in South Africa and were believed to be included in AAPs for graphic design.

A draft questionnaire was designed in MicrosoftWord format before extending the literature review already done for the sake of obtaining ethical clearance from the UFS. The draft questionnaire only indicated its web-based survey functionality, since the online programme identified requires a monthly fee of R349.00. I applied to various HEIs for ethical clearance and institutional permission with the draft questionnaire, accompanied by my ethical clearance letter from the UFS. The HEIs which granted me permission to conduct research (see 5.3.2) recommended minor amendments to the pilot questionnaire which were implemented, namely:

- Removing the participant number from the questionnaire.
- Inserting the permission and ethical clearance reference numbers of each of the participating HEIs in all correspondence to prospective participants.
- Amendment of the informed consent letter for the participants in accordance with the institutional permission requirements of one of the HEIs that changed in 2015. No information was removed; only additional information was added to the letter. The information added included the identity and contact numbers of my promoters and more ethical clearance details.

The pilot questionnaire was designed in the web-based survey programme, SurveyMonkey (see Appendix C.3). Apart from the minor amendments recommended by the participating HEIs, two more changes had to be made to ensure functionality from Microsoft Word to SurveyMonkey, namely:

- Question/answer piping was a feature originally used in the preliminary questionnaire. However, it was not possible to use this feature in the survey due to financial limitations of this study as the cost involved was R4 499.00 per year (no monthly option was available). Question/answer piping allows answers from previous questions to be integrated into other questions in the questionnaire (SurveyMonkey, 2016a:online).
- Reduction of a number of sections in the questionnaire due to the availability of the question skip logic feature. This feature allows participants to skip to a specific page or question on a page, based on their previous answer (SurveyMonkey, 2016b:online). This feature was used in Section A, question 1, which directed HE teachers of AAPs for graphic design to relevant sections (A, B, C and/or D).

Three structural and questioning changes also were implemented from the draft questionnaire to the pilot questionnaire, namely:

- A clarification of terminology page (i.e. a glossary of terms) was added, which included definitions/clarification of relevant concepts, e.g. AAPs; competency, competencies and competence, and student success mechanisms. It was also done in alignment with the clarification of terminology section of this thesis. This was done to ensure that the participants understood the meaning of the terms used within the questions in the survey questionnaire.
- A five-point Likert scale was linked to the lists of competencies and mechanisms for student success which the participants were requested to rate in terms of their importance, rather than only identifying the top five competencies or mechanisms as originally planned. The main reason for this decision was the extensive list of 54 generic and discipline-specific competencies that was generated from the literature review (see Table B.1 in Section B for a summary of the competencies), and therefore had to be rated. The five-point Likert scale for level of importance was as follows: 1 - not important; 2 - less important; 3 - moderately important; 4 - important; 5 - very important.
- The number of options pertaining to the duration of the HE teachers' teaching experience was increased from two to four options (i.e. less than 12 months, 1 – 2 years, 3 – 4 years and 5+ years).

In summary, the pilot questionnaire eventually was divided into six parts, namely a section for each of the following: respondents' agreement to informed consent, clarification of terminology, nominal and ordinal variables (section A), generic competencies (section B), discipline-specific competencies (section C) and student success mechanisms (section D). The informed consent section allowed prospective participants to agree to voluntary participation which is an ethical requirement (see 5.3.8.10). Section A consisted of five questions which included nominal and ordinal variables which directed the participants to the relevant sections in the questionnaire they needed to complete. The data eventually were used to categorise the responses in sections B, C and D according to the type of variable (e.g. type of programme - nominal

variable; teaching duration – ordinal variable; HEIs and faculties – nominal variable, and level of involvement in the programme – ordinal variable). Each of section B, C and D consisted of two sub-sections. The first sub-section in each of these sections required a rating of the importance of each listed competency and success mechanism according to the Likert scale explained above. The second sub-section is a validation/motivation question pertaining to which competency/student success mechanism the respondent rated as most important in the previous quantitative question. This sub-section forms the explanatory qualitative component of the research tool.

The aim of the pilot study was to identify areas for improvement within the questionnaire, based on the pilot participants' responses as well as to obtain feedback from the participants on the level of difficulty, logical order and type of items, and the language used. They were asked to provide the latter information in a separate feedback questionnaire (see Appendix C.4). Their feedback was considered in conjunction with the feedback of my promoters. A similar feedback questionnaire was used in the pilot study of the SOAR analysis (aimed at achieving research objective 3) as well as in the expert validation questionnaire (aimed at achieving research objective 4). A detailed description of this pilot study is available in section 5.3.3.2.

The amended questionnaire was sent to a proof-reader before the e-mail invitation was sent to the prospective participants on 22 November 2016 (see Appendix C.5 for final questionnaire). A final copy of the questionnaire was submitted to the two HEIs that wanted to scrutinise and approve the final questionnaire themselves before providing permission for the participation of their staff as requested.

5.3.3.2 Pilot study for the questionnaire survey aimed at objectives 1 and 2

Ten prospective HE teacher participants were sampled and recruited for the pilot study of the questionnaire aimed at objectives 1 and 2 of this study as stipulated in section 5.3.3.1. Nine participants attempted the pilot questionnaire of which three had teaching experience in AAPs for graphic design, four in mainstream graphic design programmes and two in other AAPs. The pilot phase was conducted from 17 October 2016 to 16 November 2016. Participants in the pilot completed two self-structured web-based questionnaires, namely the pilot questionnaire pertaining to the competencies required of graduates in the AAPs for graphic design, as well as the possible supporting success mechanisms for these programmes (see Appendix C.3). The other was a feedback questionnaire referring to the level of difficulty and logical order of the questionnaire, the type of items/questions asked, and the language used in the questionnaire (see Appendix C.4). I also frequently received feedback on the survey questionnaire from my promoters when finalising the questionnaire.

Feedback provided by the participants on the pilot questionnaire indicates that the majority of the participants found the questionnaire easy to complete, that it had a clear logical order of understandable items/questions and that the language used was appropriate. The qualitative part in each sub-section was used to support their rating of the options by means of a five-point Likert scale. However, the pilot study prompted me and my promoters to decide on the following improvements:

- Applying the question skip logic feature at the end of the informed consent page was added to ensure that the participants agreed to participate voluntarily before they could be allowed to continue completing the survey questionnaire. Participants who selected the option of not agreeing were redirected to a disqualification page.
- Correcting the question skip logic feature in Section A, question 1 (which directs AAPs for graphic design HE teachers to sections A, B, C and D respectively). The feature did not direct all the pilot participants to the correct sections.
- Insert an additional question skip logic feature at the beginning of section B in order to allow other AAP HE teachers to skip section C, since it was only applicable to mainstream and AAPs for graphic design HE teachers.
- Activating the functionality in SurveyMonkey to require of the participants to answer specific questions in all sections of the survey questionnaire. During the pilot session several participants skipped vital questions such as evaluating/rating the importance of each of the competencies and success mechanisms listed in the questionnaire.
- Requiring the participants to provide a motivation for a minimum of one of the competencies and success mechanisms listed in each of the qualitative sub-sections in sections B, C and D.
- Changing the requirement in the qualitative sub-sections to provide motivations for very important and important competencies and success mechanisms listed in the questionnaire.
- Correcting minor language and grammar errors identified by my promoters and the language editor.
- Adding the ethical permission details of one of the participating HEIs at the beginning of the questionnaire (the information was initially omitted).
- Deleting the identity of these HEIs in a list in section A since I did not obtain ethical clearance and institutional permission from them.

One important point I discussed with my promoters and colleagues was the choice between a four-point or a five-point Likert scale in the quantitative questions in the questionnaire. I came across a research forum where academics debated the advantages and disadvantages of different point Likert scales on a global platform (ResearchGate, 2015:online). The article by Lozano, García-Cueto and Muñiz (2008) on the *Effect of the number of response categories on reliability and validity of rating scales* was referred to as support for several of the participating academics' arguments. Lozano et al.'s (2008:73,78) review of previous

studies on this topic highlights that the minimum categories for a Likert scale is four in order to ensure validity and reliability. The results of Lozano et al.'s (2008:77) article concluded that the reduction of the number of categories in a Likert scale reduces the validity and reliability of the scale. A scale of between four points to seven points is recommended (Lozano et al., 2008:78).

The most common Likert scale is the five-point scale, as originally designed by Likert in 1932 to measure attitudes (Lozano et al., 2008:78). Revilla, Saris and Krosnick (2014:90) support the use of a five-point Likert scale regardless of the topic and information theories in the questionnaire, since there is a loss in quality when using a scale with more than five categories. Likert used an *undecided* option in his five-point scale for the measurement of participants' attitudes (Likert, 1932:17). Many of the researchers on the forum also supported the use of a scale with an undecided option since it allows participants who do not really have a preference to also participate (ResearchGate, 2015:online).

The decision eventually was taken to use a five-point Likert scale with a middle option labelled *moderately important* in the final questionnaire. Each response also was assigned a numerical value for data analysis purposes as proposed by Likert (1932:42), namely: 1 - not important; 2 - less important; 3 – moderately important; 4 – important, and 5 - very important.

5.3.3.3 Research population(s) and sampling for the web-based questionnaire survey aimed at objectives 1 and 2

The sample of participants for this survey questionnaire consisted of AAP HE teachers in various disciplines, HE teachers of AAPs for graphic design, and graphic design HE teachers who taught at the participating HEIs during 2015 and 2016 respectively (see 5.3.2). Purposive sampling was followed in order to access participants who had knowledge about generic and discipline-specific competencies for AAPs for graphic design, and student success mechanisms that might support these programmes (*cf.* Cohen et al., 2011:156-157). However, I only could select participants from HEIs from which I obtained permission to conduct the research:

- All 28 public HEIs (see 5.3.2) and one private HEI in South Africa that offer AAPs were approached for institutional permission. Eventually only eight public HEIs and the one private HEI expressed interest and granted permission (see 5.3.2).
- I found that 21 (public and private) HEIs offer a qualification for the education and training of graphic designers (see Table 3.1). Eventually, seven of these HEIs were included in the sample to account for the sampling of graphic design programme HE teachers.
- Four of the 21 HEIs that offer qualifications for the education and training of graphic designers offer an AAP as well (see Table 3.2). Three of these four HEIs were included in the sample to account for AAP HE teachers for graphic design.

Participants were identified on my behalf by their direct line managers using e-mail correspondence with the various schools, departments and/or faculties (as applicable); this was done after permission had been granted by the relevant HEI. Two exceptions to this sampling process need to be noted in accordance with these HEI's permission to conduct research:

- One HEI only allowed for a notice to be placed on their institution's electronic notice board.
- Another HEI's Information and Communications Technology department generated a list of participants according to their records.

The selection was done with maximum variation in mind of HE teachers from AAPs, AAPs for graphic design and mainstream graphic design programmes across South Africa at the HEIs that granted permission. Seven hundred and fifty-six (*n = 756*) HE teachers were identified as participants through this sampling method. Twenty-nine percent (*29%; n = 219*) of the participants were affiliated with a private HEI, 56% (*n = 423*) of the participants were affiliated with public comprehensive universities, 7% with traditional public universities (*n = 53*) and 8% with public universities of technology (*n = 6*1). The placement of the survey questionnaire on the electronic notice board of a traditional public HEI may have influenced the sample number; however, there was no means to forecast the size of the sample from the specific HEI. Participant information was documented in a Microsoft Excel spreadsheet which is password protected as per specification of various HEIs' permission to conduct the research as well as to meet the ethical requirements for this study (see 5.3.8).

5.3.3.4 Recruitment of research participants for the questionnaire survey aimed at objectives 1 and 2

The participants who were identified for the survey at the various HEIs were contacted via an e-mail invitation from SurveyMonkey with a link that directed them to the relevant web-based questionnaire, except for those who were invited on the notice board of the specific HEI. The e-mail invitation was sent with the anonymous option activated in order to exclude any personal information and IP addresses as per the ethical requirements for this study (see 5.3.8). Participants who participated in the pilot study were excluded.

The first e-mail invitation to partake in the survey questionnaire was sent on 22 November 2016 to the identified 756 HE teachers (see Appendix C.6). Thereafter, a weekly reminder invitation was sent via SurveyMonkey to all participants who had not yet responded with the hope of increasing the participation rate. Anonymity of non-respondents was protected by SurveyMonkey since this was an automated process. Also, every week a reminder invitation was sent via SurveyMonkey to all those participants who partially completed the survey questionnaire, again with the hope of increasing the completion rate. A slow response rate was expected due to the time of year the invitations to participate were sent (i.e. during the December holidays), as well as due to the impact of the students' # fees-must-fall protests of 2016 on the academic year calendar.

5.3.3.5 Response rate for the questionnaire survey aimed at objectives 1 and 2

The response rate for the survey aimed at these two objectives was *8.99% (n = 68)* of the invited participants, of which only *1.72% (n = 13)* completed the questionnaire entirely. Although web-based questionnaires have several advantages such as reduction of cost, a larger population sample, convenience for participants, and so forth, a high non-response rate is common (Cohen et al., 2011:280-281). This is confirmed by the *70.11% (n = 530)* of non-responses from the 756 invited participants (see Table 5.1). Cohen et al. (2011:281) suggest follow-up messages to non-respondents to increase participation, which was done as discussed in section 5.3.3.4.

Table 5.1: Overall response rate for the questionnaire survey aimed at objectives 1 and 2

E-mail invitations to AAP, AAP for graphic design and mainstream graphic design HE teachers (n = 756)				
Bounced	***Opted out / unsubscribed***	***Did not respond***	***Responded (n = 68)***	
			Complete	***Partial***
96	62	530	13	55
12.70%	8.20%	70.11%	1.72%	7.27%

Table 5.2 presents the responses per answered questions of the 68 participants who completed the questionnaire survey aimed at objectives 1 and 2. Sections B, C and D consisted of only one question each; therefore Table 5.2 makes reference to the sections (e.g. B.1, B.2, etc.) rather than the questions for these sections. All participants completed Section A (i.e. the demographic section) of the questionnaire *(n = 68)*. More participants completed the quantitative sections of the questionnaire (i.e. B.1, C.1 and D.1) than the qualitative sections (i.e. B.2, C.2 and D.2). Section D.1 was completed by most participants *(n = 33; 48.53%)*, since the section was compulsory for HE teachers teaching in AAPs, AAPs for graphic design and graphic design mainstream programmes.

Table 5.2: Responses per answered question of the questionnaire aimed at objectives 1 and 2

Responses per answered question for the questionnaire survey (n = 68)										
Section A – Demographics					***Sections B, C and D – Quantitative and Qualitative questions***					
Question 1	***Question 2***	***Question 3***	***Question 4***	***Question 5***	***Section B.1***	***Section B.2***	***Section C.1***	***Section C.2***	***Section D.1***	***Section D.2***
68	68	68	68	68	25	22	16	13	33	30
100%	100%	100%	100%	100%	36.76%	32.40%	23.53%	19.12%	48.53%	44.12%

5.3.3.6 Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objectives 1 and 2

The findings of research objectives 1 and 2 were intended to be partially disseminated at the National Design Education Conference of 2017 which took place from 27 to 29 September 2017 in Pretoria (Design Education Forum of Southern Africa [DEFSA], 2017:online). An abstract was submitted to the conference organising committee for approval on 4 April 2017 (see Appendix C.7 for the conference's call for papers and abstract submission). The abstract was accepted with no revisions (see Appendix C.7); however, I could not attend the conference due to medical reasons (see Appendix C.7 for the e-mail correspondence between myself and the organisers).

The non-empirical literature study, together with the derived list of competencies also was shared with a South African private HEI to provide guidance during their curriculum co-design workshop for their graphic design qualification in 2017 (see Appendix C.7).

I utilised the knowledge in a more informal and personal capacity during a guest lecture early in 2016; in my own teaching and post-graduate supervision during 2016 and 2017, as well as during the development process of assessment tasks (ATs) for various modules of a specific private HEI. These three informal dissemination avenues are discussed below.

In 2016 I was invited to present a guest lecture on the competencies expected of graphic designers from industry at a private HEI for final year graphic design students (see Appendix C.7). The purpose of the lecture was to expose students to how research is applicable in their daily lives. Students were required to analyse the same graphic design job advertisements I used (see Chapter 4) to determine in groups which generic and discipline-specific competencies they would need in order to meet the expectations of industry once they graduate. I engaged with students by employing an active learning approach which required students to analyse the advertisements in groups and present their findings as a mind-map to the class. This approach facilitated deep learning.

I applied the knowledge I gained in my own teaching by using a greater variety of teaching and learning activities (TLAs) that might be more appropriate for the curriculum content of the modules. The listed student success mechanisms were employed (individually or in combination) to promote student success in the modules I taught. I also supplemented the curriculum content of the modules I had to teach during 2016 and 2017 with my empirical findings and non-empirical literature study such as the ethical and professional guidelines for graphic designers and the generic and discipline-specific competencies required of graphic designers. I also applied the knowledge I gained from the research aimed at objectives 1 and 2 to my post-graduate supervision of students' research papers.

The knowledge I obtained from reviewing the literature on programme/curriculum design (see Chapter 2) also was used during the curriculum design of formal ATs (e.g. assignments, tests and examinations) for a private HEI in South Africa.

5.3.4 Research design and methodology aimed at achieving objective 3

This section documents the description of the tools used for data collection, the pilot study, sampling of research participants, recruitment of participants and the response rate pertaining to this study. At this stage it is important to note that the terminology used in the research instruments used for achieving objective 3 during 2013, was replaced in 2016 and subsequently is used in this thesis. The original title of the study included the construct *graphic design bridging programmes*; after the final review of literature in 2016, however, my promoters and I decided to rather use the umbrella term of AAP which includes bridging programmes but also includes other AAPs that are not necessarily *bridging programmes* (see 3.2). The SOAR analysis of the existing AAP for graphic design was used as the starting point for this research journey as a situation analysis to inform the other curriculum design components (see 2.3.6.1 and 3.2.2.1.1).

5.3.4.1 Data collection technique for the SOAR analysis aimed at objective 3

The research design and methodology employed for achieving objective 3 was a qualitative SOAR analysis of the existing AAP for graphic design of a specific private HEI in South Africa. A self-constructed questionnaire containing mainly open-ended questions, but embedded quantitative elements too (i.e. nominal and ordinal variables) was used. A SOAR analysis is a positive approach or a strength-based framework used to analyse an existing situation/construct and it involves all the relevant internal and external stakeholders (Stavros, Cole and Hitchcock, 2014:72-73). Thus internal stakeholder analysis was completed by HE teachers and students of this AAP. A SOAR analysis starts with the identification of the strengths of an existing situation/construct. These strengths serve as the foundation from which participants are required to think about future opportunities, project their aspirations, and lastly provide measurable goals for possible improvement (Stavros et al., 2014:73). Although the SOAR analysis was originally developed in the late 1990s for research on organisations, Stavros et al. (2014:73-76) note its increasing application to theory and practical research (e.g. they refer to eight empirical research studies they explored in their article). In essence, the SOAR analysis aimed at achieving objective 3, was a situation analysis of the existing AAP and therefore might be viewed as part of the design process to improve the AAP. As such it also relates to objective 4, namely to compile a framework for designing AAPs for graphic design that could serve as a mechanism for student success (see 2.3.6.1 and 3.2.2.1.1).

A draft questionnaire was designed in Microsoft Word format for the sake of obtaining ethics approval from the Faculty of Education at the custodial university for this research project, namely the University of

the Free State (UFS; see Appendices C.1 and C.2). It needs to be noted that the private HEI's name changed in 2016 (see Appendix C.2 for the research permission letter obtained from this HEI, with acknowledgement of the name change). The draft questionnaire indicated web-based survey functionality which was activated in the web-based pilot questionnaire. No alterations to the pilot questionnaire were recommended by the relevant HEI. The pilot questionnaire was subsequently designed in SurveyMonkey, the web-based survey programme indicated. No functionality alternations from the Microsoft Word version to the SurveyMonkey version were required because I obtained a yearly subscription in 2013 which was funded from a departmental bursary I was awarded from my custodial institution.

The questionnaire started with an informed consent section, followed by nominal and ordinal variables (e.g. campus at which the participants taught, time frame during which they taught, and modules they taught), and the SOAR analysis questions (i.e. strengths, opportunities, aspirations and results). If a participant did not confirm that he/she provided voluntary informed consent, he/she was disqualified. The nominal and ordinal variables (e.g. embedded quantitative elements) included the specific private HEI campus at which the participant was teaching/enrolled, and his/her role in the programme. If a participant selected *student* as his/her role in the programme, he/she had to select the year(s) he/she attended the institution's AAP for graphic design, the modules he/she was enrolled for, and the modules he/she successfully completed. If a participant selected his/her role as a HE teacher he/she had to select the year(s) that he/she taught in the programme, as well as the modules he/she facilitated. The participants also were required to supply their own motivations for identifying specific strengths, opportunities, aspirations, and results.

Problems/recommendations emanating from the pilot study (see 5.3.4.2) were considered and the required amendments were implemented in the final questionnaire (see Appendix C.8). The final questionnaire was sent to prospective participants via an e-mail invitation (which contained the informed consent letter; similar to the one that accompanied the questionnaire that was aimed at objectives 1 and 2) for HE teachers (23 June 2013) and students (30 June 2013) respectively (see Appendix C.9).

5.3.4.2 Pilot study for the questionnaire survey aimed at objective 3

This section documents the pilot of the SOAR analysis questionnaire which was conducted on the Bloemfontein campus of the specific private HEI. Participants satisfying the inclusion criteria mentioned in section 5.3.4.1 on the Bloemfontein campus were used for the pilot study since they were identified as a vulnerable population group due to my employment on this campus from 2012 to 2015 (see section 5.3.8.3 for ethical considerations regarding at-risk groups).

A total of seven students and four HE teachers eventually participated in the pilot survey. Participants were requested to complete two self-structured web-based questionnaires, namely the pilot SOAR analysis questionnaire (see Appendix C.10) and an additional feedback questionnaire (see Appendix C.11). The pilot study with the students was conducted on 14 March 2013 in a classroom on the Bloemfontein campus and in my presence so that I could make observational notes. The pilot phase with HE teacher participants stretched from 13 March 2013 to 22 March 2013. Participants of the pilot study were recruited as stipulated in section 5.3.4.4. The student participants received an additional printed invitation letter to participate in the pilot study on 13 March 2013 with relevant information pertaining to the pilot study that would take place on 14 March 2013 (see Appendix C.12 for an example).

Notes on observations done during the student pilot phase are documented in this paragraph. Four of the students completed the questionnaire via their mobile phones and the other three on computers. I included the option of completing the questionnaire on their mobile phones since many students have access to a mobile phone but not necessarily to a computer. Observations were done and documented during the student participant session in order to take note of the challenges that the students experienced while completing the questionnaire. These challenges had to be addressed before the final questionnaire could be sent out to student participants who complied with the inclusion criteria for this research phase. The first observation that was made was that students would need additional information if they opted to use a computer rather than their mobile phones. Secondly, the web link needed to be simplified for those students who would opt to use computers to access the web-based questionnaire. Thirdly, the settings on the survey tool (programme) had to be set in such a way that participants could have the option to re-enter the survey tool after submission, since they might have clicked on a wrong selection and subsequently be thrown off due to a poor internet connection, and/or an error with the survey software. Fourthly, a multiple choice question in the embedded quantitative component of the questionnaire did not allow students to enter more than one option, whereas they should have been allowed to do so. Fifthly, one student encountered problems with his mobile phone; therefore, only three students eventually successfully completed the survey on their mobile phones and the other four on computers.

The HE teacher (*n = 4*) and student participants (*n = 7*) in the pilot phase also needed to complete a self-structured web-based feedback questionnaire pertaining to the SOAR analysis questionnaire they had just completed. The feedback questionnaire consisted of five questions regarding the student's/lecturer's experience in answering the SOAR analysis questionnaire (similar to the feedback questionnaire that accompanied the questionnaire that was aimed at objectives 1 and 2). The five questions involved the following:

- How did you experience the completion of the SOAR analysis questionnaire for the pilot study and why?
- How did you experience the logical order of the questionnaire items?
- How did you experience the type of questions asked?
- How did you experience the language used in the questionnaire?
- Is there anything else you want to add?

Eight of the ten participants (i.e. HE teachers and students) who completed the SOAR analysis questionnaire during the pilot phase also completed the feedback questionnaire. These participants *(n = 8)* responded to the first feedback question (i.e. the question regarding the difficulty level of completing the questionnaire) by selecting the options *easy (n = 4)* and *medium (n = 4)* respectively. Six of the participants selected the option that the logical order of the questions was *easy*, and the other two that it was *medium*. Five of the eight participants rated the types of questions asked as *medium*; mostly perhaps because the questions required the participants to think before answering them. Seven of the eight participants rated the language used in the questionnaire as *easy* and the other one *medium*.

Apart from the functionality problems noted in the observational notes made during the student pilot phase of the questionnaire, no other adjustments were made. Therefore, the final questionnaire resembled the pilot; except for one difference. An own version of the final questionnaire was made available to each of the HE teacher and student groups respectively.

5.3.4.3 Research population(s) and sampling for the web-based questionnaire survey for objective 3

The participants selected for the SOAR analysis of the existing AAP for graphic design offered by the specific private HEI, was limited to HE teachers and students involved in the AAP for graphic design on eleven of the twelve campuses (the Bloemfontein campus was obviously excluded). A purposive sampling technique was followed in order to access teacher and student participants who were knowledgeable about the existing AAP for graphic design. In this case the planned sample included all participants, that is, the entire population was invited. The target group thus consisted of 114 AAP for graphic design HE teachers and 86 students enrolled for the same programme on eleven of the twelve campuses. The HE teacher population also taught generic modules across different AAPs on the campuses; therefore, the odd HE teacher-student ratio. The Bloemfontein campus was excluded from this research since some of its HE teachers and students participated in the pilot study (see 5.3.4.2) and therefore were considered as an at-risk group (see 5.3.8.3). Participants complying with the inclusion criteria were identified by the Head of Department of the HEI's graphic design programme and academic coordinators of the various campuses through e-mail correspondence.

The inclusion criteria for research participants in the SOAR analysis were as follows: (1) Students must have been enrolled for the relevant AAP for graphic design during 2011 and/or 2012, since the study was conducted during 2013. (2) HE teachers had to be teaching within the existing AAP for graphic design programme during 2011, 2012 and 2013. (3) All participants had to be eighteen years of age or older. Another reason for including only students who were enrolled for the AAP for graphic design at the specific HEI during 2011 and 2012 was that the programme being evaluated was only implemented for the first time in 2011.

5.3.4.4 Recruitment of research participants for the SOAR analysis aimed at objective 3

The HE teacher and student participants in the SOAR analysis were contacted via an e-mail invitation with a link that directed them to the relevant web-based SOAR analysis questionnaire. Please see Appendix C.9 for the e-mail correspondence. Also note that the e-mail invitation structure used for the SOAR analysis was different from that used for the web-based survey aimed at objectives 1 and 2. This was due to the different years during which the research was conducted (i.e. 2013 and 2016 respectively). The survey programme of SurveyMonkey protected the confidentiality, anonymity and privacy of the participants as it did not capture personal details or IP addresses since I had activated the anonymous response option (see 5.3.8.2). However, the survey programme also sent reminder e-mails to participants who did not respond without the researcher knowing their personal identities, thereby safeguarding their anonymity and the confidentiality of the data. Two-weekly reminders were sent to participants who had not responded at that stage. The e-mail invitation for HE teacher and student participants closed on 26 February 2014 and 9 September 2013 respectively.

After an initial low response rate of students via the e-mail invitation *(n = 5)*, they were contacted again by means of the cell phone short message system (SMS) with a similar link to that of the e-mail invitation (see Appendix C.13). Only 72 students of the initially expected 86 students had their mobile numbers being registered on their student account. Bulk SMSs therefore were sent via SMSPortal, an online SMS programme. The character count for the invitation had to be minimised since a single SMS is limited to 160 characters. Students also received an additional printed informed consent letter from their campus academic coordinator prior to the SMS being sent out on 9 September 2013 (see Appendix C.13). This method of recruitment eventually eliminated the need to send reminder messages via SurveyMonkey to non-responding students.

However, the recruitment method had to be adjusted again since the response rate following the SMS link was still very low *(n = 10)*. In consultation with the private HEI and my promoters, I then opted to send printed questionnaires and informed consent letters to the academic coordinators of the eleven campuses (see Appendix C.14) on 9 September 2013. The questionnaires and informed consent letters were placed

into individual registered envelopes with a printed return address on the front. The academic coordinators distributed these envelopes to the students who complied with the inclusion criteria. Students were asked to complete all the questions on the questionnaire after which they had to place the completed questionnaire into the envelope and seal it for anonymity and confidentiality purposes. No personal details were captured for the purpose of anonymity, similar to what was done with the original e-mail invitation. The registered envelopes were posted to my address (i.e. the return address on the front of the envelope) by the HEI campus staff. However, the students also had the option to post their envelopes themselves. The academic coordinators asked the students who completed the web-based questionnaire following the initial the e-mail and SMS invitations to please complete the printed questionnaire too. This was done to eliminate possible duplication of responses; therefore, only the printed questionnaire feedback eventually was used. The completed questionnaires arrived via post during October and November of 2013.

5.3.4.5 Response rate for the SOAR analysis aimed at objective 3

This section documents the response rate of HE teacher and student participants for the SOAR analysis aimed at research objective 3.

5.3.4.5.1 Response rate of HE teacher participants for the SOAR analysis aimed at objective 3

The overall response rate of HE teacher participants in the SOAR analysis survey is summarised in Table 5.3. Forty seven (47) of the 114 invited AAP for graphic design HE teachers *(i.e. 41.23%)* of the specific private HEI participated in the SOAR analysis of the existing programme across various campuses. Of the responding participants *(n = 47)*, only 28 of the invited HE teacher participants *(24.56%)* answered all the questions in the SOAR analysis questionnaire. Thirty-five (35) of the invited HE teacher participants *(30.70%)*, therefore, did not respond to the e-mail invitation.

Table 5.3: Overall response rate for HE teacher participants in the SOAR analysis aimed at objective 3

E-mail invitations to AAP for graphic design HE teachers (n = 114)				
Bounced	***Opted out / unsubscribed***	***Did not respond***	***Responded (n = 47)***	
			Complete	***Partial***
19	13	35	28	19
16.67%	11.40%	30.70%	24.56%	16.67%

Table 5.4 presents the response rate for HE teacher participants that responded to the questions posed in Sections A and B of the survey *(n = 47;* see Appendix C.8 for the final questionnaire). All responding participants answered the three demographic questions of Section A of the SOAR analysis (*n = 47*), whereas the number of responses to the questions in Section B varied between 28 (*59.57%)* and 29 (*61.70%)* responses per question. The HE teacher participants' responses with regard to the two sections of the SOAR analysis are discussed in depth in sections 6.3.1.1 and 6.3.1.2 respectively.

Table 5.4: HE teacher participant responses per answered question in the SOAR analysis survey aimed at objective 3

HE teacher participant responses per answered question in the SOAR analysis (n = 47)						
Section A – Demographics			***Section B – SOAR analysis***			
Question 1	***Question 2***	***Question 3***	***Question 1***	***Question 2***	***Question 3***	***Question 4***
47	47	47	29	28	28	28
100%	100%	100%	61.70%	59.57%	59.57%	59.57%

5.3.4.5.2 Response rate of student participants in the SOAR analysis survey aimed at objective 3

Eighty-six (86) AAP for graphic design students at the specific HEI initially were identified and invited to participate via an e-mail link. However, due to a slow response rate, the recruitment method first was changed to an SMS invitation, after which a printed questionnaire with an accompanying informed consent letter was used instead (as detailed in section 5.3.4.4). Seventy-five (75) of the invited student participants responded using the printed questionnaire. The total response rate of the student participants therefore was *87%* of the invited student participants. This was a dramatic increase in the response rate, unlike what happened in the case of the e-mail and SMS invitations. Table 5.5 depicts the overall response rate of the student participants. Fifty-seven (57) of the students who eventually participated *(66.28%)*, completed the SOAR analysis questionnaire in full and eighteen student participants *(20.93%)* completed the questionnaire only partially. Only eleven *(12.79%)* of the invited students did not take part in the SOAR analysis.

Table 5.5: Overall response rate for student participants in the SOAR analysis survey aimed at objective 3

Printed invitations to AAP for graphic design students (n = 86)		
Not respond	***Responded (n = 75)***	
	Complete	***Partial***
11	57	18
12.79%	66.28%	20.93%

Table 5.6 presents the response rate for student participants that responded to the questions posed in Sections A and B of the questionnaire *(n = 75;* see Appendix C.8 for the final questionnaire). Only the first demographic question of Section A was answered by all student participants that responded. The question with the lowest response rate was the fourth question of Section B of the SOAR analysis questionnaire *(n = 57; 76.0%)*. The student participants' responses with regard to the two sections of the SOAR analysis questionnaire are discussed in-depth in sections 6.3.2.1 and 6.3.2.2 respectively.

Table 5.6: Student participant responses per answered question in the SOAR analysis aimed at objective 3

Student participant responses per answered question in the SOAR analysis (n = 75)						
Section A – Demographics			*Section B – SOAR analysis*			
Question 1	*Question 2*	*Question 3*	*Question 1*	*Question 2*	*Question 3*	*Question 4*
75	64	58	71	62	65	57
100%	85.33%	77.33%	94.67%	82.67%	86.67%	76.00%

5.3.4.6 Dissemination avenues and limitations of the research design and methodology for the SOAR analysis

The available dissemination avenues included an institutional research forum during which I reported my preliminary findings to a group of peers and which included AAP for graphic design HE teachers, other postgraduate students, the Head of Department hosting the graphic design programme and the Dean of the Faculty for Creative Arts and Communication. Discussions about my presentation served as an informal member check with these stakeholders after which I was invited to participate as a consultant for the private HEI's graphic design programme (which includes the AAP) in their curriculum review process (see Appendix C.15 for e-mail correspondence and the official letter of participation). Early findings of my SOAR analysis questionnaire, therefore, were considered during the review. Appendix C.15 also provides an outline of the curriculum changes that were implemented in the AAP for graphic design at the specific private HEI.

The original research design and methodology aimed at objective 3 included semi-structured group interviews as a validation component to the survey questionnaire. These interviews could only be scheduled once the responses of the participants (i.e. HE teachers and students) had been received and analysed. However, the poor student response rate ensuing in different recruitment methods being applied, resulted in time constraints, since the 2013 academic year was at its end. I also analysed the data obtained from the survey questionnaires during 2014 at a slower than the expected pace due to work obligations that I had at the specific private HEI. This resulted in the cancellation of the semi-structured interviews. Nevertheless, the triangulation design of the study allowed for validation of the findings through various methods (i.e. the theoretical framework, the questionnaire survey aimed at objectives 1 and 2, the motivation and the evaluation validation of the preliminary framework by relevant AAP graphic design and curriculum experts). The trustworthiness of the SOAR analysis survey is elucidated in section 5.3.7.2.

5.3.5 Methodology for compiling and validating the envisaged framework aimed at objective 4

Objective 4 required of me to design a curriculum design framework for AAPs for graphic design that could serve as mechanisms for student success. This was done by means of comparing, converging and integrating the research findings obtained through the literature study and the findings obtained by means of the different data collection methods that were aimed at objectives 1, 2 and 3. In order to ensure the validity of the framework that I compiled, the proposed (and therefore preliminary) framework was included in a questionnaire containing both open and closed questions/activities. I frequently received feedback on this survey questionnaire from my main promoter when finalising the preliminary questionnaire before it was sent to the participants of the pilot study (see 5.3.5.2).

5.3.5.1 Data collection technique for the validation of the preliminary framework aimed at objective 4

A panel of purposefully selected participants, consisting of experts from various occupational positions and fields of expertise related to the investigation at hand (see 5.3.5.3), eventually evaluated and validated the proposed, preliminary framework by means of a self-structured web-based questionnaire with open and closed questions. Participants were required to rate framework features in the closed items, according to a four-point Likert scale. The decision was made to use a four-point Likert scale to add to the reliability and validity of the data collection tool, as recommended by Lozano et al.'s article (2008:73,78) (see 5.3.3.2 for a detailed discussion). Each response was assigned a numerical value for data analysis purposes as proposed by Likert (1932:42), namely: 1 – not necessary; 2 - uncertain; 3 – useful, and 4 – essential. The second category, namely *uncertain* provided participants with an undecided option. The scale used therefore allowed participants who did not really have a preference to also participate (ResearchGate, 2015:online) (see 5.3.3.2). A draft questionnaire initially was designed in Microsoft Word format for the sake of obtaining ethics approval from the UFS Faculty of Education. Subsequently, the final questionnaire was designed in SurveyMonkey, in a similar way as the other web-based questionnaires aimed at objectives 1, 2 and 3 respectively.

The questionnaire survey, in total contained 340 closed items (including the two demographic questions) and seven open-ended questions. The questionnaire also consisted of seven sections. The first section contained demographical questions pertaining to the participants' expertise and number of years' experience. Sections A, B, C, D and E focused on items pertaining to the activities included in the proposed framework (see Appendix C.18), whereas Section F listed the identified competencies and student success mechanisms. Section A consisted of 33 items and sub-items pertaining to curriculum/programme design of AAPs for graphic design. Section B focused on the aims, goals and intended learning outcomes (ILOs) of AAPs and consequently was divided into three sub-sections (i.e. B.1, B.2 and B.3 respectively). A total of 40 items and sub-items were listed in the three sub-sections. The proposed (and preliminary) framework activities related to the selection and organisation of curriculum content for AAPs for graphic design were

listed in Section C. General aspects pertaining to curriculum content were listed in C.1, containing ten items and sub-items; C.2 listed eight items and sub-items pertaining to the organisation of curriculum content; and 40 items and sub-items were listed in sub-section C.3 regarding activities of the proposed (preliminary) framework that are related to the selection of curriculum content. Section D consisted of four sub-sections (i.e. D.1, D.2, D.3, and D.4) pertaining to TLAs of the proposed framework. Section D listed a total of 123 items and sub-items having a bearing on general aspects of teaching and learning (sub-section D.1), teaching and teaching styles (sub-section D.2), learning and learning styles (sub-section D.3), and TLAs (sub-section D.4). Twenty-five items and sub-items were listed in Section E with regard to ATs of the proposed framework. The last section, section F, included a list of 58 generic and discipline-specific competencies and seven student success mechanisms derived from the empirical and non-empirical research of this study and which are discussed in Chapter 6 (see 6.4). All closed items in the questionnaire required a rating from the participants.

5.3.5.2 Pilot study of the expert validation questionnaire aimed at objective 4

This section documents the pilot of the expert validation questionnaire aimed at achieving objective 4 of this study. Participants satisfying the inclusion criteria mentioned in section 5.3.5.1 were used for the pilot survey. A total of four experts were invited to participate in the pilot survey of which two were HE specialists (my promoter and co-promoter), one senior graphic designer, and one AAP lecturer. Participants in the pilot study were recruited as stipulated in section 5.3.5.4. All four experts who were invited participated in the pilot survey. Participants were requested to complete two self-structured web-based questionnaires, namely the pilot expert validation questionnaire (see Appendix C.16) and an additional feedback questionnaire (similar to the feedback questionnaire used for the pilot surveys of objectives 1, 2 and 3; see Appendix C.17). However, only three participants completed the feedback questionnaire. The participants spent on average 24 minutes to complete the pilot questionnaire (according to SurveyMonkey). The pilot phase was conducted from 11 November 2017 to 14 November 2017.

Feedback provided by the participants on the pilot questionnaire indicated that the majority of the participants (two of three participants) found the questionnaire to have an acceptable, logical order and that the language used was understandable. One participant indicated that the questionnaire was difficult, whereas the other two participants rated the difficulty of completion on a medium level. One participant remarked that *although I found the completion of the questionnaire somewhat time consuming, it is well structured and the various sections cover basically every aspect related to the topic of the study*. One participant recommended language editing of the questionnaire to avoid vague questions or language issues before sending it out to the panel of experts. The same participant also suggested several alterations to address possible vagueness of questions. All recommendations were implemented in order to derive at the final questionnaire which was sent to the panel of experts that was invited on 17 November 2017 (see Appendix C.18).

5.3.5.3 Research population(s) and sampling for the expert validation survey

Purposive sampling of information-rich participants with maximum variation in mind was done for the expert evaluation questionnaire aimed at validating the framework. The sample consisted of ten experts from various occupational positions and fields of expertise. They all participated in the research in their private capacity. These are listed below:

- An academic manager at a private HEI.
- An associate professor in a graphic design programme offered by a public University of Technology.
- A curriculum practitioner in a graphic design programme offered by a public University of Technology.
- A director of a Centre for Teaching and Learning at a traditional public university who manages an AAP offered by this university.
- The manager of curriculum and professional development in the Centre for Teaching and Learning Services at a private HEI.
- A member of DEFSA who is a graphic design HE teacher at a comprehensive public university.
- A national programme manager of graphic design at a private HEI who also is a creative director of a graphic design company.
- The owner of a graphic design and product development company who also is a senior graphic designer in a product development station at a public University of Technology.
- A senior executive committee member of DEFSA who also is a former dean of a faculty of creative arts and communication at a private HEI.
- The programme coordinator of the AAP for art and design at a public University of Technology.

5.3.5.4 Recruitment of research participants for the expert validation survey

I identified several prospective experts for this survey throughout my methodology from participating HEIs' prospective participant lists generated from the data collection aimed at achieving research objectives 1, 2 and 3. I also contacted the president of DEFSA and the main contact person of Higher Education Learning and Teaching Association of Southern Africa's (HELTASA) Special Interest Group for AAPs to enquire about other possible prospective participants whom they could recommend. All prospective experts first were contacted on 11 October 2017 via an informal e-mail to enquire about their willingness to participate in the review and validation of my framework. Thereafter, participants interested in the expert questionnaire survey were contacted via e-mail, with a link that directed them to the self-structured web-based questionnaire on SurveyMonkey (similar to the recruitment method described in section 5.3.3.4). The method of participant selection for the panel of experts started as purposeful, based on the participants' expertise, and which eventually developed into snowball sampling. However, both the purposive and snowball sampling of the expert participants were subject to the convenience of the participants' geographical location (see 7.2) (*cf.* Cohen et al., 2011:158).

5.3.5.5 Response rate of the expert validation questionnaire

The overall response rate of the expert validation questionnaire is documented in Table 5.7. Nine of the ten invited experts participated in the questionnaire survey which closed on 28 November 2017. All nine experts completed all the questions of the various sections and sub-sections; therefore it is not necessary to provide a break-down per question or section as in Tables 5.2, 5.4, and 5.6.

Table 5.7: Overall response rate for expert participants in the questionnaire survey aimed at objective 4

E-mail invitations to expert participants (n=10)				
Bounced	***Opted out / unsubscribed***	***Did not respond***	***Responded (n=9)***	
			Complete	***Partial***
0	0	1	9	0
0%	0%	10%	90%	0%

5.3.6 Analysis, interpretation and presentation/reporting of the research data and findings

In line with the mixed method approach of this study, both qualitative and quantitative data collection and analysis methods were used. Qualitative data were obtained from the two self-structured questionnaires surveys (aimed at achieving research objectives 1, 2 and 3) as well from the expert validation survey (aimed at achieving research objective 4). The survey questionnaire aimed at objectives 1 and 2 (with mainly quantitative items with embedded qualitative items) included Likert scale items that required participants' rating of the importance of generic and discipline-specific competencies for graphic design AAP students and related mechanisms for student success. On the other hand, the embedded single case study (i.e. the SOAR analysis questionnaire survey aimed at objective 3) mainly was qualitative with some embedded quantitative elements. The first section of all the questionnaires included nominal variables (e.g. the type of programme in which participants had teaching experience, HEI and faculty in which participant taught, etc.) and ordinal variables (e.g. years of teaching experience and level of involvement in the programme) (*cf.* Fouché and Bartley, 2015:250).

The following data analysis process, as recommended by Fouché and Bartley (2015:252-276), was used for the analysis, interpretation and presentation of the quantitative data obtained from the self-structured web-based questionnaire surveys aimed at research objectives 1, 2 and 4, as well as all the nominal and ordinal data obtained from all the questionnaires used in this study (section A in all the questionnaires):

- Data were *prepared for data entry* by means of checking, editing and ordering the collected data into a suitable format. Data code sheets were used for nominal and ordinal variables. Nominal variables were classified into categories and ordinal variables were ordered by rank (Fouché and Bartley, 2015:250). Non-responses also were coded by assigning 0 to the data code sheet (0 = skip) in order to contribute to the trustworthiness of the data (see 5.3.7).
- Data entry occurred simultaneously with data collection on SurveyMonkey. Data were downloaded from SurveyMonkey as Microsoft Excel spreadsheets for univariate and bivariate data analysis in the programme, but also as PDF documents.
- Data entry of the printed SOAR analysis questionnaire (objective 3) into a Microsoft Excel spreadsheet was done manually.
- Univariate data analysis was conducted to provide descriptive statistics such as frequencies. In presenting the data the seven rules of data presentation (i.e. clear, simple, good use of space, objective, accurate, appearance and order of the variables) were kept in mind, as recommended by Fouché and Bartley (2015:255).
- Bivariate data analysis was conducted where applicable in order to enhance the explanation of the quantitative research. The mean and standard deviation Microsoft Excel data analysis functions were identified as the most suitable for use with a Likert scale.

The qualitative data were analysed and interpreted according to the theoretical perspectives and assumptions of the paradigmatic perspective and assumptions as recommended by Schurink, Fouché and De Vos (2015:403). I followed a similar data analysis process as recommended by Schurink et al. (2015:403-404), namely:

- *Planning for recording of the data* included the assurance that the questionnaires were appropriate (i.e. the type of questions, language, level of difficulty and logical order) for the target participant groups; doing pilot studies with similar participants, as well as planning the types of items/questions in SurveyMonkey to ease the retrieval of the data from this programme.
- *Data collection* was done by means of web-based questionnaires, with the exception of the SOAR analysis questionnaire, which had to be printed for the student participants, sorted and manually entered in Microsoft Excel spreadsheets.
- The *data management* was done by means of organising the data into separate folders on my computer, as well as converting the written questionnaires from the student participants in the SOAR analysis aimed at objective 3 into a Microsoft Excel spreadsheet. The Excel spreadsheets containing the data (i.e. the qualitative comments together with the relevant participant codes) obtained from SurveyMonkey then were transferred to Microsoft Word documents in order to import the data into the qualitative software programme, Atlas.ti.

- Before I started generating categories and codes in Atlas.ti, I *read* through the data and made *notes* where necessary.
- The first step in coding the data involved labelling lines, sentences and/or paragraphs in the Microsoft Word files that contained similar concepts with a unique *code* (i.e. keyword) that represented its meaning. Secondly, similar concepts were grouped together under *themes*. Relevant code and theme names were decided on in congruence with the literature review as discussed in section B of this study (as applicable).
- The data were *presented* in network diagrams and tables for each category (see Chapter 6). The findings related to each objective are reported and discussed in Chapter 6.
- Data was *interpreted* in order to identify similarities and *gaps* in the data obtained from the different questionnaire surveys and the literature review, as well as in order to derive *insight* from the data.
- Reporting the findings was supported by *verbatim quotes* to increase the trustworthiness of the study (see 5.3.7.2). Each questionnaire was assigned its own code (e.g. SOAR), followed by a participant number, page number and line number (e.g. SOAR 123:2:15). A code list for each questionnaire and section (as relevant) is available in Table 6.1.

5.3.7 Trustworthiness

In line with the mixed method approach used in this study qualitative and quantitative trustworthiness is discussed in this section. Table 5.8 highlights the different terminology used when considering trustworthiness in qualitative and quantitative research respectively.

Table 5.8: Quantitative and qualitative terminology for trustworthiness (Schurink et al., 2015:419-421)

Quantitative research	***Qualitative research***
Internal validity (see 5.3.7.1.1c)	Credibility (see 5.3.7.2.1)
External validity (see 5.3.7.1.1b)	Transferability (see 5.3.7.2.2)
Reliability (see 5.3.7.1.2)	Dependability (see 5.3.7.2.3)
Objectivity (see 5.3.7.1.3)	Confirmability (see 5.3.7.2.4)

5.3.7.1 Quantitative research

The following criteria for trustworthiness are discussed in relation to quantitative research in the section to follow. These are validity (internal, external and content validity), reliability and objectivity.

5.3.7.1.1 Validity

Validity generally refers to the degree in which a research tool measures that which it was supposed to measure (Delport and Roestenburg, 2015:173). In mixed methods research the use of triangulation (i.e. the use of multiple methods for data collection in a study) is one of the methods that is used to demonstrate

validity (Cohen et al., 2011:195). Triangulation limits the distortion of reality by the researcher's bias towards the research and the availability of both quantitative and qualitative methods enables the researcher to discover the reality without constraints of using specific methods (Cohen et al., 2011:195-196). Many other kinds of validity measures exist (*cf.* Cohen et al., 2011: 179-199; Delport and Roestenburg, 2015:173-176). However, the most applicable types of validity for this research are discussed below.

a) Content validity

The content of the quantitative self-structured web-based questionnaires aimed at objectives 1, 2 and 4 respectively, were validated by means of the *jury option* (*cf.* Delport and Roestenburg, 2015:173). Firstly, the research tools were constructed based on the theoretical framework of this study. Secondly, I included clarification of terminology pages in each questionnaire to ensure that participants had a clear understanding of the terminology used throughout the specific questionnaire. The terminology included was in line with the definitions presented in this study. Thirdly, my promoters checked for the possibility of bias or misinterpretation in the research tools before the pilot studies were conducted. The last content validation strategy was the pilot studies in which participants completed the additional questionnaires and provided feedback on the logical order, language, level of difficulty and types of questions posed in the questionnaires (see 5.3.3.2, 5.3.4.2 and 5.3.5.2). An analysis of the responses of the pilot study together with the feedback questionnaires served to confirm that the research tools indeed measured the desired content.

b) External validity

External validity refers to the generalisability of the findings of the research (Cohen et al., 2011:186). The quantitative research tools in this study included Likert scales apart from the nominal and ordinal variables that also were captured. Bertram (n.d.:7) notes that one of the weaknesses of using a Likert scale is found in that it is problematic to determine its validity. Lozano et al. (2008) investigated methods to increase the validity and reliability of Likert scales based on the number of response categories used. They found that the validity and reliability of the scale decreases as the response categories decrease (Lozano et al., 2008:77). Therefore, they recommend that at least four response category scales should be used (Lozano et al., 2008:78). This study employed a five-point Likert scale in the questionnaire survey aimed at achieving research objectives 1 and 2, and a four-point Likert scale in the expert validation questionnaire aimed at achieving research objective 4. However, in this study a three-point Likert scale was used for all pilot study feedback questionnaires (see Appendices C.4, C.11 and C.17).

External validity was further supported by describing the research design and methodology for each research instrument in detail (see 5.3.3, 5.3.4 and 5.3.5) and selecting suitable sampling techniques to identify prospective participants from the target populations who complied with all the inclusion criteria (see 5.3.3.3, 5.3.4.3 and 5.3.5.3).

c) Internal validity

Internal validity explores whether the interpretation and reporting of research findings are supported by the research data collected (Cohen et al., 2011:183). The following measurements were employed to support the internal validity of the quantitative data and findings in the study (*cf.* Cohen et al., 2011:183-184):

- I employed pilot studies that included additional feedback questionnaires prior to finalising and administering each questionnaire. Participants in the pilot studies were subsequently excluded from the population sample for the relevant questionnaire (see 5.3.3.3, 5.3.4.3 and 5.3.5.3).
- I eventually used reliable research instruments with at least four Likert response categories within the questionnaires as motivated by Lozano et al. (2008:78). This, however, was not done in the pilot feedback questionnaires.
- Participant selection bias was limited by recruiting a wide variety of participants complying with the inclusion criteria from the target populations (see 5.3.3.3, 5.3.4.3 and 5.3.5.3).

In general, invalidity was limited during the data collection, data analysis and reporting of the three self-structured questionnaires by implementing the following measures as suggested by Cohen et al. (2011:199):

- Drop-out amongst respondents was avoided by ensuring the population samples invited to complete the questionnaires were information-rich participants who satisfied the selection criteria.
- Non-responding participants and participants who only partially completed the questionnaires were reminded to respond via repetitive e-mails from SurveyMonkey as discussed in sections 5.3.3.4, 5.3.4.4 and 5.3.5.4.
- The data collection using the questionnaires started no later than a month after the pilot studies had been completed.
- I ensured that the language used was at an appropriate level of difficulty for each population sample by making use of additional feedback questionnaires during the pilot studies (see 5.3.3.2, 5.3.4.2 and 5.3.5.2).
- All the statistical data were appropriately analysed, interpreted and presented (see 5.3.6).

5.3.7.1.2 Reliability

Reliability is defined by Delport and Roestenburg (2015:177) as the ability of a research instrument to measure a specific research question more than once and still attain similar results. The reliability of the quantitative research instruments in this study was improved by applying the following strategies:

- Using at least four-point category Likert scales (Lozano et al., 2008:77-78), except for the three response category pilot feedback questionnaires (see 5.3.7.1.1b).
- Improving the response rates for the questionnaires by following up with non-respondents (see 5.3.3.4, 5.3.4.4 and 5.3.5.4), highlighting the importance of the study in the correspondence (see Appendices C.6 and C.9), and analysing the appropriateness of the questionnaires by providing additional feedback questionnaires during the pilot studies (see 5.3.3.2, 5.3.4.2 and 5.3.5.2).
- I provided standard instructions to all population samples for the different questionnaires in all their e-mail invitations and informed consent letters (see 5.3.3.4, 5.3.4.4 and 5.3.5.4).
- I did pilot studies with all the questionnaires before finalising the versions of the questionnaires used for data collection (see 5.3.3.2, 5.3.4.2 and 5.3.5.2).

5.3.7.1.3 Objectivity

Objectivity in quantitative research implies that the researcher's bias should not influence the findings of the study in any respect. My objectivity during the analysis and interpretation of the qualitative data was supported by the following strategies:

- I used my promoters and a number of my HE colleagues as sound boards and critical readers throughout the research.
- The feedback I obtained from the pilot study participants regarding the appropriateness of the language and level of difficulty of the questionnaires assisted me to control any possible bias I might have had.
- I analysed, interpreted and presented the data appropriately (see 5.3.6), and ensured that the data were supported by the chosen theoretical framework provided in Section B.

5.3.7.2 Qualitative research

The trustworthiness of the qualitative research data and findings was ensured by making use of Lincoln and Guba's (1985:301-320) *trustworthiness model/framework* that focuses on the following criteria: credibility, transferability, dependability and confirmability. The SOAR analysis questionnaire (see 5.3.4) rendered most of the qualitative research data, but qualitative data also were obtained through the self-structured, web-based questionnaire surveys aimed at objectives 1 and 2 (see 5.3.3), and objective 4 (see 5.3.5).

5.3.7.2.1 Credibility

Credibility is defined as the trustworthiness measure to ensure the accuracy of the description of the subject at hand (Schurink et al., 2015:420). Credibility is regarded as the most important trustworthiness measure in qualitative research (Schurink et al., 2015:419). It is the alternative to internal validity in quantitative research (see 5.3.7.1.1c). In order to ensure credibility of the qualitative components of the research, I employed the following measures:

- I provided the setting/environment parameter in sections 5.3.3, 5.3.4 and 5.3.5, the population parameter in sections 5.3.3.3, 5.3.4.3 and 5.3.5.3, and the underlying theoretical framework in Chapters 2, 3 and 4 (*cf.* Cohen et al., 2011:180-181; Schurink et al., 2015:420).
- I employed different research approaches and methods (i.e. quantitative and qualitative methods, in an applied triangulation mixed method design; *cf.* Schurink et al., 2015:420).
- I analysed, interpreted and presented the data as described in section 5.3.6 and reported the findings of the qualitative data by making use of verbatim quotes to enrich the findings (Chapter 6).
- The preliminary framework that I compiled based on the theoretical framework and by comparing; converging and integrating the empirical findings of the quantitative and qualitative data, was reviewed and validated by relevant experts, as reported in Chapter 7 (see 5.3.5.3 for population sample of experts).
- Either peer review or critical reading was requested on a continuous basis for all sections of this study. For peer review I involved my promoters and a number of HE colleagues who were not involved in the study (*cf.* Schurink et al., 2015:420).
- During 2015 I did informal member checking of the SOAR analysis with relevant staff members of the private HEI in question through the discussion of the preliminary findings and how these could impact the implementation of the research findings in their AAP programme (see 5.3.4.6).
- Although purposive sampling was used in most cases, the selection always was done with maximum variation of age, gender and context in mind.

5.3.7.2.2 Transferability

Transferability is alternative to external validity (see 5.3.7.1.1b), and therefore refers to the extent to which the findings might be applicable in a similar context and with similar participants. Although findings might be transferable due to the triangulation design and the correspondence of the findings with the theoretical framework of this study (Schurink et al., 2015:420), this was not a purpose of this study. Nevertheless, I attempted to provide a rich (thick) description of the qualitative data and findings, as recommend by Cohen et al. (2011:180) and Lincoln and Guba (1985:316), and supported the findings with relevant literature, which confirms the possibility of transferability.

5.3.7.2.3 Dependability

Dependability is the alternative to reliability in quantitative research (see 5.3.7.1.2) and requires that the research process be logical, well documented and audited in order to establish whether the findings will remain the same if the investigation is repeated later with a different group of participants with the same profile and in a similar context (e.g. AAP) (Schurink et al., 2015:420). The dependability of the qualitative data was systematically documented throughout the entire research process to reflect the analysis of decisions and actions.

5.3.7.2.4 Confirmability

Confirmability is the alternative for objectivity in quantitative research (see 5.3.7.1.3). In other words, confirmability should ensure that the data collected confirm the trustworthiness of the findings and that the researcher's bias does not influence the research findings (Lincoln and Guba, 1985:318-319). The confirmability of the interpretations and findings in terms of the data was ensured through the triangulation design of this study and by leaving an information-rich audit trail for any future review (*cf.* Lincoln and Guba, 1985:318-319). Researcher bias was further limited by attending to ethical requirements (see 5.3.8), making use of peer review (see 5.3.7.2.1) and member checking, as well as triangulating the data in order to expose any bias (see 5.3.7.2.1). Although all these measures were taken, the researcher's subjectivity needs to be noted in the analysis and interpretation of especially the qualitative data. My subjectivity was controlled by continuously scrutinising and reflecting on the decisions I made as well as acknowledging my role in the research (see 1.7). These measures may contribute to the trustworthiness of study, as outlined by McMillan and Schumacher (2006:327) and Merriam (2009:229).

5.3.8 Ethical considerations

Ethical considerations need to be explored since this study involved human beings as participants (*cf.* Strydom, 2015:113). The following section documents the various ethical considerations, as listed by Strydom (2015:113-129), and which were attended to in this study, namely: avoidance of harm; anonymity, confidentiality and privacy; at-risk groups; compensation; possible deception of participants; ethics clearance; informed consent; publication of the findings; risk mitigation, and voluntary participation.

5.3.8.1 Avoidance of harm

During the data collection activities no possibility existed of a participant being emotionally or physically harmed, as no pressure was exercised on them to participate or respond to any question with which they did not feel comfortable. The questionnaires were completed in the safety of their own environments and at their own time, eliminating the possibility of physical harm.

5.3.8.2 Anonymity, confidentiality and privacy

Confidentiality is an extension of the human right to privacy and includes the safe keeping of the identity of the participants as agreed upon in the written informed consent agreement (*cf.* Strydom, 2015:119) (see Appendices C.5, C.8 and C.18). Anonymity also aids to maintain participants' privacy (Strydom, 2015:120). Therefore, no personal details (e.g. name, address and/or IP addresses) were captured during this study within the questionnaires or via SurveyMonkey. All participants were assigned a participant number by the online survey software (i.e. SurveyMonkey), which increased the trustworthiness. All electronic data were password protected and the online survey programme could only be accessed by means of one username and password. Furthermore, the confidentiality and privacy of the participating HEIs also were protected, as specified in section 5.3.2, and in line with the POPI act (RSA, 2013:2), by not including any institution-specific information that could expose the identity of the institution. Anonymity, confidentiality and privacy go hand-in-hand with informed consent (see 5.3.8.7). Hard copies of the completed questionnaires were locked in a safe to which only I had access. In addition, no-one else was involved in the interpretation of the data.

5.3.8.3 At-risk groups

The private HEI students identified for the SOAR analysis aimed at objective 3 were from campuses of the institution I was not directly involved with at the time of data collection. The students on the Bloemfontein campus were excluded as participants in the data collection as they were used for the pilot testing phase of the SOAR analysis questionnaire. I also did not teach within the APP for graphic design at the time of data collection.

5.3.8.4 Compensation

Participants were not compensated for participation in any manner.

5.3.8.5 No deception of participants

I ensured that participants were not deceived in any manner as the research process and aims were clearly explained in the communications with them and they were free to ask questions which I answered openly and honestly.

5.3.8.6 Ethics clearance

I first obtained ethical clearance from the UFS Faculty of Education within which I was registered (see Appendix C.1). Subsequently, I also applied to other HEIs for institutional permission and ethical clearance as specified in section 5.3.2. Appendix C.2 contains all the permission and ethical clearance documents of the participating HEIs.

5.3.8.7 Informed consent

Informed consent entails that adequate information regarding the study should be provided to the participants in a language they understand before they are invited to participate voluntarily (Strydom, 2015:117-118). This is in line with the participant's right to freedom and self-determination and allowed them the choice whether they wanted to participate or not (*cf.* Cohen et al., 2011:77). Informed consent had to be given in writing by all the participants for all the questionnaires. The information provided included the purpose of the study, duration, ethical clearance details, what a participant would be expected to do, as well as the advantages/disadvantages of taking part (see Appendices C.5, C.8 and C.18). The informed consent procedure was drafted in accordance with the rules and regulations as required by all the participating HEIs. Participants also had the right to make contact with me via e-mail or mobile phone if they had any questions.

5.3.8.8 Publication of findings

The findings of this study are intended to be published as specified in the informed consent form of each questionnaire (see Appendices C.5, C.8 and C.18). The dissemination avenues of the research findings included feedback to the participating HEIs as requested in their respective ethical and institutional permissions (see Appendix C.2), and conference presentations. It is also envisaged that the findings will be published in (a) peer-reviewed publication(s). The findings also were conveyed to stakeholders involved in the review of the existing AAP for graphic design at which the SOAR analyses were done.

5.3.8.9 Risk mitigation

To ensure confidentiality, anonymity, and privacy of the participants, no personal details of the participants were captured during the collection, interpretation and reporting of the data. All the data that were collected electronically were password protected and hard copy data were kept in a locked safe to which only I had access. Raw data will be stored only for a period of five years for auditing purposes, after which they will be destroyed.

5.3.8.10 Voluntary participation

Participation in this study was voluntary, as specified in the informed consent section of each of the questionnaires. Before participants could proceed to complete the questionnaire (see Appendices C.5, C.8 and C.18), they had to select the option that confirmed their informed consent. If prospective participants did not agree to participate voluntarily, they were excluded from the study and were not able to continue completing the questionnaire.

5.4 VALUE OF THE RESEARCH

The value of this research mainly lies in the development of a curriculum design framework which might serve as a mechanism for student success in AAPs for graphic design offered at HEIs. The ultimate goal with the curriculum design framework is to eventually increase the throughput and graduation rate of graphic design students who are enrolled for graphic design AAPs. It is further hoped that the framework might also inform and guide AAP HE teachers, graphic design HE teachers and curriculum designers in HE regarding the curriculum design of AAPs and could be applied by implementing applicable elements from the framework. The findings of the study which were integrated into the curriculum design framework also are supported by the theoretical framework for this study, including the required competencies of graphic designers and which mechanisms for student success need to be implemented (see 2.3.6 and 6.4).

The single participating private HEI initially benefited from the early findings obtained through the SOAR situation analysis of its AAP for graphic design. Findings from this SOAR analysis questionnaire indeed were incorporated in the review and redesign of the specific programme in 2015 and served as a dissemination avenue for the findings aimed at objective 3 (see 5.3.4.6 for more information).

Ultimately, it is hoped that AAPs in general and AAPs for graphic design students specifically will benefit from the study in future by addressing the concerns and problems raised pertaining to the existing AAP curriculum structures.

5.5 CHAPTER SUMMARY

The description of the research design and methodology of a study is a guiding document that should be included in the audit trail the researcher leaves (Lincoln and Guba, 1985:318-319). This chapter documented all aspects regarding the research design and methodology used for this study, and reports the paradigmatic perspectives and assumptions guiding the study (see 5.3.1), permission to conduct the research (see 5.3.2), the research design and methodology used to achieve all four objectives (see 5.3.3, 5.3.4 and 5.3.5), the analysis, interpretation and presentation of the findings (see 5.3.6), the trustworthiness of the quantitative and qualitative data and findings (see 5.3.7), the ethical considerations attended to (see 5.3.8), and the value of the research for AAPs and especially AAPs for graphic design students (see 5.4). Each section was supported by cross referencing to appendices which include examples of the questionnaires, informed consent letters, correspondence with participants, and correspondence with participating HEIs, to name but a few (see Appendices C.1 – C.18). A list of the appendices is provided at the beginning of the thesis.

The data and findings of the different research activities aimed at objectives 1, 2 and 3 are documented in Chapter 6. These findings in conjunction with the theoretical framework reported in Chapters 2, 3 and 4, eventually are converged and integrated in a preliminary framework for AAPs for graphic design, as discussed in Chapter 7, and as was envisaged in objective 4.

SECTION D

EMPIRICAL FINDINGS, INTERPRETATION AND DISCUSSION LEADING TO THE PROPOSED FRAMEWORK

D

CHAPTER 6

6 EMPIRICAL FINDINGS, INTERPRETATION AND DISCUSSION

6.1 INTRODUCTION

The data generated through mixed methods also required a mixed-method analysis and interpretation in order to achieve the four research objectives outlined in section 1.3.3 in Chapter 1. Table 6.2 visually summarises the alignment between the research objectives, literature, research design and methodology, data analysis and findings of this study in order to foster understanding of how the research was conducted. The purpose of this chapter is to report on the analysis, interpretation and convergence of the findings obtained through the research methods aimed at achieving objectives 1, 2 and 3 (i.e. the literature study, first questionnaire survey and the strengths, opportunities, aspirations and results [SOAR] analysis), in order to eventually compile a framework of critical elements (i.e. generic and discipline-specific competencies and possible student success mechanisms) for an alternative access programme (AAP) in graphic design, which also might serve as a mechanism for student success in graphic design. Figure 6.1 depicts an outline of the empirical data, interpretation and results presented in this chapter, which are supported by the non-empirical research (i.e. the literature review of Section B). The alignment of the non-empirical and empirical research with the research objectives, research design and methodology, data analysis and findings of this study are outlined in Table 6.2.

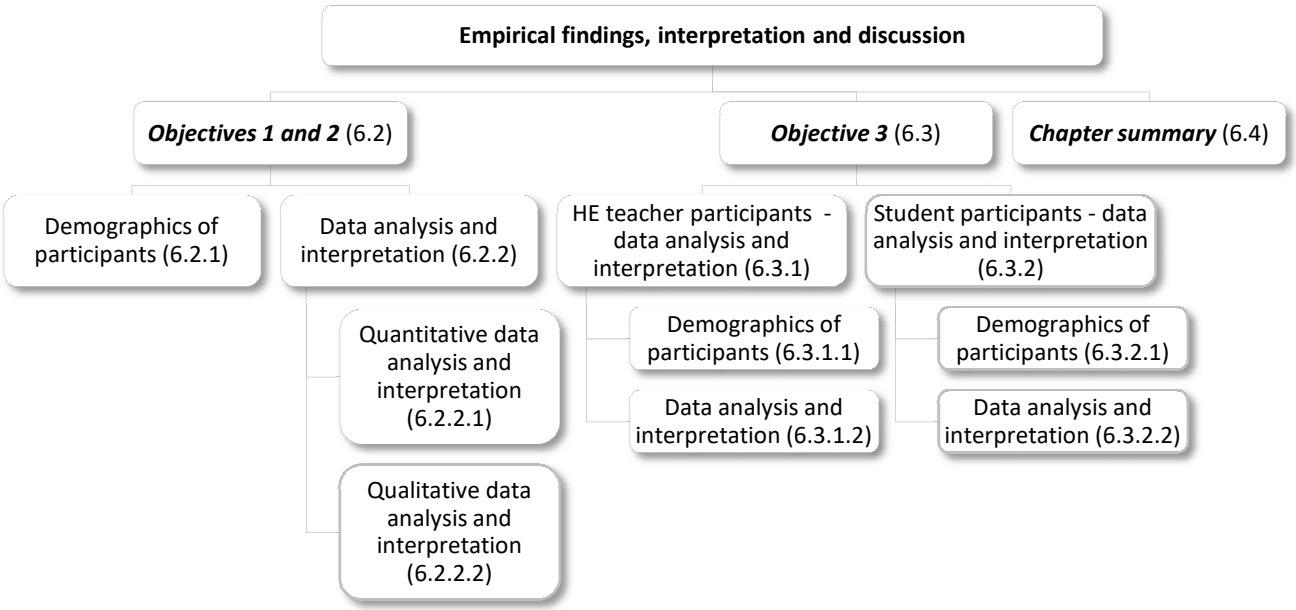


Figure 6.1: Outline of empirical research results and interpretation chapter

This chapter also forms part of the audit trail and thick description that need to enhance the trustworthiness of this study, as has been argued in terms of Lincoln and Guba's trustworthiness framework (1985:318-319) in Chapter 5 (see 5.3.7). Furthermore, a code list was used for the analysis of the qualitative data (see Table 6.1) together with a standardised citation format obtained through the use of Atlas.ti in order to ensure consistency within the entire data set of the research conducted.

Table 6.1: Code list for the analysis of the qualitative set

[S]	Strength of SOAR analysis
[O]	Opportunity of SOAR analysis
[A]	Aspiration of SOAR analysis
[R]	Result of SOAR analysis
[DUAL COMP]	Dual competency
[DISC COMP]	Discipline-specific competency
[GENERIC COMP]	Generic competency
[AGOO]	Aims, goals, objectives and outcomes
[CURR CONT]	Curriculum content
[T&L]	Teaching and learning
[ASSESS]	Assessment
SOAR_S	SOAR analysis of student participants
SOAR_HET	SOAR analysis of higher education (HE) teacher participants
[SSM]	Student success mechanisms
N_HET	National HE teacher participants

The citation format was as follows:

Code Participant number:document number:code number

Example: N_HET 1:1:14

Table 6.2: Alignment of the research objectives, methodology, data analysis and findings of this study

OBJECTIVES	RESEARCH DESIGN AND DATA COLLECTION METHOD	DATA ANALYSES	FINDINGS
OBJECTIVE 1 Explore the constitution/design of existing AAPs and graphic design programmes and the generic and discipline-specific competencies which are cultivated through these programmes respectively.	Literature review ***(see Section B)***	Content analysis of the literature to identify generic and discipline-specific competencies ***(see Section B)***.	Table B.1 in Section B which was used as a basis to compile the first mixed methods, explanatory self-structured web-based questionnaire.
	Mixed-methods explanatory design with a self-structured web-based questionnaire distributed to HE teachers of AAPs in general, AAPs for graphic design and mainstream graphic design programmes in South Africa ***(see 5.3.3)***.	Quantitative data analysis of the questionnaire Likert-scale data as explained in section 5.3.6 ***(see 6.2.2.1)***. Qualitative data analysis of the explanatory qualitative questionnaire data as explained in section 5.3.6 ***(see 6.2.2.2)***.	The most important generic and discipline-specific competencies were identified and motivated by HE teachers in South Africa and were subsequently included in a curriculum design framework containing competencies and success mechanisms for AAPs in graphic design (objective 4).
OBJECTIVE 2 Explore ways in which AAPs for graphic design can ensure student success.	Literature review ***(see 3.3)***.	Content analysis of the literature to identify student success mechanisms ***(see 3.3)***.	Identified student success mechanisms in section 3.3 and that served as basis for the mixed-methods explanatory self-structured web-based questionnaire.
	Mixed-methods explanatory design with a self-structured web-based questionnaire distributed to HE teachers in AAPs in general, AAPs for graphic design and mainstream graphic design programmes in South Africa ***(see 5.3.3)***.	Quantitative data analysis of the quantitative questionnaire Likert-scale data as explained in section 5.3.6 ***(see 6.2.2.1)***. Qualitative data analysis of the explanatory qualitative questionnaire data as explained in section 5.3.6 ***(see 6.2.2.2)***.	The most important mechanisms for student success were identified and motivated by HE teachers in South Africa and were subsequently included in a curriculum design framework containing competencies and success mechanisms for AAPs in graphic design (objective 4).
OBJECTIVE 3 Analyse the status of one private HEI's existing AAP for graphic design by means of a strengths, opportunities, aspirations and results (SOAR) analysis.	Qualitative SOAR analysis design with a self-structured questionnaire with only limited embedded quantitative elements ***(see 5.3.4)***.	Qualitative data analysis of qualitative data as explained in section 5.3.6 with descriptive statistical analysis of the limited embedded quantitative data ***(see 6.2.2.1 and 6.2.2.2)***.	The strengths, opportunities, aspirations and results of an existing AAP for graphic design were identified in order to include these critical elements in the curriculum design framework containing competencies and success mechanisms for AAPs in graphic design (objective 4).

OBJECTIVES	RESEARCH DESIGN AND DATA COLLECTION METHOD	DATA ANALYSES	FINDINGS
OBJECTIVE 4 Compile a curriculum design framework for embedding critical elements in AAPs so that they can support student success in graphic design.	Compile a preliminary curriculum design framework that includes the generic and discipline-specific competencies and student success mechanisms derived from the literature (see Section B), by comparing and converging the literature findings and the empirical findings obtained through the empirical research methods aimed at objectives 1, 2 and 3 (reported in Chapter 6*; **see Chapter 7)***.	n/a	n/a
	Have the preliminary framework evaluated and validated by experts through a mixed-method self-structured web-based questionnaire that covers all the components of the preliminary framework (closed and open questions*; **see 5.3.5)***.	Quantitative data analysis of the Likert-scale data obtained, focussing on frequency of responses. Qualitative data analysis of qualitative data obtained from open question as explained in section 5.3.6 ***(see 7.3)***.	The compilation of a final proposed curriculum design framework of critical elements for AAPs for graphic design. The curriculum design framework should also serve as a mechanism for student success.

6.2 DATA ANALYSIS AND INTERPRETATION OF THE MIXED METHOD-ORIENTATED QUESTIONNAIRE SURVEY AMONG SOUTH AFRICAN HIGHER EDUCATION TEACHERS AIMED AT RESEARCH OBJECTIVES 1 AND 2

This section documents the empirical research results linked to the first and second research objectives of my study. Section 6.2.1 reports the demographics of the participants, whereas section 6.2.2 reports the data analysis, interpretation and findings. A mixed-methods explanatory self-structured web-based questionnaire was designed based on the literature findings reported in Section B of this study. The purpose of this data collection tool was to establish which of the generic and discipline-specific competencies and student support mechanisms were deemed by higher education (HE) teachers as critical elements for AAPs in various disciplines (including graphic design) and mainstream graphic design programmes in South Africa. The participant population was selected to access participants who had knowledge about generic and discipline-specific competencies for AAPs for graphic design, and student success mechanisms that might support these programmes as documented in section 5.3.3.3. Tables 5.1 and 5.2 in Chapter 5 provide the overall response rate and the responses per answered question for the questionnaire survey (see 5.3.3.5). Only thirteen of the 68 participants that eventually responded completed the entire questionnaire survey. Responses per answered question varied among sections A, B, C and D of the questionnaire survey, as reported in sections 6.2.1 and 6.2.2.

6.2.1 Demographics of South African higher education teacher participants

This section reports the responses of participants for Section A of the questionnaire survey for research objectives 1 and 2 which consisted of five questions pertaining to the demographic information of HE teacher participants. All HE teacher participants completed Section A entirely, as indicated (see 5.3.3.5; *n = 68)*.

The demographics of HE teacher participants in the questionnaire survey for objectives 1 and 2 are visually summarised in Figures 6.2 to 6.6. As observed from these figures, the majority of the selected HE teacher participants taught in AAPs for various disciplines (excluding graphic design; *n = 37; 54.41% of all participants)*, and had five or more years' teaching experience *(n = 46; 67.65% of all participants;* see Figures 6.2 and 6.3). Figures 6.4 to 6.6 illustrate overall HE teacher participation via the type of HEI, faculty and post level. Although the data collection tool specified the particular HEI at which the participant taught it is not reported in this section for ethical reasons. Multiple answers were allowed for HEI type, and faculty and post level; therefore, the number of responses per answer is indicated in bar charts rather than percentages. As observed from the bar charts in Figures 6.4 to 6.6 most participants were HE teachers from the Humanities Faculty of private HEIs, Universities of Technology, or Comprehensive Universities. All graphs presented in this section adhere to the seven presentation guidelines for quantitative data recommended by Fouché and Bartley (2015:255). The analysis of the demographic information of HE teacher participants is depicted in Table 6.3 which indicates the frequency of responses of Section A of the questionnaire survey.

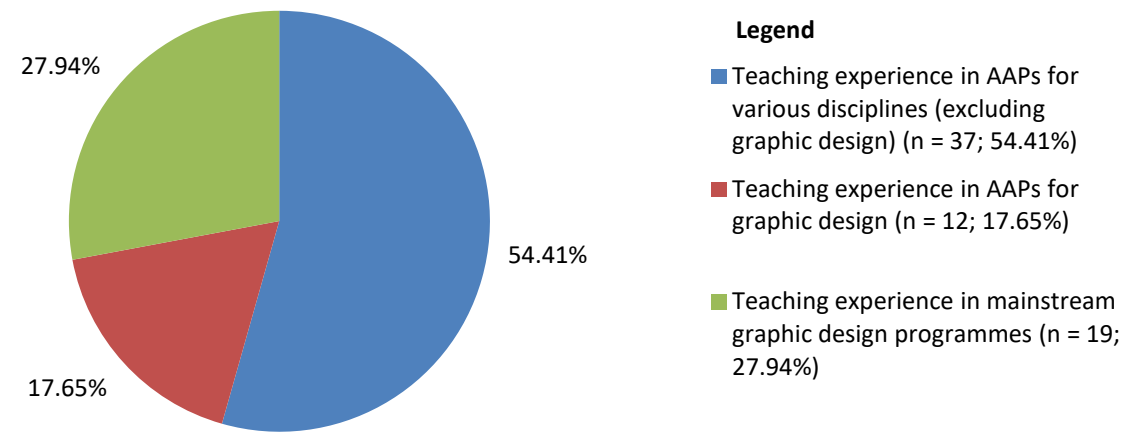


Figure 6.2: Percentage of HE teacher participants' teaching experience according to type of programme *(n = 68)*

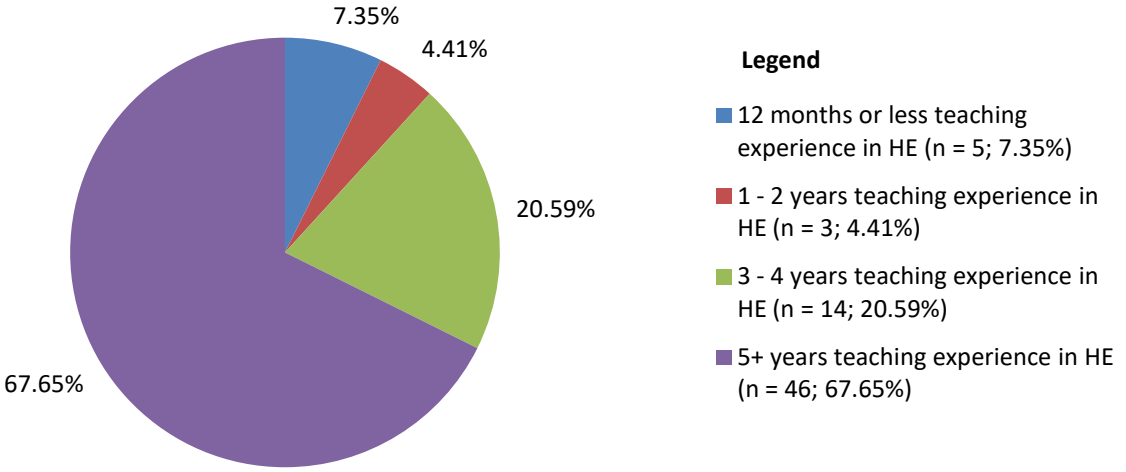


Figure 6.3: Percentage of HE teacher participants' teaching experience according to years *(n = 68)*



Figure 6.4: Number of HE teacher participants according to the type of HEI *(n = 68)***

* Participants could select more than one option for the specific question.

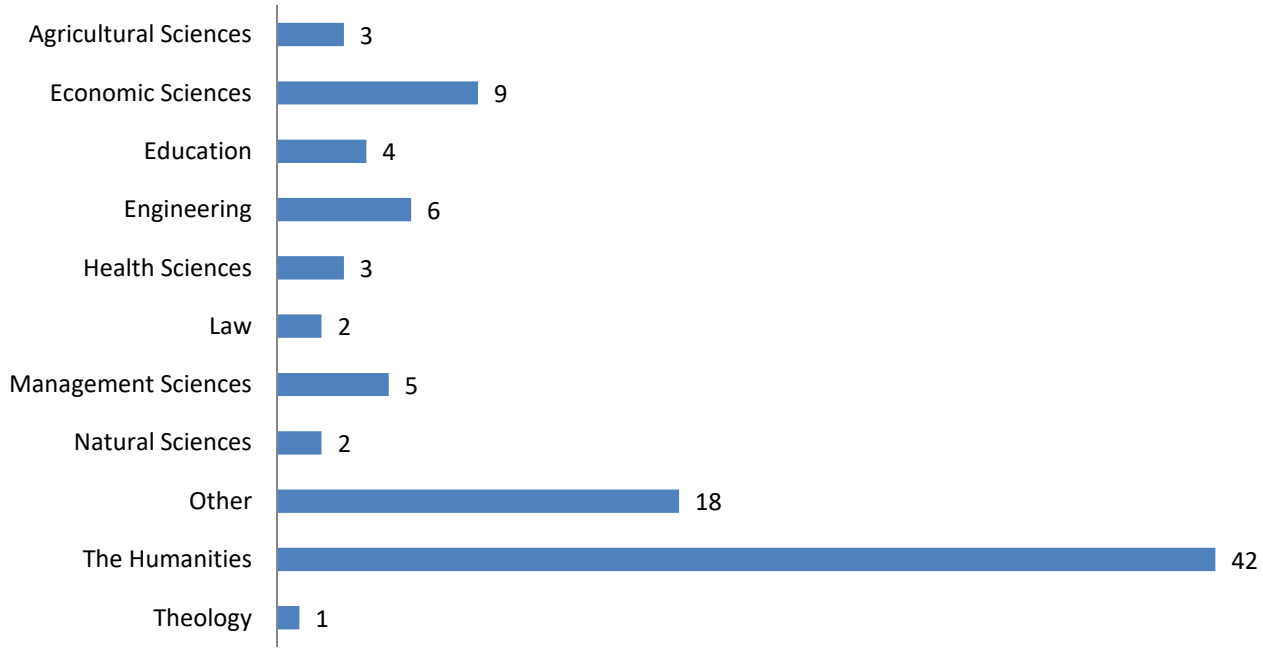


Figure 6.5: Number of HE teacher participants arranged according to faculty *(n = 68)

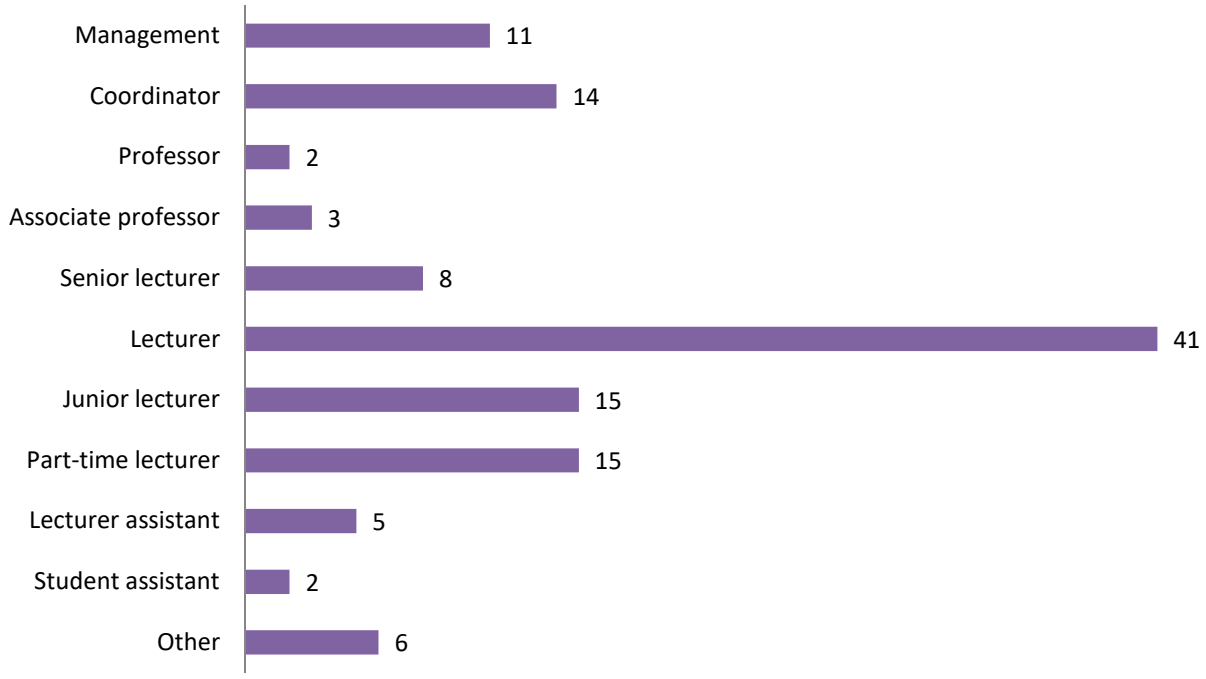


Figure 6.6: Number of HE teacher participants arranged according to post level *(n = 68)

The aim of Table 6.3 is to dissect the years' teaching experience, HEI type, faculty and post level of HE teacher participants according to the programme in which the participants were involved (i.e. AAPs for

* Participants could select more than one option for the specific question.

various disciplines, excluding graphic design; AAPs for graphic design, and mainstream graphic design programmes). The type of programme was used to dissect the information in alignment with the participant grouping for Sections B, C and D of the questionnaire survey aimed at objectives 1 and 2 (e.g. HE teacher participants of AAPs of various disciplines, including graphic design had to complete Section B; HE teacher participants involved in AAPs for graphic design and mainstream graphic design programmes had to complete Section C, and all HE teacher participants had to complete Section D).

HE teacher participants of AAPs for various disciplines (excluding graphic design) mostly had five or more years' teaching experience in the programme *(n = 22; 32.35% of all participants)*, and were employed by comprehensive universities *(n = 22)* in the Humanities Faculty *(n = 23)* on a lecturer post level *(n = 23)*. HE teacher participants of AAPs for graphic design and mainstream graphic design programmes were mostly employed by private HEIs and Universities of Technology, which correlates with South African HEIs that offer qualifications for the education and training of graphic designers as presented in Table 3.1. The majority of HE teacher participants in main stream graphic design programme had five or more years' experience *(n = 17; 25.00% of all participants)*. A few HE teacher participants selected faculties that are not associated with AAPs for graphic design and mainstream graphic design programmes such as Economic Sciences, Health Sciences and Natural Sciences. Most of the *other* faculty responses for AAPs for graphic design and mainstream graphic design programmes were due to HEIs allocating design programmes to their own faculty rather than as part of the Humanities Faculty.

Table 6.3: Frequency of responses per answered question for the questionnaire survey aimed at objectives 1 and 2 according to the specific programme in which higher education teacher participants were involved *(n = 68)*

	disciplines (excluding graphic design; n	AAPs for graphic design (n = 12)	mainstream graphic design programmes (n = 19)	Total
Number of years' teaching experience (All HE teacher participants; see Figure 6.3)				
5+ years	22	7	17	**46**
3 – 4 years	9	3	2	**14**
1 – 2 years	1	2	0	**3**
12 months or less	5	0	0	**5**
Type of HEI offering the programme in which HE teacher participants teach* (see Figure 6.4)				
Comprehensive universities	22	3	3	**28**
Private HEIs	8	12	7	**27**
Traditional universities	12	3	1	**16**
Universities of Technology	9	7	9	**25**
Faculty in which the HE teacher participants are teaching* (see Figure 6.5)				
Agricultural Sciences	3	0	0	**3**
Economic Sciences	8	0	1	**9**
Education	4	0	0	**4**
Engineering	6	0	0	**6**
Health Sciences	2	1	0	**3**
Law	2	0	0	**2**
Management Sciences	4	0	1	**5**
Natural Sciences	1	1	0	**2**
Other	7	3	8	**18**
The Humanities	23	8	11	**42**
Theology	1	0	0	**1**
Post level of HE teacher participants* (see Figure 6.6)				
Management	7	1	3	**11**
Coordinator	12	1	1	**14**
Professor	2	0	0	**2**
Associate professor	1	0	2	**3**
Senior lecturer	4	2	2	**8**
Lecturer	23	9	9	**41**
Junior lecturer	10	0	5	**15**
Part-time lecturer	10	3	2	**15**
Lecturer assistant	4	0	1	**5**
Student assistant	2	0	0	**2**
Other	5	1	0	**6**

** Participants could select more than one option in the specific question*

6.2.2 Data analysis and interpretation of South African higher education teacher participant responses

This section documents the data analysis and findings of the three sections of the data collection tool, namely generic competencies, discipline-specific competencies, and student success mechanisms. Both the quantitative data linked to the five-point Likert scale, as well as the explanatory qualitative data are analysed and discussed. The data were analysed according to the quantitative and qualitative analyses steps stipulated in section 5.3.6.

The data collection tool used in this section had limitations. First, the low response rate of the questionnaire survey decreased the trustworthiness of the quantitative data set; however, the related qualitative data provided good reasons for the patterns of quantitative data distribution. Second, a few competencies were omitted (by accident) from the quantitative sections (e.g. efficiency, adaptable in nature and attention to detail); however, they surfaced in the explanatory qualitative sections of the questionnaire and therefore still were included in the proposed (preliminary) framework. Three competencies (i.e. accuracy, interpersonal skills and subjectivity) were omitted (by accident) from both the quantitative and qualitative sections of the questionnaire survey; however, HE teacher participants did not mention any of these competencies as possible competencies of importance that need to be included in the preliminary framework. Lastly, one competency was categorised as both a generic and discipline-specific competency (i.e. a dual competency) rather than only a discipline-specific competency, which is not in line with the information in Table B.1 (i.e. work under pressure). These errors form part of the limitations of this study which are discussed in section 8.6.

6.2.2.1 Quantitative data analysis and interpretation of South African higher education teacher participants' ratings of importance

The quantitative data set in the questionnaire yielded low response rates (see Table 5.2; Section B.1: *n = 25; 36.76%*; Section C.1: *n = 16; 25.53%*; Section D.1: *n = 33; 48.53%*). This impacts the adequacy/ trustworthiness of the data collection tool; therefore, most if not all of the findings are open to discussion since the validity and reliability of the data set might be questionable. Tables 6.4 to 6.6 summarise the univariate and bi-variate data analyses and include the statistical calculations for the frequency, mean, and standard deviation as stipulated in section 5.3.6. Taking cognisance of the interpretation of the quantitative data, the tentative decision was made to include generic and discipline-specific competencies and student success mechanisms with a mean importance rating of 4.00 or more in the preliminary framework (see Chapter 7). However, all ratings were interpreted and considered with due consideration of the comments and suggestions made by the participants in the qualitative component of the questionnaire survey (see 6.2.2.2). The final list of generic and discipline-specific competencies is presented in section 6.4.

6.2.2.1.1 Quantitative data analysis and interpretation of respondents' importance ratings of generic competencies

Twenty-five HE teacher participants (*n = 25; 36.76% of the overall number of participants)* from AAPs for various disciplines (including graphic design) completed the generic competency section of the data collection tool (see Appendix D.1). Thirty-eight (38) generic competencies were listed in Table B.1. Three generic competencies were accidentally omitted (i.e. accuracy, efficiency, and interpersonal skills); therefore only 35 generic competencies are listed in Appendix D.1. Appendix D.1 documents the number/frequency and percentage of participants' importance selection of the listed generic competencies. The overall mean of importance for all listed generic competencies is 4.13, which suggests that the competencies listed in the appendix are regarded as either *important* or *very important* for AAP HE teachers; however, the mean importance rating of each listed competency was used to include or exclude generic competencies. The small standard deviation of the overall importance rating *(s = 0.43)* indicates that the listed competencies' importance ratings are clustered closely around the mean importance rating, as is evident from the Bell chart's curve in Figure 6.7.

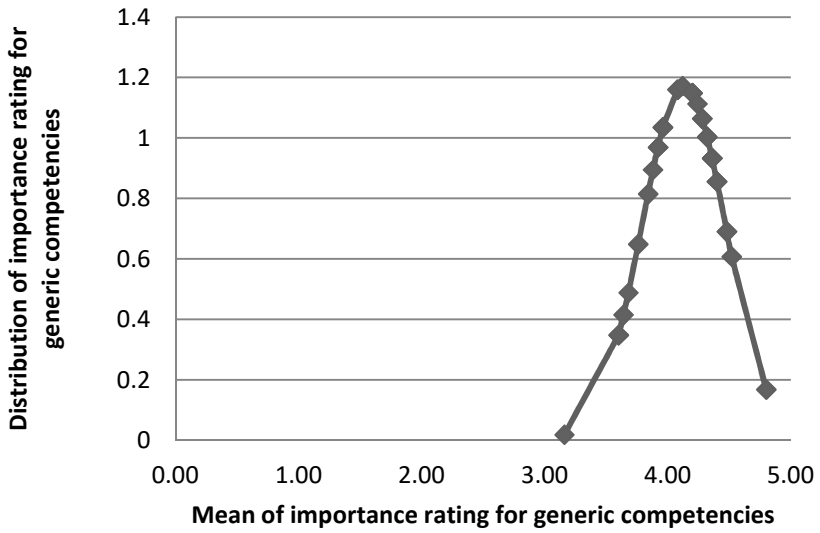


Figure 6.7: Bell chart of distribution and mean importance rating for generic competencies listed in Appendix D.1

Interpreting the data in more detail reveals that the mean of the importance rating for twelve of the generic competencies listed in Appendix D.1 was below 4.00 (marked in red); therefore, these generic competencies were tentatively excluded from the preliminary framework. E-learn technologies, emotional intelligence, memory and presentation skills are competencies that were only listed as generic competencies; whereas the other excluded competencies were dual competencies (i.e. both generic and discipline-specific). The importance ratings for the dual competencies are analysed in section 6.2.2.1.2 by taking into account how HE teachers in AAPs for graphic design and mainstream graphic design programmes rated these. Based on this, only 23 of the 35 generic competencies listed in Appendix D.1 were tentatively included in the preliminary framework in order to form the foundation component of AAPs for graphic design.

The generic competency with the highest mean importance rating is communication skills (written and oral; *mean = 4.80*). Eighty percent *(n = 20; 80%)* of the HE teachers indicated that this competency is *very important*. The importance of communication skills was also highlighted in the responses of HE teacher participants in the SOAR analysis (see 6.3.1.2), while it was listed as a personal characteristic that a graphic designer should possess in the majority of job descriptions analysed in Chapter 4 (see 4.6.1). At the other end of the spectrum, the lowest mean importance rating for the listed generic competencies was awarded to entrepreneurial skills by HE teacher participants *(mean = 3.16).* Thus this skill was subsequently (tentatively) excluded from the proposed preliminary framework.

6.2.2.1.2 Quantitative data analysis and interpretation of respondents' importance ratings of discipline-specific competencies

Appendix D.2 documents the number/frequency of the importance rating of each discipline-specific competency by sixteen HE teacher participants *(n = 16; 23.53% of all participants*) involved in AAPs for graphic design and/or mainstream graphic design programmes. Table B.1 listed 41 discipline-specific competencies; however, only 35 competencies eventually have been listed in Appendix D.2 due to accidentally having omitted six discipline-specific competencies (i.e. accuracy, adaptable in nature, attention to detail, efficiency, interpersonal skills, and subjectivity). The overall mean of the importance rating of discipline-specific competencies *(mean = 4.25)* is 0.12 higher than the mean of the importance rating of the generic competencies (see 6.2.2.1.1); the standard deviation of the importance ratings of discipline-specific competencies *(s = 0.31)* is 0.03 lower than that for the generic competencies (see 6.2.2.1.1). These statistical differences are not significant. The mean of 4.25 indicates that overall the listed discipline-specific competencies are regarded as *important* to *very important* by HE teacher participants; the standard deviation of 0.31 suggests that the competencies listed in Appendix D.2 are clustered closely around the mean of the importance rating. This is also evident from the Bell chart shown in Figure 6.8. The mean of importance of each listed competency was used as guideline for either the inclusion or exclusion of discipline-specific competencies in/from the preliminary framework.

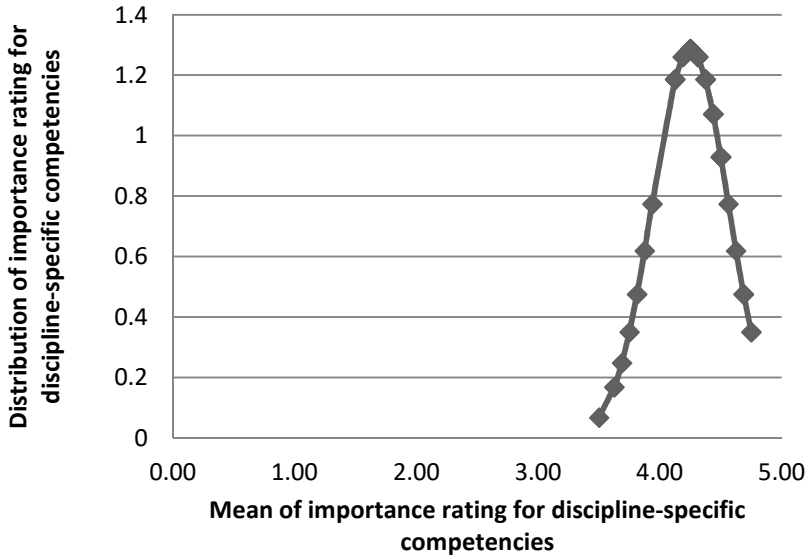


Figure 6.8: Bell chart of distribution and mean importance rating for discipline-specific competencies listed in Appendix D.2

The discipline-specific competency with the highest mean importance rating was applying design techniques *(mean = 4.75)*. Thirteen HE teacher participants *(n = 13; 81.25%)* indicated that applying design techniques is *very important*. Application of design techniques forms part of the design product competencies listed in section 4.5. This finding is supported by Lindström (2006:61) who emphasises the importance of the design product, since it is the only outcome of the design process that the public can see. This also is confirmed by the mean of the importance rating *(mean = 4.63)* of the three design product competencies in the list (i.e. applying design techniques, applying design elements and principles, and visual communication). However, the mean of the importance rating for the design process *(mean = 4.28)* and person (i.e. the designer himself/herself; *mean = 4.15)*, also confirms the importance of these two themes for HE teacher participants. In the past, the design product overshadowed the process in design education; however, this is not the case anymore (Cassim, 2013:192; De la Harpe et al., 2009:42; Fernando, 2006:10) (see 4.4). The personal characteristics of a graphic designer and professional and ethical behaviours of graphic designers are also important since these competencies influence a designer's process which is very personal and unique (Smith and Smith, 2012:93) (see 4.6). The three themes of Chapter 4 (i.e. competencies for the design process, competencies for the design product, and the personal competencies of graphic designers) influence each other, and therefore are interrelated as discussed in the summary of Chapter 4 in section 4.7.

The two discipline-specific competencies with the second highest mean importance rating of 4.69 are applying design elements and principles and creative thinking skills. Thirteen HE teacher participants *(n = 13; 81.25%)* rated the application of design elements and principles as *very important*; i.e. the same number of HE teacher participants who rated applying design techniques as *very important*. Applying

design elements and principles, together with applying design techniques, is associated with the design product which is discussed in section 4.5. Creative thinking skills also is a design process competency and is associated with being creative (Lau et al., 2009:71-72) and possessing critical thinking skills (Paul and Elder, 2006:34). Creativity is a key competency of being a graphic designer (see 4.4.2). This competency can be developed through other competencies such as collaboration, curiosity, imagination, innovation, originality, solving problems, and design orientated thinking skills (see Table 4.3). Creative thinking skills obtained a mean of importance of 4.69 and was rated by 75% *(n = 12)* of the HE teacher participants as *very important*.

Seven discipline-specific competencies listed in Appendix D.2 eventually (tentatively) were excluded from the proposed preliminary framework since these competencies all obtained a mean below 4.00 (marked in red). These are curiosity, entrepreneurial skills, intuition, multi-tasking, responsibility towards other designers, responsibility towards the community, and responsibility towards the profession. Four of these competencies (i.e. entrepreneurial skills, multi-tasking, responsibility towards the community, and responsibility towards the profession), however, were listed as dual competencies (i.e. generic and discipline-specific competencies), in the questionnaire and also received a mean importance rating below 4.00 among the generic competencies discussed in section 6.2.2.1.1 (see Appendix D.1). Collaboration with individuals and group work/team work *(mean = 4.31)*, design-orientated thinking skills *(mean = 4.56)*, reflection *(mean = 4.31)* and responsibility towards clients/employers *(mean = 4.13)* are dual competencies which were excluded in the generic competency rating of importance from the proposed preliminary framework (see 6.2.2.1.1), but not from the discipline-specific rating of importance. The difference between the mean importance ratings for these three competencies may be due to the importance that graphic designer HE teachers place on these competencies in the graphic design discipline (see 4.4 and 4.6). Therefore, these three competencies are listed only as discipline-specific competencies in the preliminary framework. Intuition is the design-specific competency with the lowest mean importance rating *(mean = 3.50)* and was subsequently (tentatively) excluded from the proposed preliminary framework. Thirty-one (31) of the 35 listed discipline-specific competencies were tentatively included in the preliminary framework after the data analysis and interpretation, including the new discipline-specific competency of developing an aesthetic gaze. This competency can be associated with the developmental outcome of South African Qualification Authority (SAQA), namely *being culturally and aesthetically sensitive to a range of different social contexts* (Republic of South Africa [RSA] National Qualifications Framework [NQF], n.d.:1; SAQA, 2000:18-19). The ability to produce a design product that is aesthetically sensitive to different social and/or cultural contexts is extremely important in a diverse country such as South Africa since a designer needs to communicate an intended message to a specific cultural or social group in society (i.e. to communicate visually; see 4.5.3).

6.2.2.1.3 Quantitative data analysis and interpretation of respondents' importance ratings of student success mechanisms

Appendix D.3 summarises the frequency of responses per rate of importance of the list of five student success mechanisms derived from the literature (see 3.3). An average of 53.94% of the respondents indicated that these mechanisms were regarded *very important* with only one participant selecting either the *not important* or *less important* category in only two of the success mechanisms (i.e. academic advising, and high impact, and alternative teaching and learning strategies). The overall mean of the success mechanisms is calculated as 4.41 with a small standard deviation of 0.31. No success mechanism obtained a mean importance rating below 4.00; therefore, all the listed success mechanisms in Appendix D.3 were included in the preliminary framework. Figure 6.9 depicts the clustered distribution of the listed student success mechanisms listed in Appendix D.3 around the overall mean of the importance rating of 4.41. The distribution of the importance rating of student success mechanisms is similar to Figures 6.7 and 6.8.

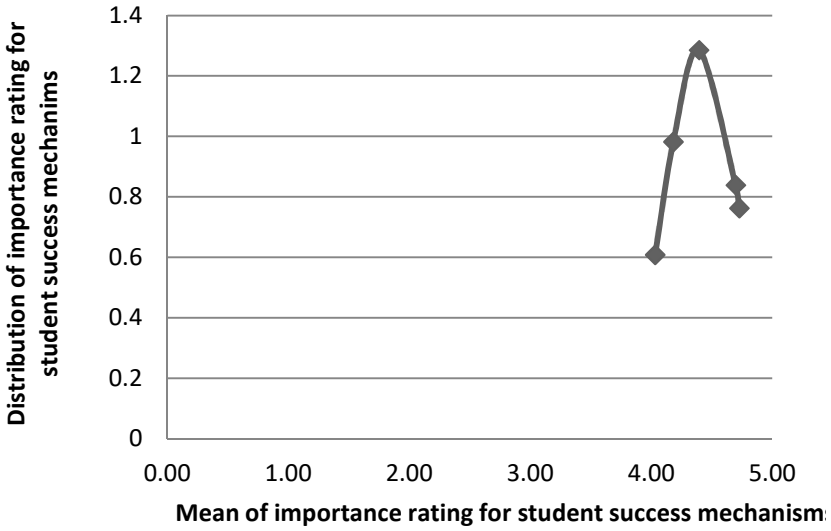


Figure 6.9: Bell chart of distribution and mean of the importance rating of student success mechanisms listed in Appendix D.3

Student engagement and motivation both were selected most times in the *very important* category *(n = 24; 72.73%)*. The interrelatedness of these two mechanisms is implied in the qualitative data analysis of this data set discussed in section 6.2.2.2. Both these mechanisms also relate to the learning environment (see 3.3.2). Strydom and Mentz (2010:3) note that student motivation in conjunction with academic preparation (which is a curriculum design focus for AAPs) and higher admission requirements may address low graduation rates in HEIs. The increase of HE admission requirements also is noted in the SOAR analysis reported in section 6.3.1, and which HE teacher participants described as an aspiration, opportunity and result for the particular AAPs that were evaluated. However, the increase of HE admission requirements does not link well with the main purpose of the Higher Education Act 101 of 1997

(e.g. widening access and equal opportunities) (RSA, 1997) (see 3.2.1). Therefore, in order to address low graduation rates, curriculum designers should rather focus on implementing and combining all the listed student success mechanisms in order to enhance student success.

Three additional student success mechanisms, however, were suggested by participants, namely repetitive remedial actions, a writing centre, and improving study skills. The writing centre can be linked to the competency of communication skills, and appropriate study skills already have been included as a generic competency that is required of students in AAPs. Therefore, only repetitive remedial actions are included as an additional student success mechanism in the preliminary framework.

6.2.2.1.4 Summary of the quantitative analysis of the HE teachers' importance ratings of competencies and success mechanisms

The quantitative data analysis of the questionnaire survey aimed at objectives 1 and 2 identified the generic and discipline-specific competencies, as well as student success mechanisms which should be (tentatively) included in or excluded from the proposed preliminary framework. The mean of the importance rating of each listed generic and discipline-specific competency was used to determine their inclusion or exclusion (see 6.2.2.1.1 and 6.2.2.1.2). As a result the total number of competencies was tentatively reduced from 54 competencies listed in Table B.1 in the questionnaire to 38 competencies which are listed in Table 6.4. Fourteen of the included competencies are categorised as dual competencies (i.e. they are generic and discipline-specific competencies). A new discipline-specific competency (developing an aesthetic gaze) was also identified and included in the preliminary framework. The following generic and/or discipline-specific competencies *(n = 17)* were tentatively excluded during the data analysis and interpretation of the quantitative component of the questionnaire survey:

- Adaptable in nature
- Attention to detail
- Accuracy
- Curiosity
- E-learn technologies
- Efficiency
- Emotional intelligence
- Entrepreneurial skills
- Interpersonal skills
- Intuition
- Memory
- Multi-tasking
- Presentation skills
- Responsibility towards the community
- Responsibility towards the profession
- Responsibility towards other designers
- Subjectivity

A few of the listed competencies above accidentally were omitted from the questionnaire, as indicated in section 6.2.2.1; however, the decision was made to tentatively exclude these competencies since none of

HE teacher participants listed any of these as *other* competencies in the questionnaire survey. The qualitative component discussed in section 6.2.2.2 will provide guidance as to whether these competencies should indeed be excluded since the ratings need to be interpreted and considered with due consideration of the comments and suggestions made by the participants.

Table 6.4: Preliminary list of generic and discipline-specific competencies for alternative access programmes for graphic design based on the quantitative data analysis and interpretation of survey data aimed at objectives 1 and 2 (excluding new competencies)

DISCIPLINE-SPECIFIC COMPETENCIES	DUAL COMPETENCIES	GENERIC COMPETENCIES
Applying design elements and principles	Communication skills (written and oral)	Computer skills
Applying design techniques	Creative thinking skills	Information literacy
Collaboration with individuals and group work/teamwork	Critical thinking skills	Learning styles and strategies
Creativity	Deadline-orientated	Listening and note-taking
Design-orientated thinking skills	Innovative thinking skills	Reading skills
Imagination	Interpretation of information	Referencing
Innovation	Organisational and planning skills	Research skills
Observation	Problem solving	Revision and examination techniques
Originality	Self-management	Study skills (appropriate)
Passion	Self-motivated / motivation	
Prioritise workload/tasks	Stress management	
Reflection	Time management skills	
Responsibility towards clients/employers	Visual communication	
Work under pressure	Work independently	

The calculation of the mean of the importance ratings for each of the student success mechanisms listed in Appendix D.3 confirmed that all five these success mechanisms should be included in the preliminary framework since these all obtained a mean of 4.00 or more. An additional three student success mechanisms were listed by HE teacher participants; however, only one of them was included in the preliminary framework since the writing centre and improved study skills already were included as part of other competencies listed in Table 6.4. Therefore, the following six student success mechanisms were included in the preliminary framework:

- Academic advising
- Positive learning environment
- High impact and alternative teaching and learning strategies
- Student engagement
- Student motivation
- Repetitive remedial actions

6.2.2.2 Qualitative data analysis of South African higher education teacher participants' responses

The purpose of the data collection tool (i.e. the web-based questionnaire) was to investigate the importance of the listed generic and discipline-specific competencies as well as the five student success mechanisms derived from the non-empirical literature study. The purpose was to generate critical elements that need to be included in the preliminary curriculum design framework referred to in research objective 4. Qualitative data were collected to elucidate the quantitative data collected.

The qualitative data collected first were assigned a primary code in Atlas.ti. A broader secondary code was then assigned by using Atlas.ti's code group manager. These codes were generated in accordance with the competencies and success mechanisms shown in Table B.1 in Section B of this study. Primary codes were assigned by grouping similar concepts that were included/implied within lines, sentences and/or paragraphs that were written by the HE teacher participants as motivation(s) for the importance of a specific competency. The categorisation of primary and secondary codes under the three themes (i.e. curriculum design components of AAPs, competencies required of graphic designers, and student success mechanisms) and their relationships to each other is visually presented in an organic network diagram generated with straight routes by Atlas.ti and that is shown in Figure 6.11. In the figure, the themes are identified by means of red blocks, the secondary codes are highlighted in yellow, and primary codes are shown in white in the network diagram. The relationships of the different codes to each other and with the themes were noted in the network diagram through the use of the relation manager of Atlas.ti. A larger, structured organic network diagram is included in Appendix D.4 in order to aid data interpretation by the researcher and the reader. Figure 6.10, on the other hand, shows a word cloud of the primary codes that were assigned from the data set through Atlas.ti. The most frequently used words from the codes are displayed in larger font sizes than the other primary codes.

At first glance the low response rate to the web-based questionnaire decreased the trustworthiness of the instrument; however, the qualitative data set eventually was richer than originally thought. The analysis of the qualitative data illuminated the association of the competencies and success mechanisms with several curriculum design components identified in the literature review (see 2.3.6), namely intended learning outcomes (ILOs) of the programme, content, teaching and learning activities (TLAs), and assessment tasks (ATs). Appendix D.7 provides a summary of the number of participants (frequencies) who referred to issues related to the primary and secondary codes of the data set per theme for South African HE teacher participants in AAPs for various disciplines (including graphic design) and mainstream graphic design programmes. Although frequencies mostly are used when analysing quantitative data, the purpose of this appendix is to provide a summary of the qualitative data analysis rather than statistical data. Two hundred and fifty-one (251) primary codes were assigned and were eventually grouped under 60 secondary codes.

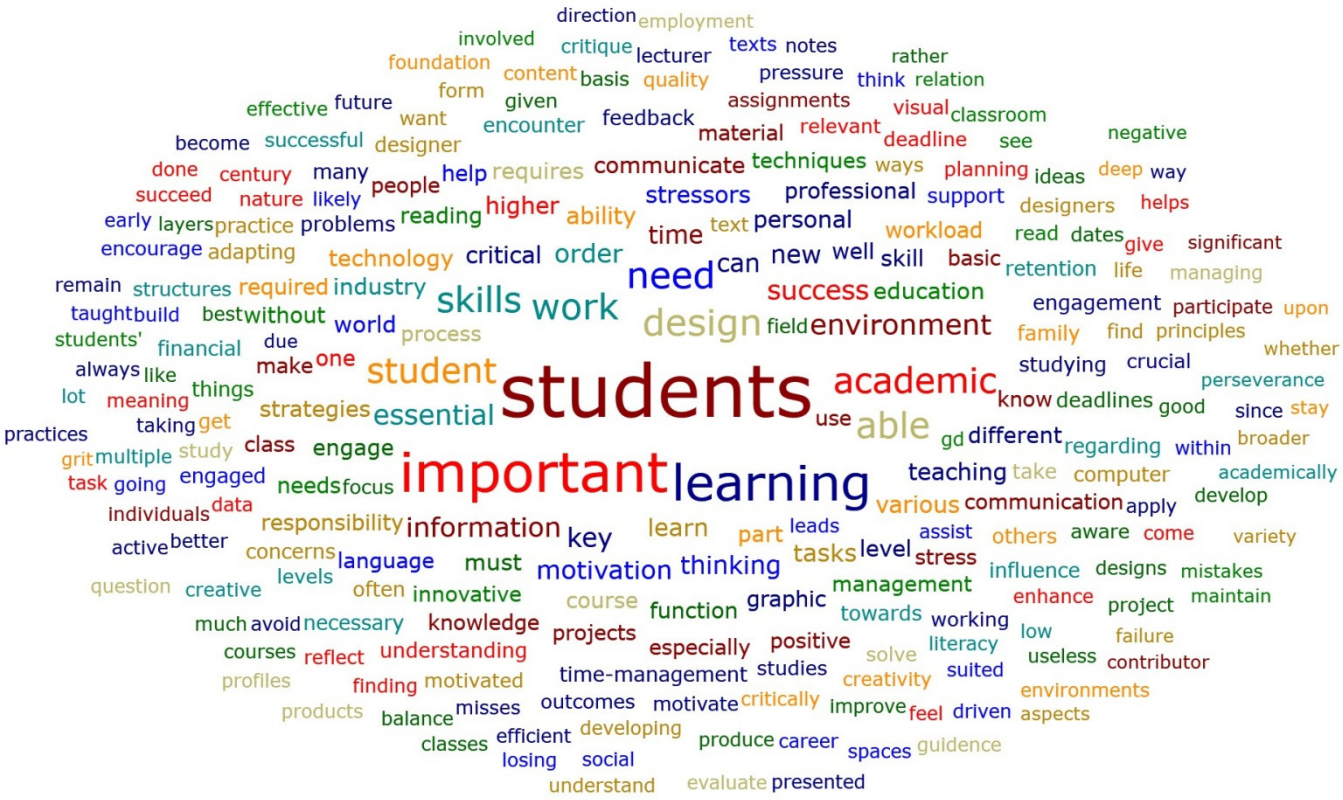


Figure 6.10: Word cloud of primary codes assigned to the data set collected in view of objectives 1 and 2 (generated by Atlas.ti)

Figure 6.11 displays the organic network diagram generated by Atlas.ti; a larger copy is available in Appendix D.4.

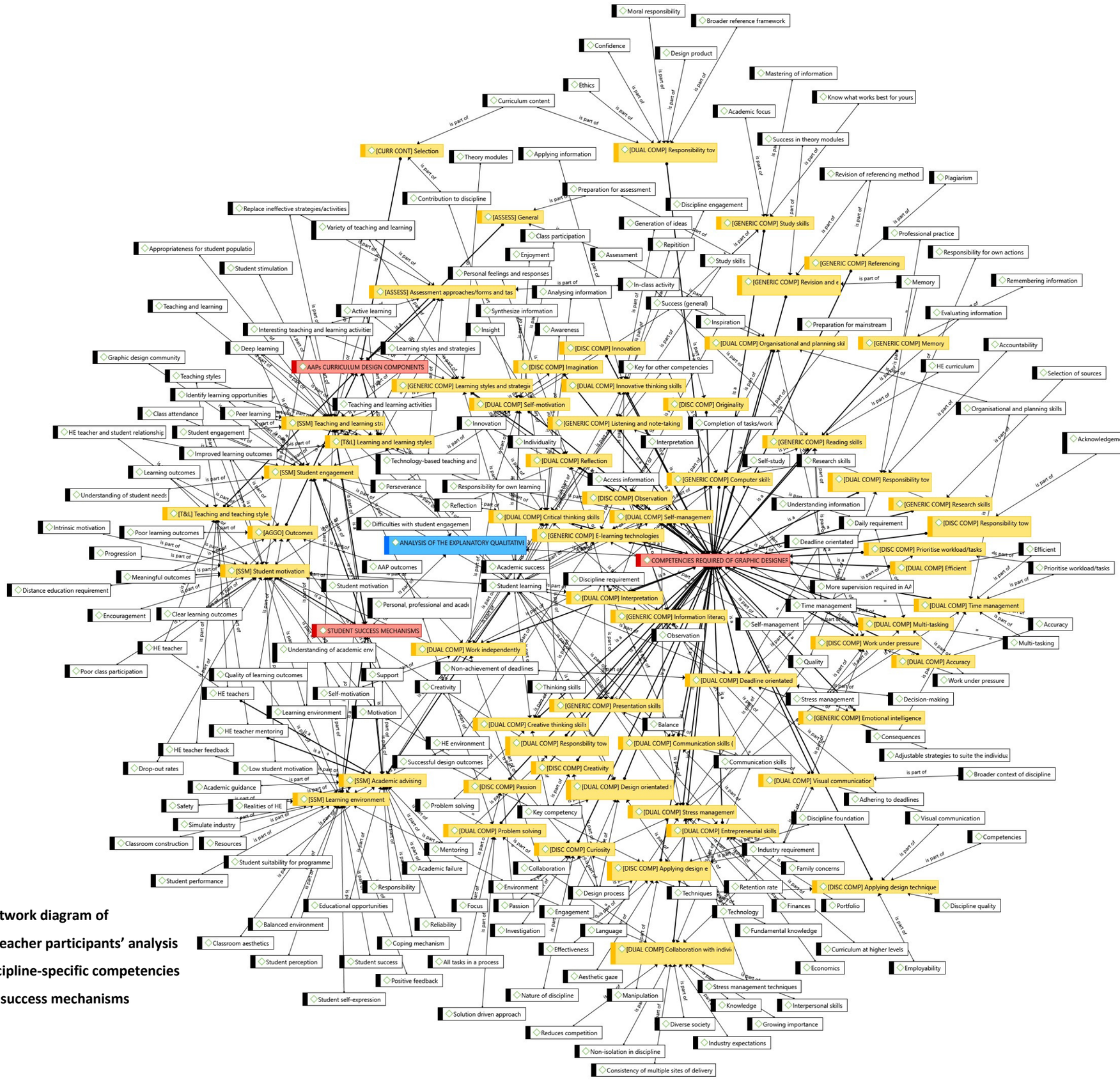


Figure 6.11: Organic Atlas.ti network diagram of South African HE teacher participants' analysis of generic and discipline-specific competencies as well as student success mechanisms

6.2.2.2.1 Qualitative data analysis and interpretation of curriculum design components of AAPs

Six secondary codes were assigned under the theme curriculum design components of AAPs (see Appendix D.7), namely ILOs, curriculum content selection, learning and learning styles, teaching and teaching styles, assessment approaches/forms and tasks, and general aspects related to assessment.

a) Aims, goals and intended learning outcomes of AAPs for graphic design

Topics that relate to the secondary code of ILOs and that were included in the non-empirical literature study discussed in section 2.3.6.2.2 include the following: Outcome-Based Education (OBE); constructive alignment between ILOs, TLAs and ATs; the various levels at which ILOs are formulated; and the level of understanding/taxonomy of ILOs required of students. Primary codes generated from the responses of HE teachers list clear, improved, meaningful, and successfully designed ILOs which may enhance the quality of the designed ILOs. The writing of clear ILOs (which both student and teacher understand) can be used in order to focus the other components in the curriculum design (Biggs and Tang, 2011:119-125; Geyser, 2004:152) (see 2.3.6.2.2d).

The use of taxonomies of learning objectives or ILOs enables curriculum designers to ensure that student learning, which is the code with the highest frequency *(n = 47)*, is deliberately planned constructively by aligning the ILOs, TLAs and ATs with each other (which is a design requirement according to Biggs and Tang, 2011:105) (see 2.3.6.2.2b). Five of the levels in Anderson and Krathwohl's (2001) revised version of Bloom's taxonomy (RBT) also were identified in the analysis, namely understanding, remembering, applying, analysing, and evaluating. No code was assigned to the highest cognitive level in this taxonomy, namely creating (see 2.3.6.2.2b). However, this activity (i.e. creating) can be associated with the code of creativity which also is a key competency required of graphic designers (also see 4.4.2).

The affective and psychomotor domains of student learning (see 2.3.6.2.2e) also were identified in the data analysis. The code organisation and planning skills relate to the fifth level of the affective domain (see Table 2.3); whereas communication skills and visual communication can be associated with perceptual abilities in the psychomotor domain (see Table 2.3). The employment of various levels within different taxonomies when designing ILOs for AAPs for graphic design, ensures an appropriate balance (Carl, 2012:72; Gorton, 1976:236-239, cited in Carl, 2012:71-72; Ornstein and Hunkins, 2014:158-161) (see2.3.6.2.2e) and that the ILOs are derived from the discipline's and profession's knowledge base (Council on Higher Education [CHE], 2004:24) (see 2.3.6.2.2). This may be achieved by formulating ILOs that develop both generic and discipline-specific competencies (Kloot et al., 2008:804-805; CHE, 2013:70) (see Table B.1 and 2.3.6.2.2), and by formulating the ILOs open-ended, since this is essential for the development of a creative response from students in design education (Shreeve, 2015:86) (see 3.2.2.1.2). The above-mentioned information pertaining to taxonomies is supported by the following verbatim comments of some of the respondents in the web-based questionnaire survey:

Illustrative verbatim quotes - Taxonomies

…students should be able to search and comprehend information from various sources to build on their own opinion, etc. (N_HET 66:1:114) – information literacy

Critical thinking skills must be enhanced in order to be able to evaluate, reflect, critique and synthesize information concerning students' academic and personal lives. (N_HET 56:1:66) – critical thinking

It is not enough to regurgitate facts; students also have to offer opinions and interpretations of the material they are presented with. (N_HET 36:1:123) – interpretation

All work in this qualification involves the [ability] to communicate with others through visuals and products involving visual observations. (N_HET 36:1:237) – visual communication

ILOs also should accommodate the graduate attributes of the institution, of the specific programme, as well as of the module (Biggs and Tang, 2011:113) (see 2.3.6.2.2c). Graduate attributes of South African HEIs also should be aligned with the critical cross-field outcomes (CCFOs) and developmental outcomes prescribed by SAQA (2000:14-15) (see 2.3.1 for all the requirements of a programme in South African HEIs). Several of the generic and discipline-specific competencies derived from the literature consulted are linked to the CCFOs and developmental outcomes listed by the RSA NQF (n.d.:1) and SAQA documents (2000:18-19) (see 2.1.1; see Table 6.5).

It is important to note that the quantitative data analysis and interpretation reported in sections 6.2.2.1.1 and 6.2.2.1.2, tentatively excluded competencies related to e-learn technologies, efficiency, emotional intelligence, entrepreneurial skills, memory, multi-tasking, presentation skills; and the responsibility towards the community, profession (i.e. graphic design) and other designers, since these competencies had a mean importance rating below 4.00 (for both the generic and discipline-specific competency categories). Although these competencies are associated with either the CCFOs and/or developmental outcomes of SAQA (see 2.1.1 and Table 3.5), the tentative decision was taken to include these competencies only if they are extensively motivated in the qualitative data set of the questionnaire survey (see 6.2.2.2.2). Table 6.5 depicts the alignment of generic and discipline-specific competencies with the SAQA CCFOs and developmental outcomes. The tentatively excluded competencies from the quantitative data analysis are indicated with a light grey background.

Table 6.5: Alignment of generic and discipline-specific competencies with the South African Qualifications Authority (SAQA) critical cross-field and developmental outcomes

Critical cross-field and developmental outcomes (RSA NQF, n.d.:1; SAQA, 2000:18-19)	Generic and discipline-specific competencies
Identify and solve problems that display responsible decision-making using critical and creative thinking	Critical thinking skills (see 4.4.13.2)
	Creative thinking skills (see 4.4.13.1)
	Problem solving (see 4.4.10)
Work effectively as a member of a team, group, organisation and/or community	Collaboration with individuals and group work/team work (see 4.1.1)
Organise and manage yourself and your activities responsibly and effectively	Deadline orientated (see 4.6.1)
	Efficiency (see 4.6.1)
	Multi-tasking (see 4.6.1)
	Organisational and planning skills (see 4.6.1)
	Prioritise workload/tasks (see 4.6.1)
	Self-motivated (see 4.6.1)
	Self-management (see 3.2.2.1.3)
	Stress management (see 3.2.2.1.3)
	Time management skills (see 4.6.1)
	Work independently (see 4.6.1)
	Work under pressure (see 4.6.1)
Collect, analyse, organise and critically evaluate information	Interpretation of information (see 4.1.1)
	Information literacy (see 3.2.2.1.3)
	Organisational and planning skills (see 4.6.1)
	Research skills (see 3.2.2.1.3)
	Referencing (see 3.2.2.1.3)
Communicate effectively through oral and/or written presentations by using visual, mathematical and/or language skills	Communication skills (see 4.6.1)
	Presentation skills (see 3.2.2.1.3)
	Reading skills (see 3.2.2.1.3)
	Visual communication (see 4.5.3)
Use science and technology effectively and critically, showing responsibility towards the environment and health of others	Applying design techniques (see 2.5.2)
	Computer skills (see 3.2.2.1.3)
	E-learning technologies (see 3.2.2.1.3)
	Information literacy (see 3.2.2.1.3)
	Responsibility towards the community (see 4.6.2)
Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation	Thinking skills (see 4.4.13)
Reflect on and explore a variety of strategies to learn more effectively	E-learning technologies (see 3.2.2.1.3)
	Learning styles and strategies (see 3.2.2.1.3)
	Listening and note-taking (see 3.2.2.1.3)
	Memory (see 3.2.2.1.3)
	Reflection (see 4.4.11)
	Revision and examination techniques (see 3.2.2.1.3)

Critical cross-field and developmental outcomes (RSA NQF, n.d.:1; SAQA, 2000:18-19)	Generic and discipline-specific competencies
Participate as a responsible citizen in life locally, nationally and globally	Emotional intelligence (see 3.2.2.1.3)
	Responsibility towards the community (see 4.6.2)
	Responsibility towards the clients/employers (see 4.6.2)
Be culturally and aesthetically sensitive to a range of different social contexts	Aesthetic gaze (development) (see 6.2.2.1.2)
	Responsibility towards the profession (see 4.6.2)
Explore education and career opportunities	Responsibility towards the profession (see 4.6.2)
Develop entrepreneurial opportunities	Entrepreneurial skills (see 4.6.1)

b) Selection of curriculum content for AAPs for graphic design

The secondary code for selection of curriculum content is not a major code category in this theme; however, it is a prominent secondary code in the SOAR analysis focusing on objective 3 (see 6.3.1.2). One HE teacher participant noted that the selection of curriculum content should contribute to the discipline. This may be achieved by:

- *balancing experiential, practical and theoretical knowledge and skills with sufficient disciplinary content and theoretical depth* (CHE, 2004:7-8) (see 3.2.1);
- *incorporating sufficient disciplinary content at an appropriate level to serve the programme's purpose* (CHE, 2004:7-8) (see 3.2.1);
- *revising the content every semester/year to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design* (Finch and Crunkilton, 1993: 131; Stenhouse, 1975:85; Tovey, 2015:1) (see 3.2.2.1.3), and
- *selecting content according to the key procedures, concepts and criteria of the discipline* (Stenhouse, 1975:71) (see 3.2.2.1.3).

c) Teaching and learning activities for AAPs for graphic design

The developmental outcome of *reflecting on and exploring a variety of strategies to learn more effectively* is in alignment with SAQA's requirement of achieving the programme outcomes through a variety of TLAs that are constructively aligned with both the ILOs and ATs the students have to achieve and do (Biggs and Tang, 2011:105; SAQA, 2000:14-15) (see 2.3.6.2.2b). Five respondents maintained that a variety of TLAs is a requirement for student success. This relates to the secondary codes of *learning and learning styles; and teaching and teaching styles*.

Illustrative verbatim quotes - Teaching and learning strategies

Different techniques and strategies directly affect [the] impact of learning. (N_HET 1:1:326)

Incorporating various teaching and learning strategies in the facilitation of course work, are essential to encourage students to engage in deep learning. (N_HET 52:1:336)

HE teachers need to acknowledge the different learning styles of a diverse student population in South Africa (Altbach et al., 2009:17; CHE, 2013:108; RSA DoE, 1997:17), as well as their different cultures (pertaining to political views, social trends, economic stances, and so forth; Ismail and Hassan, 2012:279,289). AAP for graphic design students may benefit from employing higher-order thinking skills to foster deep learning (Fry et al., 2009:10-11) (see 2.3.6.2.2e for taxonomies); however, HE teachers need to acknowledge the discipline-specific characteristics of these students' learning and use these to identify suitable TLAs according to the type of module (see 3.2.2.1.4). It is important to motivate students to take responsibility for their own learning since this is a complaint often heard in informal discussions amongst graphic design HE teachers (see 6.2.2.2.3).

Illustrative verbatim quotes - Learning styles

By employing different methodologies you are catering to all the different learning styles that students have. (N_HET 50:1:334)

HE teachers also should employ a teaching style that is in alignment with their students' learning needs (Peacock, 2001:15), and epistemological stances (Morrow, 2007:20) (see 2.3.6.4.2 and 3.2.2.1.4). HE teachers further may mentor AAP for graphic design students and foster a positive relationship with these students in order to promote student learning and engagement (see 3.3.4). Students often request feedback from HE teachers (see the frequency tables in sections 6.2.2.2, 6.3.1.2, and 6.3.2.2); however, Angelo (1993:3-8) suggests that HE teachers should also teach students how to give feedback to themselves, which is one of the principles of HE teaching (see 2.3.6.4.1).

d) Assessment tasks for AAPs for graphic design

The importance of constructive alignment of ATs with ILOs and TLAs is noted by several primary codes in Appendix D.7 (*cf.* Biggs and Tang, 2011:105) (see 2.3.6.2.2b). Adequate preparation for assessments was noted by one HE teacher participant and can be achieved by employing *revision and exam techniques* which are listed as a generic competency in Table B.1, as well as in Appendix D.7. A variation of assessment approaches/forms and tasks is recommended; however, these should accommodate the needs of a diverse student population (see Table 2.13), and nurture discipline-specific practices (such as the crit session; Park, 2008:229; Temple, 2010:121) (see 2.3.6.5). Overall, HE teachers need to adhere to the principles of good

assessment (validity, reliability, fairness, and practicability; SAQA, 2001:8,16-19) (see Table 2.11; see 2.3.6.5)[3].

6.2.2.2.2 Qualitative data analysis and interpretation of competencies required of graphic designers

This section reports on the qualitative data analysis and interpretation pertaining to the generic and discipline-specific competencies listed in the web-based questionnaire aimed at achieving research objectives 1 and 2. The aim of this step in the analysis and interpretation of data was to update the preliminary list of generic and discipline-specific competencies for the preliminary framework (in which certain competencies either were included or excluded [section 6.2.2.1.4]), by taking into account the comments and suggestions made by the HE teacher participants in the qualitative component of the mentioned questionnaire survey.

a) Design product competencies required of graphic designers

The application of design principles and elements; the application of design techniques, and visual communication are secondary codes obtained through the data analysis and that are associated with the design product (see 4.5). Applying design techniques (see 4.5.2) was identified by HE teacher participants as the discipline-specific competency with the highest mean importance rating in section 6.2.2.1.2 *(mean = 4.75)*. Design techniques involve media and tools (traditional and digital tools) that graphic designers use to create the design product (see 4.5.2). Participants motivated the importance of this competency in the qualitative section of the questionnaire survey, as can be seen from the primary codes associated with discipline quality, employability, the various techniques involved and the role that the application of design techniques plays in visually communicating an intended message. The importance of the application of design elements and principles (see 4.5.1), which was also identified as a prominent discipline-specific competency in section 6.2.2.1.2 *(mean = 4.69)*, was motivated by HE teacher participants as the foundation of the discipline, since it provides fundamental knowledge that is required by the graphic design industry and it ensures adequate quality graphic design products/outcomes. Visual communication (see 4.5.3) also forms part of the CCFOs of SAQA (see Appendix D.7) and is regarded as a dual competency (i.e. both generic and discipline-specific).

Illustrative verbatim quotes – Applying design techniques

> *It [is] a technologically situated field, keeping up to date with these requirements is important for employability.* (N_HET 68:1:276) – employability
>
> *Without these basic design skills a [d]esign student's qualification would be useless.* (N_HET 76:1:277) – discipline quality

[3] See comment in section 7.4.5.1 with reference to the expansion of the principles of good assessment to ten principles (e.g. validity, reliability, integrity, transparency, accountability, fairness, absence of bias, sensitivity to language, credibility in the form of supportive administration, and assessment range; RSA SAQA, 2014:11-12).

Illustrative verbatim quotes – Applying design principles and elements

Without a solid base design can [easily] become mediocre. (N_HET 37:1:265) – quality

Application of design elements and principles is the basic and fundamental knowledge a designer must know and master. In every profession, mastering the basics is very [important]. [I]t is the foundation that all other structures can be built upon. (N_HET 57:1:266) – discipline foundation

b) Design process competencies required of graphic designers

The importance of the design process is noted in the literature (see 4.4) and supported by various motivations of HE teacher participants. The design process involves the transformation of an idea through sketches and plans into a design product/outcome (Sjöberg, 2009:73). It is regarded as the most important part of graphic design and should be the main focus of design students (De la Harpe et al., 2009:46), since it is a skill which graphic designers can take into the workplace (McAllister, 2010:78). Discipline-specific competencies (excluding those competencies that are categorised as dual competencies) associated with the design process which were motivated by the HE teacher participants were creativity (see 4.4.2), curiosity (see 4.4.3), imagination (see 4.4.4), innovation (see 4.4.6), observation (see 4.4.8), and originality (see 4.4.9). Important dual competencies (those competencies that are both generic and discipline-specific competencies) for the design process that are listed in Appendix D.7, are collaboration with individuals and group work/team work (see 4.4.1); creative thinking skills (see 4.4.13.1); critical thinking skills (see 4.4.13.2); design-orientated thinking skills (see 4.4.13.3); innovative thinking skills (see 4.4.13.4); interpretation (see 4.4.5); problem solving (see 4.4.10), and reflection (see 4.4.11). Curiosity, interpretation of information, intuition and subjectivity are four competencies that were tentatively excluded from the preliminary framework, in accordance with their mean importance ratings that were below 4.00 (see 6.2.2.1.4).

Illustrative verbatim quotes – Design process

Learning how to engage in the design process is key for avoiding mimicry and facilitating authentic work. (N_HET 72:1:92) – design-orientated thinking skills.

Creativity is vitally important regarding any form of design. I do believe that creativity can be taught by researching design, imitating designers or even obtaining inspiration from other factors such as music and films (during the design process). (N_HET 18:1:279) – creativity

c) Personal competencies required of graphic designers

The theme of personal competencies required of graphic designers, identified in section 4.6, includes personal characteristics, and professional and ethical behaviours required of graphic designers according to

industry expectations. Industry requirements were listed as the second most prominent primary code assigned to the qualitative data set *(n = 20).* This is a very important source required for the curriculum design of graphic design programmes, since the employability of graduates is essential in a vocational discipline (Finch and Crunkilton, 1993:13,17) (see 2.2). Secondary codes associated with the design product that were listed in the analysis of industry requirements, are design principles and elements of graphic design (see 4.5.1), as well as visual communication (see 4.5.3). Collaboration with individuals and group work/team work was identified from the qualitative data as a secondary code of the design process (see 4.4.1). In addition, communication skills, being deadline-oriented and the ability to work under pressure are industry requirements included in the personal characteristics of graphic designers (see Table 4.4).

Illustrative verbatim quotes - Industry requirements

> *In a professional working environment, you will rarely work on your own and therefore being able to successfully and productively work in a group is extremely important.* (N_HET 83:1:10)
>
> *Students must understand that when working in the industry and missing deadlines, you aren't losing marks anymore, you are losing money* (N_HET 18:1:84)

Twenty (20) of the 22 personal competencies listed in Table B.1 eventually were motivated by HE teacher participants in the web-based questionnaire survey. Adaptability in nature and attention to detail are the two competencies that were not motivated, most probably since they were accidentally omitted from the list of competencies in the questionnaire survey. Seven of the motivated personal competencies in the qualitative data set were tentatively excluded from the preliminary framework, based on their lower rating of importance in section 6.2.2.1, namely accuracy, efficiency, multi-tasking, interpersonal skills, and the responsibility towards the community, profession and other designers.

The exclusion of competencies had to be considered with due consideration of the comments and suggestions made by the participants in the qualitative component of the questionnaire survey (see 6.2.2.1). However, none of the tentatively excluded competencies listed in Table 6.4 were extensively motivated by HE teacher participants, as shown in Appendix D.7.

Decision-making is a new competency that surfaced from the qualitative data and is also implied in one of the CCFOs of SAQA, namely the *identification and solving of problems that display responsible decision-making using critical and creative thinking* (RSA NQF, n.d.:1; SAQA, 2000:18-19) (see 2.1.1). This supports the HE teachers' motivation for the inclusion of decision-making in the preliminary framework as a dual competency; it is indeed an important competency that all students should possess and not only graphic designers. An updated list of competencies (generic and discipline-specific) was derived from the entire data analysis and interpretation of both data collection tools (i.e. questionnaire survey aimed at objectives 1 and 2, and the SOAR analysis questionnaire aimed at objective 3; see 6.3).

Illustrative verbatim quotes – Decision-making

> *This is the one big hurdle that a student must learn to overcome and is closely connected with good decision making skills.* (N_HET 28:1:77) – deadline-orientated

Generic competencies that form part of the foundation provision component consist of the dual and generic competencies listed in Appendix D.7. The dual competency of collaboration with individuals and group work/team work (see 4.4.1) was frequently included in the HE teacher participants' motivations. Communication skills were associated with the ability to collaborate and work in a group/team (see Appendix D.7). The ability to communicate (in writing or orally) is an important personal characteristic of a graphic designer according to job descriptions in advertisements in Table 4.4 and forms part of visual communication (see 4.5.3). The importance of communication skills also was noted by two graphic designers that peer reviewed Chapter 4 (see 4.6.1). Other prominent related/linked competencies that are observable in Appendix D.7 are deadline-orientation and time management; time management and prioritising of workload/tasks; and stress management and time management. Garraway (2010:31) supports the relatedness of designers' competencies since an integrated approach to generic and discipline-specific knowledge has the potential to improve retention and success rates in HE (see 3.2.1).

Illustrative verbatim quotes – Communication skills (written and oral)

> *Written and oral language skills form the basis of any direction of study. Understanding and communication are an integral part of the graphic design process.* (N_HET 28:1:24-25)
>
> *Graphic design entails much more than visual communication. The ability to write lucid theory assignments and to give well-argued oral presentations in support of practical work should be cultivated from the start.* (N_HET 72:1:33)

In summary, the aim of this section was to update the preliminary list of generic and discipline-specific competencies for AAPs for graphic design that was initially compiled in section 6.2.2.1.4, based on the qualitative data presented in this section. None of the competencies listed in section 6.2.2.1.4 that was tentatively excluded, however, subsequently was included since these competencies lacked the extensive motivation that was required for re-inclusion. Decision-making, however, is a new dual competency that was identified and motivated and subsequently added to the list of generic and discipline-specific competencies.

6.2.2.2.3 Qualitative data analysis and interpretation pertaining to student success mechanisms

All five the student success mechanisms generated by means of the literature review, were extensively motivated by HE teachers in the web-based questionnaire survey focusing on objectives 1 and 2. Each of these is discussed in this section in order to support their inclusion in the preliminary framework.

a) Academic advising as a student success mechanism

Academic advising provides students with resources and tools to efficiently navigate through HE, including the rules of the HE culture and advice regarding their future careers (Strayhorn, 2015:61-62) (see 3.3.1). In the data analysis, several primary codes were linked up with this student success mechanism. These are academic success of students; academic guidance of students; providing support to students, and acting as a possible coping mechanism for students, to name but a few. However, the mentoring of students by HE teachers was regarded as important by HE teacher participants, as can be seen from the illustrative verbatim quotes below.

Illustrative verbatim quotes – Academic advising by HE teachers

> *Contact with staff members is very important for students. We have found that students respond really well to knowing that [there] is an academic staff member [i.e. HE teacher] who is interested in their academic performance and whom they could possibly let down.* (N_HET 50:1:300)
>
> *[Guidance] from the lecturers is essential, many previously disadvantaged students do not have any role models and few peer mentors that can assist them with advice and guidance in new and challenging situations.* (N_HET 52:1:301)

b) Positive learning environment as a student success mechanism

The creation of a positive learning environment was rated with a mean importance rating of 4.39 (see 6.2.1.1.3). This finding is supported by Paolini (2015:27) who states that a stimulating and engaging learning environment is an essential mechanism that contributes to student success (see 3.3.2). The HE teacher participants associated a positive learning environment with various aspects relating to the student

himself/herself, such as learning, motivation, perception, performance, self-expression and success (see Appendix D.7). It is interesting to note the association of a positive/conducive learning environment with student motivation (see 3.3.4), and in turn with student engagement (see 3.3.5), in both the empirical and non-empirical research in this study.

Illustrative verbatim quotes – Learning environment

> *It is vitally important to ensure that students feel safe in the learning environment that you create. They need to be able to ask questions without fear and participate in activities without worrying that someone is going to ridicule them in class.* (N_HET 50:1:312)
>
> *A positive, relaxed and flexible learning environment is so essential to promote student learning. When students come from challenging backgrounds they are more likely to give up and loose motivation if the environment isn't [conducive] to learning.* (N_HET 52:1:313-314)
>
> *A positive learning environment is crucial as it affects students' motivation and affects the quality of outcomes* (N_HET 72:1:323)

c) Student engagement as a student success mechanisms

Strydom and Mentz (2010:3) define student engagement in the South African context in terms of what students do (e.g. time and energy dedicated towards educational activities) and what institutions do (e.g. effectiveness of its education practices). Student engagement has an impact on students' motivation (see the illustrative quotation of N_HET 76:1:363 below, Appendix D.7 and section 3.3.5). These two success mechanisms (student engagement and student motivation), therefore, are regarded as related to/linked with each other. One participant noted his/her difficulties in engaging students (see the illustrative quotation of N_HET 63:1:358 below). Primary codes that may promote student engagement in order to address such difficulties are improving students' class attendance; fostering a positive HE teacher and student relationship; providing opportunities for peer learning and reflection; employing appropriate TLAs, and understanding the needs of the specific group of students (see Appendix D.7).

Illustrative verbatim quotes – Student engagement

> *Student engagement is an important aspect of student learning. It increases the student's attention and focus, and promotes meaningful learning experience.* (N_HET 59:1:355)
>
> *Very important. I find it hard to engage some students. They seem to expect the degree to fall into their laps. They do not take notes, follow instructions, answer [questions], participate in class, or attempt anything on their own* (N_HET 63:1:358)
>
> *Students need to be engaged in their projects, otherwise it decreases their motivation.* (N_HET 76:1:363)

d) Student motivation as a student success mechanisms

Student motivation as a student success mechanism is discussed in section 3.3.5. In their article, Williams and Williams' (2011:1) opening statement is that student motivation is the *most important factor that teachers can target in order to improve learning*. Analysis of the responses from HE teacher participants highlight several aspects/mechanisms that have an effect on student motivation, namely self-motivation; creating a positive learning environment, and student engagement (see the illustrative verbatim quotes below). One participant remarked that motivated students tend to produce better solutions to design problems (N_HET 72:1:378), which of course is important in the graphic design industry. Other primary codes that emerged and that may improve student motivation are the writing of clearer, improved and more meaningful ILOs (which is also mentioned in section 6.2.2.2.1); and employing interesting TLAs in the classroom (see Appendix D.7 and section 2.3.6.4.4; also mentioned in section 6.2.2.2.1).

Illustrative verbatim quotes – Self-motivation

Students who want to succeed are more likely to do so. The most reliable source of motivation is intrinsic. (N_HET 36:1:368)

Intrinsic motivation is key to student success. (N_HET 47:1:380)

Illustrative verbatim quotes – Positive learning environment

Encouragement and a positive learning environment help to contribute towards student motivation. The lecturer must always explain why a specific project is being done, and link it to the main course outcomes. (N_HET 52:1:372)

A positive environment can enhance motivation, wanting to be there, wanting to interact with other students and the lecturer may help. (N_HET 68:1:377)

Illustrative verbatim quotes – Student engagement

Both student engagement and motivation are important and I think student motivation should be the first step on the road to enhance student learning habits and skills. Motivation leads to engagement. (N_HET 59:1:375)

Student engagement and student motivation are two success mechanisms which can be fostered by employing appropriate teaching and learning strategies for the specific student population (see Appendix D.7). Rottelar and Cain (2016:1) report on the need for teaching and learning strategies to change in the light of technology, student demographics and the economy (see 3.3.3). The International Society for Technology in Education (2008:1-2) provides guidelines for technology-based teaching that HE teachers may follow to address the changes in students' needs (see 2.3.6.4.2a). Ineffective teaching and learning strategies/activities should be replaced by high-impact teaching and learning practices (sometimes referred to through the acronym HIPs) since these have the potential to address key education issues (Bonet and Walters, 2016:231) (see 3.3.3.2). HIPs have been proven to lead to greater undergraduate

student engagement (see 3.3.4) and retention (Kilgo et al., 2015:511, 523; Kuh, 2008:9), which both currently are core focuses in HE (see 3.3.3). Another appropriate (and alternative) teaching and learning strategy that HE teachers may employ is flipping the classroom (see 3.3.3.1).

Illustrative verbatim quotes – Teaching and learning strategies

> *Teaching and learning strategies allow for the greatest impact of engaging the highest number of students. This allows for multi-modal teaching and learning. Through teaching and learning practices, students are engaged, motivated and have a broader understanding of the academic environment.* (N_HET 6:1:329)

6.2.3 Summary of data analysis and interpretation of the mixed-method-orientated questionnaire survey among South African higher education teachers (aimed at objectives 1 and 2)

This section reported the data analysis, findings and interpretation of the mixed-method-orientated questionnaire survey among HE teachers that focused on achieving research objectives 1 and 2. Sixty-eight participants (*8.99%*) of the South African HE teachers who were invited to take part in the survey eventually completed the questionnaire survey (see 5.3.3.5). A majority of the selected HE teacher participants taught in AAPs for various disciplines (excluding graphic design; *n = 37; 54.41% of all participants)*, and a majority also had five or more years' teaching experience *(n = 46; 67.65% of all participants;* see Figures 6.2 and 6.3).

The quantitative data set in the questionnaire attracted a low response rate which impacted the adequacy/trustworthiness of the data collection tool. Therefore, the mean of important ratings in section 6.2.2.1 was interpreted and considered with due consideration of the comments and suggestions made by the participants in the qualitative component of the questionnaire survey (see 6.2.2.2), in order to update the list of generic and discipline-specific competencies. The original list of competencies derived from the non-empirical literature study listed 54 competencies. Seventeen of these competencies were tentatively excluded, based on the data analysis and interpretation of the questionnaire survey data as discussed in section 6.2. The competencies that were tentatively excluded are the following:

- Adaptable in nature
- Attention to detail
- Accuracy
- Curiosity
- E-learn technologies
- Efficiency
- Emotional intelligence
- Entrepreneurial skills
- Interpersonal skills
- Intuition
- Memory
- Multi-tasking
- Presentation skills
- Responsibility towards the community
- Responsibility towards the profession
- Responsibility towards other designers
- Subjectivity

Two new competencies (aesthetic gaze and decision-making; see 6.2.2.1.2 and 6.2.2.2.2 respectively), however, emerged from the HE teacher-participants' qualitative comments and subsequently were included in the proposed (preliminary) framework which will be reviewed and validated by a panel of experts as described in Chapter 7.

Table 6.6: Preliminary updated list of generic and discipline-specific competencies for alternative access programmes for graphic design, based on the quantitative and qualitative data analysis and interpretation focusing on objectives 1 and 2 (excluding the two new competencies)

DISCIPLINE SPECIFIC COMPETENCIES	DUAL COMPETENCIES	GENERIC COMPETENCIES
Applying design elements and principles	Communication skills (written and oral)	Computer skills
Applying design techniques	Creative thinking skills	Information literacy
Collaboration with individuals and group work/teamwork	Critical thinking skills	Learning styles and strategies
Creativity	Deadline-orientated	Listening and note-taking
Design-orientated thinking skills	Innovative thinking skills	Reading skills
Imagination	Interpretation of information	Referencing
Innovation	Organisational and planning skills	Research skills
Observation	Problem solving	Revision and examination techniques
Originality	Self-management	Study skills (appropriate)
Passion	Self-motivated / motivation	
Prioritising workload/tasks	Stress management	
Reflection	Time management skills	
Responsibility towards clients/employers	Visual communication	
Working under pressure	Working independently	

An additional three student success mechanisms were motivated by HE teacher participants as reported in section 6.2.2.1.3; however, only one of them (repetitive remedial actions) eventually was included in the preliminary framework. Therefore, the following six student success mechanisms were included in the proposed preliminary framework, based on the data analysis and interpretation of the quantitative and qualitative data sets collected through the initial web-based questionnaire survey aimed at achieving research objective 2:

- Academic advising
- Positive learning environment
- High impact and alternative teaching and learning strategies
- Student engagement
- Student motivation
- Repetitive remedial actions.

6.3 DATA ANALYSIS AND INTERPRETATION OF THE SOAR ANALYSIS SURVEY AIMED AT OBJECTIVE 3 OF THIS STUDY

This section documents the empirical research results emanating from the SOAR analysis which was done in view of the third research objective of my study. The SOAR analysis questionnaire was completed by two participant groups, namely HE teachers (see 6.2.1) and students (see 6.2.2) in the AAP for graphic design that is offered at a specific private HEI in South Africa. Ornstein and Hunkins (2014:157) note that the consideration of students' needs and aspirations, as measured in the SOAR analysis, aids in designing an effective curriculum (see 2.3). This section thus reports the administration of a qualitative, self-structured questionnaire among students in the relevant AAP for graphic design, as well as their HE teachers. The purpose of the questionnaire was to identify the strengths, opportunities, aspirations and results of the current AAP for graphic design, in order to ultimately identify and include or exclude those competencies and mechanisms for success that emanated from the strengths, opportunities, and aspirations in the SOAR analysis, in order to finalise the preliminary framework required according to research objective 4.

Since this question generated mainly qualitative data, primary codes were assigned to identify competencies in the description of the SOAR aspects of the specific programme (which differs from the analysis of section 6.2.2.2). Sections 5.3.4.5.1 and 5.3.4.5.2 document the response rate of this SOAR analysis questionnaire among student and HE teacher participants. Table 6.7 presents the programme structure of the specific AAP for graphic design in terms of the modules it encompasses. Also included is the duration of each module, the semester in which the programme is taught, and the associated credit weights of each module. The table was compiled after consulting the official year planner of the relevant AAP which is available in Appendix C.17.

Table 6.7: Programme structure of the specific alternative access programmes for graphic design which was subjected to a SOAR questionnaire analysis in order to achieve research objective 3

MODULE	SEMESTER		CREDITS
Bridging English A	1		12
Bridging English B		2	12
Student Skills A	1		12
Student Skills B		2	12
Human Development A	1		12
Human Development B		2	12
Introduction to Computer Skills	1		10
Applied Colour and Design	1		7
Design Fundamentals		2	7
Introduction to Graphic Design		2	7

6.3.1 Data analysis and interpretation of higher education teacher participants' SOAR analysis of an AAP offered at a private South African Higher Education Institution

This section discusses the demographic questions and the analysis of the strengths, opportunities, aspirations and results of the specific AAP for graphic design by the HE teacher participants, involved in the AAP.

6.3.1.1 Demographics of the higher education teacher participants

The response rate of HE teacher participants who completed the SOAR analysis questionnaire is documented in Table 5.2 *(n = 47; 41.23% of all invited HE teachers of the specific HEI)*. The first section of the questionnaire contained three questions with nominal and ordinal variables the responses of which are represented in Figures 6.12 to 6.14. All participants answered all three questions *(n = 47; 100%)*.

The first question was geographic in nature. The percentage of responding participants on each of the eleven participating campuses of the specific private HEI is shown in Figure 6.12. The Port Elizabeth campus was represented by the smallest number of participants *(n = 2; 4.26%)* and the Durbanville campus by the most *(n = 7; 14.89%)*. Please note that the Bloemfontein campus was not represented since its HE teachers were used in the pilot study. The number of participants from the main campus of the HEI (i.e. the Midrand campus), however, was disappointing since it actually employs most of the institutions' HE teachers, if compared to the other campuses.

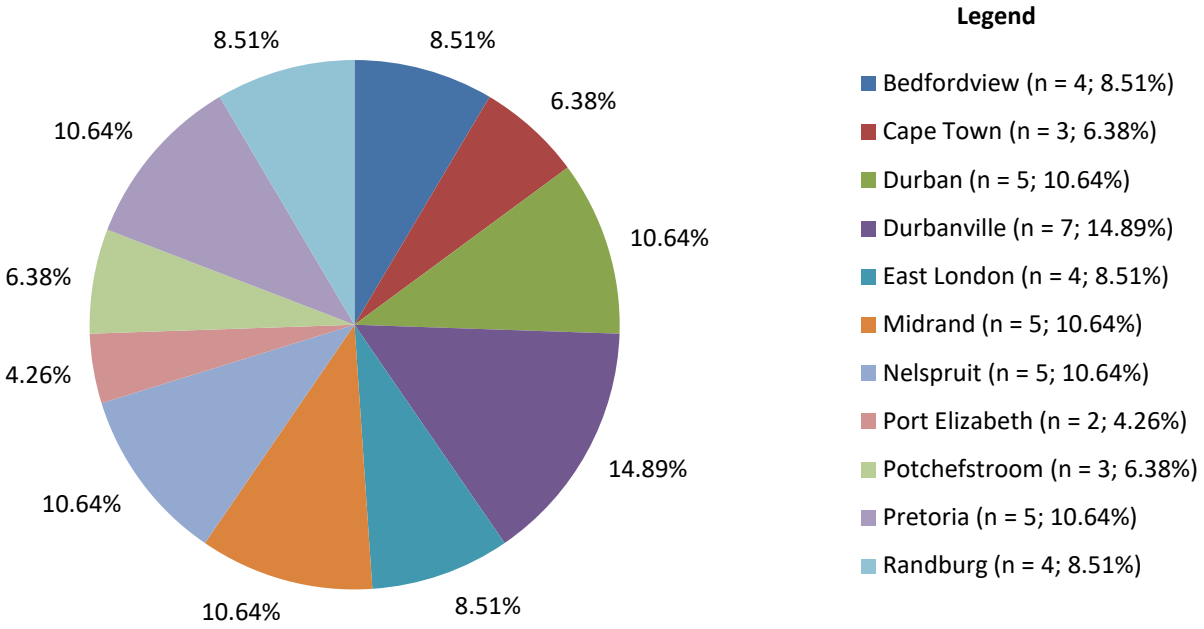


Figure 6.12: Percentage of HE teacher participants from the eleven participating campuses *(n = 47)*

The second question pertained to the specific years during which HE teacher participants taught in the AAP for graphic design being investigated. Most of the HE teacher participants taught in the programme during 2011 *(n = 15)* and 2012 *(n = 18)* respectively (see Figure 6.13). Three of the 47 HE teacher participants, however, indicated that they were not teaching in the programme and six that they only taught in the programme during 2010 (see red bars in Figure 6.13). These participants *(n = 9)* were subsequently disqualified from the study (see inclusion criteria in 5.3.4.3), meaning that the responses of only the remaining 38 HE teacher participants eventually were analysed as part of the SOAR analysis. The reason for the disqualification of participants that taught in the specific AAP for graphic design prior to 2011 was that the programme was redesigned in 2010 and the new curriculum was implemented at the start of 2011 (see 5.3.4.3).

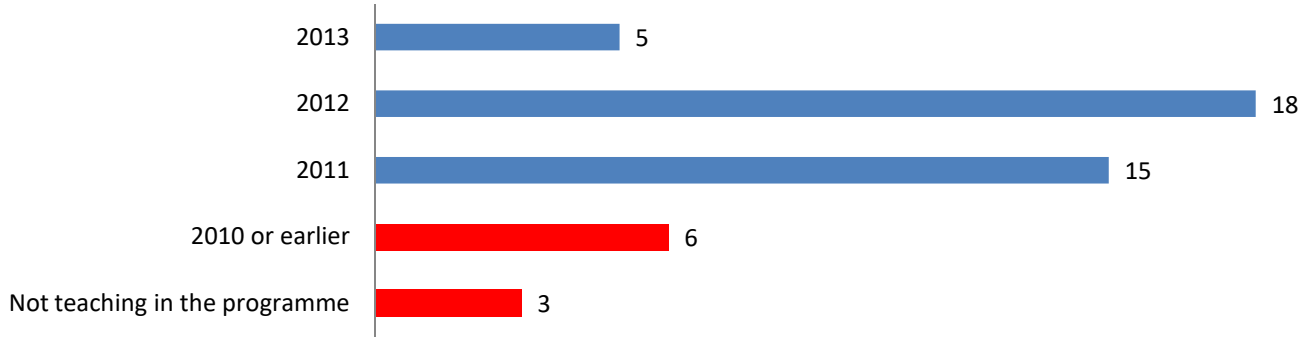


Figure 6.13: Number of participants according to the time frame in which these participants taught in the programme *(n = 47)

The third demographic question required the HE teacher participants to select those of the listed module/s in the AAP which they taught during the relevant time period (i.e. 2011 to 2013; see Figure 6.14). Note that participants were allowed to select more than one module. The smallest number of HE teacher participants taught Human Development A *(n = 5)* and Human Development B *(n = 5)* modules respectively, whereas the Design Fundamentals *(n = 12)*, was taught by the most HE teacher participants. In most cases, equal number of HE teacher participants taught modules which has an *A* and *B* component (i.e. Student Skills A and Student Skills B).

* Participants could select more than one option for the specific question.

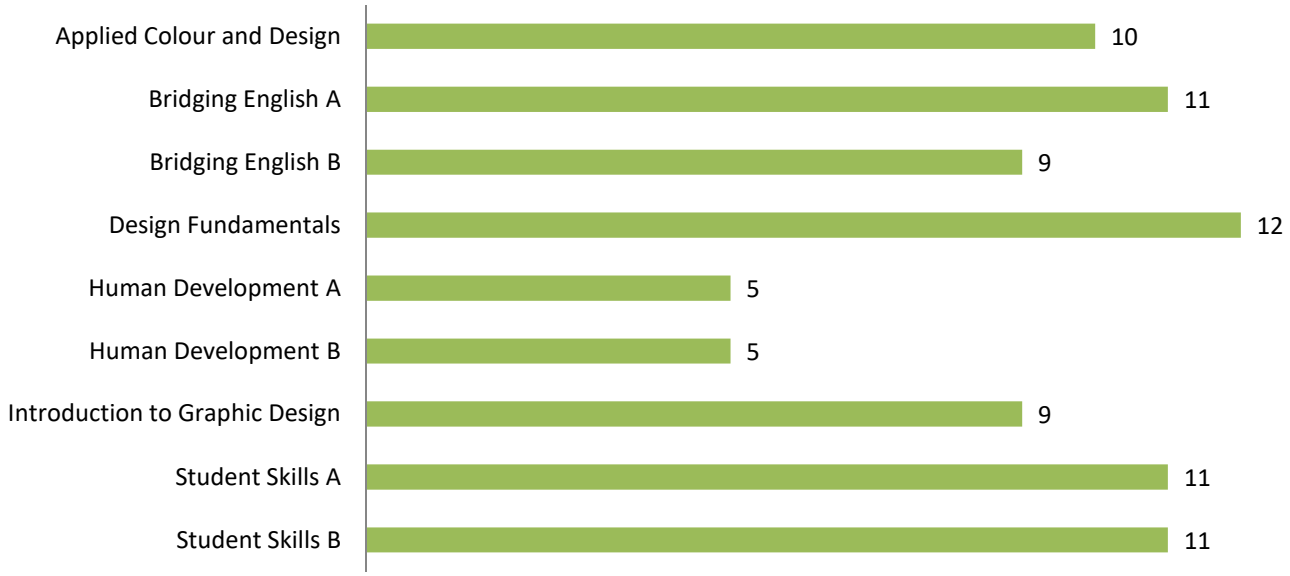


Figure 6.14: Number of participants per module taught in the programme *(n=38)

In summary, HE teacher participants from the remaining eleven campuses did participate in the SOAR analysis questionnaire. They were viewed as information rich participants and were initially selected with maximum variation in mind. Furthermore, most HE teachers taught in the specific AAP during 2011 *(n = 15)* and 2012 *(n = 18)* respectively and some taught across a variety of modules.

6.3.1.2 Data analysis and interpretation of higher education teacher participants; responses in the SOAR analysis

The qualitative data collected from the HE teacher participants first were coded by assigning codes to label lines, sentences and/or paragraphs that related to similar concepts/constructs, as explained in section 5.3.6. These primary codes were structured to include either a [S] for strength, [O] for opportunity, [A] for aspiration or [R] for result in front of the code as per the data collection tool questions. This was done in order to assist with the structuring and interpretation of the data in the network diagram that was created through Atlas.ti (see Figure 6.16 and Appendix D.6). The codes also were grouped together by assigning a secondary, but broader code to those primary codes that related to one another. Lastly, the codes were grouped together according to the themes that initially were derived from the literature, namely student success mechanisms, curriculum design components of AAPs, and competencies required of graphic designers (i.e. generic and discipline-specific competencies). The labelling of lines, sentences and/or paragraphs to assign, and grouping codes together under the themes indeed were guided by the literature review findings reported in Section B of this study. A total of 162 primary codes and 40 secondary codes eventually were assigned under the three mentioned themes. Several primary codes, however, were communication skills and content selection, depending on the verbatim expressions of the participants). Figure 6.15 displays a word cloud of the assigned primary codes assigned to the data set. The word cloud highlights the words most frequently used in the participants' responses.

* Participants could select more than one option for the specific question.

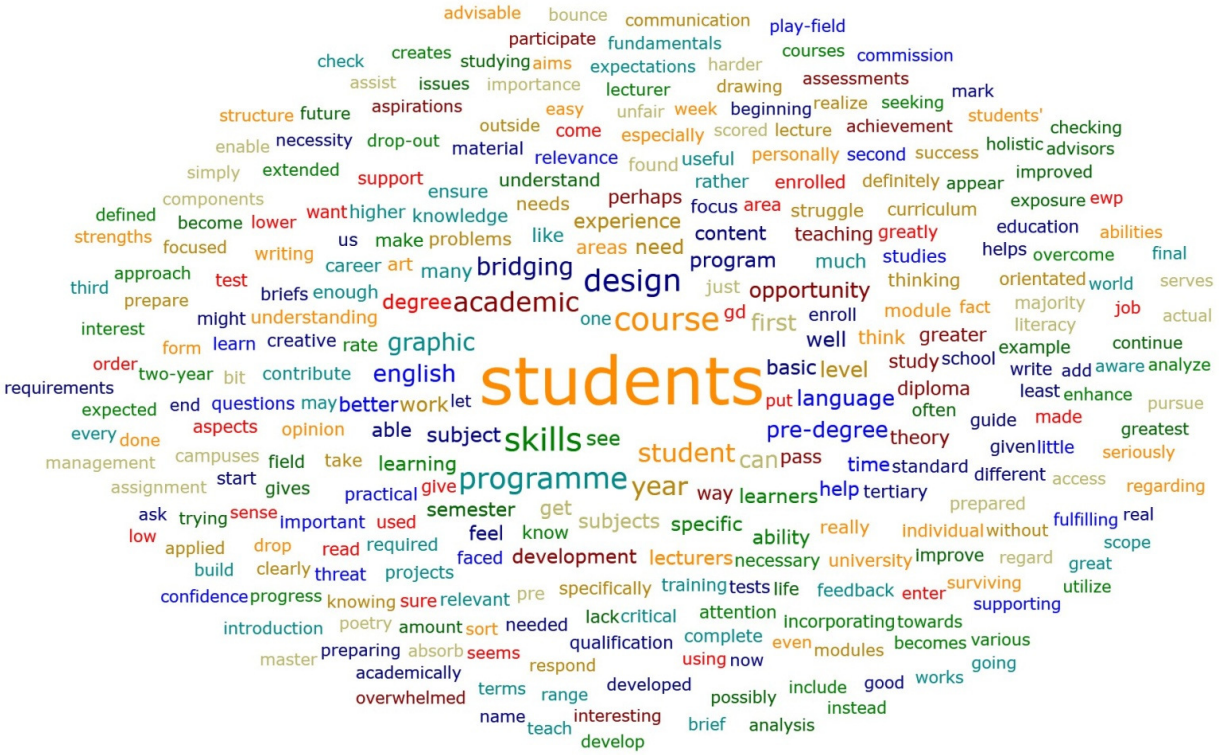


Figure 6.15: Word cloud of primary codes assigned to the data set of HE teachers in the SOAR analysis (generated by Atlas.ti)

The findings of this data analysis also are displayed in an organic network diagram generated by Atlas.ti, as explained in section 5.3.6 (see Figure 6.16). Relationships between primary and secondary codes and themes were highlighted through the relations manager of Atlas.ti with straight routes to all the show relationships. The following relationships were used to create the network diagram: *is a* (strength), *can be* (opportunity), *is the cause of* (an aspiration), and *can prove* (a result). Contradicting relationships also are indicated by using the relationship of *contradicts* in Atlas.ti. Themes are shown by means of red blocks, secondary codes in yellow, and primary codes in white. The organic layout format does not provide a structured format of the data but has been the most suitable layout option to print in order to include in the hard copy of the thesis. A larger organic network diagram that aided in the data interpretation is included in Appendix D.6.

A summary of the primary and secondary codes organised according to the three identified major themes, is provided in Appendix D.5, which also assisted with the data interpretation. The network diagram and summary table thus provide a holistic view of the findings from the data interpretation, since only the most prominent findings are discussed in the sections below.

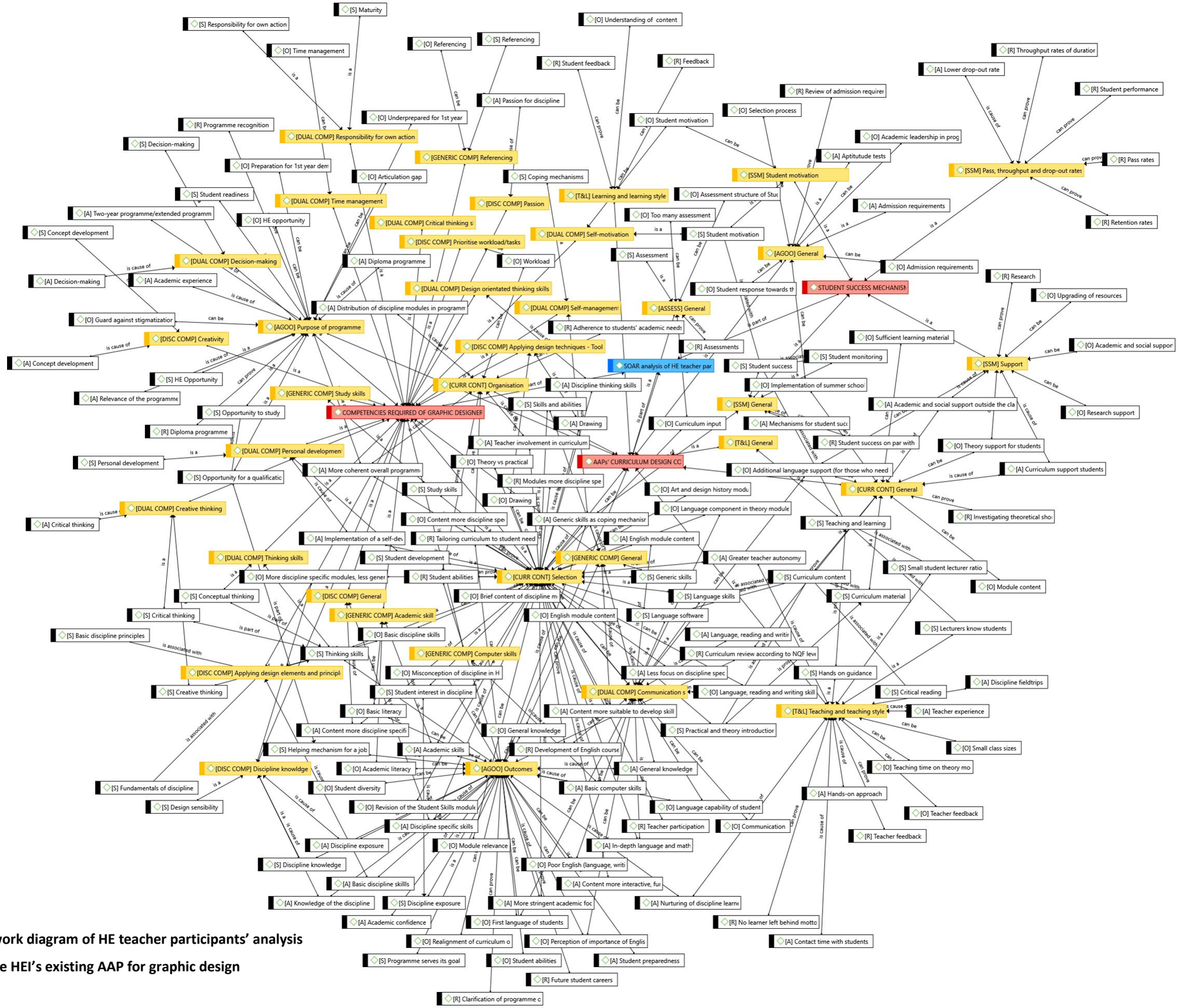


Figure 6.16: Organic Atlas.ti network diagram of HE teacher participants' analysis of the specific private HEI's existing AAP for graphic design

6.3.1.2.1 Data analysis and interpretation of higher education teacher participants' responses in the SOAR analysis for the theme of curriculum design components of AAPs

The data analysis and interpretation for the theme of curriculum design components of AAPs in the SOAR analysis questionnaire survey generated eleven secondary codes of which the most prominent codes are discussed in this section and in relation to Appendix D.5. Students' ILOs, the purpose of AAPs for graphic design, the selection of curriculum content and HE teachers' teaching and teaching styles are discussed in the sections to follow.

a) HE teacher participants' teaching and teaching styles

HE teachers reflected on their teaching and teaching styles in their analysis of the programme. HE teachers noted that their students' feedback provided a measurement which they could use to determine whether they successfully fulfilled their aspirations and addressed the opportunities with regard to their teaching and teaching styles which they listed in the SOAR analysis. Some mentioned the following wishes/aspirations and opportunities:

- Wishes/aspirations: Using the entire available contact time with their students, incorporating more discipline-specific fieldtrips, and being even more hands-on in the classroom, to name but a few.
- Opportunities/weaknesses: Providing additional theory support in theory and practical modules; using more time to teach theory modules, and providing feedback to their students.

b) Aims and goals of AAPs for graphic design

In order for a programme to be fit for its purpose, student access, success and throughput rates should be inseparable aspects (Boughey, 2007:9; CHE, 2013b:31; Walton et al., 2015:267) (see 3.1). The purposes of AAPs (also referred to as the aims and goals of the programme) are regarded by the CHE (2013:70) as widening access to HE, addressing the articulation gap between secondary and tertiary education (referred to as HE in this study), as well as that the AAP should be acting as a possible mechanisms to enhance student success. HE teacher participants indicated that student readiness for the specific mainstream programme (i.e. epistemic transition), as well as providing an opportunity for students to access HE are the strengths of the AAP for graphic design. A few other HE teachers identified the adequate addressing of the articulation gap and epistemic transition between AAPs and the related mainstream programmes as opportunities that curriculum designers need to take into account. Apart from these, HE teachers should guard against the stigmatisation of the programme and of AAP students (SOAR_HET 27:1:107). Marginalisation was listed as one of the major limitations of AAPs that affect its effectiveness (CHE, 2013a:72) (see 3.3.2)

Illustrative verbatim quotes – Epistemic transition (opportunities)

> *The gap between the amount of design subjects between pre-degree [and] degree is too vast. Pre-degree students undertake only practical design subject per semester. Then when they start the degree program it suddenly becomes 5/6 practical design subjects. Not many students can adapt to the pressure.* (SOAR_HET 1:1:52)

Several participants indicated that they wished/aspired to redesign the current AAP into a certificate/diploma programme, or find formal recognition for it, rather than only using it to bridge the articulation gap that exists between secondary education and HE in South Africa, which is also one of the purposes of AAPs (CHE, 2013a:70). This also was mentioned in the written responses of student participants, as outlined later in section 6.2.1.3. AAPs have expanded extensively during the past decade in all South African HEIs and apart from addressing the articulation gap these programmes also widen access to HE and is therefore a possible mechanism to enhance student success (CHE, 2013a:70-71).

Criterion two (iv) used for programme accreditation by the RSA's CHE, expects that admission requirements for enrolment in programmes should widen access and promote equity, but that this needs to be done in alignment with the complexity of learning required (CHE, 2004:9) (see 3.2). The current AAP requires a very low admission score of only seventeen points. However, it also requires a submission of an entrance portfolio in order to test prospective students' observational and drawing skills. The requirement of a portfolio for admission is in line with the admission requirements of most other AAPs for graphic design (see Table 3.2). However, several HE teacher participants hinted that the admission requirements need to be reviewed *(n = 7)*. More stringent HE admission requirements, together with student motivation and academic preparation, are believed to address the low graduation rates of HEIs (Strydom and Mentz, 2010:3) (see 3.3.4). This is rather in contrast to the main purpose of AAPs stated in the Higher Education Act 101 of 1997, since more stringent HE admission requirements can possibly hinder the widening of access. One participant in particular noted that *[w]hen they* (i.e. students) *are let i[n], it should be possible to pass (*SOAR_S 25:1:103), which is in line with the CHE's programme accreditation guidelines that require that admission requirements be aligned with the degree of complexity of the learning required (CHE, 2004:9).

Illustrative verbatim quotes – Admission requirements

> *More stringent processes could be put into place for accepting students for this course, e.g. making sure they are well aware of the ... nature of the course they are intending to study and the extent of what it will expect of them.* (SOAR_HET 3:1:59)
>
> *The programme could be improved by having more strict control over which students are let in the programme. When they are let it, it should be possible to pass.* (SOAR_HET

25:1:103)

c) Selection of curriculum content for AAPs for graphic design

Content selection was the main secondary code associated with the theme, curriculum design components of AAPs *(n = 45)*. The majority of the content selection codes relate to aspirations and opportunities for the selection of appropriate module content. These aspirations and opportunities include wishes for the development of discipline-specific and generic (and mostly language) skills (see Appendix D.5). It is also interesting to note the discrepancy between participants' wishes for or their identification of opportunities for infusing either more or less discipline-specific content in the AAP, as is evident from the illustrative verbatim quotes below. This might be as a result of the specific module/s that HE teacher participants teach/taught in the programme (see Figure 6.14).

Illustrative verbatim quotes – Content selection (opportunities or aspirations)

> *In my experience, I found that students often did not have some of the basic skills the projects expected of them, e.g. how to handle an NT cutter, the basics of working with paint, mixing colours, using glue, etc.* (SOAR_HET 3:1:55)
>
> *Graphic design pre-degree's struggle with the relevance of history and human development to their course or their chosen career. The pre-degree programme could be structured more specifically to suit each course the student is being prepared for.* (SOAR_HET 26:1:104)

Some HE teacher participants also expressed wishes for or the opportunities to include the following curriculum content:

- Academic skills (may be incorporated with student skills)
- Art and design history
- Basic computer skills (such as MicrosoftOffice)
- Drawing
- Language, reading and writing (which may be incorporated in communication skills).

One participant noted the wish for the inclusion of a mathematical component, *instead of spending time on specific graphic design subjects (modules;* SOAR_HET 8:1:121). It is important to note that the inclusion of graphic design modules in AAPs for graphic design has merit. Foundation provision for AAPs for graphic design should include introductory discipline content or modules (CHE, 2013a:70) (see 3.2.2), since the latter is believed to improve students' retention and success rates (Garraway, 2010:31) (see 3.2.1). Furthermore, the national and international norm is not to include a mathematical component in the

curriculum of AAPs for graphic design (see Tables 3.2 and 3.3), since it is not regarded as an important competency for graphic designers (see Table B.1).

Another aspect to consider is some of the HE teacher participants' request to be more involved in the selection of curriculum content for the programme. This code, however, did not attract a significant number of responses that relate to it. However, I deem it as important to mention, based on my personal experience at the specific private HEI, since it was a concern raised by many of my fellow colleagues at the time. The HE teachers on the main campus usually select the content that is included in the curriculum in order to ensure that the same content is taught across multiple sites of delivery. Ornstein and Hunkins (2014:204) (see 2.2.1) note the impact of the curriculum designer's (in this case the main campus HE teachers'), orientation and approach with regard to the selection of curriculum content. The criteria for curriculum content selection actually require proper correlation, scope and sequence of the content (Carl, 2012:72; Gorton, 1976:236-239, cited in Carl, 2012:71-72; Oliva, 2001:28-41; Ornstein and Hunkins, 2014:158-161) (see 2.3.6.3.1). The curriculum content also needs to be aligned with the aims, goals and ILOs at the level of the specific HEI, programme and module (Carl, 2012:91) (see 2.3.6.3.1). All these aspects are of critical importance when industry professionals scrutinise HEIs' graduates (Szeto, 2010:76; 2.3.6.3.1). Therefore, the involvement of multiple HE teachers instead of only a few on one campus in the selection of content can only be an advantage.

Illustrative verbatim quotes – HE teacher involvement in the content selection

> *Greater scope of expression in course structure and learning areas. Perhaps having learning areas clearly defined and the opportunity for lecturers to choose how those learning areas are implemented might be better for a holistic experience. There is a disjointedness in some of the subjects which different geographical areas cannot relate to. Incorporating a greater autonomy for lecturers which are area specific ... (SOAR_HET 5:1:116)*

Some HE teacher participants indicated that the strengths of the AAP with regard to content selection, were the inclusion of curriculum content that fostered generic skills/competencies (i.e. language skills, study skills, thinking skills) and discipline-specific skills/competencies that aid the development of graphic design students in the AAP.

Illustrative verbatim quotes – Content selection (strengths)

> *The prescribed projects in the subjects I lectured, Design Fundamentals and Applied Colour [and] Design, cover the basic principles and elements of art and thus, in theory, provide learners with the opportunity to come to grips the basic tools needed for further study in Graphic Design.* (SOAR_HET 3:1:8)
>
> *Student Skills particularly targets teaching learners to work through the volumes of work*

that will be required of them during their university career. I have found some of the brightest students to be GD Pre-degree learners that benefitted greatly from the personal development curriculum of this subject. (SOAR_HET 24:1:42)

d) Intended learning outcomes for students in the AAP for graphic design

The second main secondary code identified in the qualitative data set *(n = 33)* obtained from the HE teachers was ILOs. The strengths of the AAP in relation to ILOs were listed by some HE teacher participants as exposure to the graphic design discipline, the learning of discipline-specific knowledge and associated thinking skills, as well as the programme serving its purpose (see 3.2 for the purpose of AAPs). The importance of English communication skills as a competency was identified several times as an opportunity/weakness of the AAP. The poor language skills of students were noted throughout the empirical research investigation discussed in this chapter and discussed again in relation to this data set in section 6.3.1.2.2. Another opportunity identified for the AAP was to demystify what the graphic design discipline entails, which can be addressed by adequately exposing students to the discipline – the latter was listed as an aspiration/wish of some HE teacher participants. It is interesting to note that discipline exposure featured both as a strength and an aspiration in the data analysis pertaining to ILOs. HE teacher participants mostly expressed wishes that ILOs should promote the development of generic and discipline-specific competencies, as well as prepare students for the remainder of their HE journey. One participant expressed the need to tailor the AAP's curriculum (in specifically the Student Skills module) according to students' needs since it may *increase their interest and the pass rate would drastically improve* (SOAR_HET 17:1:171).

Illustrative verbatim quotes – Discipline exposure (strengths)

I think it is essential that they develop a real passion for Design. To ensure this I think exposure to good, exciting and cutting-edge design is crucial, as well as providing the opportunity to become comfortable with the skills necessary to be able to participate and contribute to the field. (SOAR_HET 3:1:114)

Illustrative verbatim quotes – Discipline exposure (aspirations)

The programme exposes learners to the field of graphic design … By entering the GD pre-degree program the student receives more hands on guidance outside the school environment and a glimpse into the real life of a career in GD (SOAR_HET 2:1:2,5)

Illustrative verbatim quotes – Communication skills (opportunities)

The largest obstacle to overcome is the poor standard of English amongst the students. This has a knock on effect as the students battle to grasp the content and can struggle to pass. (SOAR_HET 9:1:70)

The pre-degree students often have communication and basic literacy barriers to overcome. (SOAR_HET 13:1:86)

6.3.1.2.2 Data analysis and interpretation of higher education teacher participants' SOAR analysis responses for the theme of generic and discipline-specific competencies

This section reports on the qualitative data analysis and interpretation of generic and discipline-specific competencies that were derived from the SOAR analysis questionnaire survey results aimed at achieving research objective 3. The aim of this section is also to update the preliminary list of generic and discipline-specific competencies that were either included in or excluded from the preliminary framework (section 6.2.3), based on the comments and suggestions made by the HE teacher participants in the questionnaire subjected to the SOAR analysis.

Twenty-three (23) of the originally listed competencies in Table B.1 were noted in the data analysis of HE teachers' responses in regard to the SOAR analysis of the specific AAP for graphic design. None of the tentatively excluded competencies, however, was mentioned by participants, which may confirm that these were not deemed as important by HE teacher participants. Decision-making, which is one of the new competencies already identified in section 6.2.2.2.2, was mentioned by some HE teacher participants as either a strength and/or an aspiration in their SOAR analysis of the specific AAP for graphic design.

Illustrative verbatim quotes – Decision-making

Learners have more time to mature and make a well informed decision. (SOAR_HET 2:1:7) - strength

Apart from introducing students to a certain way of thinking regarding the specific subject, it should also help the students decide if they in fact want to or are able to continue in the course (i.e. graphic design). (SOAR_HET 18:1:135) - aspiration

I wish to highlight the concern raised by some of HE teacher participants in the SOAR analysis regarding the poor English language competence of students in the AAP for graphic design. Although this concern pertains to students, it is included in this section since it directly relates to communication skills, which were identified as a prominent dual competency (i.e. generic and discipline-specific) in this data set. The number of assigned primary codes in the analysis of the HE teachers was not significant; however, the reality of this concern eventually became evident in the SOAR analysis of the student questionnaires that I report on in section 6.3.2.2. The student responses were riddled with spelling and grammar errors, which were captured from the written questionnaires as verbatim quotations. The spelling and grammar of the students' responses were thoroughly checked during the transcription process into digital format in order to ensure accuracy of the interpretation and add to the trustworthiness of the student data. The ability to

effectively communicate through oral and/or written presentations by using visual, mathematical and/or language skills indeed is one of the CCFOs of SAQA (RSA NQF, n.d.:1; SAQA, 2000:18-19) (see 2.1.1), and therefore includes essential skills that need to be developed through the AAP curriculum. One HE teacher respondent suggested incorporating a language component into every theory module as a remedy for this problem (SOAR_HET 13:1:88). The development of students' language skills also is a criterion set for programme accreditation by the CHE (2004:18) (see Table 2.1).

Illustrative verbatim quotes – Language (opportunities)

Language also seems to be a barrier as many students' first language is Xhosa and you can see that sometimes they just don't understand what you are trying to explain. (SOAR_HET 10:1:79)

The largest obstacle to overcome is the poor standard of English amongst the students. This has a knock on effect as the students battle to grasp the content and can struggle to pass. (SOAR_HET 9:1:70)

They often struggle with the theory components, not due to a lack of understanding; but rather due to a lack of the basics of spelling and grammar. (SOAR_HET 13:1:87)

Illustrative verbatim quotes – Language and grammar examples from student responses

being able to freelance me bridging course provides ophieus, also, it gives students aa broader understanding of what is required in order to pursue their career. (SOAR_S 9:1:12)

it has helped me learn more about during and designing. It has built me to become better than I wa before. (SOAR_S 18:1:27)

it builds you mentaly and makes you think more of which it gives you a creative mindset. (SOAR_S 28:1:40)

The remaining competencies listed in Appendix D.5 are not prominent, and include, in most cases, only a few references to strengths, opportunities, and/or aspirations pertaining to the specific AAP for graphic design. However, three new secondary codes emerged through the analysis of the HE teacher participants' data that were not listed as competencies in Table B.1. These are academic skills, discipline-knowledge, and personal development. However, none of these competencies were viewed as new competencies since they are merely umbrella terms that include several of the generic and/or discipline-specific competencies that have been listed.

Academic skills encompass a variety of generic competencies which already have been included in the list of competencies, including communication skills (language, reading, writing), information literacy, study

skills, and referencing, to name only a few. These generic competencies are listed in Table 3.5 under the umbrella term of academic literacy and life skills topics (see 3.2.2.1.3). Academic skills, or academic literacy and life skills topics, may be addressed during academic advising (see 3.3.1), as well as in the curriculum design for a specific programme (Copeman and Keightley, 2014:2). Copeman and Keightly (2014:2) motivate the dissemination of academic skills through a programme's curriculum design since disciplinary knowledge cannot be separated from the knowledge students need to learn, communicate and use in order to graduate from a specific field of study (see 3.3.1).

Illustrative verbatim quotes – Academic skills

> *I would like to see the students better prepared in terms of academic skills before beginning the course. This would help to enable the students to get more out of their subjects and to be able to possibly absorb more of the knowledge rather than simply surviving the module. This would contribute towards a more fulfilling academic experience for the students who appear to be overwhelmed not only with the content but also the range of academic skills they are required to master in the first semester.* (SOAR_HET 28:1:40)

Discipline-knowledge as a construct relates to several discipline-specific primary codes which can be grouped under one or more of the listed discipline-specific competencies included in Table B.1. Discipline exposure, discipline thinking skills, and discipline knowledge all are examples of discipline-specific primary codes that were assigned to the specific illustrative verbatim quote below.

Illustrative verbatim quotes – Discipline-knowledge

> *Applied [colour] and design theory has many advantages; it helps the students broaden their view on design helping them to think outside the box so to speak. It awakens their senses to their design surroundings and helps them to create and improve with every brief they have to complete.* (SOAR_HET 29:1:49)

The secondary code of personal development could be associated with the development of the students' personal competencies as listed Table 4.4 (see 4.6.1). These competencies were included as either generic and/or discipline-specific competencies in Table B.1.

6.3.1.2.3 Data analysis and interpretation of higher education teacher participants' responses under the theme of student success mechanisms by means of the SOAR analysis

The theme of student success mechanisms featured very limitedly in the HE teachers' responses pertaining to the strengths, opportunities, aspirations and results of the AAP for graphic design.

Student motivation was listed as an opportunity since the AAP provides non-traditional students with the opportunity to access HE, which in turn motivates these students to succeed since they were given a second chance (SOAR_HET 5:1:60). Student motivation also was listed as a strength, since *many times a 'not so academic orientated' student do this program and it inspires them to work harder* (SOAR_HET 2:1:6).

A new secondary code that emerged as a student success mechanism was support. This mechanism mostly relates to the curriculum design components of AAPs such as the support that curriculum content can provide to students to help them succeed (SOAR_HET 28:1:149) and support that HE teachers provide within the classroom (SOAR_HET 11:1:80). Support, however, was not included as a student success mechanism in the preliminary framework since it was already embedded in the curriculum design components of AAPs.

The constructs pass, throughput and dropout rates were indicated by some HE teachers as opportunities, aspirations and results. These constructs, however, are not mechanisms for student success, but rather an indicator of student success; therefore, they are not listed in the summary of this chapter as a mechanism for student success.

6.3.2 Data analysis and interpretation by means of the SOAR analysis of data collected from the student participants

This section presents the demographics of the student participants in the SOAR analysis and their qualitative responses regarding the strengths, opportunities, aspirations and results of the specific AAP for graphic design in which they were enrolled at the selected private HEI in South Africa.

6.3.2.1 Demographics of the student participants

Seventy-five *(n = 75; 87.21%)* of the 86 invited AAP students completed the SOAR analysis questionnaire (see section 5.3.4.5; see Table 5.5). Not all students completed all the demographic questions; therefore, the number of participants shown at the end of every figure description differs according to the response rate table presented in section 5.3.4.5.2. The first section of the questionnaire contained nominal and ordinal variables which are represented in Figures 6.17 to 6.19 in accordance with the three demographic questions of Section A of the SOAR analysis questionnaire.

The first demographic question asked pertaining to the specific campus on which the student participants were enrolled in the AAP for graphic design. All graphic design student participants *(n = 75; 100%)* answered this question. Most of the student participants were from the Midrand campus *(n = 23; 30.67%)* or the Pretoria campus *(n = 19; 25.33%;* see Figure 6.17). No students from either the Durban, Port Elizabeth, Potchefstroom or Randburg campuses, however, participated as can be observed in Figure 6.17. This deterred the maximum variation within the population of student participants; however, it should be noted that at least seven of the eleven campuses did participate.

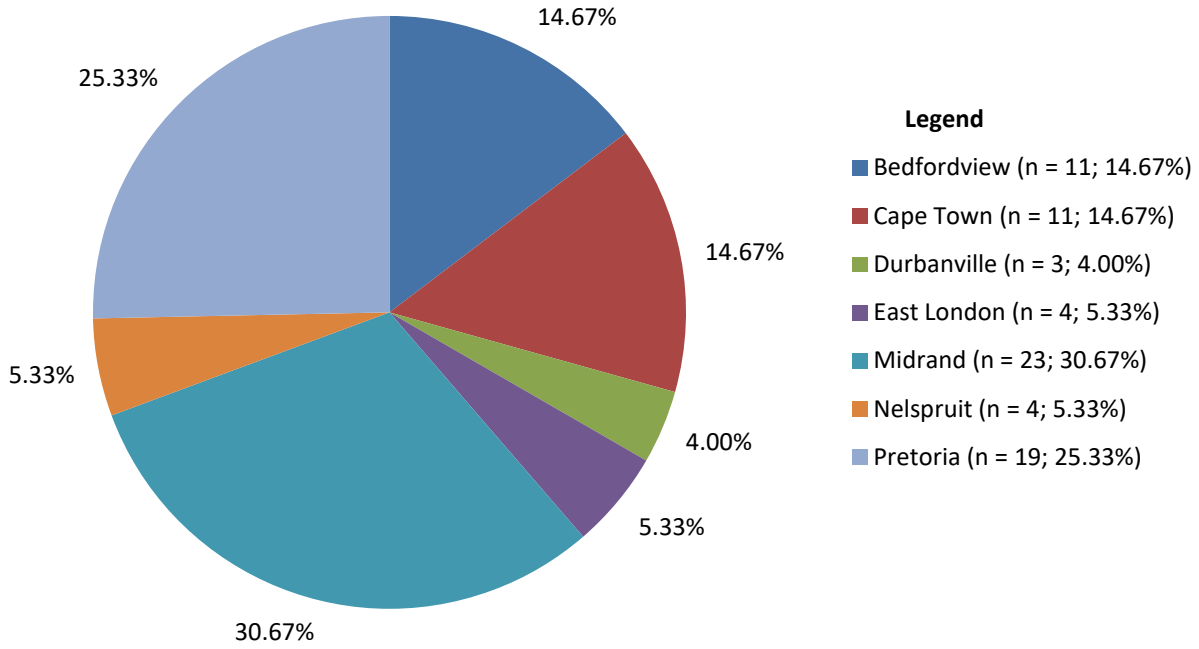


Figure 6.17: Percentage of student participation rate per participating campus *(n = 75)*

Figure 6.18 highlights the distribution of the student participants according to the year in which they completed the specific AAP for graphic design *(n = 64; 85.33% of the 75 participants)*. This figure shows a vast increase in participant numbers from 2011 *(n = 11; 17.18% of the 75 participants)* to 2012 *(n = 25; 39.06% of the 75 participants)*. Only a slight increase in the number of student participants, however, is observable from 2012 to 2013 *(n = 28; 43.75% of the 75 participants)*. Possible reasons for this increase can only be speculated on since this it is only a sample population of AAP for graphic design students from the total student population. More non-traditional students could have been informed about the existence of the AAP for graphic design through improved marketing strategies. Another possible reason is that some AAP for graphic design students who enrolled in 2011 may have dropped out due to financial challenges or could have been academically excluded from the AAP for graphic design before the SOAR analysis questionnaire was distributed.

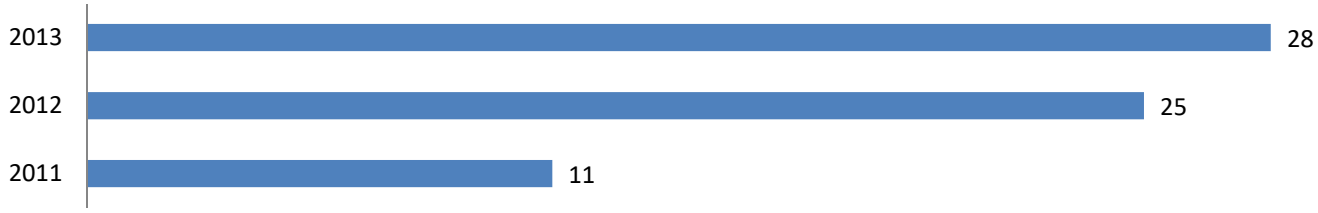


Figure 6.18: Number of student participants according to the year in which the participants completed the AAP for graphic design *(n = 64)*

It was interesting to observe that most student participants *(n = 45; 77.59%)* were admitted into the APP due to a low admission score (i.e. between 17 to 24 points), since the degree programme requires an admission score of at least 25 points together with a portfolio assignment (see Figure 6.19). The requirement of a portfolio assignment is a general and widely accepted requirement for access to graphic design programmes (see Table 3.2). The low admission score for the specific AAP for graphic design was noted in the responses of these students' HE teachers in section 6.3.1.2. If compared to public HEIs, the specific AAP's admission score is lower than the two public institutions in South Africa that offer similar programmes (see Table 3.2). The minimum admission at the Central University of Technology, Free State is 22, and at the Nelson Mandela Metropolitan University it is 28 (see Table 3.2).

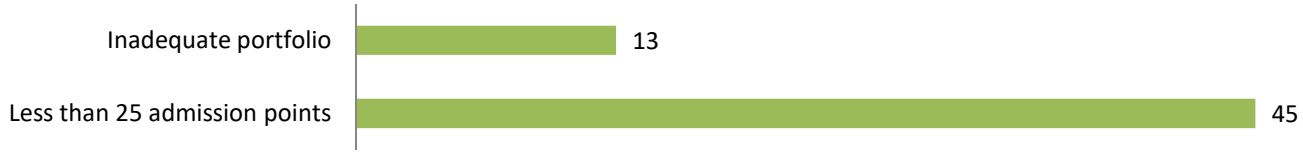


Figure 6.19: Number of student participants according to the reason why a participant was first admitted into the AAP for graphic design and not directly into the mainstream programme for graphic design *(n = 58)*

6.3.2.2 Data analysis and interpretation pertaining to the student participants' responses

The data analysis for the student participants was done simultaneously with that of the HE teacher participants. Therefore, the analysis steps used for both participant groups were similar and the steps are not described again in this section. The student participation rate for each of the four questions in Section B of the SOAR analysis questionnaire is documented in Table 5.6.

One hundred and sixty primary (160) codes and 35 secondary codes were assigned under the three existing themes (i.e. curriculum design components of AAPs, generic and discipline-specific competencies, and student success mechanisms). The presentation of the findings of student participants is similar to that of the HE teacher participants. The data first are presented in a network diagram (generated through Atlas.ti) in Figure 6.21. The network diagram shows the relations between the different codes (see Appendix D.8 for a larger structured organic network diagram). Appendix D.9 shows a summary of the primary and secondary codes of the network diagram in Figure 6.21, but does not show the relationships among the codes. Most of the primary codes were assigned more than one secondary code, due to the overlapping nature of the responses of participants (also indicated in section 6.3.1.2). Only the most important findings are discussed in this section. Figure 6.20 shows a word cloud of the assigned primary codes of the data set of which the purpose is to highlight the most frequently used words, that is, those printed in a larger font.

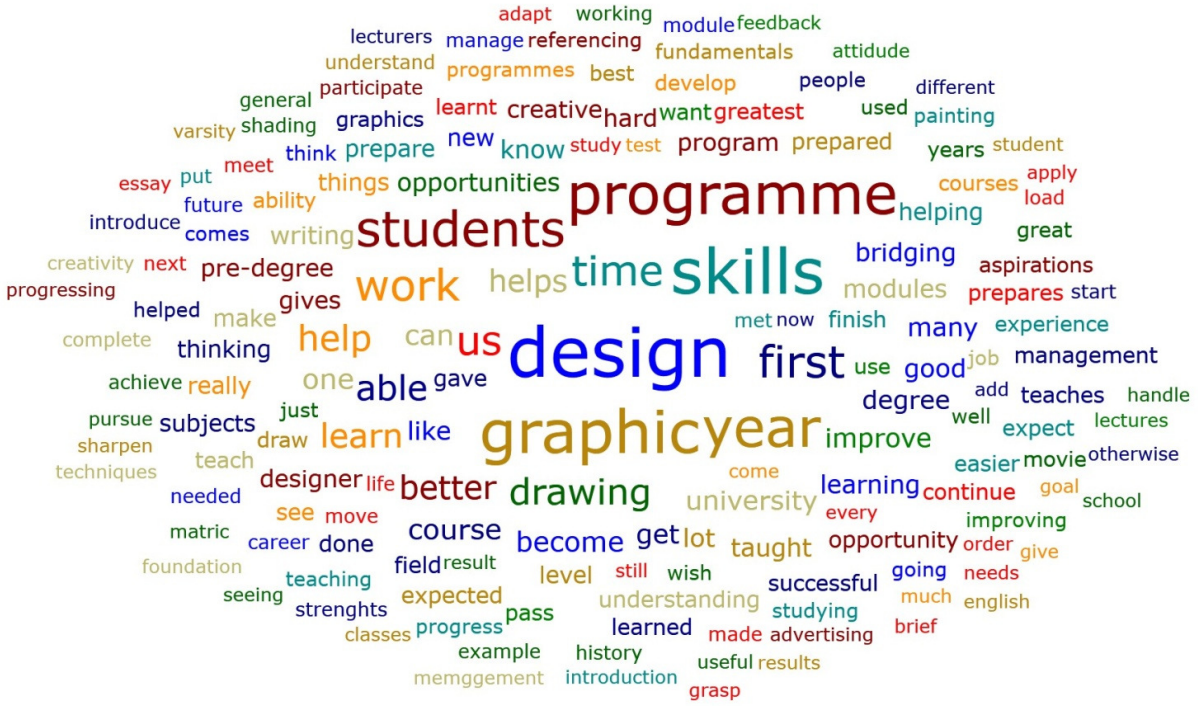


Figure 6.20: Word cloud of primary codes assigned to the data set of student participants for the SOAR analysis questionnaire aimed at achieving research objective 3 (generated by Atlas.ti)

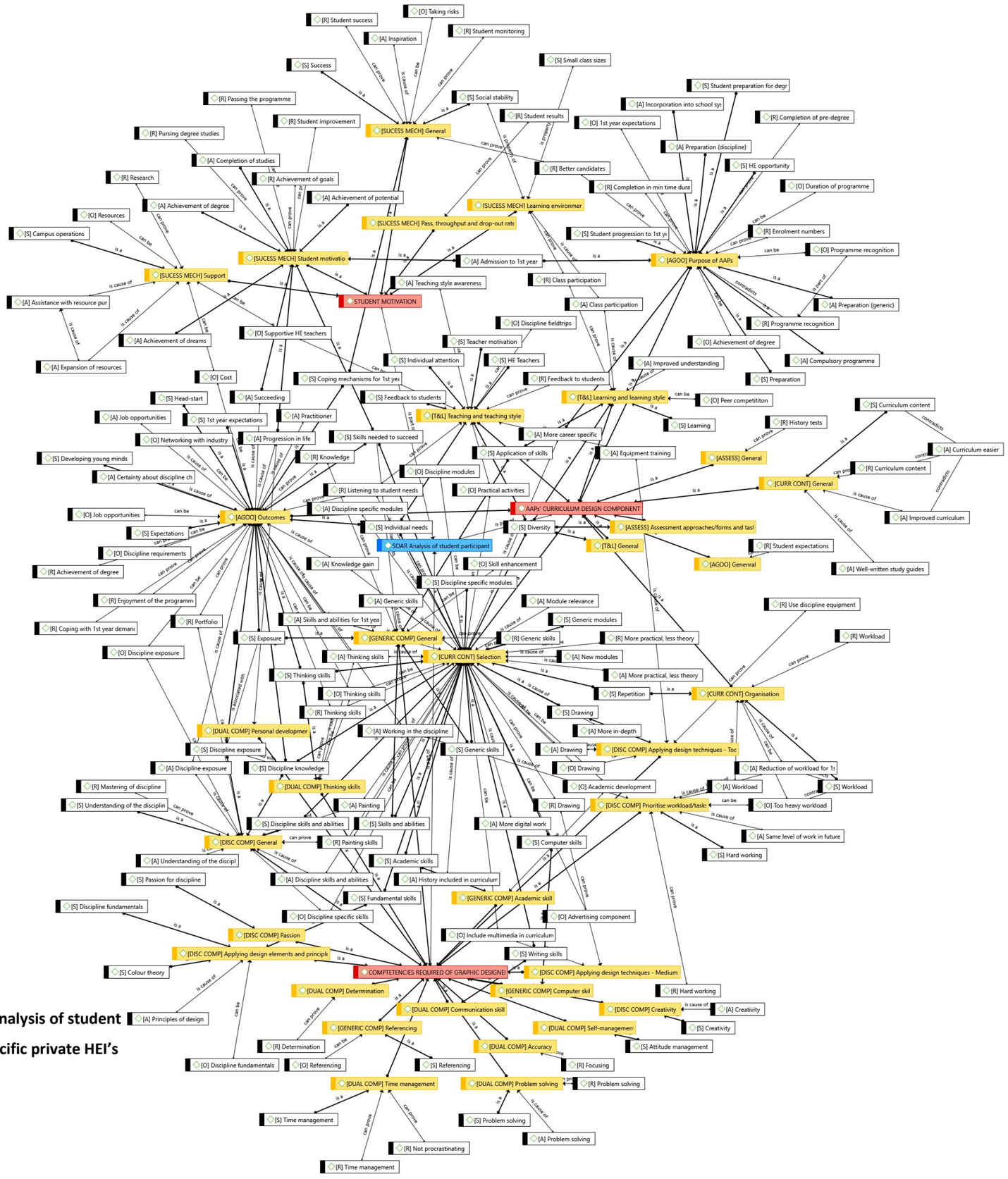


Figure 6.21: Organic Atlas.ti network diagram of the analysis of student participants' responses regarding the specific private HEI's existing AAP for graphic design

6.3.2.2.1 Data analysis and interpretation of student participants' responses pertaining to the theme of curriculum design components of AAPs

The findings derived from the analysis indicate that ILOs of AAPs for graphic design *(n = 35),* and the selection of curriculum content *(n =46)* are the two components to which most of the student participants referred. This is similar to what was found after the analysis of the HE teachers' responses (see section 6.2.1.2). Other aspects which are also discussed in this section are the purpose of AAPs for graphic design, and the teaching and the teaching styles of students' HE teachers. Student participants' responses were mostly short with direct statements, rather than full sentences that elucidate their statements.

a) Aims and goals of AAPs for graphic design

The most cited strengths that are associated with the purpose of the programme indicated by student participants were preparation in general *(n = 18)*, preparation for degree studies *(n = 3)*, and preparation for HE in general *(n = 7)*. Student participants also expressed wishes/aspirations for the ILOs of the AAP to assist them to succeed in their studies by obtaining relevant knowledge and skills in order for them to enter the graphic design industry successfully. For example, one participant expressed the wish to *be a graphic [d]esigner* (SOAR_S 10:2:171).

Illustrative verbatim quotes – Preparation

> *[T]he programme helped me know more about what graphic design is about, and to prepare us for the 3 years* (SOAR_S 19:2:28)
>
> *[G]reatest strength about the programme is that it [prepares] you to what is like in 1st year. Since there is a big gap between matric and 1st year* (SOAR_S 49:2:61)

An interesting finding I wish to highlight is that some students regarded the formal/official recognition of the programme as both an opportunity and result. This finding was also referred to in the HE teacher section (see 6.3.1.2). The purpose of the relevant AAP is to provide alternative access to previously disadvantaged and non-traditional students who have (potential) talent (CHE, 2007:43,70-71) (see 3.2.2). However, the programme's current alignment with level five on the NQF should aid students with the Recognition of Prior Learning (RPL) process required according to the first criterion (v) for programme accreditation (CHE, 2004:8). The verbatim quotation provided below in support of this finding displays dissatisfaction with the current programme and the specific HEI.

Illustrative verbatim quotes – Programme recognition

> *I don't see any opportunities here as pre-degree is expensive and you cannot apply anywhere else using it.* (SOAR_S 33:2:120)

b) Selection of curriculum content for AAPs for graphic design

The selection of curriculum content that fosters generic and discipline-specific competencies was listed by the student participants as one of the most important strengths. Listed generic competencies include academic skills, computer skills, writing skills and other generic skills (see Appendix D.9). Two discipline-specific competencies that are listed as strengths are the inclusion of drawing and thinking skills (which are a dual competency) in the curriculum. Thinking skills may include creative, critical, design-orientated and innovative thinking skills (see 4.13). The literature study indicated that all thinking skills are dual competencies (see Table B.1). However, South African HE teacher participants who completed the questionnaire survey aimed at research objectives 1 and 2 in section 6.2.2.1 rated design-orientated thinking skills as an important competency only for graphic design.

Although student participants provided an adequate list of strengths pertaining to the selected curriculum content, students still expressed a wish/aspiration for more discipline-specific modules that are more in-depth to foster discipline-specific skills and abilities such as drawing, painting and digital work (i.e. software), in order to prepare them better for the demands of the first year. AAP students in design disciplines tend to spend more time on their discipline-specific modules than on foundation provision modules that foster generic competencies, since these are regarded as not relevant to what they are studying (see 3.2.1). The development of practical skills and abilities are regarded by design students as the most important competencies (*cf.* Shreeve et al., 2009:346) (see 3.2.1).

Illustrative verbatim quotes – Drawing and painting

> *[T]his programme should have more teaching learning [lessons] on how to draw*
> (SOAR_S 25:2:187)
> *To teach students how to improve on their drawing, shading and painting.*
> (SOAR_S 63:2:223)

Another finding that is worth noting is a contradiction in terms of student participants' views of the curriculum content of AAPs for graphic design and the workload of students in the programme. The content of the curriculum is regarded as a strength by some participants *(n=8)*; however, the same number of participants complained about the amount of work implied by the curriculum content. Prioritising one's workload/tasks was identified in the literature study as a discipline-specific competency required of graphic designers, since the graphic design industry is fast paced and requires professionals not only to master this competency but also be deadline orientated, efficient, be able to do multiple tasks simultaneously, be able to work under pressure, and manage oneself, one's stress and one's time (see Table B.1 in Section B). These competencies also form part of the main themes emanating from the data analysis, namely the fostering of generic and discipline-specific competencies required of graphic designers *(n = 19;* see Appendix D.9).

Illustrative verbatim quotes – Workload

To give work then having an enough amount of time to finish and hand in on the due date. (SOAR_S 53:2:212)

To have more realistic work levels. (SOAR_S 65:2:225)

[I]t has too much work … (SOAR_S 38:2:126)

c) Intended learning outcomes of AAPs for graphic design

Student participants were of the opinion that the ILOs for the specific AAP for graphic design *(n = 35)* exposed them to the graphic design discipline, as well as HE in general. However, students also indicated a need for more discipline exposure than currently offered. Student participants indicated that these ILOs also prepared them for the expectations of their first year in the relevant mainstream programme by teaching them relevant coping mechanisms which they could use in order to succeed. ILOs should indeed promote the purpose/s of the qualification (SAQA, 2000:14-15) (see 2.3.6.2.2d and 3.2). Boughey (2007:9) and Walton et al. (2015:267) note that student access, success and throughput rates should be inseparable from each other if a programme is fit for its purpose (see 3.2.1). Student access and success also are two of the main purposes of AAPs in South Africa (CHE, 2013a:72) and were highlighted as areas for concern in the White Paper for Post-School Education and Training (CHE, 2013b:31) (see 3.2.2).

Illustrative verbatim quotes – Discipline exposure

… to become a better designer and to be able to learn all there is about [g]raphic design. (SOAR_S 12:2:102)

... it gives you a better idea of what graphic [d]esign is and of what it is really about. You can still decide if you still want to continue with this career path (if it is for you or not). (SOAR_S 13:2:103)

[M]ade me find out that graphic design is what [I am] really passionate about. (SOAR_S 69:2:156)

Illustrative verbatim quotes – Student expectations

... helps us know what to expect at university and also [k]now [how] to adapt to it. (SOAR_S 14:2:19)

[I]t gave me some experience in what to expect within [varsity] .... (SOAR_S 26:2:37)

[It's] an opportunity already to [have] a taste of what to expect ... (SOAR_S 37:2:48)

d) Teaching and teaching styles of the HE teachers

Student participants identified several strengths of their HE teachers such as the feedback they received from their HE teachers, the individual attention they received in class that catered for every student's specific needs, their HE teachers' motivation to teach them (the students), and their HE teachers' support. Motivation from the side of HE teachers indeed is listed as one of the factors that influence students' motivation and is included as a mechanism for student success (see 6.3.2.2.3 and 3.3.5).

Illustrative verbatim quotes – HE teachers

The teaching is good and the teachers are motivated (SOAR_S 50:2:62)

Best opportunity is having supportive lecturers that help in more ways than one. (SOAR_S 52:2:138)

6.3.2.2.2 Analysis and interpretation of student participants' responses pertaining to the theme of generic and discipline-specific competencies

Nineteen generic and/or discipline-specific competencies were identified in the responses of student participants. The most important competency strengths referred to are creativity *(n = 8)*, discipline knowledge *(n = 9)*, drawing *(n = 8)*, and understanding of the discipline *(n = 9)*. Students mostly mentioned the wish/aspiration to learn discipline skills and abilities through the programme *(n = 7)*, and exposure to the discipline as the greatest opportunity *(n = 6)*.

The application of design techniques, in particular drawing, was listed several times by students. Drawing is one of the tools which students indicated that needed to be included in the selection of curriculum content (see the verbatim quotes in section 6.3.2.2.1b). Drawing is a traditional tool which often forms part of idea generation during the design process (see 4.5.2.2.1). Drawing improves the perception, reflection and hand-brain-eye coordination of the graphic designer (Bulduk, 2010:2019-2020) (see 4.5.2.2.1).

The ability to prioritise within your workload is a discipline-specific competency that AAP for graphic design students should master. This competency already was discussed under the selection of curriculum content for AAPs for graphic design in section 6.3.2.2.1b. One student noted that *it* (i.e. the AAP for graphic design) *has too much work and all the time you have to come up with your own idea* (SOAR_S 38:2:126). Creativity is one of the core competencies which need to be developed in the design process of graphic design in order to develop one's own original contribution to the discipline (see 4.4.2). Creativity is related to the development of several other competencies such as collaboration, curiosity, imagination, innovation, originality, solving problems, and all the thinking skills listed in the report on the literature study in Section B (see Table 4.3). Therefore, this statement of the one student participant is not in line with the requirements of the discipline. Creativity often is cited by students as a strength of the specific AAP.

General discipline-specific tasks mentioned by students as strengths are discipline exposure, discipline knowledge and the development of associated discipline skills and abilities. Identified opportunities in the AAP include more exposure to the discipline and the inclusion of more discipline-specific skills in the curriculum (which both are also mentioned in section 6.3.2.2.1b). As already noted in section 6.3.2.2.1b, design students place more emphasis on discipline-specific modules; therefore, the wish/aspiration for the

inclusion of even more discipline-related aspects. Students understand that their portfolio would be evidence to prove that they have mastered the discipline of graphic design since it is *the end result of what you've done... what you've learnt to become a (graphic designer;* SOAR_S 62:2:278). A portfolio demonstrates to other graphic designers in industry that the student possesses the required generic and discipline-specific competencies (see 2.3.6.4).

Self-motivation is a new code that emerged, but was not mentioned in the responses of the HE teacher participants' discussed in the previous section. Eleven primary codes were assigned to this secondary code, being referred to as either an aspiration or a result. Eight of the responses listed completing one's studies as an aspiration which links well with the achievement of their degree, dreams and potential. Self-motivation is included as a dual competency (generic and discipline-specific) based on the literature review and was listed in Table B.1. Self-motivation pertains to intrinsic motivation which is a factor that contributes to students' overall motivation (see 3.3.5).

Illustrative verbatim quotes – self-motivation

[T]o achieve my dream of becoming a multimedia designer. (SOAR_S 66:2:226)

[B]eing able to complete the course within its given time. (SOAR_S 47:2:206

Determination *(n=2)* and personal development *(n=2)* are two new competencies identified through the analysis of student data, but which were not cited in the literature review or HE teacher participants' feedback. In both cases, determination is identified as a measurement/result. Synonyms of determination are will power, strength of character, single-mindedness, sense of purpose, and so forth (Oxford, 2015:online). The primary code associated with personal development was progression in life, which is listed as a wish/aspiration by two students. Both new competencies were eventually included in the preliminary framework which was presented to a panel of experts for reviewing and validation.

Illustrative verbatim quotes – New competencies

To be determined and work hard. (SOAR_S 51:2:267) - determination

To get me ahead in life (SOAR_S 50:2:209) – progression in life

Improve more and learn more. (SOAR_S 51:2:201) – progression in life

6.3.2.2.3 Analysis and interpretation of student participants' responses pertaining to the theme of student success mechanisms

Students learn very little if they are not motivated on a continuous basis (Williams and Williams, 2011:2) (see 3.3.5). Factors that may influence students' motivation are the student himself/herself, their HE teachers, the content of the curriculum, teaching and learning approaches/activities and the classroom

environment (Williams and Williams, 2011:2) (see 3.3.5). Self-motivation pertains to the intrinsic motivation of the student himself/herself (see 6.3.2.2.2), which is fostered through their wishes/aspirations. Student participants noted their HE teachers' enthusiasm and motivation (see section 6.3.2.2.1d), which further contributes to their levels of motivation. The selection of appropriate curriculum content without overloading the students, however, also is a concern raised by the student participants (see 6.3.2.2.1b).

Illustrative verbatim quotes –wishes/aspirations of student participants

I have [intentions] of achieving a degree [in] Graphic Design which is a vital [resource] when I want to get a job in the movie industry. (SOAR_S 32:2:193)

[T]o achieve my dream of becoming a multimedia designer (SOAR_S 66:2:226)

I wish for this programme to continue to help students prepare [and] achieve their highest potential. (SOAR_S 43:2:203)

Register for my first year. - Complete my degree. (SOAR_S 51:2:137)

Support as a success mechanism for students also was included under the theme of student success mechanisms, similar to the HE teacher participants' data analysis and interpretations in section 6.3.1.2. This mechanism encompasses financial aid, campus resources, and operations. In section 6.3.1.2 the discussion about support mostly referred to curriculum design components of AAPs and therefore it was not included as a new success mechanism. However, in the light of the student participants' data analysis, the decision was made to include support as a student success mechanism, since it is a new competency which cannot be included within another mechanism.

The constructs pass, throughput and dropout rates are not mechanisms for student success but rather are indicators of student success; therefore, they are not listed in the summary of this chapter as a success mechanism (see section 6.3.1.2.3).

6.3.3 Summary of SOAR data analysis and interpretation results aimed at achieving objective 3

Table 6.8 summarises the results of the SOAR analysis of HE teacher participants' responses. The inclusion of generic and discipline-specific competencies was listed as a strength; however, HE teacher participants wished for more generic (in particular language skills) and discipline-specific competencies. This also was expressed as an opportunity/weakness of the AAP. The need to increase student motivation in order to promote student success was listed twice, once as a strength and once as an opportunity. Some HE teachers also listed the need to demystify the graphic design discipline (opportunity), which can be done by adequately exposing students to the discipline (aspiration). Some of them also identified the need for more contact time with students in order to teach theory modules; however, others expressed the wish for utilising the entire available contact time with students. The majority of the primary codes assigned to HE teacher responses were either opportunities *(n = 74)* or aspirations *(n = 72)* for the specific AAP for graphic design.

Table 6.8: Summary of higher education teacher participants' SOAR analysis of the existing alternative access programme for graphic design

Strengths	**Opportunities**
• Exposing students to the discipline of graphic design. • Including generic and discipline-specific competencies in the content of the curriculum. • Increasing student motivation to increase student success. • Preparing students for the specific mainstream programme (i.e. epistemic transition). • Providing non-traditional students with an opportunity to access HE.	• A lack in theory support (e.g. time) for both theory and practical modules. • Demystify the graphic design discipline. • Develop English communication skills. • Include more generic and discipline-specific module content in the curriculum (e.g. academic skills, art and design history, basic computer skills, drawing, language, reading and writing). • Increase student motivation in order to increase student success. • Provide more feedback to students. • Reduce stigmatisation of the programme and AAP students. • Select more appropriate module content.
Aspirations	**Results/Measurements**
• Adequately expose students to the discipline of graphic design. • Be even more hands-on in the classroom • Develop more generic (in particular language skills) and discipline-specific competencies. • Incorporate more discipline-specific fieldtrips. • Use the entire available contact time with students.	• Students' feedback. • Students' design portfolio

The majority primary codes assigned in the student participants' SOAR analysis of the existing AAP for graphic design were strengths *(n=74)*. Students identified discipline exposure, knowledge, and competency development as strengths of the programme, as well as preparation. The fostering of generic competencies also was mentioned as a strength. This therefore differs from the HE teacher participants' identification of mostly opportunities and/or aspirations for the existing AAP for graphic design. Students also expressed many wishes/aspirations *(n=68)* for the inclusion of more discipline-specific content, modules and/or competencies. The development of discipline-specific competencies is very important for design students as this is seen as the core curriculum (see 3.2.2.1). Table 6.9 provides a summary of student participants' responses.

Table 6.9: Summary of results of the SOAR analysis of student participants' responses regarding the existing alternative access programme for graphic design

Strengths	**Opportunities**
• Discipline exposure. • Knowledge development. • Fostering of generic and discipline-specific competencies (especially creativity, drawing and thinking skills). • HE teacher feedback to students. • Individual attention that HE teachers give to their students. • Motivation by HE teachers. • Preparation in general, preparation for degree studies, and preparation for HE.	• Formal/official recognition of the programme. • More exposure to the discipline of graphic design. • Include more discipline-specific skills in the curriculum.
Aspirations	**Results/Measurements**
• Design ILOs in such a way that they will guide students to succeed in their studies. • More discipline-specific modules in order to foster discipline-specific competencies. • Develop self-motivation.	• Formal/official recognition of the programme. • High degree of self-motivation and determination. • Students' design portfolio.

In summary, both groups of participants agree that the specific AAP exposes students to the graphic design discipline, fosters generic and discipline-specific competencies, provides motivation for students that fosters student success, and assists in the preparation of students for HE, their degree studies or for overall success. Similar opportunities were identified by participants in both groups; these are to include extra discipline-specific and generic competencies (in particular language skills) in the curriculum of the existing AAP for graphic design, and exposing students even further to the discipline of graphic design. Aspirations/wishes that participants from both groups identified, were similar to the opportunities already mentioned (e.g. the inclusion of more discipline-specific features/aspects which in turn relates to adequately exposing students to the discipline). Students' design portfolio is the measurement which participants from both groups suggested, probably since it provides evidence of the competencies that students possess. A slight discrepancy noted, is that some HE teachers identified providing students with more feedback as an opportunity, whereas some students list HE teachers' feedback as a strength. This indicates that HE teachers' feedback is seen by some students as sufficient.

6.4 CHAPTER SUMMARY

The purpose of this chapter was to compare and converge the findings of the first three questionnaire surveys aimed at the first three research objectives of this study with the literature findings of Section B in order to compile a (preliminary) proposed framework of critical elements for the design of AAPs for graphic design (i.e. generic and discipline-specific competencies, and student success mechanisms), in such a way that the programme itself also will serve as a mechanism for student success. The findings derived from the analysis of the quantitative and qualitative data collected in pursuing the first three research objectives of the study were presented in tables and figures throughout this chapter. The qualitative data referred to in

sections 6.2.2.2, 6.3.1.2 and 6.3.2.2 were also presented in tables arranged according to the three major themes of the study, namely curriculum design components of AAPs, generic and discipline-specific competencies, and student success mechanisms. The quantitative and qualitative findings were compared and converged with the relevant literature findings discussed in Section B, and illustrated by means of verbatim quotations from the written responses of student and HE teacher participants.

The findings of the web-based questionnaire survey aimed at research objectives 1 and 2 included important generic and discipline-specific competencies which need to be included in the curriculum of AAPs for graphic design, as well as the most important mechanisms for ensuring student success in such programmes. The five-point Likert scale that was used for the quantitative items included in the questionnaire covered important competencies and success mechanisms, as rated by South African HE teachers. The qualitative section of the mentioned questionnaire served as an explanatory component in which the South African HE teacher participants could motivate their rating of items according to the Likert scale. The SOAR analysis of the AAP for graphic design of a specific private HEI exposed the programme's strengths, opportunities, aspirations and results. The SOAR analysis was also used to identify critical elements that needed to be included into my envisaged framework. The proposed framework, however, also needs to include the curriculum design parameters of the flexible framework proposed by the CHE (see 3.2.2) in order to (possibly) address the limitations of AAPs noted in section 3.2.2 (CHE, 2007:43,70-72; CHE, 2013:108), as well as in the empirical findings pertaining to research objective 3 in terms of strengths, opportunities, aspirations and results (see 6.3.2).

AAPs rely on the cultivation of generic and discipline-specific competencies which students must possess in order to eventually succeed in mainstream programmes (Trwartha, 2008) (see 3.4). Furthermore, AAPs with a focus on discipline-specific knowledge and practices have been shown to improve students' retention and success rates (Garraway, 2010:31) (see 3.2.1), which is supported by the SOAR analysis of an existing AAP for graphic design that is reported on in section 6.3. Seven possible new competencies were identified, namely academic skills, developing an aesthetic gaze, making decisions, being determined, possessing discipline knowledge, personal development, and being responsible for one's actions. Eventually, the decision was made to only include four of these competencies (i.e. developing an aesthetic gaze, decision-making, determination and personal development of the student himself/herself) in the proposed framework since the other competencies could be incorporated in the definitions of other competencies that were already listed in Table B.1. The new competencies, therefore, also were presented to the panel of experts for review and validation of the preliminary framework (elucidated in Chapter 7) in order to determine if they should be included in the proposed framework, since they were not identified in the non-empirical literature study as competencies required of AAPs for graphic design students, or were not extensively motivated by participants.

In order to arrive at a final list of generic and discipline-specific competencies to be included in the proposed framework (the aim of research objective 4 of the study) the decision was made to include the four new competencies identified from the data analysis and interpretation discussed in this chapter together with the list of tentatively excluded competencies to the panel of experts for the review and validation of the listed competencies. This decision was made in order to address some of the limitations mentioned in this chapter, such as accidentally omitting competencies and the low response rate of the questionnaire surveys for research objectives 1 and 2. All 58 competencies (including the 4 new ones) were presented as one list in the review and validation questionnaire survey pertaining to the preliminary framework (see Table 6.10). However, this list of competencies in the table as well as in the expert validation questionnaire does not differentiate between generic and/or discipline-specific competencies.

Table 6.10: Alphabetical list of final generic and discipline-specific competencies for alternative access programmes for graphic design based on the findings of the data analysis and interpretation reported in this chapter

Accuracy	Entrepreneurial skills	Reading skills
Adaptable in nature	Imagination	Referencing
Aesthetic gaze (developing)	Information literacy	Reflection
Applying design elements and principles	Innovation	Research skills
Applying design techniques	Innovative thinking skills	Responsibility towards clients/employers
Attention to detail	Interpersonal skills	Responsibility towards other designers
Collaboration with individuals and group work/teamwork	Interpretation of information	Responsibility towards the community
Communication skills (written and oral)	Intuition	Responsibility towards the profession
Computer skills	Learning styles and strategies	Revision and examination techniques
Creative thinking skills	Listening and note-taking	Self-management
Creativity	Memory	Self-motivated / motivation
Critical thinking skills	Multi-tasking	Stress management
Curiosity	Observation	Study skills (appropriate)
Deadline-orientated	Organisational and planning skills	Subjectivity
Decision-making	Originality	Time management skills
Design-orientated thinking skills	Passion	Visual communication
Determination	Personal development of the student himself/herself	Work independently
Efficiency	Presentation skills	Work under pressure
E-learn technologies	Prioritise workload/tasks	
Emotional intelligence	Problem solving	

Important student success mechanisms identified in this chapter that will be included in the proposed (preliminary) framework are:

- Academic advising
- Positive learning environment
- High impact and alternative teaching and learning strategies
- Student engagement
- Student motivation
- Student support (i.e. financial aid, campus resources and operations)
- Repetitive remedial actions

The use of a writing centre and enhancing students' study skills also were listed as student success mechanisms by some participants but as they already have been included in the definitions of listed competencies such as communication skills and study skills respectively, they were not included.

The empirical research results and interpretations presented in this chapter eventually were compared and converged with the literature study findings reported in Section B in order to compile the framework of curriculum components, required competencies and mechanisms for student success in an AAP for graphic design. The preliminary framework eventually was compiled and structured according to the curriculum design components identified in Chapter 2 (see Table 6.11) and listed the activities associated with each sub-section in order to highlight the requirements for designing a curriculum for an AAP for graphic design that also will promote student success. The listed activities are supported with citations or cross-references where applicable in support of the trustworthiness of the proposed preliminary framework.

Tables 6.10 and 6.11, in conjunction with the student success mechanisms listed in this section, form the basis of the preliminary framework which is presented in Chapter 7. Table 6.11 documents the cross-references of each listed activity of the proposed framework. The numbering is in accordance with the expert validation questionnaire survey documented in Chapter 7. Chapter 7 also reports on how the preliminary framework was reviewed and validated by a panel of experts in order to achieve the fourth research objective of this study.

Table 6.11: Summary of activities for the design of a curriculum for alternative access programmes for graphic design derived from the literature and empirical findings

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
SECTION A: CURRICULUM/PROGRAMME DESIGN			
A.1	***General aspects pertaining to programme design***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* A.1 .1 acknowledge: A.1.1.1 that the graphic design community has its own culture, networks and languages (Shreeve, 2015:85). A.1.1.2 the inevitability of change (e.g. demands and needs for curriculum/programme design) (Oliva, 2001:28-41). A.1.2 adhere to the demands and needs of/for: A.1.2.1 didactics (i.e. teaching and learning; Carl, 2012:72). A.1.2.2 educational administration (Carl, 2012:72). A.1.2.3 industry (Carl, 2012:72). A.1.2.4 real life (Carl, 2012:72). A.1.2.5 the community (Carl, 2012:72). A.1.3 strive to comply with the following South African programme design requirements (CHE, 2004:7-8): A.1.3.1 Adherence to professional body requirements (if applicable). A.1.3.2 Alignment with national and/or regional industry, knowledge and socio-cultural needs. A.1.3.3 Articulation opportunities with other programmes and higher education and training institutions. A.1.3.4 Coherence of modules and/or courses of the programme (e.g. level, credits, purpose, etc.). A.1.3.5 Integration of work-based learning or learning in a work-based environment in the curriculum design. A.1.3.6 Involvement of relevant stakeholders (e.g. academic peers, employers and professional bodies) in the design process. A.1.3.7 Promotion of students' understanding of the specific discipline/profession (i.e. graphic design). A.1.3.8 Providing opportunities for students to master competencies associated with the discipline/occupation (i.e. graphic design). A.1.4 apply the following recommended curriculum design parameters for the proposed flexible curriculum framework for South Africa (CHE, 2013a:112-114): A.1.4.1 Incorporate sufficient foundation provision (e.g. generic and discipline-specific competencies) and student success mechanisms. A.1.4.2 Integrate the foundation provision (e.g. generic and discipline-specific competencies) into the core curriculum. A.1.4.3 Ensure that students eventually achieve the same exit levels and standards as the registered mainstream programme. A.1.4.4 Support and enhance graduate attributes of the higher education institution. A.1.4.5 Provide greater exposure to the discipline (without overloading) in order to enhance the curriculum.	 3.2.2.1.4 2.3.3 2.3.3 2.3.3 2.3.3 2.3.3 2.3.3 2.3.1 2.3.1 2.3.1 2.3.1 2.3.1 2.3.1 2.3.1 2.3.1 3.2.2; 6.3.2.2.1a 3.2.2 3.2.2 3.2.2 3.2.2; 6.3.1.2.1a

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		A.1.4.6 Provide curriculum pathways for students who may complete a diploma or degree in the minimum time allowed by exemption from a maximum of 120 credits of foundation provision.	3.2.2
		A.1.4.7 Steadily increase intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree.	3.2.2; 6.3.2.2.1c
		A.1.4.8 Use an appropriate starting point according to students' prior knowledge.	3.2.2
		A.1.5 design the curriculum/programme:	
		A.1.5.1 according to a purposeful plan (Carl, 2012:72).	2.3.3
		A.1.5.2 in a systematic manner (Oliva, 2001:28-41)	2.3.3
		A.1.6 employ a/an:	
		A.1.6.1 appropriate method to design a curriculum/programme (Carl, 2012:72).	2.3.3
		A.1.6.2 comprehensive process (Carl, 2012:72; Gorton, 1976:236-239, cited in Carl, 2012:71-72; Oliva, 2001:28-41).	2.3.3
		A.1.6.3 continuous process (Oliva, 2001:28-41; Ornstein and Hunkins, 2014:158-161).	2.3.3
		A.1.6.4 decision-making process (Oliva, 2001:28-41).	2.3.3
		A.1.6.5 interdisciplinary process (Carl, 2012:72; Oliva, 2001:28-41)	2.3.3
		A.1.7 link knowledge and experiences of the curriculum/programme (i.e. integration by converging the knowledge and experiences; Ornstein and Hunkins, 2014:158-161).	2.3.3
		A.1.8 take into account students' developmental level with regard to all curriculum design components (Carl, 2012:72).	2.3.3
		A.1.9 use the existing curriculum as a starting point for curriculum/programme design (Oliva, 2001:28-41).	2.3.3

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		SECTION B: AIMS, GOALS, AND INTENDED LEARNING OUTCOMES	
B.1	***General aspects pertaining to aims, goals, and/or intended learning outcomes***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.1.1 acknowledge the diverse student population of South Africa as a given (Altbach, Reisberg and Rumbley, 2009:17; CHE, 2013:108; RSA DoE, 1997:17). B.1.2 align aims, goals and intended learning outcomes with the following levels of curriculum design (adapted from Carl, 2012:67-68, and Ornstein and Hunkins, 2014:194): B.1.2.1 Higher education institutions' programme mix. B.1.2.2 Higher education institutions' programme policies and procedures. B.1.2.3 Individual learning programme design. B.1.2.4 Module design within learning programmes. B.1.2.5 South African higher education legislation. B.1.2.6 Teaching in the programme (in terms of modules) that results in micro-curriculum design in the classroom. B.1.2.7 The community's philosophy of life and views on higher education in South Africa. B.1.3 align admission requirements of the programme: B.1.3.1 to promote equity (CHE, 2004:9). B.1.3.2 to widen access (CHE, 2004:9). B.1.3.3 with the degree of complexity of learning required (CHE, 2004:9). B.1.4 align the curriculum components with the higher education and training institution's vision, mission, goals and planning structures (Ornstein and Hunkins, 2014:157; CHE, 2004:7-8). B.1.5 align with the discipline/profession itself (Stenhouse, 1975:85). B.1.6 employ additional admission requirements such as: B.1.6.1 aptitude tests (e.g. English proficiency tests). B.1.6.2 discipline-specific requirements (e.g. design portfolios). B.1.7 promote curriculum design for student success through academic development initiatives (CHE, 2004:18).	3.2.2 2.3.2; 6.2.2.2.1a 2.3.2; 6.2.2.2.1a 2.3.2; 6.2.2.2.1a 2.3.2; 6.2.2.2.1a 2.3.2 2.3.2; 6.2.2.2.1a 2.3.2 3.2.2; 6.3.1.2.1b 3.2.2; 6.3.1.2.1b 3.2.2; 6.3.1.2.1b 2.3.4 2.3.5.2.2 6.3.1.2.1 3.2.2.1.1 3.2
B.2	***Aims and goals***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.2.1 address the articulation gap between secondary and higher education in South Africa (CHE, 2013a:72). B.2.2 implement a curriculum structure that is aligned with South African students' prior knowledge (CHE, 2004:7-8; CHE, 2013:107). B.2.3 incorporate student success mechanisms to ensure successful completion of the access programme as well as the eventual qualification (CHE, 2013a:73). B.2.4 provide: B.2.4.1 an academic foundation for underprepared students that includes generic and discipline-specific competencies (see Table 6.5) (CHE, 2013a:70). B.2.4.2 alternative access to higher education for talented but previously disadvantaged students and advantaged and disadvantaged students but with physical or other disabilities (e.g. learning disabilities, etc.) (CHE, 2007:43,70-71).	3.2.1 3.2.2 3.2.2 3.2; 6.3.2.2.1a 3.2

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
B.3	***Intended learning outcomes***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.3.1 align the intended learning outcomes with the: B.3.1.1 appropriate National Qualifications Framework level and its associated level descriptors (Biggs and Tang, 2011:119-125; Geyser, 2004:152; RSA DoE, 2002:v; SAQA, 2012:3-5). B.3.1.2 critical cross-field and developmental outcomes of the South African Qualifications Authority (RSA NQF, n.d.:1; SAQA, 2000:18-19). B.3.1.3 purposes of alternative access programmes (e.g. widening access for previously disadvantaged students, provide an academic foundation for underprepared students, etc.). B.3.2 apply constructive alignment to ensure intended learning outcomes are aligned with teaching and learning activities and assessment tasks (Biggs and Tang, 2011:10-11). B.3.3 apply the following four *essential* or *power* principles of Outcomes-Based Education in a consistent, systematic, creative and simultaneous manner (Spady, 1994:11): B.3.3.1 Backward designed intended learning outcomes from the aims and goals of the institution or programme to specific learning outcomes for themes/units in a module. B.3.3.2 Formulate clear intended learning outcomes (which both the student and teacher understand) that will guide the creation of other components in the curriculum design. B.3.3.3 Set high expectations, i.e. that students will be able to achieve the intended learning outcomes. B.3.3.4 Take into account students' different learning paces in achieving the learning outcomes so that the intended learning outcomes expand opportunity and provide support for student success. B.3.4 base intended learning outcomes on students' prior abilities and knowledge (CHE, 2013a:107). B.3.5 derive intended learning outcomes from the discipline and profession's knowledge base (CHE, 2004:24). B.3.6 formulate: B.3.6.1 intended learning outcomes that will develop both generic and discipline-specific competencies (see Table 6.6) (Kloot, Case and Marshall, 2008:804-805; CHE, 2013:70). B.3.6.2 the intended learning outcomes of students' learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students (Shreeve, 2015:86). B.3.7 employ various levels of the different taxonomies for cognitive, psychomotor, and affective domains when designing intended learning outcomes in order to ensure an appropriate balance between the levels of complexity within the taxonomy (Carl, 2012:72; Gorton, 1976:236-239, in Carl, 2012:71-72; Ornstein and Hunkins, 2014:158-161). B.3.8 follow the following guidelines when formulating intended learning outcomes at module level (Biggs and Tang, 2011:119-125; Geyser, 2004:152): B.3.8.1 Decide whether the intended learning outcomes require declarative (understanding of knowledge) or functioning knowledge (application, creation, solving of problems and a lifelong learning orientation).	 2.3.6.2.2d 2.1.1; 6.2.2.2.1a 3.2 2.3.6.2.2b; 6.2.2.2.1a 6.2.2.2.1d 2.3.6.2.2a 2.3.6.2.2a 2.3.6.2.2a ; 6.2.2.2.1a 2.3.6.2.2a 2.3.6.2.2a 3.2.2 2.3.6.2.2; 6.2.2.2.1a 3.2 3.2.2.1.2; 6.2.2.2.1a 2.3.6.2.2e;6.2.2.2.1a 2.3.6.2.2e;6.2.2.2.1a 2.3.6.2.2e

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		B.3.8.2 Start the intended learning outcome with the introductory phrase *[t]he student will*.	2.3.6.2.2e
		B.3.8.3 Specify an action verb at the appropriate level of understanding/performance/complexity.	2.3.6.2.2e
		B.3.8.4 Specify an object or topic that relates to the verb (e.g. the content).	2.3.6.2.2e
		B.3.8.5 Specify the context in which the verb and object are used (e.g. specific discipline).	2.3.6.2.2e
		B.3.9 foster, and expose students to discipline knowledge in order to enhance student success and retention (Garraway, 2010:31).	3.2.1; 6.3.1.2.1a; 6.3.1.2.1d
SECTION C: CURRICULUM CONTENT			
C.1	***General aspects pertaining to curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		C.1.1 acknowledge the role of the orientation (i.e. attitude, beliefs or feelings) of the curriculum designer with regard to curriculum content (Carl, 2012:50).	2.2.1
		C.1.2 adhere to curriculum/programme design criteria pertaining to curriculum content:	
		C.1.2.1 Correlation/coherence of content (Gorton, 1976:236-239, cited in Carl, 2012:71-72).	2.3.3
		C.1.2.2 Scope of content (Ornstein and Hunkins, 2014:158-161).	2.3.3
		C.1.2.3 Sequence of content (Ornstein and Hunkins, 2014:158-161).	2.3.3
		C.1.3 align curriculum content with the:	
		C.1.3.1 aims, goals, purposes and the graduate intended learning outcomes of a specific higher education institution (i.e. its graduate attributes), programme/qualification outcomes and module outcomes respectively (Carl, 2012:91).	2.3.6.2; 2.3.6.3
		C.1.3.2 specific National Qualifications Framework level descriptors (Gravett and Geyser, 2004:149).	2.3.6.3.1
		C.1.4 design and evaluate learning materials that will ensure alignment with the programme aims, goals and purposes (CHE, 2004:7-8).	2.3.6.2
		C.1.5 ensure the coherence of the content of different modules with the level, credits, purpose, intended learning outcomes, weights and delivery (CHE, 2004:7-8).	2.3.6.3
		C.1.6 involve higher education teachers on all campuses of a higher education institution in selecting and organising the curriculum content.	6.3.1.2.1c
		C.1.7 organise and select curriculum content holistically in order to have a more coherent programme overall.	6.3.1.2
C.2	***Organising curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		C.2.1 distribute:	
		C.2.1.1 discipline modules evenly throughout the duration of alternative access programmes.	6.3.1.2
		C.2.1.2 the workload of modules in accordance with students' abilities to manage the amount of curriculum content.	6.3.2.2.1b
		C.2.2 organise curriculum/module content:	
		C.2.2.1 according to students' academic needs.	6.3.1.2.1d

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		C.2.2.2 according to a method/s that is/are personally and academically appropriate for the student and/or higher education teacher (Angelo, 1993:3-8).	2.3.6.4.1
		C.2.2.3 for horizontal alignment, within a module and the entire programme/qualification (Ornstein and Hunkins, 2014:157).	2.3.6.3.2
		C.2.2.4 for vertical alignment, within a module and the entire programme/qualification at different levels of scope and complexity (Ornstein and Hunkins, 2014:157).	2.3.6.3.2
		C.2.3 provide sufficient time for repetition and revision of curriculum content.	6.2.2.1; 6.3.2.2
		C.2.4 select an appropriate organising type (e.g. logical, psychological, political or practical) for curriculum content (e.g. logical, psychological, political, and practical), depending on the purpose of the programme/module (Ornstein and Hunkins, 2014:204).	2.3.6.3.2
C.3	***Selecting curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		C.3.1 balance:	
		C.3.1.1 experiential knowledge and skills with appropriate disciplinary content and theoretical depth (CHE, 2004:7-8).	2.3.1; 6.2.2.2.1b
		C.3.1.2 practical knowledge and skills with appropriate disciplinary content and theoretical depth (CHE, 2004:7-8).	2.3.1; 6.2.2.2.1b
		C.3.1.3 theoretical knowledge and skills with appropriate disciplinary content and theoretical depth (CHE, 2004:7-8).	2.3.1; 6.2.2.2.1b
		C.3.2 incorporate:	
		C.3.2.1 disciplinary content at an appropriate level to serve the programme's purpose (CHE, 2004:7-8).	2.3.1; 6.2.2.2.1b
		C.3.2.2 theoretical depth at an appropriate level to serve the programme's purpose (CHE, 2004:7-8).	2.3.1
		C.3.3 include:	
		C.3.3.1 a language component in all theory modules to assist with the development of students' communication skills.	6.3.1.2
		C.3.3.2 foundation provision content to assist students to deal with the obstacles (CHE, 2013a:70).	3.2.2
		C.3.3.3 foundation provision content to assist students with their learning skills (Boughey, 2007:8; Young, 2015:2).	3.2.2.1.3
		C.3.3.4 foundation provision content to provide students with motivation (Boughey, 2007:8; Young, 2015:2).	3.2.2.1.3
		C.3.4 revise the content every semester/year (to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design (Finch and Crunkilton, 1993: 131; Stenhouse, 1975:85; Tovey, 2015:1).	3.2.2.1.3; 6.2.2.2.1b 6.2.2.2.2c
		C.3.5 select curriculum content that:	
		C.3.5.1 addresses current needs of all stakeholders (e.g. industry, students, higher education teachers, etc. (Carl, 2012:72).	2.3.3
		C.3.5.2 builds on students' prior abilities and knowledge (Carl, 2012:72).	2.3.3
		C.3.5.3 contributes to the development of generic competencies (see list of competencies in section 6.4).	6.2; 6.4
		C.3.5.4 contributes to the development of discipline-specific competencies (see list of competencies in section 6.4).	6.2; 6.4
		C.3.5.5 converges into a meaningful whole.	6.3.1.2
		C.3.5.6 empowers students to achieve their full potential (Carl, 2012:72).	2.3.3
		C.3.5.7 is accessible (Carl, 2012:72).	2.3.3
		C.3.5.8 is achievable (Carl, 2012:72).	2.3.3

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		C.3.5.9 is balanced in scope and depth of study (Carl, 2012:72).	2.3.3
		C.3.5.10 is in alignment with student input (Carl, 2012:72).	2.3.3
		C.3.5.11 is in alignment with student choices (Carl, 2012:72).	2.3.3
		C.3.5.12 is in alignment with students' existing knowledge (Carl, 2012:72).	2.3.3
		C.3.5.13 is in alignment with students' needs (Carl, 2012:72).	2.3.3
		C.3.5.14 is in alignment with key procedures in the discipline (Stenhouse, 1975:71).	2.3.5.2.2; 6.2.2.2.1b
		C.3.5.15 is in alignment with key concepts in the discipline (Stenhouse, 1975:71).	2.3.5.2.2; 6.2.2.2.1b
		C.3.5.16 is in alignment with key criteria in the discipline (Stenhouse, 1975:71).	2.3.5.2.2; 6.2.2.2.1b
		C.3.5.17 is manageable (Carl, 2012:72).	2.3.3
		C.3.5.18 is motivating (Carl, 2012:72)	2.3.3; 6.2.2.2.3d
		C.3.5.19 is realistic (Carl, 2012:72).	2.3.3
		C.3.5.20 is relevant (Carl, 2012:72).	2.3.3
		C.3.5.21 is stimulating (Carl, 2012:72).	2.3.3
		C.3.5.22 is viable (Carl, 2012:72).	2.3.3
		C.3.5.23 promotes development of cognitive skills (Carl, 2012:72).	2.3.3; 2.3.6.2.2e
		C.3.5.24 promotes development of affective skills (Carl, 2012:72).	2.3.3; 2.3.6.2.2e
		C.3.5.25 promotes development of psychomotor skills (Carl, 2012:72).	2.3.3; 2.3.6.2.2e
		C.3.5.26 provides opportunities for self-discovery (Carl, 2012:72).	2.3.3
		C.3.5.27 represents the purpose of the module (Carl, 2012:72).	2.3.3
		C.3.5.28 requires a focused attention (e.g. awareness of the basic structure of what is to be learned and the priorities in the module content elements (Angelo, 1993:3-8).	2.3.6.4.1
		C.3.5.29 serves the realisation of aims (Carl, 2012:72).	2.3.3
		C.3.5.30 supports students inside and outside of the class.	6.3.1.2
SECTION D: TEACHING AND LEARNING ACTIVITIES			
D.1	***General aspects pertaining to teaching and learning***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		D.1.1 counter the marginalisation of students and higher education teachers in alternative access programmes (CHE, 2013a:72).	3.2.2
		D.1.2 employ mechanisms to monitor student progress (CHE, 2004:11).	2.3.6.4
		D.1.3 ensure that higher education teachers and students have access to sufficient learning material.	6.3.1.2
		D.1.4 identify and unteach erroneous prior knowledge and bias (Angelo, 1993:3-8).	2.3.6.4.1
		D.1.5 integrate discipline-specific characteristics in the teaching and learning activities of the core curriculum (CHE, 2013a:112-114).	3.2.2; 6.2.2.2.1c
		D.1.6 select and develop suitable learning materials to promote the achievement of the:	
		D.1.6.1 all the intended learning outcomes in the programme (CHE, 2004:18).	2.3.1

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.1.6.2 purpose of the programme (CHE, 2004:18).	2.3.1
		D.1.7 use appropriate teaching and learning activities (e.g. methods, materials, and opportunities) that align with the purpose of the programme (CHE, 2004:10-12, 18).	2.3.6.4
D.2	***Student learning and learning approaches/styles***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		D.2.1 acknowledge different:	
		D.2.1.1 learning approaches/styles within a diverse student population (Altbach et al., 2009:17; CHE, 2013:108; RSA DoE, 1997:17).	2.3.6.4.3; 6.2.2.2.1c
		D.2.1.2 cultures of students pertaining to *economic stance* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.1.3 cultures of students pertaining to *environmental issues/situations* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.1.4 cultures of students pertaining to *gender* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.1.5 cultures of students pertaining to *political views* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.1.6 cultures of students pertaining to *religion* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.1.7 cultures of students pertaining to *social trends* (Ismail and Hassan, 2012:279,289).	2.3.6.4.3a; 6.2.2.2.1c
		D.2.2 acknowledge discipline-specific characteristics of student learning:	6.2.2.2.1c
		D.2.2.1 Doing and making are fundamental aspects of learning in design education (Shreeve, 2015:87).	3.2.2.1.4
		D.2.2.2 Learning is dialogic in nature if teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision (Shreeve, 2015:88)	3.2.2.1.4
		D.2.2.3 Learning is unconstrained if it emphases a variety of solutions to a specific problem (Shreeve, 2015:87; Shreeve, Wareing and Drew, 2009:346).	3.2.2.1.4
		D.2.2.4 Students are usually uncomfortable with theory and writing since it is viewed as unrelated to the practical component (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.2.5 Students can learn through peers and senior students within the informal studio setting of design education (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.2.6 Students should work for long periods on projects through which they can learn a variety of *key technical skills* required for employment (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.2.7 Students should work for long periods on projects through which they can learn a variety of *personal skills* required for employment (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.2.8 Students should work for long periods on projects through which they can learn a variety of *professional skills* required for employment (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.2.9 The teacher guides and advises the student during this solution phase, rather than dictates (Shreeve, 2015:87; Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.3 create teaching/learning activities and assessment tasks that require of students to apply a deep learning process instead of a surface approach by requiring students to use higher-order thinking skills (Fry, Ketteridge and Marshall, 2009:10-11).	2.3.6.4.3a; 6.2.2.2.1c

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.2.4 encourage:	
		D.2.4.1 a student-centred approach to teaching and learning (George, 2009:169).	2.3.6.4.3
		D.2.4.2 student learning through exposing them to real-world projects in the design industry (Drew, 2015:99-102,108).	3.2.2.1.4
		D.2.5 foster:	
		D.2.5.1 critical thinking in design education (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.5.2 independent thinking in design education (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.5.3 intellectual abilities in both hemispheres of students' brains in order to meet challenges of this century (Ornstein and Hunkins, 2014:207).	2.3.6.4
		D.2.5.4 self-analytical thinking in design education (Shreeve et al., 2009:346).	3.2.2.1.4
		D.2.6 motivate students to:	
		D.2.6.1 interact frequently with other students/peers (Angelo, 1993:3-8).	2.3.6.4.1
		D.2.6.2 interact frequently with teachers (Angelo, 1993:3-8).	2.3.6.4.1
		D.2.6.3 perceive and adopt high expectations of achievement (Angelo, 1993:3-8).	2.3.6.4.1
		D.2.6.4 take responsibility for their own learning.	6.2.2.2.1c
		D.2.7 promote student development for success through academic development initiatives (CHE, 2004:18).	2.3.6.4
		D.2.8 provide:	
		D.2.8.1 opportunities for students to compete with peers.	6.3.2.2
		D.2.8.2 opportunities for students to give feedback to higher education teachers.	6.3.1.2; 6.2.2.2.1c; 6.3.1.2.1a
		D.2.9 use students' learning styles to identify suitable teaching and learning activities (see Table 2.8 for student learning styles).	2.3.6.4.3b
		D.2.10 use teaching and learning activities and assessment tasks that:	
		D.2.10.1 are proven to have a high impact on student learning.	3.3.3.2
		D.2.10.2 promote active learning amongst students.	2.3.6.4.4
		D.2.10.3 promote engagement with the curriculum content, teaching and learning activities and assessment tasks.	3.3.4; 6.2.2.2.1c
D.3	***Teaching and teaching styles***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		D.3.1 acknowledge:	
		D.3.1.1 that different students often require different content delivery strategies (Ismail and Hassan, 2012:279,289).	2.3.6.4.3
		D.3.1.2 that the core principles of the discipline (i.e. graphic design) are taught through practice as rules-of-thumb and knowledge from teachers or masters of the discipline (Breslin and Buchanan, 2008:38-39).	3.2.2.1.4
		D.3.2 act as a:	
		D.3.2.1 mentor for students.	6.2.2.2.1c
		D.3.2.2 nurturer for students (to contribute to the holistic development of students in studio practice disciplines such as graphic design (Clarke and Budge, 2010:156).	3.2.2.1.4a

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.3.3 actively practise as a designer in the industry in order to promote simulation-based learning for design students (Tovey, 2015:1).	3.2.2.1.4a
		D.3.4 attend academic, professional and staff development initiatives to promote their own knowledge, skills and teaching competence (CHE, 2004:18).	2.3.6.4
		D.3.5 be aware of their own learning style/approach (Angelo, 1993:3-8).	2.3.6.4.1
		D.3.6 connect new information to prior knowledge of students in a meaningful way (Angelo, 1993:3-8).	2.3.6.4.1
		D.3.7 develop professional and personal characteristics attributed to good higher education teachers (see Table 2.6).	2.3.6.4.2a
		D.3.8 enhance student engagement with small student: higher education teacher ratio in alternative access programmes (Kloot et al., 2008:808).	3.2.2
		D.3.9 ensure that their employed teaching style aligns with:	
		D.3.9.1 students' learning needs (Peacock, 2001:15).	2.3.6.4.2b; 6.2.2.2.1c
		D.3.9.2 students' epistemological conditions (i.e. scope of knowledge; Morrow, 2007:20).	2.3.6.4.2b
		D.3.10 focus on students' individual needs to ensure no learner is left behind.	6.3.1.2
		D.3.11 highlight the value of what is to be learned for students (Angelo, 1993:3-8).	2.3.6.4.1
		D.3.12 implement the following guidelines for technology-based teaching (The International Society for Technology in Education, 2008:1-2):	
		D.3.12.1 Become an innovative professional role model in the present age of technology.	2.3.6.4.2a
		D.3.12.2 Continuously improve their own teaching by demonstrating the use of new digital tools and resources.	2.3.6.4.2a
		D.3.12.3 Design and develop digital-age authentic learning experiences that align with assessment tasks.	2.3.6.4.2a
		D.3.12.4 Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices.	2.3.6.4.2a
		D.3.12.5 Facilitate and inspire student learning and creativity through the use of technology in teaching and learning activities and in assessment tasks.	2.3.6.4.2a
		D.3.13 implement the following considerations during the presentation of teaching and learning activities (Carl, 2012:89):	
		D.3.13.1 align students' previous knowledge with the intended learning outcomes, teaching and learning activities and assessment tasks.	2.3.6.4.4
		D.3.13.2 create a positive and safe classroom environment.	2.3.6.4.4
		D.3.13.3 provide opportunity and sufficient time for students to master skills.	2.3.6.4.4
		D.3.13.4 reflect on the achievement of intended learning outcomes.	2.3.6.4.4
		D.3.13.5 use appropriate activities to accommodate students' learning styles.	2.3.6.4.4; 6.2.2.2.1c
		D.3.14 possess the stipulated qualifications, experience and teaching competence required of higher education teachers at the specific level (CHE (2004:9-10).	2.3.6.4
		D.3.15 promote and/or employ:	
		D.3.15.1 a variety of teaching styles/strategies according to the type of *module* (see Table 2.7 in Chapter 2).	2.3.6.4.4
		D.3.15.2 a variety of teaching styles/strategies according to the type of *students* (see Table 2.7 in Chapter 2).	2.3.6.4.4
		D.3.15.3 active learning rather than passive engagement (Chickering and Gamson, 1987:3-5; Angelo, 1993:3-8).	2.3.6.4.1
		D.3.16 promote and/or employ the following student-centred teaching approaches and styles in their teaching in design education (Drew, 2015:99-102,108):	2.3.6.4.1

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.3.16.1 Teaching that offers students a range of practical and technical skills through demonstration in order to show ways of making or doing.	3.2.2.1.4a
		D.3.16.2 Teaching that aims to develop students' *critical skills* through student interaction by means of individual, group or teamwork, to form opinions and ideas.	3.2.2.1.4a
		D.3.16.3 Teaching that aims to develop students' *practical skills* through student interaction by means of individual, group or teamwork, to form opinions and ideas.	3.2.2.1.4a
		D.3.16.4 Teaching that aims to develop students' *technical skills* through student interaction by means of individual, group or teamwork, to form opinions and ideas.	3.2.2.1.4a
		D.3.16.5 Teaching that encourages peer learning (to develop students' skills and conceptions in preparation for professional practice).	3.2.2.1.4a
		D.3.16.6 Teaching that emphasises conceptual thinking skills to improve self-directed research, practice, and conceptual skills.	3.2.2.1.4a
		D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills.	3.2.2.1.4a
		D.3.16.8 Teaching that motivates and enables students to change themselves as a person or to make changes in their life world.	3.2.2.1.4a
		D.3.17 provide:	
		D.3.17.1 academic support in order to create scaffolding of knowledge (Angelo, 1993:3-8).	2.3.6.4.1
		D.3.17.2 additional support to students in theory modules (since graphic design students often view it as unrelated to the practical component (Shreeve et al., 2009:346).	3.2.2.1.4
		D.3.17.3 ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material (EDUCAUSE Learning Initiative, 2015:1).	2.3.6.4
		D.3.17.4 prompt feedback on students' learning (Angelo, 1993:3-8; Chickering and Gamson, 1987:3-5).	2.3.6.4.1; 6.2.2.2.1c
		D.3.18 respect the diverse:	
		D.3.18.1 talents of students (Chickering and Gamson, 1987:3-5).	2.3.6.4.1
		D.3.18.2 ways of how students learn (Chickering and Gamson, 1987:3-5).	2.3.6.4.1
		D.3.19 select:	
		D.3.19.1 suitable *methods* to promote the achievement of the *purpose of the programme* (CHE, 2004:18).	2.3.6.4
		D.3.19.2 suitable *methods* to promote the achievement of the *intended learning outcomes of the programme* (CHE, 2004:18).	2.3.6.4
		D.3.19.3 suitable *opportunities* to promote the achievement of the *purpose of the programme* (CHE, 2004:18).	2.3.6.4
		D.3.19.4 suitable *opportunities* to promote the achievement of the *learning outcomes of the programme* (CHE, 2004:18).	2.3.6.4
		D.3.20 set and maintain high but realistic expectations and goals (which are appropriately aligned with teaching and learning activities and intended learning outcomes (Angelo, 1993:3-8).	2.3.6.4.1
		D.3.21 teach students how to give feedback to:	
		D.3.21.1 themselves (Angelo, 1993:3-8).	2.3.6.4.1; 6.2.2.2.1c
		D.3.21.2 their peers (Angelo, 1993:3-8).	2.3.6.4.1; 6.2.2.2.1c

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.3.22 use: D.3.22.1 professional staff development opportunities provided by higher education institutions to upgrade own teaching methods (CHE, 2004:11). D.3.22.2 the full available contact time with students with a focused effort (Angelo, 1993:3-8).	2.3.6.4.2 2.3.6.4.1; 6.3.1.2.1a
D.4	***Teaching and learning activities***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* D.4.1 adhere to the following principles to select teaching and learning activities (Carl, 2012:95-96): D.4.1.1 Aligned with the specific community (i.e. graphic design community). D.4.1.2 Assist students to achieve one or more of the aligned aims, goals, objectives, outcomes and/or purposes of the programme. D.4.1.3 Be appropriate in regard to class size (number of students). D.4.1.4 Be appropriate in regard to students' needs (i.e. abilities, interests, talents, and learning styles to only name a few). D.4.1.5 Be appropriate in regard to the teacher (i.e. the teacher's personality, preferences, knowledge and abilities, to only name a few). D.4.1.6 Be appropriate in regard to time constraints. D.4.1.7 Be feasible in regard to availability of resources. D.4.1.8 Be feasible in regard to the number of staff involved. D.4.1.9 Be feasible in regard to programme requirements. D.4.1.10 Highlight real-life application within the community or industry. D.4.2 change teaching and learning activities for facilitating declarative intended learning outcomes every fifteen minutes for maximum student concentration (Biggs and Tang, 2011:146). D.4.3 employ: D.4.3.1 teaching and learning activities for functioning knowledge by incorporating declarative intended learning outcomes in these activities (Gonczi, 2013:1302). D.4.3.2 technology-based teaching and learning activities to facilitate higher order learning (Parkay et al., 2014:361-364). D.4.4 focus on what students do (rather than what higher education teachers do) when building declarative knowledge (Biggs and Tang, 2011:161). D.4.5 promote active learning by: D.4.5.1 employing a variety of teaching and learning activities for greater student engagement (see Table 2.9). D.4.5.2 selecting teaching and learning activities that require interactions between higher education teachers, students and outside experts to meet this century's needs (Ornstein and Hunkins, 2014:207). D.4.6 select appropriate teaching and learning activities to (see Table 2.9): D.4.6.1 balance intellectual challenges in order to create scaffolding of knowledge (Angelo, 1993:3-8).	2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4.4 2.3.6.4 2.3.6.4.4 2.3.6.4.4; 6.2.2.2.1c 2.3.6.4.4 2.3.6.4.4 2.3.6.4.1

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		D.4.6.2 facilitate deep learning that builds understanding (Biggs and Tang, 2011:21-22; Marton and Säljö, 1976, in Case, 2015:626).	2.3.6.4.3a
		D.4.6.3 foster the South African Qualification Authority's critical cross-field and developmental outcomes by selecting teaching and learning activities to achieve functioning intended learning outcomes (see Table 2.9).	2.1.1; 2.3.6.4.4
		D.4.6.4 let students apply their knowledge to real-world situations within different contexts (Angelo, 1993:3-8).	2.3.6.4.1
		D.4.6.5 mimic real-world situations for design students (such as teaching and learning activities associated with functioning intended learning outcomes; McCarthy and De Almeida, 2002:105; Tovey, 2015:1).	2.3.6.4.4
		D.4.6.6 promote/ensure a deep approach to student learning (CHE, 2004: 11-12, 18).	2.3.6.4.3
		D.4.6.7 promote/ensure creativity by ensuring teaching and learning activities are adventurous, enjoyable and stimulating (Chakradeo, 2010:109-110).	3.2.2.1.4a
		D.4.6.8 promote/ensure constructive alignment of the teaching and learning activities with intended learning outcomes and assessment tasks (Biggs and Tang, 2011:105).	2.3.6.2.2
		D.4.6.9 transform the student to a practitioner in the first year of mainstream design education (Bull, 2015:119,124).	3.2.2.1.4a
		D.4.7 start discipline-specific teaching and learning activities with a written brief in project-based learning which provides a focus for students' learning (Shreeve, 2015:86).	3.2.2.1.4a
		D.4.8 specify in the brief the following (Shreeve, 2015:86):	
		D.4.8.1 the format of the design outcome/product.	3.2.2.1.4
		D.4.8.2 the presentation requirements of the design outcome/product.	3.2.2.1.4
		D.4.8.3 the restraints and parameters of the design outcome/product.	3.2.2.1.4
		D.4.8.4 the time period allowed for completing the brief.	3.2.2.1.4
SECTION E: ASSESSMENT TASKS			
E.1	***General aspects of assessment***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		E.1.1 acknowledge:	
		E.1.1.1 that assessment in design education differs from conventional assessment in other disciplines (Giloi and Du Toit, 2013:256).	3.2.2.1.5; 6.2.2.2.1d
		E.1.1.2 the impact that assessment has on *student learning* (Parkay et al., 2014:403).	2.3.6.5
		E.1.1.3 the impact that assessment has on *student motivation* (Parkay et al., 2014:403).	2.3.6.5
		E.1.2 adhere to the four principles of good assessment (see Table 2.10) (SAQA, 2001:8,16-19):	
		E.1.2.1 Fairness	2.3.6.5; 6.2.2.2.1d
		E.1.2.2 Practicability	2.3.6.5; 6.2.2.2.1d
		E.1.2.3 Reliability	2.3.6.5; 6.2.2.2.1d
		E.1.2.4 Validity	2.3.6.5; 6.2.2.2.1d

NO	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUB-SECTION	CROSS REFERENCES
		E.1.3 assess the design process and person and not only the design product since these elements also are important in design education (Giloi and Du Toit, 2013:263-264).	4.7; 3.2.2.1.5
		E.1.4 avoid placing emphasis on students' mastering of only design techniques for the execution of the design product in design education (Lindström, 2006:59).	3.2.2.1.5
		E.1.5 employ effective evaluation as an integral part of the curriculum/programme design (Carl, 2012:72).	2.3.6.5
		E.1.6 ensure:	
		E.1.6.1 the *reliability* of the assessment system and procedures (CHE, 2004:19).	2.3.6.5
		E.1.6.2 the *rigour* of the assessment system and procedures (CHE, 2004:19).	2.3.6.5
		E.1.6.3 the *security* of the assessment system and procedures (CHE, 2004:19).	2.3.6.5
		E.1.7 provide:	
		E.1.7.1 an adequate number of assessment opportunities (George, 2009:168).	2.3.6.5
		E.1.7.2 adequate preparation for assessments (e.g. revision and exam techniques, which are generic competencies).	3.2.2.1.3; 6.2.2.2.1d
		E.1.7.3 the criteria and standards used in assessment and evaluation and the nature of the instruments in advance (Angelo, 1993:3-8).	2.3.6.4.1
		E.1.8 use examiners and moderators that possess the necessary skilled judgment and training to assess the:	
		E.1.8.1 achievement of intended learning outcomes (Cheng, 2014:195).	3.2.2.1.5
		E.1.8.2 quality of the design product in design education (Cheng, 2014:195).	3.2.2.1.5
E.2	***Assessment approaches/forms and tasks***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:*	
		E.2.1 employ technology-based assessment tasks (e.g. e-learning technologies - a generic competency).	3.2.2.1.3
		E.2.2 ensure that assessment tasks are constructively aligned with the intended learning outcomes and teaching and learning activities of the specific curriculum (Biggs and Tang, 2011:105).	2.3.6.2.2b; 6.2.2.2.1d
		E.2.3 select appropriate assessment approaches/forms and tasks (e.g. internal and external examination and moderation) (CHE, 2004:19).	2.3.6.5.1
		E.2.4 use a variation of assessment approaches/forms and tasks that are appropriate to:	
		E.2.4.1 accommodate the needs of a diverse student population (see Tables 2.11 and 2.12).	2.3.6.5.1; 6.2.2.2.1d
		E.2.4.2 expose students to a variety of assessment approaches/forms and tasks.	2.3.6.5.1
		E.2.4.3 nurture discipline-specific practices (such as the crit session; Park, 2008:229; Temple, 2010:121).	3.2.2.1.5; 6.2.2.2.1d
		E.2.4.4 replace ineffective approaches/forms and tasks.	6.2.2.2

CHAPTER 7

PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORT STUDENT SUCCESS IN GRAPHIC DESIGN

7.1 INTRODUCTION

This chapter presents the data analysis, interpretation and discussion of the findings of the review and validation of the preliminary proposed framework for designing alternative access programmes (AAPs) for graphic design, by a panel of experts and which was aimed at achieving the fourth research objective of this study. The fourth objective of this study required a curriculum design framework for embedding critical elements in AAPs for graphic design so that the AAPs could serve as a mechanism for student success. The reason for the review and validation of the preliminary framework (see Table 6.11) was to finalise the activities which should be included in the final proposed framework (see 8.4). The purpose of the resulting framework is not only to address the fourth research objective of this study, but also to ultimately provide guidance for curriculum/programme designers and/or higher education (HE) teachers with regard to the research problem of this study, namely how AAPs in HE should be constituted in order to support student success in graphic design. This chapter is devoted to a discussion of the nature of their expertise and position of the panel of experts (see 7.2). The data analysis will be elucidated, followed by the interpretation and a discussion of the findings to determine the six major divisions of the proposed framework (see Figure 7.1. Sections A-F; also see 7.3). The chapter also reports the manner in which the proposed framework was reviewed and validated by the expert participants and how it eventually was amended. Figure 7.1 provides an outline of the structure of this chapter.

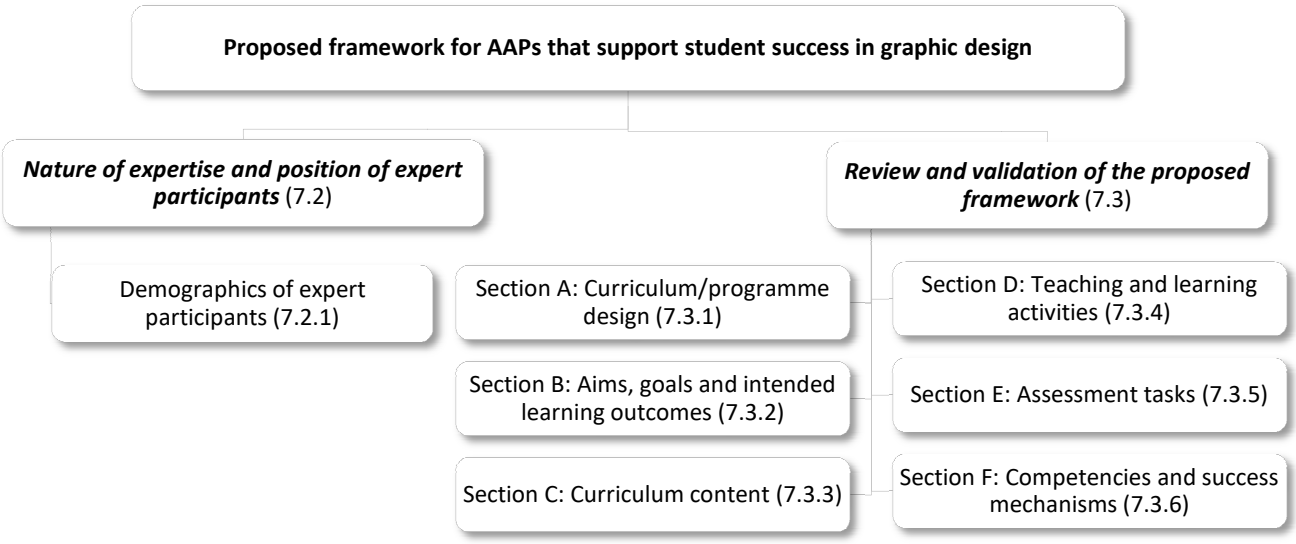


Figure 7.1: Outline of the structure of Chapter 7

7.2 NATURE OF EXPERTISE AND POSITION OF EXPERT PANEL PARTICIPANTS

The expert panel consisted of ten prospective participants who were recruited as explained in Chapter 5 (5.3.5.3). The nature of the expertise and occupational position of the participants were as follows (see 5.3.5.3):

- An academic manager at a private HEI.
- An associate professor in a graphic design programme offered by a public university of technology.
- A curriculum practitioner in a graphic design programme offered by a public university of technology.
- A director of a centre for teaching and learning at a traditional public university who manages an AAP offered by this university.
- The manager of curriculum and professional development in the Centre for Teaching and Learning Services at a private HEI.
- A member of DEFSA who is a graphic design HE teacher at a comprehensive public university.
- A national programme manager of graphic design at a private HEI who also is a creative director of a graphic design company.
- The owner of a graphic design and product development company who also is a senior graphic designer in a product development station at a public university of technology.
- A senior executive committee member of DEFSA who also is a former dean of a faculty of creative arts and communication at a private HEI.
- The programme coordinator of the AAP for art and design at a public university of technology.

Expert participants were selected as stipulated in section 5.3.5.4. The expert participants were either from the demographic region of Gauteng or the Free State province of South Africa. The demographic location of the panel of experts was influenced by my demographic reach since participants were purposively selected from the two provinces in which I lived and worked during the completion of my study. The purposeful sampling of participants, based on their expertise, eventually developed into snowball sampling; however, both types of sampling were subject to the convenience of the participants' geographical location.

7.2.1 Demographics of expert participants

The demographic responses of expert participants, who completed the expert questionnaire aimed at research objective 4, are reported in this section. Nine of the ten expert participants *(n = 9; 90%)* eventually completed the questionnaire (see 5.3.5.5). Table 7.1 presents the frequency of responses for the two demographic questions posed to the expert participants. The majority of the expert participants had ten or more years' experience in their discipline of knowledge or profession *(n = 6; 66.67%*; see Figure 7.2). Six of the nine expert participants *(66.67%)* had knowledge of curriculum development/design in their

discipline of knowledge or profession (i.e. AAPs or graphic design; see Figure 7.3). There was, however, no expert participant that possessed knowledge of all three relevan-t disciplines of knowledge or professions listed in the expert questionnaire survey. The expert participants could select more than one option in the demographic questions presented in Figure 7.3.

Table 7.1: Frequency of responses per answered question of the expert questionnaire survey aimed at achieving research objective 4 *(n = 9)*

Number of years' experience	Alternative access programmes (n = 4)	Curriculum development/ design (n = 6)	Graphic design (n = 5)
Less than 5 years' expert experience (n = 0)	0	0	0
More than 5 years but less than 10 years (n = 3)	1	2	2
More than 10 years' expert experience (n = 6)	3	4	3

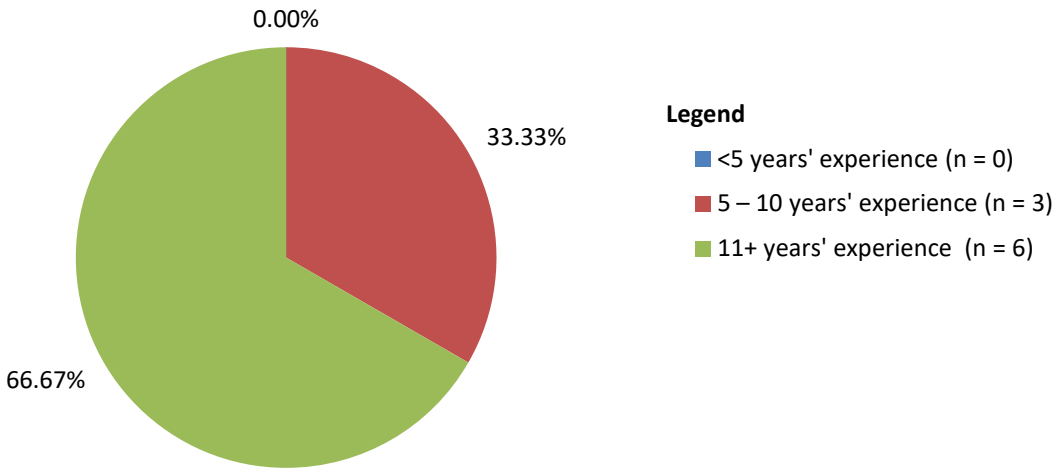


Figure 7.2: Percentage of expert participants' experience in years *(n = 9)*



Figure 7.3: Number of expert participants according to their discipline of knowledge or profession *(n=9)**

* Participants could select more than one option for the specific question.

7.3 REVIEW AND VALIDATION OF THE PRELIMINARY PROPOSED FRAMEWORK

As mentioned earlier, the preliminary framework was compiled based on comparing, converging, and integrating the non-empirical literature study findings (see Chapters 2, 3 and 4) and the empirical research results and interpretations presented in Chapter 6. The preliminary framework eventually was compiled and structured in table format comprising six sections which were aligned with the curriculum design components presented in sections 2.3.6 and 3.2.2.1, and listed the activities associated with each of the six sub-sections (see Table 6.11). The expert questionnaire survey (documented in section 5.3.5; see Appendix C.18) was constructed in alignment with the sections, sub-sections, activities and the numbering shown in Table 6.11. This was done in order to aid with the data analysis, interpretation and discussion of the preliminary framework in this section. The preliminary framework consisted of the following six main, interrelated sections:

- Section A: Curriculum/programme design
- Section B: Aims, goals and intended learning outcomes (ILOs)
- Section C: Curriculum content
- Section D: Teaching and learning activities (TLAs)
- Section E: Assessment tasks (ATs)
- Section F: Competencies and student success mechanisms

The expert questionnaire survey, aimed at achieving research objective 4 of this study, required expert participants to rate each of the listed activities in the (preliminary) proposed framework (see Table 6.11; Appendix C.18 for the expert questionnaire). The expert questionnaire included closed and open-ended questions (i.e. quantitative and qualitative questions respectively) in order to provide the panel of experts with an opportunity to judge, in their opinion and according to their expertise, the perceived importance of the listed activities. In this way nine unique perspectives were obtained in order to finalise the sections and activities included in the curriculum design framework such that it will support student success for AAPs for graphic design.

The quantitative component of each section in the questionnaire required expert participants to rate the importance of the listed activities in the proposed framework according to a four-point Likert scale which had the following categories and weights: 1 – not necessary; 2 – uncertain; 3 – useful, and 4 – essential. The quantitative data analysis was done in accordance with the steps discussed in section 5.3.6, and the weights of the rating scale together with the frequencies were used to determine the mean of importance of each of the listed activities. The inclusion or exclusion of each of the listed activities from the six sections in the final framework was determined according to the specific activity's mean of importance rating obtained from the expert participants. A mean of importance rating of at least 3.00 was required per

activity to be included in the final proposed framework. This decision was taken in accordance with the weighting of the four-point Likert scale since for an activity to be included in the framework it should be at least *useful* or *essential* for curriculum/programme designers and/or HE teachers of AAPs for graphic design.

Table 7.2 presents a summary of the quantitative data analysis of the six sections in terms of the frequency of the ratings on the four-point scale, the mean of importance ratings, and the standard deviation in each section. This, therefore, provides a broad overview of the findings of the analysis of the data collected by means of the expert questionnaire survey. The decision was taken to colour code all the summary tables of the data collected from the expert questionnaire survey presented in section 7.3 (see Appendices D.10 to D.15). The mean of importance rating of activities are indicated as follows:

- Importance ratings below 3.00 are indicated in *red* (i.e. activities that might be excluded).
- A mean of importance rating of 3.00 is indicated in *orange* (i.e. borderline activities that might be included).
- A mean of 4.00 is indicated in *green* (i.e. all participants rated the activity as *essential* for the framework).

The colour coding of the activities in Appendices D.10 to D.15 (i.e. those activities with a mean of importance rating of less than 3.00, and those equal to 3.00 or 4.00 exactly) highlights at a glance the most important findings of the data analysis of every section of the questionnaire survey (i.e. sections A to F). The discussion of the quantitative data analysis in sections 7.3.1 to 7.3.6 mostly is related to the colour-coded activities of every section of the questionnaire in order to either motivate their inclusion in or exclusion from the final proposed framework, and note the importance of an activity according to the expert participants' opinions, and/or identify outliers in the data analysis (i.e. those activities the importance of which differs from the findings reported in Chapter 6).

Table 7.2: Summary of the overall mean of the mean of importance ratings for all sections of the preliminary proposed framework of AAPs for graphic design, as expressed by expert participants *(n = 9)*

		Not necessary (1)	Uncertain (2)	Useful (3)	Essential (4)	
Section A	*Number of participant responses per rating category in section A*	4	10	102	181	
	% participant responses per rating category in section A	1.35%	3.37%	34.34%	60.94%	
	Overall mean of the mean of importance ratings in section A					**3.55**
	Standard deviation of section A					**0.27**
Section B	*Number of participant responses per rating category in section B*	4	24	137	195	
	% participant responses per rating category in section B	1.11%	6.67%	38.06%	54.17%	
	Overall mean of the mean of importance ratings in section B					**3.45**
	Standard deviation in section B					**0.26**
Section C	*Number of participant responses per rating category in section C*	4	17	175	326	
	% participant responses per rating category in section C	0.77%	3.26%	33.52%	62.45%	
	Overall mean of the mean of importance ratings in section C					**3.58**
	Standard deviation in section C					**0.24**
Section D	*Number of participant responses per rating category in section D*	8	54	391	645	
	% participant responses per rating category in section D	0.73%	4.92%	35.61%	58.74%	
	Overall mean of the mean of importance ratings in section D					**3.47**
	Standard deviation in section D					**0.52**
Section E	*Number of participant responses per rating category in section E*	1	3	49	172	
	% participant responses per rating category in section E	0.44%	1.33%	21.78%	76.44%	
	Overall mean of the mean of importance ratings in section E					**3.74**
	Standard deviation in section E					**0.23**
Section F	*Number of participant responses per rating category in section F*	16	12	202	355	
	% participant responses per rating category in section F	2.74%	2.05%	34.53%	60.68%	
	Overall mean of the mean of importance ratings in section F					**3.53**
	Standard deviation in section F					**0.20**

The summary presented in Table 7.2 shows that all six sections achieved a mean of importance rating of more than 3.00. This indicates the importance of all the sections of the proposed framework. The section with the highest overall mean of the mean of importance ratings was section E (activities pertaining to ATs;

mean = 3.74); whereas section B (activities pertaining to the aims, goals and ILOs) scored the lowest mean of importance rating (*mean = 3.45*). More than half of the participants (see section B; *54.17%*) to more than three quarters of the participants (see section E; *76.44%*) rated the activities in sections B and E respectively as either *useful* or *essential*. The *not necessary* and *uncertain* categories of the four-point Likert scale achieved very low frequencies of participant responses in all the sections of the expert validation questionnaire (see Table 7.2). All six sections of the expert questionnaire survey showed a standard deviation from the mean of importance smaller than one (<1). Although section D yielded the highest standard deviation *(s = 0.52),* it is still not significant since a standard deviation smaller than one (<1) indicates a low variation between participants' ratings. A small standard deviation in this study aids the trustworthiness of the data since the overall ratings of importance by expert participants were similar (i.e. low variation).

The bell chart in Figure 7.4 illustrates the low variation of the rating of the importance of all of the listed activities in all the sections in accordance with their distribution. Sections A, B, C, E, and F clearly show similar distributions of the mean of the importance ratings of the listed activities, whereas section D shows a wider distribution of importance ratings. This indicates that the mean of importance ratings of the activities in section D was slightly wider spread in terms of the mean of importance for the section (i.e. *s = 3.47*).

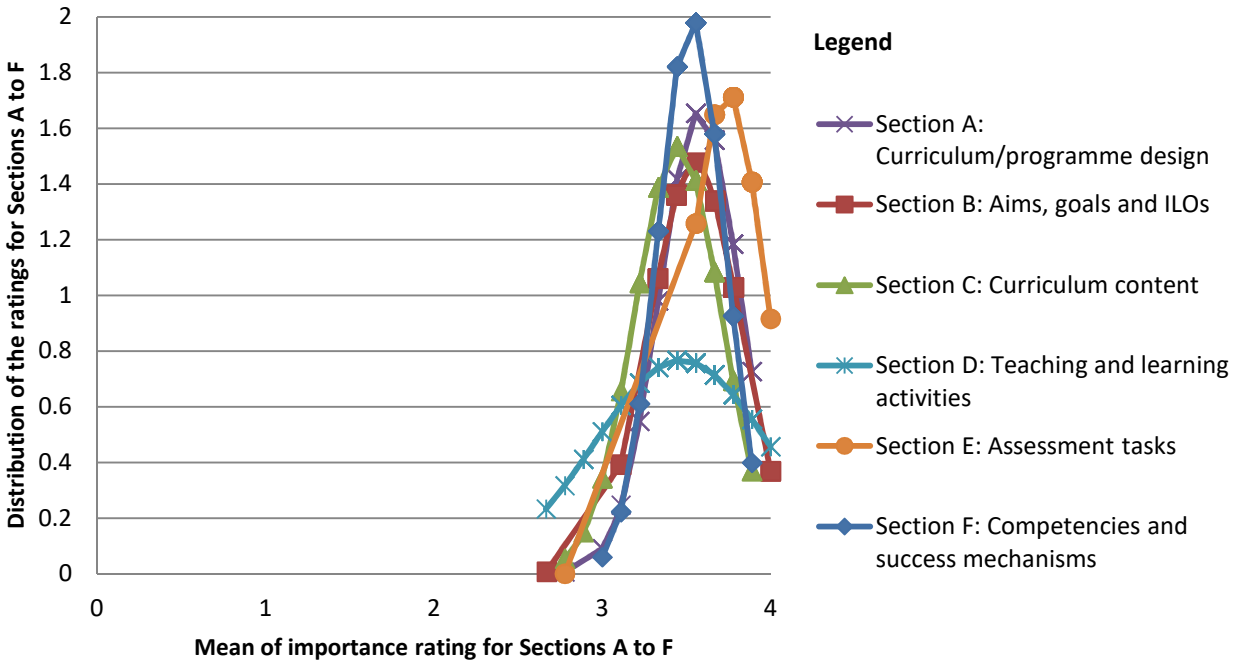


Figure 7.4: Bell chart of the distribution of the mean of importance ratings of all sections of the preliminary proposed framework

In addition to the rating of the listed closed questions, each section allowed the participants an opportunity to provide qualitative comments and/or suggestions pertaining to the listed activities (see Addendum C.18). Although these opportunities were provided for qualitative comments and/or suggestions, not all participants made use of it. The discussion of the findings obtained from the data analysis for the expert survey questionnaire in sections 7.3.1 to 7.3.6 also reports the verbatim comments and/or suggestions provided by the expert participants.

An overall open-ended question at the end of the expert questionnaire confirmed the importance of the activities listed in all six the sections of the expert questionnaire. Here, expert participants remarked that the preliminary/proposed framework included *all the essential aspects/elements* (EXPERT_2 and EXPERT_4) since the curriculum design framework was *comprehensive, holistic and inclusive* (EXPERT_1).

The summative tables of the findings of the data analysis of the review and validation of the different sections of the proposed framework are available in Appendices D.10 to D.15.

7.3.1 Section A: Curriculum/programme design pertaining to AAPs for graphic design

The motivation for the inclusion of curriculum/programme design activities in the preliminary proposed framework can be found in the empirical findings discussed in Chapter 6, as well as the findings of the non-empirical literature study as reported on in section B.

This study investigated the constitution/design of existing AAPs and graphic design programmes in order to embed these activities in the final proposed framework. The literature study commenced with a review of the concept of curriculum development and how it pertains to the South African HE landscape (see 2.1.1 and 2.2) in order to form a knowledge base from which I could build a curriculum design framework for AAPs for graphic design (see 2.3). Curriculum/programme design is the first stage of the curriculum development cycle. The bulk of Chapter 2 was dedicated to this stage (i.e. curriculum design) of the curriculum development process. A short section on curriculum evaluation was included in Chapter 2 to support the third research objective of this study (see 2.4).

The second chapter explored the generic activities of curriculum/programme design which were focused specifically on AAPs for graphic design in Chapter 3 (see 3.2). This approach was taken to ensure that all relevant activities were included in the preliminary proposed framework for the curriculum/programme design of AAPs for graphic design. Table 6.11 summarised the listed activities in the preliminary framework under the section of curriculum/programme design together with cross-references to where these activities featured in the non-empirical literature study and empirical research.

7.3.1.1 Section A.1: General aspects pertaining to curriculum/programme design

This section pertains to the general aspects of curriculum/programme design of AAPs for graphic design. Appendix D.10 presents the results of the review and validation by the panel of experts for section A.1 of the (preliminary) proposed framework. Overall, one hundred and eighty-one of the 297 importance ratings *(n = 181; 60.94%)* by the expert participants for the listed activities of section A.1 in the questionnaire were in the *essential* category.

All activities listed in section A.1 had a mean of importance rating of more than 3.00, with the exception of the activity listed in A.1.9 (i.e. use the existing curriculum as a starting point for curriculum/programme design; *mean = 2.67*). In support of the exclusion of this activity, I cross-referenced the activity back to Table 2.2 in section 2.3.3 in the literature study. I found that the use of the existing curriculum as a starting point was listed as a criterion for programme/curriculum design by only one of the four sources consulted. The decision to exclude activity A.1.9 therefore was reasonable, since its importance was also not extensively motivated in the literature. None of the listed activities in section A.1 were borderline cases.

Curriculum/programme design done according to a purposeful plan (see A.1.5.1) and in a systematic manner (see A.1.5.2), were both rated by the nine experts as *essential (mean = 4.00)* according to their importance rating. Although only one source in Table 2.2 (see 2.3.3) confirmed each of these two activities as curriculum/programme design criteria (similar to activity A.1.9), the mean of importance rating of 4.00 confirms that these two activities are *essential* and need to be retained in the final framework.

Four verbatim comments and/or suggestion from experts were given in the open-ended question of this section (see Appendix D.10). EXPERT_4 commented that *foundational provision should be well-structured and linked or integrated.* Activity A.1.4.7 in the preliminary framework notes the need to steadily increase the intellectual challenges and workload in AAP to mainstream programmes (i.e. epistemic transition). The comment from this expert participant has merit since literature confirms that an AAP should be aligned with the augmented diploma or degree programme (see 3.2.2). Therefore, two new activities were added to the final proposed framework in support of activity A.1.4.7 (see 8.4). These are A.1.10 (align the foundation provision component of the AAP with the augmented diploma or degree), and A.1.11 (ensure that the foundation provision component of the AAP is well-structured).

EXPERT_6 commented that he/she was *not sure if the term mastery should be used in relation to this level* (see activity A.1.3.8). I am in agreement with Expert_6's comment on the use of the term *mastery* in this activity. The National Qualification Framework (NQF) requires students to *demonstrate the ability to select and apply standard methods, procedures or techniques of the discipline* only, not to master them (see Table

3.4 in section 3.2.2.1.2). Therefore, the term *mastery* was replaced with the words s*elect and apply* in activity A.1.3.8. However, this comment and the resulting decision is a debatable matter.

The preliminary proposed framework includes two activities (A.1.4.1 and A.1.4.2) which address EXPERT_8's comment with regard to adequate preparation of students in order to pursue their diploma or degree studies. The incorporation of sufficient foundation provision in the core curriculum of AAPs for graphic design exposes students to the discipline of graphic design while they simultaneously develop generic competencies which they need to succeed with their studies (see 3.2.2). Discipline exposure indeed was listed as a strength, opportunity and aspiration by HE teachers and students in the strengths, opportunities, aspirations and results (SOAR) analysis of the AAP for graphic design (see section 6.3). The expert participant also motivated the inclusion of curriculum content of the augmented diploma or degree in the AAP which was added as a new activity in section C.3 (i.e. C.3.2.3) of the final curriculum design framework. This was, however, not done at the expense of the inclusion of sufficient foundation provision in AAPs for graphic design as stipulated in A.1.4.1.

The last verbatim comment (EXPERT_9's comment) pertains to adequately addressing the articulation gap between secondary education and HE in South Africa. An appropriate starting point in the HE curriculum is recommended namely content that is aligned with students' prior knowledge obtained during their secondary education (see A.1.4.8). This is one of the design parameters of the proposed flexible framework (see 3.2.2). The flexibility of the curriculum framework is a possible solution to address the expert participant's concern raised with regard to diploma programmes that currently are being phased out in certain higher education institutions (HEIs). The reason is that AAPs still provide access to HE for non-traditional students.

7.3.2 Section B: Aims, goals and intended learning outcomes for AAPs for graphic design

The justification of the inclusion of this section in the proposed framework for AAPs for graphic design was supported by the identification of aims, goals and ILOs as a key component for curriculum/programme design in the literature (see 2.3.6.2 and 3.2.2.1.2). The analysis and interpretation of data collected by means of both research tools (questionnaire surveys aimed at research objectives 1, 2, and 3) emphasised the importance of this section in the proposed framework (see 6.2.2.2.1a, 6.3.1.2.1b, and 6.3.2.2.1a).

Aims are the aspirations or intentions of the curriculum programme, whereas goals are aims that are applied to a specific situation (e.g. AAPs for graphic design; see 2.3.6.2.1). Therefore, the purposes of AAPs are included under sub-section B.2 (see Appendix D.11), which also lists the aims and goals of the AAP for graphic design. The reviewed literature also refers to both objectives and outcomes; however, South African qualifications need to be described in terms of learning outcomes (LOs), since an outcomes-based

education (OBE) approach is followed (see 2.3.6.2.2). For this reason, only activities pertaining to the indented learning outcomes (ILOs) for students were included in the preliminary framework. The term ILO is used in the preliminary framework since the term corresponds well with the constructive alignment process (see 2.3.6.2.2b).

The panel of experts' review of the activities listed in sub-sections B.1, B.2, and B.3 is discussed in the three sections to follow. The summary of the data analysis for each of these sub-sections are presented in Appendix D.11.

7.3.2.1 Section B.1: General aspects pertaining to aims, goals, and/or intended learning outcomes

This section reports on the expert participants' review and validation of general aspects pertaining to section B in the preliminary framework. Section B.1 in the framework lists sixteen such activities.

Except for activity B.1.6.1 (employ additional admission requirements such as aptitude tests; *mean = 2.78*), all the other activities scored a mean of importance rating of 3.00 or more. Only one expert participant regarded activity B.1.6.1 as *essential*. This activity was included in the preliminary framework in the light of the findings of the SOAR analysis of an existing AAP for graphic design of a specific private HEI (see 6.3.1.2b). HE teachers involved in the SOAR analysis remarked that more stringent admission requirements were needed for access to the specific AAP for graphic design. The example of English proficiency tests was mentioned by some of the HE teachers indicating that the poor English language skills of students impact students' success in HE. Aptitude tests are a mechanism which can be used to identify students' prior level of knowledge in order to ensure that they begin their HE studies at a proper starting point. Employing aptitude tests in the context of admission requirements, therefore, was included as an activity in section A of the proposed framework (see A.1.4.8). In the light of its poor importance rating, I decided to remove activity B.1.6.1 from section B.1 as an additional admission requirement, and rather amend activity A.1.4.8 in the final proposed framework to indicate using aptitude tests to determine a suitable starting point for students' HE studies.

Activity B.1.6.2 achieved a mean of importance rating of 3.00 and can thus be considered a borderline activity for inclusion in or exclusion from the final framework. Activity B.1.6.2 requires the employment of discipline-specific requirements for admission to AAPs for graphic design (e.g. a design portfolio) as additional conditions. The use of a design portfolio indeed is an acceptable admission requirement for design programmes since it showcases the work of prospective students that have talent (see 3.2.2.1.1). Therefore, the decision was taken to retain this activity in the final proposed framework. None of the listed activities in this section achieved a mean of importance rating of 4.00.

7.3.2.2 Section B.2: Aims and goals

This section contained only five activities related to the aims and goals of AAPs for graphic design. Most of these aims and goals were associated with the main purposes of AAPs.

All five activities achieved a mean of importance rating of more than 3.00. Activities B.2.1 and B.2.2 achieved the highest importance rating (for both the *mean = 3.67)*. Adequately addressing the articulation gap between secondary and HE in South Africa currently is a hot topic in HE and was identified as a purpose not only of AAPs but also for the proposed flexible framework (see 3.2.2). Addressing the articulation gap referred to in B.2.1, links well with activity B.2.2, which calls for the implementation of a curriculum structure that is aligned with students' prior knowledge. The required flexibility of a curriculum framework (see 3.2.2), therefore, may accommodate both activity B.2.2 and the amended activity A.1.4.8 referred to in section 7.3.2.1. None of the listed activities in section B.2 were either borderline cases or were rated as *essential* by the nine expert participants.

The verbatim suggestion of EXPERT_8 needs to be pointed out. Among others, activity B.2.4.2 states that AAPs for graphic design should provide access for talented students who have physical and other disabilities. The expert participant avers that *not all institutions may be able to accommodate all disabilities* and therefore recommends that HEIs should rather focus on supporting one or maybe two disabilities in order to provide quality support for these students. Although the expert participant's suggestion has merit; this still may result in unfair discrimination against some students with disabilities who are not accommodated at a specific HEI. The Promotion of Equality and Prevention of Unfair Discrimination Act of 2000 stipulates that individuals with disabilities should be given the necessary support, facilities, and environmental accessibility to perform their function in their community (Republic of South Africa [RSA] PEPUDA, 2000:8-9). Therefore, the suggestion of the expert participant was disregarded, and activity B.2.4.2 was retained in the final framework.

7.3.2.3 Section B.3: Intended learning outcomes

In section 2.3.6.2.2 the function of objectives and outcomes was explored through the literature. South African HE follows an OBE approach which focuses on what students should learn (related to LOs), rather than what the teacher does in the classroom (related to objectives; see 2.3.6.2.2a). According to the constructive alignment process (see 2.3.6.2.2b), appropriate TLAs and ATs should be selected to be in alignment with the ILOs of the curriculum/programme.

Section B.3 of the framework contains thirteen activities related to the ILOs which curriculum designers and/or HE teachers should attempt to accommodate. All of the listed activities achieved a mean of importance rating of 3.00 or more and were evidently retained in the final proposed framework. Activity

B.3.3.2 pertaining to the formulation of clear LOs achieved the highest mean of importance rating of all the listed activities *(mean = 3.89)*. No activity achieved a mean of importance rating of 4.00.

Since activity B.3.4 achieved the lowest mean of importance rating *(mean = 3.00)* it was a borderline case in the process of deciding whether it should be included in or excluded from the final framework. The constructive alignment process (see 2.3.6.2.2b) promotes the design of ILOs according to students' prior abilities and knowledge. As such, activity B.3.4 links well with other activities in the preliminary framework (see A.1.4.8, B.2.2, C.3.5.2, and D.3.6). Literature also confirms that the scaffolding of ILOs should start at an appropriate point according to students' prior knowledge to address the articulation gap (see 3.2.2). Thus activity B.3.4 was retained in the final framework.

Although EXPERT_8 warned against only focusing on students' level of prior knowledge, a new activity was included in the final proposed framework based on his/her verbatim comment. The new activity (B.3.6.3) states that the exit-level outcomes of AAPs for graphic design need to be formulated in such a way that they align well with the augmented diploma or degree programme(s). The comment of EXPERT_9 is noted; however, the use of OBE is a policy requirement in South African HE. Activities B.3.5 (*derive learning outcomes from the discipline and profession's knowledge base*) and B.3.6.2 (*the intended learning outcomes of students' learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students*) initially were included in addition to other activities related to OBE in order to address concerns such as those of EXPERT_9. Activity B.3.3 was amended to guide the curriculum/programme designer and/or HE teacher to apply the four OBE power principles as applicable to the specific discipline or profession, such as graphic design.

7.3.3 Section C: Curriculum content pertaining to AAPs for graphic design

Section C comprised three sub-sections, namely section C.1 that pertained to the general aspects with regard to the curriculum content; section C.2 that lists activities for organising the content of the curriculum, and section C.3 that focuses on the selection of content for the curriculum of AAPs for graphic design.

The results of the data analysis of the three sub-sections of section C are summarised in Appendix D.12. More than 60% of the ratings awarded to the activities of section C were regarded by the expert participants as *essential* to be included in the proposed framework *(n = 326; 62.45%*; see Appendix D.12). Once again the standard deviation indicates a low variance amongst the importance ratings of section C activities *(s = 0.24)*.

7.3.3.1 Section C.1: General aspects pertaining to curriculum content

Ten activities were listed under section C.1. All of the listed activities achieved a mean of importance rating of more than 3.00 and consequently were retained in the final proposed framework. The overall mean of the mean of importance ratings for section C.1 was *3.57*, which also motivates the inclusion of this section in the final proposed framework. More than half of the ratings of the activities of this section were regarded as *essential (n = 53; 58.89%)*. Not one of the expert participants rated any of the activities as *not necessary*.

The activity that obtained the most *essential* ratings was activity C.1.5. Eight of the nine expert participants *(88.89%)* rated this activity as *essential* and one as *useful* in the proposed framework. Activity C.1.5 stipulates the need to ensure the coherence of the content of different modules with different aspects of the AAP for graphic design (e.g. credits, purpose, and more). The coherence of all aspects of a curriculum is important since it ensures the development of a holistic, cohesive curriculum/programme (see activity C.1.7; see 2.3.1).

The acknowledgement of the role of the curriculum designer's orientation with regard to curriculum content achieved the lowest mean of importance rating *(mean = 3.00).* Seven expert participants *(77.78%)* noted that this is a *useful* activity and one that is it an essential activity of the proposed framework. None of the expert participants noted that this activity was *not necessary*. A brief overview of the orientation of the curriculum developer/designer was discussed in section 2.2.1.1. The orientation of the curriculum developer/designer refers to the person's attitude, beliefs or feelings he/she may have towards the curriculum (see 2.2.1.1). Although this activity's mean of importance rating was borderline, it was retained in the final proposed framework, according to the initial guidelines of interpretation stated in section 7.3. None of the listed activities achieved a mean of importance rating of 4.00.

7.3.3.2 Section C.2: Organising curriculum content

Most of the activities listed in section C.2 of the preliminary framework were rated either as *useful (n = 33; 45.83%)* or *essential (n = 34; 47.22%*; see Appendix D.12). Not one of the participants rated any of the listed activities as *not necessary*. The standard deviation of the mean of importance ratings was a mere 0.16. Thus there was no vast difference between the expert participants' ratings of the listed activities.

Literature regarding the organisation of the curriculum was relatively scarce, as reported in section 2.3.6.3. Therefore, the verbatim comments of two of the expert participants in section C.2 were welcomed. As a result, two additional activities were included in the framework, namely to organise curriculum/module content according to:

- the knowledge structure of the discipline (see C.2.2.5 in the final proposed framework in 8.4).
- students' prior knowledge and competencies (see C.2.2.6 in the final proposed framework in 8.4).

7.3.3.3 Section C.3: Selecting curriculum content

The selection of curriculum content was one of the prominent codes assigned to the qualitative data analysed in Chapter 6. It therefore is also one of the dominant sections in the preliminary framework, together with section D.3 (i.e. teaching and teaching styles). Section C.3 listed 40 activities pertaining to how curriculum content should be selected for AAPs for graphic design.

Only one of the 40 activities had a mean of importance rating less than 3.00. Activity C.3.5.11 states that the content of the curriculum should be aligned with student choices *(mean = 2.78)*. One expert participant indicated that this activity is *not necessary (11.11%)*, one was *uncertain* whether it should be included in the proposed framework *(11.11%)*, six indicated that this activity is *useful (66.67%)*, and only one that it is an *essential* activity that should be included in the proposed framework *(11.11%)*. Academic advising may guide students to select more appropriate majors according to their development capacity (see 3.3.1). Thus academic advising should address the alignment of the curriculum content with student choices. Since academic advising was included in the preliminary framework as a success mechanism I regarded it as safe to exclude activity C.3.5.11 from the final proposed framework. Academic advising as a student success mechanism achieved a mean of importance rating of 3.00 and was retained in the final framework, as reported in section 7.3.6.

The inclusion of foundation provision content to provide students with motivation was rated as a borderline activity (see activity C.3.3.4; *mean = 3.00*). The interrelatedness of the creation of a positive learning environment, student engagement and student motivation was emphasised in the literature (see 3.3.2, 3.3.4 and 3.3.5) and also surfaced in the data analysis reported in Chapter 6 (see 6.2.2.1.3, 6.2.2.2.3, 6.3.1.2.3, and 6.3.2.2.3). Furthermore, Expert_4 commented that activity C.3.3, which includes activity C.3.3.4, is very important. Two expert participants *(22.22%)* rated C.3.3.4 as an *essential* activity of the proposed framework. The expertise of these two experts was AAPs, which may have informed their rating since foundation provision is a core feature of AAPs. Therefore, this activity (i.e. C.3.3.4) was retained in the final proposed framework. Retaining this activity was also in accordance with the guidelines of interpretation of the results specified in section 7.3.

In the light of the verbatim comment of EXPERT_1, activity C.3.3.1 was sub-divided into two activities in the final framework (i.e. C.3.3.1a and C.3.3.1b; see 8.4), since I agree that the language component of the foundation provision of AAPs for graphic design could serve a dual purpose. First, students need to apply the knowledge they learn from the integrated language component in the AAP to theory modules in order to promote understanding and success. Second, students need to *effectively communicate through oral and/or written presentations* which is one of the critical-cross field outcomes (CCFOs) required from all graduates in South African HE (see 2.1.1).

7.3.4 Section D: Teaching and learning activities pertaining to AAPs for graphic design

Section D was the largest section of the preliminary framework and consisted of four sub-sections (i.e. D.1, D.2, D.3 and D.4). In total, section D listed 123 activities. Section D.3 focused on teaching and teaching styles and overall was the largest sub-section in the proposed framework, listing 53 activities.

The non-empirical literature study with regard to TLAs was discussed and summarised in Chapters 2 and 3 (see 2.3.6.4 and 3.2.2.1.4). The large contribution of this section may be ascribed to teaching and learning being the core focus of most HE teachers in AAPs for graphic design. The empirical research data as analysed and interpreted and discussed in Chapter 6 further support the importance of the inclusion of this section in the proposed framework. Several HE teacher participants motivated their ratings for the inclusion of competencies or success mechanisms listed in the questionnaire survey by referring to how they teach and/or their teaching style (see 6.2.2.2.1c).

The summary of the analysed data of the four sub-sections of section D of the preliminary framework is presented in Appendix D.13. The interpretation and discussion of the analysed data for sections D.1, D.2, D.3, and D.4 are presented in the sections to follow, and allude to only the most important findings and outliers (as explained in section 7.3), but the verbatim comments of the expert participants also are addressed where applicable.

7.3.4.1 Section D.1: General aspects pertaining to teaching and learning activities

All the activities listed in section D.1 were rated as important (i.e. *useful* or *essential*; *mean = >3.00*). The importance of these activities is also confirmed in the verbatim comment of EXPERT_4. None of the listed activities were rated as *not necessary* or ended up as borderline cases. Section D.1 also scored the second highest mean of importance rating in the entire preliminary framework (*mean = 3.76*).

Activity D.1.2 (i.e. employing mechanisms to monitor student progress) was rated by all the expert participants as *essential (n = 9; 100%)*. This activity indeed is a criterion for the approval of programme accreditation by the Council on Higher Education (CHE) of South Africa (see 2.3.6.4). Besides institutions monitoring students' progress, students should also be able to self-evaluate and manage their own learning progress, which in turn is associated with life-long learning (see 2.3.6.4.4). The development of students' capacity for life-long learning also is the aim infusing the CCFOs and the developmental outcomes of South African Qualification Authority (SAQA) with the graduate attributes of South African HEIs (see 2.1.1).

7.3.4.2 Section D.2: Student learning and learning approaches/styles

Participant responses in this section showed the highest standard deviation from the overall mean of mean of importance ratings *(s = 0.67*; see Appendix D.13). This is still not a significant deviation since it is smaller than one (<1).

Three activities in section D.2 achieved a mean of importance rating below 3.00. These are D.2.2.6 (i.e. students should work for long periods on projects through which they can learn a variety of key technical skills for employment; *mean = 2.89*); D.2.2.7 (i.e. students should work for long periods on projects through which they can learn a variety of personal skills for employment; *mean = 2.89*), and D.2.2.8 (i.e. students should work for long periods on projects through which they can learn a variety of professional skills for employment; *mean = 2.89*). All three these activities were discipline-specific, as specified in activity D.2.2 (see Table 3.6 in 3.2.2.1.4). Nevertheless, activities D.2.2.6 and D.2.2.7 were rated *essential* by only one expert participant each. Activity D.2.2.8 was rated as *essential* by two expert participants in the expert validation questionnaire. It is interesting to note that the expertise of the expert participant that rated all three these activities as *essential* was not graphic design. The decision was taken to exclude these three activities (i.e. D.2.2.6, D.2.2.7, and D.2.2.8) based on their mean of importance value in accordance with the interpretation guidelines specified in section 7.3.

Activity D.2.1.7 (i.e. acknowledge the cultures of students pertaining to social trends; see 2.3.6.4.3a) achieved a borderline mean of importance rating of 3.00. Six expert participants (*66.67%*) noted that this is a *useful* activity, and two participants rated it *essential* (*22.22%*). The mean of importance rating for this activity was lowered by one expert participant who rated it as *not necessary* (*11.11%*). However, in accordance with the interpretation guidelines specified in section 7.3., this activity was retained in the final proposed framework. None of the listed activities achieved a mean of importance rating of 4.00.

Only one expert participant (i.e. EXPERT_6) made a comment, namely that he/she had some issues or concerns about the use of contested concepts such as deep and surface approaches to learning in the activities listed in D.2.3. The expertise of this specific expert participant was AAPs and curriculum development/design, which might have informed this participant's concern about these concepts. However, none of the other expert participants from the same discipline noted any concerns regarding these concepts. A deep approach to learning is an acceptable term to describe when students apply and transfer the knowledge and skills they have learned to other contexts (see 2.3.6.4); whereas students who apply a surface approach to learning only complete the task at hand in order to achieve the ILOs with as little effort as possible. Nevertheless, to accommodate the concern, the wording of activity D.2.3 was slightly altered in the final framework and now reads as follows: *employ teaching/learning activities and assessment tasks requiring higher order skills which compel students to apply and transfer the knowledge they have learned.*

7.3.4.3 Section D.3: Teaching and teaching styles

All 51 activities listed in this sub-section achieved a mean of importance rating of more than 3.00. Activity D.3.14, that specified that HE teachers should possess the stipulated qualifications, experience and teaching competence required at a specific level, was the only activity that achieved a mean of importance rating of 4.00. This activity links with the third criterion for programme accreditation in South Africa (see 2.3.6.4) and obviously was retained in the final framework.

Illustrative verbatim quotes – EXPERT_8

> *There is a growing amount of research which questions the notions and specifically the measurement of student learning styles; the research suggests there is a greater efficacy in focusing on the lecturer utilising multiple teaching strategies and exploring the use of diagnostic assessment in a formative space.* (EXPERT_8)

I wish to highlight the above verbatim comment of EXPERT_8. Several activities listed in section D.3 of the preliminary framework address the need to utilise multiple teaching strategies (see D.3.9, D.3.12.2, D.3.15 and D.3.19). However, the teaching strategies selected by HE teachers should be appropriate for promoting not only the achievement of the purpose and ILOs of the programme, but also for aligning these with students' prior knowledge, skills and learning needs (see 2.3.6.4). Diagnostic assessment can aid the HE teacher to determine the appropriate starting point for students' learning journey by determining their prior knowledge, skills and learning needs (see 2.3.6.5). In the light of this discussion, the activities in D.3.9 and D.3.15 were merged in order to avoid unnecessary duplication in the framework. As a result, activity D.3.15.2 was amended to read: *promote and/or employ a variety of teaching styles/strategies according to the students' learning needs,* and actually replaced D.3.9.1. A new activity (i.e. D.3.15.4) was added to activity D.3.15 in the final framework, aimed at guiding curriculum/programme designers and/or HE teachers to adapt their teaching styles/strategies taking into consideration students' prior knowledge and skills. This (activity D.3.15.4) replaced activity D.3.9.2 in the final framework (see 8.4).

At first I thought the comment of EXPERT_6 pertaining to the appropriateness of activity D.3.16.7 in AAPs (i.e. teaching that emphasises original research to improve self-directed research, practice, and conceptual skills; see 3.2.2.1.4a) had merit since the first mention of research in the level descriptors of the NQF is at level eight (RSA NQF, 2012:10). However, upon scrutiny of the fifth level descriptor of the NQF I noted that students are required to access, process and manage information with forms part of conducting research. Furthermore, graphic design students are also required to conduct research during the design process (see 4.4). Activity D.3.16.7 as a result was retained in the final framework.

I also decided to move activity D.3.17.3 (i.e. provide ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material) so that it is included in the activities listed under D.3.15 in the final framework (i.e. D. 3.15.5 - a variety of teaching styles/strategies and material that provide ample opportunities for students to demonstrate mastery of the learning content.). This decision was taken in order to cluster similar topics together in the final framework.

7.3.4.4 Section D.4: Teaching and learning activities

Section D.4 achieved an overall mean of mean of importance ratings of 3.45. More than half of the expert participants (*54.44%*) rated the activities listed in this sub-section as *essential*. Two of the activities listed in section D.4 achieved a mean of importance rating of less than 3.00 (i.e. activities D.4.2 and D.4.6.8), and one activity became a borderline case (*mean = 3.00*; i.e. activity D.4.1.4).

I decided to exclude activity D.4.2 (i.e. changing TLAs for facilitating declarative ILOs every fifteen minutes) from the final framework based on its low mean of importance rating of 2.67, despite the fact that five participants rated it as *useful* and one indicated that it was *essential*. A possible reason for two expert participants rating the activity as *uncertain* might be due to the term *declarative ILOs,* which most probably needed more clarification in the expert questionnaire. Activity D.4.6.8 (i.e. transform the student to a practitioner in the first year of mainstream design education) achieved a mean of importance rating of only 2.78 and I decided to exclude it in accordance with the guidelines specified in section 7.3, despite the fact that three of the expert participants rated it as *essential* and another as *useful*. The expertise of these expert participants was, however, diverse. Another reason for excluding activity D.4.6.8 from the final framework was that it focused on the first year of the mainstream programme and not specifically on AAPs for graphic design students.

Although activity D.4.1.4 (i.e. select TLAs that are appropriate with regard to teacher attributes) obtained a mean of importance rating of 3.00, and therefore was a borderline case, I wish to substantiate the importance of this activity. Literature shows that a curriculum/programme designer's orientation and approach to designing a curriculum indeed influence the eventual curriculum design components, including TLAs (see 2.2.1). I therefore decided to retain this activity in the final framework. None of the listed activities achieved a mean of importance rating of 4.00.

7.3.5 Section E: Assessment tasks pertaining to AAPs for graphic design

This section in the preliminary framework consisted of two sub-sections: section E.1 listed general aspects/activities pertaining to assessment and section E.2 listed activities pertaining to assessment approaches/forms and tasks that may be used in AAPs for graphic design.

ATs in HE have several functions, including to determine whether students meet the ILOs, to monitor students' progress (see activity D.1.2; *mean = 4.00*), and to motivate students, to name but a few (see 2.3.6.5). Various assessment approaches and tasks may be employed to achieve the different functions of ATs (see Table 2.12 and Table 2.13 in 2.3.6.5.1). It is important to take note of discipline-specific approaches and tasks since assessment in (graphic) design differs from that in other disciplines (see 3.2.2.1.5). Design disciplines require a creative problem-solving approach where it is accepted that there may be more than one answer to any problem. In addition, assessment is mostly classified as a subjective activity (see 3.2.2.1.5). For this reason, section E of the preliminary framework listed a number of generic and discipline-specific ATs pertaining to AAPs for graphic design.

A large majority of the expert participants rated the activities listed in section E as a whole, as *essential (n = 172; 76.44%*; see Appendix D.14). The standard deviation of 0.23 from the overall mean of the mean of importance ratings for the entire section E indicates a low variation among the ratings of importance in the entire section E. It is also important to note that the overall mean of the mean of importance ratings of all the activities in the entire section E, was 3.75. This is a relatively high mean, and therefore indicates that, in general, the importance of the listed activities in section E was rated relatively high. A summary of the data analysis of section E with its two subsections is presented in Appendix D.14.

7.3.5.1 Section E.1: General aspects pertaining to assessment tasks

Section E.1 contained eighteen activities and in general achieved the highest overall mean of the mean of importance ratings of all sub-sections in the preliminary framework (*mean = 3.78*). This confirms that, in general, the activities listed under sub-section E.1 were rated relatively high.

The principles of good assessment were adapted in the final curriculum design framework (after the review and validation by the panel of experts), since I had overlooked a newer reference that expands the principles to ten principles (validity, reliability, integrity, transparency, accountability, fairness, absence of bias, sensitivity to language, creditability in the form of supportive administration, and assessment range; SAQA, 2014:11-12). Therefore I added these additional principles in the final framework in section 8.4, based on the participants' high rating of the principles that appeared in the preliminary framework that indicated the importance of abiding by assessment principles.

7.3.5.2 Section E.2: Assessment approaches/forms and tasks

Only one of the 25 activities listed in the entire section E achieved a mean of importance of less than 3.00, namely activity E.2.1. The use of technology-based ATs might not be essential to this proposed framework; however, the use of technology is becoming more and more important in the light of the generation of students sitting in the classrooms of HEIs (see 2.3.6.4). It is even more important for design education

students whose profession relies on technology (e.g. computers and software) to produce a design product (see 4.5.2). E-learning technologies as a competency also achieved a low mean of importance rating in the quantitative data analysis reported in section 6.2.2.1.1. However, it was included in the preliminary framework and actually achieved a mean of importance rating of 3.33 in section F.1 (cf. competency F.1.19). A possible reason for the relatively low mean of importance rating of 2.78 for activity E.2.1, might be the gap between the technology needs of generations of the expert participants (which are the generations of BabyBoomers, Generation X and possibly early Generation Y) and the student population (which are late Generation Y and early Generation Z). The decision was taken to include activity E.2.1 in the final framework since it is important to address the needs of the current student population.

None of the other listed activities in sub-section E.1 achieved a mean of importance rating equal to 3.00 (i.e. borderline activities) or 4.00 (i.e. absolutely *essential* activities).

7.3.6 Section F: Competencies and success mechanisms pertaining to AAPs for graphic design

Section F listed activities with regard to the generic and discipline-specific competencies that need to be developed in an AAP for graphic design, as well as success mechanisms which can be employed in AAPs in order to promote student success. More than 60% of the expert participants rated some of the listed activities as *essential (n = 355; 60.68%)*, while 34.53% *(n = 202)* of the participants rated activities as *useful* (see Table 7.2). A summary of the data obtained from sub-sections F.1 (i.e. generic and discipline-specific competencies) and F.2 (i.e. student success mechanisms) respectively, is shown in Appendix D.15.

7.3.6.1 Section F.1: Generic and discipline-specific competencies

The competencies and success mechanisms listed in sub-section F.1 and F.2 (of the preliminary framework) were derived from the non-empirical literature study reported in section B of this study and the empirical research findings aimed at achieving research objectives 1 and 2 as reported in section D of this study. A total of 54 generic and discipline-specific competencies were derived from the literature study (see Table B.1 in section B) which focused on research objective 1 (see 1.4.1). However, four (4) new competencies surfaced following the data analysis and interpretation of the empirical research presented in Chapter 6 (see 6.2.2.1.2; 6.2.2.2.1c, and 6.3.2.2.2) and was consequently included in the preliminary framework presented to the panel of experts.

All of the 58 competencies (i.e. generic and/or discipline-specific) eventually listed in the preliminary framework achieved a mean of importance rating of 3.00 or more according to the importance ratings of the expert participants. None of the listed competencies achieved a mean of importance rating of 4.00, however, the two competencies which achieved the highest mean of importance ratings *(mean = 3.89)* by the expert participants were activity F.1.7 (i.e. collaboration with individuals and group work/team work)

and activity F.1.47 (i.e. responsibility towards the community). Both these activities directly link with the CCFOs and/or developmental outcomes of SAQA (see 2.1.1; see Table 6.8 in 6.2.2.2.1a).

It is of importance to note the differences in the findings between the questionnaire survey aimed at research objectives 1 and 2, and the expert questionnaire survey aimed at research objective 4 of this study. Activity F.1.47 (i.e. responsibility towards the community), which was rated as one of the most important activities in sub-section F.1, was tentatively excluded from the quantitative data analysis reported in section 6.2.2.1 by South African HE teachers. In total seventeen competencies listed in section F.1 were tentatively excluded from section 6.2.2.1 according to their low mean of importance ratings. However, due to the limitations of the quantitative data collection tool reported in section 6.2.2.1 the decision was taken to include all identified competencies in the preliminary framework and therefore also in the expert questionnaire. The list of competencies presented below shows the competencies which would have been excluded, based only on the findings reported in section 6.2.2.1. The mean of importance rating in brackets at the end of each competency is the mean of importance achieved in the expert questionnaire survey. These reported means therefore confirm that I made the right decision to retain these competencies in both the preliminary and final framework.

- F.1.1 Accuracy *(mean = 3.44)*
- F.1.2: Adaptable in nature *(mean = 3.44)*
- F.1.6: Attention to detail *(mean = 3.78)*
- F.1.13 Curiosity *(mean = 3.78)*
- F.1.18 Efficiency *(mean = 3.22)*
- F.1.19 E-learn technologies *(mean = 3.33)*
- F.1.20 Emotional intelligence *(mean = 3.44)*
- F.1.21 Entrepreneurial skills *(mean = 3.22)*
- F.1.26 Interpersonal skills *(mean = 3.78)*
- F.1.28 Intuition *(mean = 3.11)*
- F.1.31 Memory *(mean = 3.22)*
- F.1.32 Multi-tasking *(mean = 3.33)*
- F.1.38 Presentation skills *(mean = 3.44)*
- F.1.46 Responsibility towards other designers *(mean = 3.67)*
- F. 1.47 Responsibility towards the community *(mean = 3.89)*
- F.1.48 Responsibility towards the profession *(mean = 3.56)*
- F.1.54 Subjectivity *(mean = 3.11)*

7.3.6.2 Section F.2: Student success mechanisms

The individual success mechanisms listed in sub-section F.2 of the preliminary framework achieved almost similar ratings from the nine expert participants. More than 40% of the expert participants rated the importance of these activities as *useful* (*n = 28; 44.44%*), while another 46.03% (*n = 29*) expert participants rated the importance of items as *essential*. All seven of the listed success mechanisms received a mean of importance rating of 3.00 or more by the expert participants in the expert validation survey.

The only borderline activity that received a mean of importance rating of 3.00 by the expert participants, was activity F.2.1 (i.e. academic advising; *mean = 3.00*). Seven (77.78%) expert participants rated academic advising as *useful* and one participant rated it as an *essential* activity for the proposed framework. This also was the lowest mean of importance rating for an activity in the quantitative data analysis of the questionnaire survey aimed at research objectives 1 and 2 (see 6.2.2.1.3). Nevertheless, the importance of academic advising is confirmed in the literature in that it serves three functions, namely to provide students with tools and resources to succeed with their studies, assist students to navigate the culture and rules of the new environment, and to provide students with advice regarding their future careers (see 3.3.1). Therefore, the decision was taken to retain activity F.2.1 in the final framework. None of the listed success mechanisms received a mean of importance rating of 4.00.

7.4 CHAPTER SUMMARY

The purpose of this chapter was to present the data as analysed and interpreted and to discuss the findings of the review and validation of the preliminary proposed framework of AAPs for graphic design by experts in the field of curriculum development/design, AAPs and graphic design. The goal of the envisaged final proposed framework (see 8.4) is to provide guidance for curriculum/programme designers and/or HE teachers regarding designing a curriculum for AAPs for graphic design. Ultimately, it is hoped that this framework will enhance student success by increasing throughput and graduation rates of enrolled students (see 5.4).

Ten experts with expertise covering the above-mentioned fields were invited to take part in the expert questionnaire survey employed in view of research objective 4. However, only nine of the ten expert participants eventually completed the expert questionnaire (see 5.3.5.5). The 338 activities proposed in the preliminary framework were categorised into six main sections according to the curriculum design components identified and discussed in sections 2.3.6 and 3.2.2.1 The expert participants had to rate the importance for each of the 338 listed activities according to a four-point Likert scale. More than half (i.e. section B; *54.17%*) to approximately three quarters (i.e. section E; *76.44%*) of the listed activities eventually were rated as *essential* by the expert participants. Five of the listed activities were rated as *essential* by all nine expert participants (*mean = 4.00*). Seven activities were rated as borderline (*mean = 3.00*). Only ten

activities achieved a mean of importance rating less than 3.00, and some of these were therefore excluded from the final framework that I propose in the next chapter (see 8.4).

The mean of importance ratings of each of the activities as well as the verbatim comments and/or suggestions provided by the expert participants and cross references to relevant discussions in the literature study, were used to motivate either the inclusion or the exclusion of the activity in the final framework. These decisions had to be supported by the mean of importance ratings of each activity, all the verbatim comments and/or suggestions provided by the expert participants as well as the supporting literature. Eventually, eight new activities were added to the final proposed framework (indicated in green); six of the originally listed activities were amended (indicated in orange), and ten of the activities were excluded (indicated in red) from the final framework which is presented in section 8.4.

SECTION E

CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

E

CHAPTER 8

TOWARDS A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORT STUDENT SUCCESS IN GRAPHIC DESIGN: CONCLUSIONS, IMPLICATIONS AND LIMITATIONS

8.1 INTRODUCTION

The purpose of this study was to investigate the constitution of alternative access programmes (AAPs) in higher education (HE) that supports student success in graphic design. AAPs were included in the programme mix of South African higher education institutions (HEIs) after 1994 in order to provide equal opportunities for all students, to widen access for non-traditional students and to act as a student success mechanism to remedy the existing articulation gap between secondary education and HE in South Africa (see 3.2). The need for this investigation arose from the limitations of AAPs noted in Chapter 3, since these programmes are not as successful as hoped (see 3.2). The research was designed to investigate features, competencies and/or factors related to successful AAPs, for graphic design specifically, since design education promotes competencies associated with the economic growth of a country (Gustina and Sweet, 2014:53; Lee and Breitenberg, 2010:55), as well as the generation of innovators in various disciplines (Alway-Rosenstock, 2011:178). The investigation was limited to AAPs for graphic design since graphic design is my field of expertise in HE. Figure 8.1 provides an outline of Chapter 8.

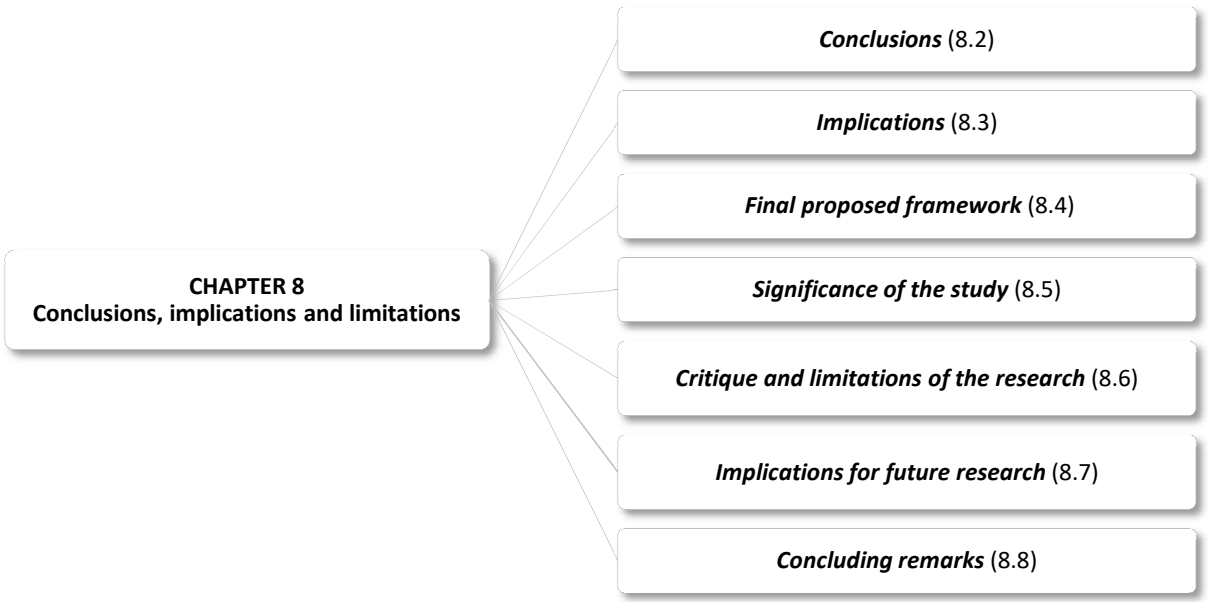


Figure 8.1: Outline of Chapter 8

8.2 CONCLUSIONS

This section presents a review of three of the research questions that guided this study (see 1.3.2) together with their main findings (i.e. conclusions). The implications of the fourth research question and its contribution to the primary research question of this study is discussed in section 8.3.

8.2.1 How are AAPs and graphic design programmes respectively constituted and which generic and discipline-specific competencies usually are cultivated through the respective programmes in HE?

The non-empirical literature study (i.e. Section B) of this study was largely focused on the current research question shown in the heading of this section. Section B of the thesis therefore contains three literature chapters focusing on: 1) programme design and review in HE (i.e. Chapter 2); 2) the constitution of AAPs for graphic design and supporting student success mechanisms (i.e. Chapter 3), and 3) generic and discipline-specific competencies required of graphic designers (i.e. Chapter 4).

I started my journey through the literature by exploring programme design and review in HE in order to identify the fundamental design features that need to be included in every HE programme in South Africa. These features formed the first foundation of my proposed preliminary framework presented at the end of Chapter 6. The vastness of Chapter 2 can be contributed to the fact that programme design in HE was not my primary specialisation and therefore served the purpose of forming my own knowledge base for undertaking this research. The third chapter of this study focused on student success mechanisms in line with the second research objective of this study (see 8.2.2); however, section 3.2 on AAPs has a dual purpose. This particular section also contributes to the achievement of the first research objective by exploring the curriculum design components of AAPs in order to identify generic competencies of AAPs to be included in the proposed framework. A situation analysis of existing AAPs for graphic design was completed and served as a starting point to inform my understanding of the constitution of AAPs. The design of AAPs in South Africa should be aligned with their augmented diploma or degree programmes (see 3.2.2). Therefore, Chapter 4 further explores the generic (in addition to the generic competencies already identified in section 3.2) and the discipline-specific competencies required of graphic designers with a view to embed these competencies in the proposed framework.

A total of 54 generic and discipline-specific competencies eventually were identified in the non-empirical literature study (see Table B.1). These competencies were used to inform the explanatory, mixed-methods, self-structured, web-based questionnaire (see 5.3.3.1). The purpose of this survey questionnaire was to confirm and identify generic and discipline-specific competencies, as well as student success mechanisms (see 8.2.2) that were deemed as vital by HE teacher participants in South Africa, and that therefore should be included in the programme/curriculum design of AAPs for graphic design.

The research population consisted of all AAP, AAP for graphic design and mainstream graphic design HE teachers of participating HEIs in South Africa from which I obtained institutional permission and ethics clearance to conduct this research (see 5.3.2 and 5.3.3.3). An e-mail invitation to participate in the questionnaire survey was sent to a total of 756 HE teachers in South Africa. The survey attracted a low response rate of 68 (i.e. *8.99%)* participants of whom only thirteen (13) participants (i.e. *1.72%*) completed the entire questionnaire. Although the low response rate reduced the trustworthiness of the quantitative data set, the related qualitative data obtained included good reasons for the patterns found in the quantitative data distribution. During the data analysis and interpretation of this first research question, I came to consider that an alternative research design and methodology, such as face-to-face completion of the questionnaire survey, could have yielded more responses since online surveys often have a low response rate which is also evident from the response rate in this case. However, I made the decision to use online surveys during the proposal phase of my study in order to extend my reach of participants across the whole of South Africa, rather than focusing on only the geographic region I reside in.

The mean of importance ratings assigned to each of the listed generic and discipline-specific competencies was used to determine their tentative inclusion or exclusion in the quantitative component of the preliminary framework (see 6.2.2.1.1 and 6.2.2.1.2). A competency had to achieve a mean of importance rating above four. As a result, the total number of competencies was tentatively reduced from 54 competencies to 38 competencies (see Tables B.1 and 6.6). Upon scrutiny of the research design and methodology aimed at research objective 1, the decision eventually was taken to include all the tentatively included and excluded competencies in the proposed preliminary framework for review and validation by a panel of experts (see Chapter 7). The motivation for this decision was to address the listed limitations of the initial questionnaire survey discussed in section 6.2.2. The data analysis and interpretation of both data sets therefore were taken into consideration to finalise the list of generic and discipline-specific competencies which was included in the preliminary framework presented in Table 6.10.

In sections 6.2.2.2.1 and 6.2.2.2.2 I analysed, interpreted and discussed the motivation/validation of the competencies that were rated as *important* and *very important* in the quantitative component of the survey questionnaire. Most HE teacher participants' motivations/validations of competencies they deemed as *important* or *very important* included reference to various levels of (intended) learning outcomes (LOs; i.e. graduate attributes, and programme and module level LOs; see 2.3.6.2.2c). The qualitative data analysis showed that thirteen of the tentatively excluded competencies from the quantitative data analysis were in alignment with South African Qualification Authority's (SAQA) critical cross-field outcomes (CCFOs) and developmental outcomes (see 2.1.1), which should be infused into the graduate attributes of HEIs (e.g. e-learn technologies, efficiency, memory, multi-tasking, presentation skills, to name but a few; see Table 6.5). This finding raised the question why these competencies were not considered as important by

the South African HE teacher participants. This finding further supported the decision to include all the initially identified generic and discipline-specific competencies in the proposed framework which finally was reviewed and validated as discussed in Chapter 7.

It is important to note that two new competencies (i.e. aesthetic gaze and decision-making; see 6.2.2.1.2 and 6.2.2.2.2 respectively) were identified during the data analysis of the initial questionnaire survey, but which were not identified in the literature study of this research.

The contribution of the first research question discussed in this section to the overall aim of the research is immense, since the non-empirical literature study discussed in Section B of the thesis formed the foundation of the proposed framework and in particular ensued in the identification of most of the generic and discipline-specific competencies. The literature study also grounded the empirical findings presented in Chapter 6 and 7 (i.e. Section D) and aided with the data analysis, interpretation and discussion.

The formal and informal dissemination avenues of the findings pertaining to this research question and the limitations faced were reported in section 5.3.3. I was enlightened by the knowledge which was eventually derived from both the empirical and non-empirical findings that related to research question 1 and the linked research objective, and which I could employ in an informal and personal capacity as a HE teacher, post-graduate supervisor and curriculum designer. This new knowledge enabled me to critique my own teaching and teaching style and assisted me to make several adjustments in facilitating information transmission in my classroom to enable students to create knowledge, as well as in the manner in which I conducted post-graduate supervision. Furthermore, it contributed to my personal knowledge of the requirements of graphic designers which I shared with various institutions, fellow colleagues and my students.

8.2.2 How can AAPs and graphic design programmes respectively enhance student success in HE?

Student access, success and throughput rates currently are focus areas in South African HE (see 3.1). The third chapter of this study reports on literature that was explored regarding success mechanisms for students in HE such as AAPs, academic advising; creating a positive learning environment; employing teaching and learning practices such as alternative and high impact teaching and learning practices (HIPs), student engagement, and student motivation (see Chapter 3). In Section 3.2 both the first and second research objective were addressed, as well as the linked research questions of this study as already mentioned in section 8.2.1.

AAPs represent a mechanism to promote student success in the South African HE landscape (see 3.2.1). They aim to assist students with systemic obstacles to success, such as the articulation gap between

secondary education and HE; as well as the epistemic transition from AAPs to mainstream programmes (see 3.2.2.1.3). Therefore, the constitution of good AAPs for graphic design was explored in section 3.2 in order to identify the programme/curriculum design features which should be included in the proposed framework which in turn should promote student success. Section 3.3 explored student success mechanisms (e.g. academic advising, flipping the classroom, student engagement, etc.) since these mechanisms can be employed together with AAPs to promote student success in South African HE. The limitations of AAPs (see 3.2.2) may be countered by implementing the design parameters of a proposed flexible curriculum framework that promotes student success in South African HE (see 3.2.2). Similar to existing AAPs, the flexible framework should be aligned with the exit levels and standards of the augmented degree or diploma with a focus on graduate attributes (i.e. SAQA's CCFOs and developmental outcomes). Since graduate attributes are of importance in a flexible framework, they support the discrepancy I noted in section 8.2.1 of the tentatively excluded competencies based on the quantitative section of the questionnaire survey aimed at research objective 1.

An explanatory mixed-method, self-structured, web-based questionnaire aimed at achieving objectives 1 and 2 of this research were employed (see 5.3.3.1 and 8.2.1). The purpose of the questionnaire survey was to identify which of these student success mechanisms (and competencies, see 8.2.1) were deemed as vital by HE teacher participants in South Africa. The data collection tool and the research population were already discussed in 8.2.1 and will not be repeated again in this section. AAPs as a success mechanism was not included in the questionnaire, since the importance of these programmes is evident from the literature and mandated to address past discriminations prior to the first democratic election in South Africa (see 3.1 and 3.2.1).

The mean of importance rating of each listed student success mechanism in the quantitative component of the questionnaire survey was used to determine its tentative inclusion in or exclusion from the preliminary framework (see 6.2.2.1.3). All five success mechanisms achieved a mean rating of above 4.00. An additional three student success mechanisms were listed by HE teacher participants (see section 6.2.2.1.3); however, only one of them (i.e. repetitive remedial actions) was included in the proposed preliminary framework since the other two mechanisms were integrated into two of the generic competencies listed in the preliminary framework.

The qualitative motivation/validation was analysed, interpreted and discussed in section 6.2.2.2.3. The analysis of the qualitative data set highlighted the interrelatedness among the learning environment, student engagement and student motivation; however, this also was supported by the literature study (see 3.3).

The second research question also contributed to the overarching aim of the study by exploring the features of good AAPs that serve as success mechanisms. The reviewed literature noted the limitations of existing AAPs and provided possible solutions to address these limitations. These features were included in the activities listed in the preliminary framework in addition to the foundation created by exploring the constitution of AAPs for graphic design (see Chapter 7). It further contributed to the aim of the study by identifying six student success mechanisms which may be employed to support student success in AAPs for graphic design.

The formal and informal dissemination avenues of this research question were described in section 5.3.3.6. During the research on student success mechanisms I came to consider the impact that these mechanisms might have on my own teaching and post-graduate supervision in HE. I applied the knowledge I obtained by employing several of the listed student success mechanisms in my personal capacity in order to promote student success amongst my own students. Apart from the empirical and non-empirical findings linked to research objective 2, I could reflect on my own experience to realise the value of using a combination of these success mechanisms. Personally, student motivation is one of the most important mechanisms I aspire to trigger as a HE teacher.

8.2.3 What is the current status of the existing AAP for graphic design of a specific private HEI?

My interest in investigating AAPs for graphic design was originally initiated by my involvement in such programmes over a period of eight years (see 1.7). The analysis of the existing AAP for graphic design of one specific private HEI where I was employed for the major part of my study, was a natural starting point for my research journey, since I had some insight into the strengths and weaknesses of the programme through the daily contact which I had with various stakeholders (i.e. HE teachers, students, their parents/sponsors, specific campus management, as well as main campus management). In addition, this analysis of an existing AAP for graphic design also served the purpose of a situation analysis as a curriculum design component (see 2.3.6), which should indeed be the starting point for any design of a curriculum/programme.

A qualitative, self-structured strengths, opportunities, aspirations and results (SOAR) analysis was employed to investigate the research question, that is, to achieve research objective 3. This research question was linked to research objective 3 and was aimed at contributing to the purpose of establishing what the specific AAP was doing well so that these strengths could be included in the proposed framework, the pitfalls be addressed in the proposed framework, and the wishes of stakeholders of the programme (i.e. HE teachers and students) be attended to in the proposed framework. Although the literature did not inform the SOAR analysis questionnaire as such, it was used to ground the findings emanating from the data analysis and interpretations reported in sections 6.3.1.2 and 6.3.2.2.

The target population for the SOAR analysis survey included all HE teachers teaching in the specific AAP during 2011, 2012 and/or 2013, as well as students who were enrolled in the specific AAP for graphic design during 2011 and/or 2012. The response rate of the SOAR analysis was dramatically higher than the initial questionnaire survey aimed at research objectives 1 and 2. This added to the trustworthiness of the data collected. The response rate of HE teacher and student participants of the specific private HEI was *41.23% (n = 47)* and *87% (n = 75)* respectively, of which *24.56% (n = 28)* HE teacher participants and *66.28% (n = 57)* student participants answered all the questions in the SOAR analysis questionnaire (see 5.3.4.5).

The data analysis and interpretation for the SOAR analysis were documented in section 6.3. The literature study presented in Section B of the thesis was used to support the interpretation of the qualitative data in section 6.3.1.2. Upon self-reflection of the research design and methodology that I employed for the SOAR analysis as well as the various problems I encountered during the data collection (see 5.3.4.6), I am of the opinion that interviews, especially if conducted with student participants, could have delivered richer data pertaining to the specific AAP in question.

The HE teacher and student participants apparently had different views of the existing AAP for graphic design, which were highlighted in the summary of the findings reported in section 6.3.3. In general, the students' perception of the specific AAP was positive, whereas HE teachers identified more weaknesses in the specific AAP than strengths. A possible reason for the discrepancy between the two participant groups might be that HE teacher participants had more exposure to and knowledge of what good AAPs entail and therefore could analyse the specific AAP for graphic design more critically. The student participants' frame of reference, therefore, assumingly was restricted. An additional two new competencies (i.e. determination and personal development of the student himself/herself; see 6.3.1.2 and 6.3.2.2 respectively) were identified during the data analysis of the SOAR analysis which were included in the preliminary framework.

Both participant groups expressed many wishes/aspirations for the specific AAP, especially the inclusion of more generic and discipline-specific competencies in the relevant AAP (see 6.3.3). During the analysis and interpretation of the data I realised that the student participants' wishes for more discipline-specific competencies to be included in the programme were in line with my own outlook as a student, namely that my practical modules were actually the core focus of my studies. Literature also supports this finding (see 3.2.1). As a HE teacher, however, I support the need for the inclusion of more generic competencies in the AAP; in this regard I refer to these competencies that support the development of students' English language abilities, specifically since students' verbatim comments in their completed questionnaires showed their backlog in such competencies (see 6.3.1.2).

The dissemination avenues of the findings of the SOAR analysis survey, as well as the problems faced, are reported in section 5.3.4. The analysis of the existing AAP for graphic design indeed eventually informed the management of the specific HEI about their HE teachers' and students' perceptions of the strengths, opportunities, aspirations and results of the specific AAP for graphic design. My research contributed to the curriculum review process of the existing AAP for graphic design. However, the curriculum review process only addressed some of the opportunities and wishes identified by the stakeholders, since only preliminary findings could be shared with the HEI at that stage. My presuppositions regarding the strengths and weaknesses of the specific AAP actually were challenged during this SOAR analysis journey. I obtained a more in-depth understanding of the needs of both stakeholders groups, and I was able to use my understanding to the benefit of all the specific institution's campuses in my capacity as a consultant during the mentioned curriculum review process.

8.3 IMPLICATIONS

This section presents a review of the fourth research question that guided this study and thus attempts to finally answer the primary (i.e. the overarching) research question by highlighting the implications of the findings of this study (see 1.3).

8.3.1 How can the identified features, competencies and/or factors identified be embedded into AAPs so that they can support student success in graphic design education?

The findings of the non-empirical literature study reported in Section B of the thesis, as well as of the empirical research (see Chapter 6) eventually were compared, converged and synthesised in order to compile and propose a preliminary framework for embedding these features, competencies and/or factors into AAPs for graphic design in order to support student success in relevant AAPs for graphic design students (see Chapter 7).

The empirical research reported in Chapter 6 entails the analysis, comparison and convergence of the data collected by means of a questionnaire aimed at achieving objectives 1 and 2 (see 8.2.1 and 8.2.2), as well as the SOAR analysis aimed at achieving objective 3 (see 8.2.3). The findings reported in Chapter 6 also were supported with ample reference to the theoretical framework provided in Section B of the thesis and eventually were summarised in a table of activities to be included in the envisaged curriculum framework for AAPs that had to support student success in graphic design (i.e. the preliminary framework; see 6.4 and Table 6.11).

The preliminary framework subsequently was reviewed and validated, as reported in Chapter 7, by a panel of nine of the ten experts (*90%*) from various occupational positions and fields of expertise who were invited to take part (see 5.3.5.3; 5.3.5.5; 7.2). Expert participants were required to complete a web-based

questionnaire with closed and open-ended questions (see Appendix C.18). The quantitative component of the expert survey questionnaire (i.e. closed questions) required of the expert participants to rate the importance of each of the 338 activities included in the preliminary framework according to a four-point Likert scale with the following ratings and weights: 1 - not necessary; 2 – uncertain; 3 – useful; 4 – essential. The motivation for using a four-point Likert scale is provided in section 5.3.5.1. The expert participants, however, also were given an opportunity to comment on or make suggestions to every section and/or sub-section in the questionnaire (and thus also the framework). The latter therefore represented the open questions.

The data analysis and interpretation of the findings of the expert participants' review and validation of the proposed framework are reported in section 7.3 according to the six sections of the questionnaire. The weights assigned to the four-point Likert scale aided the interpretation of the participants' rating of all the features and enabled me to obtain a mean of importance rating for each of the activities. A mean of importance rating of at least 3.00 was required per activity to be retained in the final framework which eventually is presented in section 8.4 (see 7.3). This decision was taken since I argued that an activity should be rated as either *useful* or *essential* for it to be included in the final framework.

In general, the expert participants regarded most of the listed activities in the preliminary framework as important, since the overall mean of the mean of importance ratings for all the sections of the expert questionnaire was above 3.00 (see 7.3). Through analysing, comparing and interpreting the quantitative and qualitative data obtained, I was able to identify eight new activities that subsequently were included in the final framework (indicated in green in Table 8.1; see 8.4); six of the activities listed in the preliminary framework were amended (indicated in orange in Table 8.1; see 8.4), and ten of the activities in the preliminary framework eventually were excluded (indicated in red in Table 8.1; see 8.4).

The final proposed framework, presented in section 8.4, addresses the overarching (i.e. primary) research question of this study, namely: How should AAPs in HE be constituted in order to support student success in graphic design? The activities included in the final proposed framework were categorised into six sections which is in line with the curriculum design components identified in section 2.3.6. The listed activities are meant to guide curriculum/programme designers and/or HE teachers regarding the features, competencies and/or factors that they should embed in the design of AAPs for graphic design in order to promote student success in these programmes.

The formal dissemination avenues of the findings of this study include the following:

- Participants (i.e. HE teacher and/or expert participants) in the various online surveys will be provided with feedback through an e-mail message with a link that directs them to my online profile (e.g. my ResearchGate or LinkedIn profile) on which I shall upload the final research document after the assessment of the thesis has been completed.
- The participants who completed paper-based questionnaires (i.e. student participants; see 8.2.3) will be provided feedback through the various academic coordinators of campuses of the specific HEI that participated in this research. Academic coordinators will be sent an e-mail message with a link to the final research document (after assessment of the thesis), which will be placed on my online profile (e.g. my ResearchGate or LinkedIn profile).
- Participating HEIs will be provided with either a hard or electronic copy of the final research thesis (after assessment), as specified in the permission letters of these HEIs (see Appendix C.2).
- I plan to publish the research findings or parts thereof in scholarly journals.
- I also plan to present the research findings or parts thereof at national and international conferences (if funding is available), as well as seminars (e.g. see invitation from the Scholarship of Teaching and Learning in Art and Design group in South Africa in Appendix E.1).

A possible informal dissemination avenue of the findings discussed in this chapter includes sharing the guidelines contained in the proposed framework with fellow colleagues at the various HEIs with which I currently am involved in order to elucidate their understanding of existing AAPs (or similar programmes) their institutions are offering. During the research I also came to realise that my own practice as curriculum/programme designer and HE teacher could be improved by applying the guidelines included in the proposed framework in section 8.4. This will validate my commitment towards this study in a way which I did not initially consider.

8.4 FINAL PROPOSED FRAMEWORK

My modest contribution to knowledge has been to compare, converge, integrate and synthesize the findings of the empirical results of this study with the theoretical framework in order to derive a curriculum design framework which has the potential to guide curriculum/programme designers and/or HE teachers in designing AAPs which support student success in graphic design (see Table 8.1).

Table 8.1: Final proposed framework for curriculum design activities for alternative access programmes to support student success in graphic design

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
SECTION A: CURRICULUM/PROGRAMME DESIGN		
A.1	***General aspects pertaining to programme design***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* A.1 .1 acknowledge: A.1.1.1 that the graphic design community has its own culture, networks and languages. A.1.1.2 the inevitability of change (e.g. demands and needs for curriculum/programme design). A.1.2 adhere to the demands and needs of/for: A.1.2.1 didactics (i.e. teaching and learning). A.1.2.2 educational administration. A.1.2.3 industry. A.1.2.4 real life. A.1.2.5 the community. A.1.3 adhere to the following South African programme design requirements: A.1.3.1 Adherence to professional body requirements (if applicable). A.1.3.2 Aligned with national and/or regional industry, knowledge and socio-cultural needs. A.1.3.3 Articulate opportunities with other programmes and higher education and training institutions. A.1.3.4 Coherence of modules and/or courses of the programme (e.g. level, credits, purpose, etc.). A.1.3.5 Integrate work-based learning or learning in a work-based environment into the curriculum design. A.1.3.6 Involve relevant stakeholders (e.g. academic peers, employers and professional bodies) in the design process. A.1.3.7 Promote students' understanding of the specific discipline/profession (i.e. graphic design). A.1.3.8 Provide opportunities for students to select and apply competencies associated with the discipline/occupation (i.e. graphic design). A.1.4 apply the following recommended curriculum design parameters for the proposed flexible curriculum framework for South Africa: A.1.4.1 Incorporate sufficient foundation provision (e.g. generic and discipline-specific competencies) and student success mechanisms. A.1.4.2 Integrate the foundation provision (e.g. generic and discipline-specific competencies) into the core curriculum. A.1.4.3 Students eventually should achieve the same exit levels and standards as the registered mainstream programme. A.1.4.4 Support and enhance graduate attributes of the higher education institution. A.1.4.5 Provide greater exposure to the discipline (without overloading) in order to enhance the curriculum. A.1.4.6 Provide curriculum pathways for students who may complete a diploma or degree in the minimum duration by exemption from a maximum of 120 credits of foundation provision. A.1.4.7 Steadily increase intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree. A.1.4.8 Use an appropriate starting point according to students' prior knowledge (which can be determined by employing aptitude tests such as English proficiency tests).

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		A.1.5 design the curriculum/programme: A.1.5.1 according to a purposeful plan. A.1.5.2 in a systematic manner. A.1.6 employ a/an: A.1.6.1 appropriate method to design a curriculum/programme. A.1.6.2 comprehensive process. A.1.6.3 continuous process. A.1.6.4 decision-making process. A.1.6.5 interdisciplinary process. A.1.7 link knowledge and experiences of the curriculum/programme (i.e. integration by converging the knowledge and experiences). A.1.8 take into account students' developmental level with regard to all curriculum design components. A.1.9 use the existing curriculum as a starting point for curriculum/programme design. A.1.10 align the foundation provision component of the AAP with the augmented diploma or degree A.1.11 ensure that the foundation provision component of the AAP is well-structured.
SECTION B: AIMS, GOALS, AND INTENDED LEARNING OUTCOMES		
B.1	***General aspects pertaining to aims, goals, and/or intended learning outcomes***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.1.1 acknowledge the diverse student population of South Africa as a given. B.1.2 align aims, goals and intended learning outcomes with the following levels of curriculum design: B.1.2.1 Higher education institutions' programme mix. B.1.2.2 Higher education institutions' programme policies and procedures. B.1.2.3 Individual learning programme design. B.1.2.4 Module design within learning programmes. B.1.2.5 South African higher education legislation. B.1.2.6 Teaching in the programme (in terms of modules) that results in micro-curriculum design in the classroom. B.1.2.7 The community's philosophy of life and views on higher education in South Africa. B.1.3 align admission requirements of the programme: B.1.3.1 to promote equity. B.1.3.2 to widen access. B.1.3.3 with the degree of complexity of learning required. B.1.4 align the curriculum components to the higher education and training institution's vision, mission, goals and planning structures. B.1.5 align with the discipline/profession itself. B.1.6 employ additional admission requirements such as: B.1.6.1 aptitude tests (e.g. English proficiency tests). B.1.6.2 discipline-specific requirements (e.g. design portfolios). B.1.7 promote curriculum design for student success through academic development initiatives.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
B.2	***Aims and goals***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.2.1 address the articulation gap between secondary and higher education in South Africa. B.2.2 implement a curriculum structure that aligns with South African students' prior knowledge. B.2.3 incorporate student success mechanisms to ensure successful completion of the access programme as well as the eventual qualification. B.2.4 provide: B.2.4.1 an academic foundation for underprepared students that includes generic and discipline-specific competencies. B.2.4.2 alternative access to higher education for talented but previously disadvantaged students and advantaged and disadvantaged students but with physical or other disabilities (e.g. learning disabilities, etc.).
B.3	***Intended learning outcomes***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* B.3.1 align the learning outcomes with the: B.3.1.1 appropriate National Qualifications Framework level and its associated level descriptors. B.3.1.2 critical cross-field and developmental outcomes of the South African Qualifications Authority. B.3.1.3 purposes of alternative access programmes (e.g. widening access for previously disadvantaged students, provide an academic foundation for underprepared students, etc.). B.3.2 apply constructive alignment to ensure intended learning outcomes are aligned with teaching and learning activities and assessment tasks. B.3.3 apply the following four *essential* or *power* principles of Outcomes-Based Education in a consistent, systematic, creative and simultaneous manner as applicable to the discipline or profession of graphic design: B.3.3.1 Backward designed learning outcomes from the aims and goals of the institution or programme to specific learning outcomes for themes/units in a module.. B.3.3.2 Formulate clear learning outcomes (which both the student and teacher understand) that will guide the creation of other components in the curriculum design. B.3.3.3 Set high expectations, i.e. that students will be able to achieve the intended learning outcomes. B.3.3.4 Take into account students' different learning paces in achieving the learning outcomes so that the intended learning outcomes expand opportunity and provide support for student success. B.3.4 base learning outcomes on students' prior abilities and knowledge. B.3.5 derive learning outcomes from the discipline and profession's knowledge base. B.3.6 formulate: B.3.6.1 intended learning outcomes that will develop both generic and discipline-specific competencies. B.3.6.2 the intended learning outcomes of students' learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students. B.3.6.3 exit level outcomes that aligns with the augmented diploma or degree programme. B.3.7 employ various levels of the different taxonomies for cognitive, psychomotor, and affective domains when designing intended learning outcomes in order to ensure an appropriate balance between the levels of complexity within the taxonomy. B.3.8 follow the following guidelines when formulating intended learning outcomes at module level: B.3.8.1 Decide whether the intended learning outcomes require declarative (understanding of knowledge) or functioning knowledge (application, creation, solving of problems and a lifelong learning orientation). B.3.8.2 Start the intended learning outcome with the preface *[t]he student will*.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		B.3.8.3 Specify an action verb at the appropriate level of understanding/performance/complexity. B.3.8.4 Specify an object or topic that relates to the verb (e.g. the content). B.3.8.5 Specify the context in which the verb and object are used (e.g. specific discipline). B.3.9 foster, and expose students to discipline knowledge in order to enhance student success and retention.
SECTION C: CURRICULUM CONTENT		
C.1	***General aspects pertaining to curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* C.1.1 acknowledge the role of the orientation (i.e. attitude, beliefs or feelings) of the curriculum designer with regard to curriculum content. C.1.2 adhere to curriculum/programme design criteria pertaining to curriculum content: C.1.2.1 Correlation/coherence of content. C.1.2.2 Scope of content. C.1.2.3 Sequence of content. C.1.3 align curriculum content with the: C.1.3.1 aims, goals, purposes and the graduate intended learning outcomes of a specific higher education institution (i.e. its graduate attributes), programme/qualification outcomes and module outcomes respectively. C.1.3.2 specific National Qualifications Framework level descriptors. C.1.4 design and evaluate learning materials that will ensure alignment with the programme's aims, goals and purposes. C.1.5 ensure the coherence of different modules' content with the level, credits, purpose, learning outcomes, weights and delivery. C.1.6 involve higher education teachers on all campuses of a higher education institution in selecting and organising the curriculum content. C.1.7 organise and select curriculum content holistically in order to have a more coherent programme overall.
C.2	***Organising curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* C.2.1 distribute: C.2.1.1 discipline modules evenly throughout the duration of alternative access programmes. C.2.1.2 the workload of modules in accordance with students' abilities to manage the amount of curriculum content. C.2.2 organise curriculum/module content: C.2.2.1 according to students' academic needs. C.2.2.2 according to a method/s that is/are personally and academically appropriate for the student and/or higher education teacher. C.2.2.3 for horizontal alignment, within a module and the entire programme/qualification. C.2.2.4 for vertical alignment, within a module and the entire programme/qualification at different levels of scope and complexity. C.2.2.5 according to the knowledge structure of the discipline. C.2.2.6 according to students' prior knowledge and competencies. C.2.3 provide sufficient time for repetition and revision of curriculum content. C.2.4 select an appropriate organising type(e.g. logical, psychological, political or practical) for curriculum content (e.g. logical, psychological, political, and practical), depending on the purpose of the programme/module.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
C.3	***Selecting curriculum content***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* C.3.1 balance: C.3.1.1 experiential knowledge and skills with appropriate disciplinary content and theoretical depth. C.3.1.2 practical knowledge and skills with appropriate disciplinary content and theoretical depth. C.3.1.3 theoretical knowledge and skills with appropriate disciplinary content and theoretical depth. C.3.2 incorporate: C.3.2.1 disciplinary content at an appropriate level to serve the programme's purpose. C.3.2.3 content of the augmented diploma or degree, but not at the expense of sufficient foundation provision. C.3.2.2 theoretical depth at an appropriate level to serve the programme's purpose. C.3.3 include: C.3.3.1 a language component in all theory modules to: a) promote understanding and success. b) develop students' communication skills (i.e. written and oral). C.3.3.2 foundation provision content to assist students to deal with the obstacles. C.3.3.3 foundation provision content to assist students with their learning skills. C.3.3.4 foundation provision content to provide students with motivation. C.3.4 revise the content every semester/year (to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design). C.3.5 select curriculum content that: C.3.5.1 addresses current needs of all stakeholders (e.g. industry, students, higher education teachers, etc.). C.3.5.2 builds on students' prior abilities and knowledge. C.3.5.3 contributes to the development of generic competencies. C.3.5.4 contributes to the development of discipline-specific competencies. C.3.5.5 converges into a meaningful whole. C.3.5.6 empowers students to achieve their full potential. C.3.5.7 is accessible. C.3.5.8 is achievable. C.3.5.9 is balanced in scope and depth of study. C.3.5.10 is in alignment with student input. C.3.5.11 is in alignment with student choices. C.3.5.12 is in alignment with students' existing knowledge. C.3.5.13 is in alignment with students' needs. C.3.5.14 is in alignment with key procedures in the discipline. C.3.5.15 is in alignment with key concepts in the discipline. C.3.5.16 is in alignment with key criteria in the discipline. C.3.5.17 is manageable. C.3.5.18 is motivating. C.3.5.19 is realistic. C.3.5.20 is relevant.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		C.3.5.21 is stimulating. C.3.5.22 is viable. C.3.5.23 promotes development of cognitive skills. C.3.5.24 promotes development of affective skills. C.3.5.25 promotes development of psychomotor skills. C.3.5.26 provides opportunities for self-discovery. C.3.5.27 represents the purpose of the module. C.3.5.28 requires a focussed attention (e.g. awareness of the basic structure of what is to be learned and the priorities in the module content elements). C.3.5.29 serves the realisation of aims. C.3.5.30 supports students inside and outside of the class.
SECTION D: TEACHING AND LEARNING ACTIVITIES		
D.1	***General aspects pertaining to teaching and learning***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* D.1.1 counter the marginalisation of students and higher education teachers in alternative access programmes. D.1.2 employ mechanisms to monitor student progress. D.1.3 ensure that higher education teachers and students have access to sufficient learning material. D.1.4 identify and unteach erroneous prior knowledge and bias. D.1.5 integrate discipline-specific characteristics into the teaching and learning activities of the core curriculum. D.1.6 select and develop suitable learning materials to promote the achievement of the: D.1.6.1 all the intended learning outcomes in the programme. D.1.6.2 purpose of the programme. D.1.7 use appropriate teaching and learning activities (e.g. methods, materials, and opportunities) that align with the purpose of the programme.
D.2	***Student learning and learning approaches/styles***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* D.2.1 acknowledge different: D.2.1.1 learning approaches/styles within a diverse student population. D.2.1.2 cultures of students pertaining to *economic stances*. D.2.1.3 cultures of students pertaining to *environmental issues/situations*. D.2.1.4 cultures of students pertaining to *gender*. D.2.1.5 cultures of students pertaining to *political views*. D.2.1.6 cultures of students pertaining to *religion*. D.2.1.7 cultures of students pertaining to *social trends*. D.2.2 acknowledge discipline-specific characteristics of student learning: D.2.2.1 Doing and making are fundamental aspects of learning in design education. D.2.2.2 Learning is dialogic in nature if teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision. D.2.2.3 Learning is unconstrained if it emphases a variety of solutions to a specific problem.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		D.2.2.4 Students are usually uncomfortable with theory and writing since it is viewed as unrelated to the practical component. D.2.2.5 Students can learn through peers and senior students within the informal studio setting of design education. D.2.2.6 Students should work for long periods on projects through which they can learn a variety of *key technical skills* required for employment. D.2.2.7 Students should work for long periods on projects through which they can learn a variety of *personal skills* required for employment. D.2.2.8 Students should work for long periods on projects through which they can learn a variety of *professional skills* required for employment. D.2.2.9 The teacher guides and advises the student during this solution phase, rather than dictates. D.2.3 Employ teaching/learning activities and assessment tasks requiring higher order skills which compel students to apply and transfer the knowledge they have learned. D.2.4 encourage: D.2.4.1 a student-centred approach to teaching and learning. D.2.4.2 student learning through exposing them to real-world projects in the design industry. D.2.5 foster: D.2.5.1 critical thinking in design education. D.2.5.2 independent thinking in design education. D.2.5.3 intellectual abilities in both hemispheres of students' brains in order to meet challenges of this century. D.2.5.4 self-analytical thinking in design education. D.2.6 motivate students to: D.2.6.1 interact frequently with other students. D.2.6.2 interact frequently with teachers. D.2.6.3 perceive and adopt high expectations of achievement. D.2.6.4 take responsibility for their own learning. D.2.7 promote student development for success through academic development initiatives. D.2.8 provide: D.2.8.1 opportunities for students to compete with peers. D.2.8.2 opportunities for students to give feedback to higher education teachers. D.2.9 use students' learning styles to identify suitable teaching and learning activities. D.2.10 use teaching and learning activities and assessment tasks that: D.2.10.1 are proven to have a high impact on student learning. D.2.10.2 promote active learning amongst students. D.2.10.3 promote engagement with the curriculum content, teaching and learning activities and assessment tasks.
D.3	***Teaching and teaching styles***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* D.3.1 acknowledge: D.3.1.1 that different students often require different content delivery strategies. D.3.1.2 that the core principles of the discipline (i.e. graphic design) are taught through practice as rules-of-thumb and knowledge from teachers or masters of the discipline.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		D.3.2 act as a: D.3.2.1 mentor for students. D.3.2.2 nurturer for students (to contribute to the holistic development of students in studio practice disciplines such as graphic design). D.3.3 actively practise as a designer in the industry in order to promote simulation-based learning for design students. D.3.4 attend academic, professional and staff development initiatives to promote their own knowledge, skills and teaching competence. D.3.5 be aware of their (i.e. HE teachers) own learning style/approach. D.3.6 connect new information to prior knowledge of students in a meaningful way. D.3.7 develop professional and personal characteristics attributed to good higher education teachers. D.3.8 enhance student engagement through small student: higher education teacher ratios in alternative access programmes. D.3.9 ensure that their employed teaching style aligns with: D.3.9.1 students' learning needs. D.3.9.2 students' epistemological conditions (i.e. students' existing scope of knowledge). D.3.10 focus on students' individual needs to ensure no learner is left behind. D.3.11 highlight the value of what is to be learned for students. D.3.12 implement the following guidelines for technology-based teaching: D.3.12.1 Become an innovative professional role model in the present age of technology. D.3.12.2 Continuously improve their own teaching by demonstrating the use of new digital tools and resources. D.3.12.3 Design and develop digital-age authentic learning experiences that align with assessment tasks. D.3.12.4 Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices. D.3.12.5 Facilitate and inspire student learning and creativity through the use of technology in teaching and learning activities and in assessment tasks. D.3.13 implement the following considerations during the presentation of teaching and learning activities: D.3.13.1 align students' previous knowledge with the intended learning outcomes, teaching and learning activities and assessment tasks. D.3.13.2 create a positive and safe classroom environment. D.3.13.3 provide opportunity and sufficient time for students to master skills. D.3.13.4 reflect on the achievement of intended learning outcomes. D.3.13.5 use appropriate activities to accommodate students' learning styles. D.3.14 posses the stipulated qualifications, experience and teaching competence required of higher education teachers at the specific level. D.3.15 promote and/or employ: D.3.15.1 a variety of teaching styles/strategies according to the type of module. D.3.15.2 a variety of teaching styles/strategies according to the students' learning needs. D.3.15.3 active learning rather than passive engagement. D.3.15.4 a variety of teaching styles/strategies according to the students' epistemological conditions (i.e. students' prior knowledge and skills). D.3.15.5 a variety of teaching styles/strategies and material that provides ample opportunities for students to demonstrate mastery of the learning content.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		D.3.16 promote and/or employ the following student-centred teaching approaches and styles in their teaching in design education: D.3.16.1 Teaching that offers students a range of practical and technical skills through demonstration in order to show ways of making or doing. D.3.16.2 Teaching that aims to develop students' *critical thinking skills* through student interaction by means of individual, group or teamwork, to form opinions and ideas. D.3.16.3 Teaching that aims to develop students' *practical skills* through student interaction by means of individual, group or teamwork to form opinions and ideas. D.3.16.4 Teaching that aims to develop students' *technical skills* through student interaction by means of individual, group or teamwork to form opinions and ideas. D.3.16.5 Teaching that encourages peer learning (to develop students' skills and conceptions in preparation for professional practice). D.3.16.6 Teaching that emphasises conceptual thinking skills to improve self-directed research, practice, and conceptual skills. D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills. D.3.16.8 Teaching that motivates and enable students to change themselves as a person or to make changes in their life world. D.3.17 provide: D.3.17.1 academic support in order to create scaffolding of knowledge. D.3.17.2 additional support to students in theory modules (since graphic design students often view it as unrelated to the practical component). D.3.17.3 ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material. D.3.17.4 prompt feedback on students' learning. D.3.18 respect the diverse: D.3.18.1 talents of students. D.3.18.2 ways of how students learn. D.3.19 select: D.3.19.1 suitable methods to promote the achievement of the purpose of the programme. D.3.19.2 suitable methods to promote the achievement of the learning outcomes of the programme. D.3.19.3 suitable opportunities to promote the achievement of the purpose of the programme. D.3.19.4 suitable opportunities to promote the achievement of the learning outcomes of the programme. D.3.20 set and maintain high but realistic expectations and goals (which are appropriately aligned to teaching and learning activities and intended learning outcomes). D.3.21 teach students how to give feedback to: D.3.21.1 themselves. D.3.21.2 their peers. D.3.22 use: D.3.22.1 professional staff development opportunities provided by higher education institutions to upgrade own teaching methods. D.3.22.2 the full available contact time with students with a focused effort.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
D.4	***Teaching and learning activities***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* D.4.1 adhere to the following principles to select teaching and learning activities: D.4.1.1 Align to the specific community (i.e. graphic design community). D.4.1.2 Assist students to achieve one or more of the aligned aims, goals, objectives, outcomes and/or purposes of the programme. D.4.1.3 Be appropriate with regard to students' needs (i.e. abilities, interests, talents, and learning styles to only name a few). D.4.1.4 Be appropriate with regard to teacher attributes (i.e. the teacher's personality, preferences, knowledge and abilities, to only name a few). D.4.1.5 Be appropriate with regard to time constraints. D.4.1.6 Be feasible with regard to availability of resources. D.4.1.7 Be feasible with regard to the number of staff involved. D.4.1.8 Be feasible with regard to programme requirements. D.4.1.9 Be suitable with regard to class size (number of students). D.4.1.10 Highlight real-life application within the community or industry. D.4.2 change teaching and learning activities for facilitating declarative intended learning outcomes every fifteen minutes for maximum student concentration. D.4.3 employ: D.4.3.1 teaching and learning activities for functioning knowledge by incorporating declarative intended learning outcomes in these activities. D.4.3.2 technology-based teaching and learning activities to facilitate higher order learning. D.4.4 focus on what students do (rather than what higher education teachers do) when building declarative knowledge. D.4.5 promote active learning by: D.4.5.1 employing a variety of teaching and learning activities for greater student engagement. D.4.5.2 selecting teaching and learning activities that require interactions between higher education teachers, students and outside experts to meet this century's needs. D.4.6 select appropriate teaching and learning activities to: D.4.6.1 balance intellectual challenges in order to create scaffolding of knowledge. D.4.6.2 facilitate deep learning that builds understanding. D.4.6.3 foster the South African Qualifications Authority's critical cross-field and developmental outcomes by selecting teaching and learning activities to achieve functioning intended learning outcomes. D.4.6.4 let students apply their knowledge to real-world situations (within different contexts). D.4.6.5 mimic real-world situations for design students (such as teaching and learning activities associated with functioning intended learning outcomes). D.4.6.6 promote/ensure creativity by ensuring teaching and learning activities are adventurous, enjoyable and stimulating. D.4.6.7 promote/ensure constructive alignment of the teaching and learning activities with intended learning outcomes and assessment tasks. D.4.6.8 transform the student to a practitioner in the first year of mainstream design education. D.4.7 start discipline-specific teaching and learning activities with a written brief in project-based learning which provides a focus for students' learning.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		D.4.8 specify the following in the design brief: D.4.8.1 the format of the design outcome/product. D.4.8.2 the presentation requirements of the design outcome/product. D.4.8.3 the restraints and parameters of the design outcome/product. D.4.8.4 the time period allowed for completing the brief.
SECTION E: ASSESSMENT TASKS		
E.1	***General aspects of assessment***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* E.1.1 acknowledge: E.1.1.1 that assessment in design education differs from conventional assessment in other disciplines. E.1.1.2 the impact that assessment has on student learning. E.1.1.3 the impact that assessment has on student motivation. E.1.2 adhere to the principles of good assessment: E.1.2.1 Absence of bias E.1.2.2 Accountability E.1.2.3 Assessment range E.1.2.4 Creditability in the form of supportive administration E.1.2.5 Fairness E.1.2.6 Practicability E.1.2.7 Reliability E.1.2.8 Sensitivity to language E.1.2.9 Transparency E.1.2.10 Validity E.1.3 assess the design process and person and not only the design product since these elements are also important in design education. E.1.4 avoid placing emphasis on students' mastering of only design techniques for the execution of the design product in design education. E.1.5 employ effective evaluation as an integral part of the curriculum/programme design. E.1.6 ensure: E.1.6.1 the reliability of the assessment system and procedures. E.1.6.2 the rigour of the assessment system and procedures. E.1.6.3 the security of the assessment system and procedures. E.1.7 provide: E.1.7.1 adequate number of assessment opportunities. E.1.7.2 adequate preparation for assessments (e.g. revision and exam techniques, which are generic competencies). E.1.7.3 in advance the criteria and standards used in assessment and evaluation and the nature of the instruments. E.1.8 use examiners and moderators that possess the necessary skilled judgment and training to assess the: E.1.8.1 achievement of intended learning outcomes. E.1.8.2 quality of the design product in design education.

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
E.2	***Assessment approaches/forms and tasks***	*Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:* E.2.1 employ technology-based assessment tasks (e.g. e-learning technologies which is a generic competency). E.2.2 ensure that assessment tasks are constructively aligned with the intended learning outcomes and teaching and learning activities of the specific curriculum. E.2.3 select appropriate assessment approaches/forms and tasks (e.g. internal and external examination and moderation). E.2.4 use a variation of assessment approaches/forms and tasks that are appropriate to: E.2.4.1 accommodate the needs of a diverse student population. E.2.4.2 expose students to a variety of assessment approaches/forms and tasks. E.2.4.3 nurture discipline-specific practices (such as the crit session). E.2.4.4 replace ineffective approaches/forms and tasks.
SECTION F: COMPETENCIES AND STUDENT SUCCESS MECHANISMS		
F.1	***Generic and discipline-specific competencies***	F.1.1 Accuracy F.1.2 Adaptable in nature F.1.3 Aesthetic gaze (developing) F.1.4 Applying design elements and principles F.1.5 Applying design techniques F.1.6 Attention to detail F.1.7 Collaboration with individuals and group work/teamwork F.1.8 Communication skills (written and oral) F.1.9 Computer skills F.1.10 Creative thinking skills F.1.11 Creativity F.1.12 Critical thinking skills F.1.13 Curiosity F.1.14 Deadline-orientated F.1.15 Decision-making F.1.16 Design-orientated thinking skills F.1.17 Determination F.1.18 Efficiency F.1.19 E-learn technologies F.1.20 Emotional intelligence F.1.21 Entrepreneurial skills F.1.22 Imagination F.1.23 Information literacy F.1.24 Innovation F.1.25 Innovative thinking skills F.1.26 Interpersonal skills F.1.27 Interpretation of information F.1.28 Intuition

Nr	CURRICULUM DESIGN COMPONENT	ACTIVITIES PER SUBSECTIONS
		F.1.29 Learning styles and strategies F.1.30 Listening and note-taking F.1.31 Memory F.1.32 Multi-tasking F.1.33 Observation F.1.34 Organisational and planning skills F.1.35 Originality F.1.36 Passion F.1.37 Personal development of the student himself/herself F.1.38 Presentation skills F.1.39 Prioritise workload/tasks F.1.40 Problem solving F.1.41 Reading skills F.1.42 Referencing F.1.43 Reflection F.1.44 Research skills F.1.45 Responsibility towards clients/employers F.1.46 Responsibility towards other designers F.1.47 Responsibility towards the community F.1.48 Responsibility towards the profession F.1.49 Revision and examination techniques F.1.50 Self-management F.1.51 Self-motivated / motivation F.1.52 Stress management F.1.53 Study skills (appropriate) F.1.54 Subjectivity F.1.55 Time management skills F.1.56 Visual communication F.1.57 Work independently F.1.58 Work under pressure
F.2	***Student success mechanisms***	F.2.1 Academic advising F.2.2 Positive learning environment F.2.3 High impact and alternative teaching and learning strategies F.2.4 Student engagement F.2.5 Student motivation F.2.6 Support (i.e. financial aid, campus resources and operations) F.2.7 Repetition with remedial actions

Figure 8.2 offers a visual summary of the research investigation into the constitution of AAPs in HE that support student success in graphic design. In short, the figure depicts how the four secondary research questions of the study supported the overarching primary research question of the study.

The proposed framework presented in Table 8.1 includes four curriculum design components (i.e. aims, goals, and intended learning outcomes [ILOs]; curriculum content; teaching and learning activities [TLAs], and assessment tasks [ATs]). A situation analysis, as a component of curriculum design (see 2.3.6.1), was accommodated through aspiring to answer the third research question, rather than presuming a stand-alone component of the framework. Therefore, the findings of the situation analysis of an existing AAP for graphic design were infused into the other components of the framework (see 6.3). ILOs of programmes and/or modules should be guided by the aims and goals of curriculum/programme (see Section B of the proposed framework), which in turn should inform the curriculum designer and/or HE teacher of the content that should be selected (see Section C of the proposed framework). In this regard, constructive alignment between the ILOs (see Section B.3 of the proposed framework), TLAs (see Section D of the proposed framework), and ATs (see Section E of the proposed framework) is crucial (see 2.3.6.2.2b).

Selected curriculum content can be organised within discipline-specific modules by infusing generic competencies in order to promote student success in graphic design education. The fostering of the identified generic competencies (including SAQA's CCFOs and developmental outcomes) and discipline-specific competencies listed in sub-section F.1 of the proposed framework should be integrated in all the curriculum design components of the proposed framework. The success mechanisms listed in sub-section F.2 can be employed by curriculum/programme designers and HE teachers in the design of ILOs and their selected TLAs and ATs in the classroom in order to support student success.

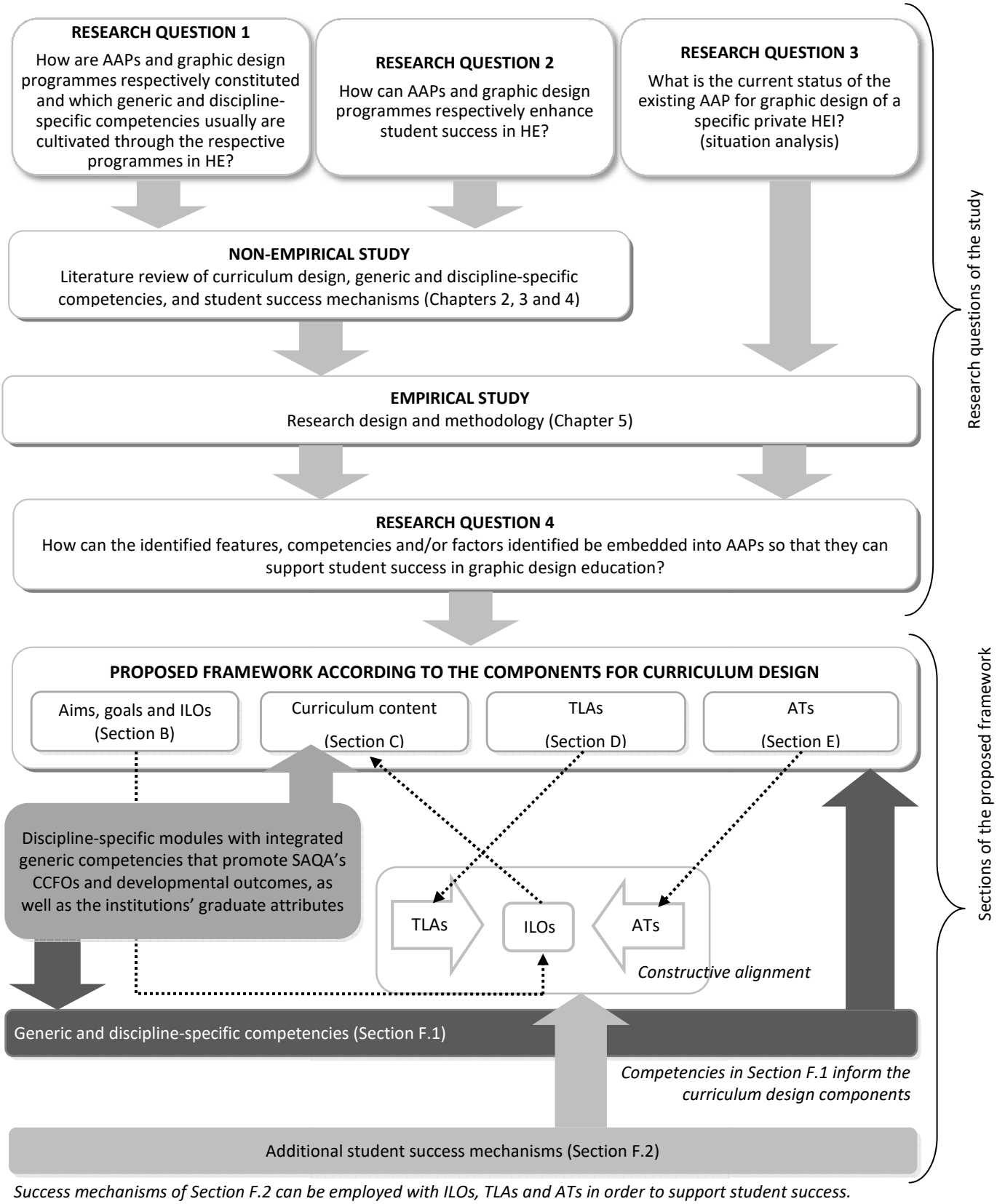


Figure 8.2: Visual summary of proposed framework for alternative access programmes to promote student success in graphic design

8.5 SIGNIFICANCE OF THE STUDY

One of the purposes of AAPs is to serve as a mechanism for student success; however, some current AAPs have several limitations which are discussed throughout this research. Therefore, this study investigated features, competencies and/or factors related to successful AAPs for graphic design, and which were compared, converged, integrated and synthesised into a proposed framework as my contribution to current knowledge pertaining to AAPs for graphic design students. The proposed framework may be employed by curriculum/programme designers and/or HE teachers of AAPs in order to support student success in graphic design.

The theoretical framework included in Section B of this thesis formed the foundation of this study, since all findings of the empirical research could be supported by sound theoretical underpinnings. Apart from the reviewed literature in Section B of this thesis, I analysed current job advertisements for graphic designers (see Chapter 4), which were reviewed by three senior graphic designers who had contextual and real-world experience in the discipline in order to ensure that all generic and discipline-specific competencies required of graphic designers were listed in the chapter. The preliminary framework that I compiled from both the non-empirical literature study and empirical research findings was reviewed and validated by a panel of expert participants with expertise in curriculum/programme design, graphic design, and/or AAPs (see Chapter 7). Several quantitative and qualitative measures for ensuring trustworthiness of the research were used during this study in order to support the rigour of my research approach, methodology and findings (see 2.3.7).

My aspiration for the proposed framework presented in section 8.4 is that it also may be adapted and employed by curriculum/programme designers and/or HE teachers of AAPs for disciplines other than graphic design. The generic nature of the features/activities included in the framework lends itself to possibly substituting the discipline-specific features, competencies and/or factors of the proposed framework with those of another discipline. It is further hoped that the research presented in this study will not only spark discussion amongst curriculum/programme designers and HE teachers of AAPs for graphic design of the value and applicability of the proposed framework aimed at supporting students' success in their own programmes, faculty and/or HEI, but also the designers and HE teachers of the augmented mainstream programmes.

8.6 CRITIQUE AND LIMITATIONS OF THE RESEARCH

The intent of the study was not to generalise the findings of this research or to draw definite conclusions from the findings of the research design and methodology.

An increased response rate of HE teacher participants, especially in the initial questionnaire survey aimed at research objectives 1 and 2, could have enhanced the richness and trustworthiness of the specific data set. Non-respondents were contacted several times via the online survey programme in the hope of increasing the response rate, but the response rate remained low. While revisiting the research design and methodology for this study I came to realise that face-to-face questionnaires with prospective participants could have yielded an improved response rate. Nevertheless, online questionnaires were used in order to extend the research to reaching a target population of HE teachers and students across South Africa. Using online questionnaires also was experienced to be a major obstacle in the recruitment of prospective student participants for the SOAR analysis aimed at achieving research objective 3 of the study and eventually I was forced to revert to paper-based questionnaires for the student participants (see 5.3.4.4). Originally it was planned that the findings of the SOAR analysis would be validated by means of semi-structured focus group interviews; however, due to the limitations noted in section 5.3.4.6, this was not possible. Such interviews possibly could have provided even richer descriptions of the strengths, opportunities, aspirations and results emanating from the participants' responses, especially for the student participants whose eventual written answers often were very short, cryptic and vague.

The duration of this study is one of my personal limitations I wish to note apart from others (i.e. time constraints, funding, and so forth). The study extended over a period of six years (i.e. 2012 to 2017), mostly due to a number of workload problems, employment changes and finally also a relocation to Pretoria at the end of 2015 that affected my ability to progress during the first three to four years of registration for the degree. This resulted in incomplete and fragmented pieces of the research (i.e. literature chapters and data collection), which, in the end, I was able to put together into a holistic whole. One of the results of the fragmented research was that I accidentally omitted competencies from the initial survey questionnaire aimed at research objectives 1 and 2, as well as a few other mistakes mentioned in section 8.2.1.

8.7 IMPLICATIONS FOR FUTURE RESEARCH

Future research pertaining to the design of appropriate AAPs might be conducted with larger quantitative and qualitative data sets in order to obtain findings that are more generalisable. Investigating discipline-specific features, competencies and aspects related to other disciplines is another possibility for future research, especially if the final proposed framework is deemed of value by curriculum/programme designers and/or HE teachers of AAPs.

If the proposed framework presented in section 8.4 is implemented, it may open the way for the exploration of the feasibility and effectiveness of the application of the activities included in the framework or the whole framework to support student success, as I aspired with the study.

I also recommend a further, in-depth investigation into possible success mechanisms that might be employed to support students of AAPs, and which may enhance Section F.2 of the proposed framework. The research design and methodology chosen will need to deliver even richer descriptions of how these mechanisms may be employed by curriculum/programme designers and HE teachers.

8.8 CONCLUDING REMARKS

The research journey documented in the eight chapters of this thesis showcases my learning experiences and growth, not only as a researcher but also in my personal capacity as a HE teacher. During this journey, I came to the realisation that research often is a chaotic and messy journey, which I had to make peace with despite my preference for order and structure. Viewing my research from a wider perspective I realised that the journey validated my commitment to the implementation in my own practice of the knowledge I have gained from this journey. I also came to the realisation that I need to share my new knowledge with fellow colleagues and managers of South African HEIs. Last, but not least, this journey ignited a renewed passion in me for the value of AAPs in South African HE as a mechanism to promote student success.

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LIST OF

APPENDICES



SECTION B

B

LIST OF APPENDICES

Appendix B.1: Critical reader reports of Chapter 4

Appendix B.2: E-mail correspondence from Nelson Mandela Metropolitan University pertaining to their alternative access programme

APPENDICES OF SECTION B

B

APPENDIX B.1: CRITICAL READER REPORTS OF CHAPTER 4

yolandi Burger <yolandibur@gmail.com>

Critical reading of chapter.

1 message

yolandi Burger <yolandibur@gmail.com> Tue, Jan 5, 2016 at 8:11 AM
To: Carina Jansen van Rensburg <catandesigns@gmail.com>, duplessisannerie@gmail.com, Miralde Kotzé <miralde.design@gmail.com>
Cc: Fanus van Tonder <vTonderSP@ufs.ac.za>, Rika van Schoor <vschoorj@ufs.ac.za>

Dear Carina Jansen van Rensburg, Annerie du Plessis and Miraldé Kotzé

I hope you are well. I want to thank you for your willingness to act as critical readers to review my third chapter titled: Competencies required of graphic designers. Please find attached the chapter and a critical reader form. Please read through the critical reader instructions first which is located on the form.

Please complete the critical reader form with the required information and feedback. Forms must be send via email to yolandibur@gmail.com in PDF format. The informal deadline is the end of January 2016 if possible.

I want to thank you in advance for your feedback and contribution to my study.

Kind regards

Yolandi Burger

2 attachments

Critical Reader Form.docx
15K

CHAPTER ._Competencies required of Graphic Designers_January 2016.docx
204K

CRITICAL READER REPORT

CHAPTER 4 - COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS

PERSONAL INFORMATION			
Full Names	**Annerie Francisca**	**Surname**	**du Plessis**
Title	**Mrs**	**ID number**	**8706220049088**
Cell number	**0768381808**	**Email**	**duplessisannerie@gmail.com**
Highest qualification	**B.Tech Graphic Design**	**Year of highest qualification awarded**	**2011**

NUMBER OF YEARS' EXPERIENCE			
Graphic design industry	**7**	**Teaching/facilitating in graphic design in higher education**	**4.5**

INSTRUCTIONS

- *Provide feedback on Chapter 4 which was included in the email of approximately one page. The chapter consists of 52 pages and has a word count of 12288.*
- *The aim of the chapter is to identify competencies which a graphic designer are required to have and have been divided into three themes namely: process, product and personal competencies. The themes and associated competencies were identified through a content analysis of literature and job advertisements.*
- *The competencies identified in this chapter will be used in a web-based questionnaire issued to facilitators to establish which of the competencies are viewed as vital for them.*
- *Critically read and reflect on the body of knowledge presented in the chapter from the perspective of a graphic designer and what is required of a graphic designer in industry.*
- *There are no restrictions to your feedback, however please include comments on:*
  - *completeness of competencies identified and identify any missing competencies which needs to be included with a valid motivation, and*
  - *categorising of the competencies into their respective themes.*

FEEDBACK

An idea that can be added to this chapter (to give a brief background) is that of reflecting on graphic design before the age of computers/before computers were abundantly available. Were the competencies of the design process, design product and personal competencies the same?

As a designer that have been in the industry for 7 years, I have realised that I tend to spend less time on rough works and concepts than before due to one's knowledge and ability to work faster. I have also realised that students tend to dislike the design process due to perhaps their lack of skill and ability to work fast. This is a very important skill (as mentioned in the article) – perhaps one can add this and provide a reason for why students tend to dislike this very important process

Summary of Comments on Annerie du Plessis Critical Reader Form.pdf

Page: 1

Number: 1 Author: Burger Subject: Sticky Note Date: 5/3/2016 3:33:04 PM

A brief history of traditional and digital tools were added to the introduction of section 4.5.2.2.

Number: 2 Author: Burger Subject: Sticky Note Date: 5/3/2016 3:34:19 PM

The competencies of the different eras will definitively not be the same since the requirements of a graphic designer changed.

I have not going to differentiate between these two eras since my focus is on current competencies required of graphic designers.

so much.

Another competency that can be added is time management. Even though not a lot of graphic design job descriptions list this as a competency, I personally believe that this is one of the most important competencies anyone (not only designers) needs to possess. I have however noticed that this competency is mentioned later at point 4.6.1 but can be mentioned earlier on in the article as I felt that is was missing

Point 5.2.2.1 – Traditional tools

Although I agree with everything said here and I think that what I will be implying was also considered but it is not clearly stated in this point. I might add that traditional methods (drawing and painting) that are created by traditional tools can also form part of the final design and not only form part of thumbnails and roughs. Using my own experience, I have done a lot of design concepts that was created from an original drawing, scanned in and then digitized. This makes a designer's ability to be creative and artistic so much more than just being able to work on a computer, thus the skill of creativity is of utmost importance. I notice that this point is made very clear in 5.2.2.2 though but would like to mention it at 5.2.2.1 already

As a graphic designer in South Africa I am unsure whether I should feel offended, uninformed or embarrassed for not knowing that there was a code of conduct for graphic designers in South Africa. I was never taught about this whilst studying but on the other hand feel that it is one's own responsibility as well to be aware of these codes. Also, I know that this code will fall under good and ethical business manners and believe that as a designer I have adhered to this code unconsciously. I also assume that I was unaware of this code due to the fact that, like mentioned in the article; the researcher was unable to retrieve this code.

I feel that emphasis on the code of conduct for graphic designers should be made more prominent and designers should be well informed of this

The competencies have been well described and it was difficult to find competencies that were not mentioned. The article is well written and understandable to my knowledge.

Annerie du Plessis
Signature

25-01-2015
Date

Page: 2

Number: 1 Author: Burger Subject: Sticky Note Date: 5/3/2016 3:47:14 PM

Brief section added on possible reasons for mislike (i.e. tech savvy students sitting in our classrooms that tends to turn to their digital tools rather than going through the motions of the process) in the introduction of section 4.4.

Number: 2 Author: Burger Subject: Sticky Note Date: 5/3/2016 3:55:41 PM

I highlighted the connection between time management and achieving deadlines in the personal competency section since it is in essence connected to each other. I am leaving it under personal competencies since it does not fit into my other themes.

Number: 3 Author: Burger Subject: Sticky Note Date: 5/3/2016 6:12:55 PM

Implemented as requested in section 5.2.2.1 by reflecting back to the TLAs mentioned by the DoE.

Number: 4 Author: Burger Subject: Sticky Note Date: 5/3/2016 6:14:00 PM

Noted and mentioned in the chapter.

CRITICAL READER REPORT

CHAPTER 4 - COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS

PERSONAL INFORMATION			
Full Names	**Carina**	**Surname**	**Jansen van Rensburg**
Title	**Mrs.**	**ID number**	**7605280072082**
Cell number	**0849705243**	**Email**	**catandesigns@gmail.com**
Highest qualification	**B-Tech Graphic Design**	**Year of highest qualification awarded**	**2008**

NUMBER OF YEARS' EXPERIENCE			
Graphic design industry	**Six**	**Teaching/facilitating in graphic design in higher education**	**One and a half (junior level)**

INSTRUCTIONS

- *Provide feedback on Chapter 4 which was included in the email of approximately one page. The chapter consists of 52 pages and has a word count of 12288.*
- *The aim of the chapter is to identify competencies which a graphic designer are required to have and have been divided into three themes namely: process, product and personal competencies. The themes and associated competencies were identified through a content analysis of literature and job advertisements.*
- *The competencies identified in this chapter will be used in a web-based questionnaire issued to facilitators to establish which of the competencies are viewed as vital for them.*
- *Critically read and reflect on the body of knowledge presented in the chapter from the perspective of a graphic designer and what is required of a graphic designer in industry.*
- *There are no restrictions to your feedback, however please include comments on:*
  - *completeness of competencies identified and identify any missing competencies which needs to be included with a valid motivation, and*
  - *categorising of the competencies into their respective themes.*

FEEDBACK

The chapter: 'Competencies Required of Graphic Designers' (Y. Burger) is a compelling read in that it explores the skills necessary for the design process and subsequent product, as well as the personal capabilities expected of the designer.

Research was done into the background of the graphic design discipline and a content analysis was compiled that included sources from accredited journals, books, job postings on the internet,

e-books, conference proceedings and government publications. From this extensive list of sources an inventory of eighteen skills were identified and categorized into the three main themes mentioned in the introduction of the article, namely the competencies necessary for the design product and process, and the personal competencies required of the graphic designer. Each of the three themes with their allocated skills was discussed in detail with tables and figures to visually aid the reader and to prove her argument in a structural, efficient manner.

I found this chapter to be well researched, as the sources included job advertisements on the World Wide Web. This helps to identify what employers in the industry require from future designers. I feel without these sources, the research would not have been complete and the author's argument could not have been proven as well as it was. I also feel that the wide variety of types of sources used to research this topic, assisted in verifying the conclusion in a logical and proficient manner; that the aforementioned themes are interrelated.

The study was focused and clear, as each of the eighteen competencies identified was discussed in an understandable manner. The use of detailed figures and tables aids the reader in comprehending where the skills were identified and why they were allocated to one of the three themes and how they related to one another.

Under theme one, I concur with the list of competencies (collaboration with individuals, collaboration in group or team work, creativity, curiosity, imagination, innovation, intuition, observation, originality, solving problems, reflection, subjectivity, and thinking skills), especially with the summary on p17 that states: "As can be observed in Table 4.3, these competencies are highly related to each other; therefore the design process competencies must be looked at holistically. Together they comprise the process which the graphic designer will use."

In theme two 'Competencies for the Design Product', I agree with the competencies listed, but would like to incorporate language skills into 'Visual Communication' as a vast number of design products use a form of language to aid the visual elements in communicating to the target audience.

Unfortunately, with the emergence and subsequent growth of social media and digital communication, there seems to be a decline in proper language skills, whether it pertains to grammar, spelling, pronunciation or even the meaning of a specific word or phrase. A great deal of emphasis is placed on the importance of the image or visual elements in direct contrast to the mere afterthought that language has become.

Although this competency can be found under the third theme: 'Personal Competencies of a Graphic Designer' in table 4.4 as 'Communication Skills', I feel that it should be more than just a personal skill, but also as part of the designer's education.

Summary of Comments on CjvRensburg_Critical Reader Report.pdf

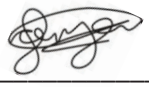
Page: 2

Number: 1 Author: Burger Subject: Sticky Note Date: 5/3/2016 3:17:05 PM

I have highlighted language skills in visual communication with a cross reference to the personal competencies in section 4.6.1.

I have found the competencies listed in Table 4.4 similar to those expected from myself and my colleagues in the graphic design industry. Table 4.5 - Comparison of graphic design associations' code of conduct – was quite informative and such a code of conduct would be extremely helpful in the education of future designers if the Brand Council of South Africa (BCSA) were to give free access to theirs.

This chapter is informative, well-written and a pleasure to read. The author came to appropriate conclusions supported by comprehensive research and effective use of language.



_____
Signature

_____01/02/2016_____
Date

CRITICAL READER REPORT

CHAPTER 4 - COMPETENCI ES REQUIRED OF GRAPHIC DESIGNERS

PERSONAL INFORMATION			
Full Names	**Miralde**	**Surname**	**Kotzé**
Title	**Miss**	**ID number**	**8206180124088**
Cell number	**0829026982**	**Email**	**mkotze@cut.ac.za**
Highest qualification	**B.Tech. Graphic Design**	**Year of highest qualification awarded**	**2008**

NUMBER OF YEARS' EXPERIENCE			
Graphic design industry	**8 years PDTS Technology Station, CUT and Private Company**	**Teaching/facilitating in graphic design in higher education**	**5 years teaching Packaging Technology, Central University of Technology, Free State**

INSTRUCTIONS

- *Provide feedback on Chapter 4 which was included in the email of approximately one page. The chapter consists of 52 pages and has a word count of 12288.*
- *The aim of the chapter is to identify competencies which a graphic designer are required to have and have been divided into three themes namely: process, product and personal competencies. The themes and associated competencies were identified through a content analysis of literature and job advertisements.*
- *The competencies identified in this chapter will be used in a web-based questionnaire issued to facilitators to establish which of the competencies are viewed as vital for them.*
- *Critically read and reflect on the body of knowledge presented in the chapter from the perspective of a graphic designer and what is required of a graphic designer in industry.*
- *There are no restrictions to your feedback, however please include comments on:*
  - ***completeness of competencies identified and identify any missing competencies which needs to be included with a valid motivation, and***
  - ***categorising of the competencies into their respective themes.***

FEEDBACK

I am finding it difficult to differentiate and distinguish between competencies, capabilities, abilities, skills, qualities, experience, characteristics… and use the following scenarios as an example.

(1) Joe is an excellent cook that has a passion for edible ingredients to create masterpieces that his clients are satisfied with. He has a booming business, and Joe is known for his quality deliveries on time.

(2) James is an excellent craftsman that has a passion for constructing steel products to create masterpieces that his clients are satisfied with. He has a booming business, and James is known for his quality deliveries on time.

Both Joe and James are excellent business men, has good time management skills, are passionate and creative, but they cannot both produce the same end product. This is then (in my mind and my opinion) the difference between Joe and James, both having the same personal and business qualities with different process skills.

Competence is a cluster of related abilities, commitments, knowledge, and skills that enable an individual to sufficiently perform in a job or situation. The competency is an indication of the sufficiency of these related abilities, commitments, knowledge and skills. (Adapted from the definition found at www.businessdictionary.com/definition/competence.html) 1

With the well-researched and comprehensive summary of competencies identified in Mrs Burger's chapter, a person with the same abilities and characteristics as a graphic designer, could very well be competent to do a number of professions, such as the position of personal assistant to a big corporate, or a project manager, business owner and entrepreneur. During my career as professional graphic designer, packaging consultant and also having had the opportunity to communicate with students in an educational and academic environment, the field and profession of Graphic Design can be divided or separated into areas of specialisation. To name only a few, I have identified the following areas of specialisation in the field of graphic design that I have had enquiries about:

- Graphic Design for the business/corporate/educational environment
- Graphic Design in the packaging industry
- Graphic Design in the e-commerce industry (web design)
- Graphic Design in the multi-media/3D animation industry
- Graphic Design that is involved in illustration and character design 2

If I may use an example of a medical doctor. Being a general practitioner in the medical field, does not secure the individual with all the skills and knowledge to be an expert doctor in a particular or specialized field. In other words, targeting a niche market as a Graphic Designer will aid in refining skills in that particular area, and will increase recognition, boost sales, and improve client referrals. To read more about designers who have mastered specialization, visit http://millo.co/specialization-a-designers-key-to-success-in-the-future

What is required of a graphic designer in industry? One of the first (and most prominent) aspects that comes to mind, when thinking about what is required of a graphic designer, is to work hard to produce quality designs to increase and guarantee chances of being noticed. In this way also, while you work, you produce evidence and proof of what you, as Graphic Designer, are capable of. It is an output that can be measured against the design brief, and is referred to in Mrs Burger's research as the design product. The valuable time that a graphic designer invests in creating artwork for college and for clients should help in deciding which subject, field of study or area of specialisation they are most passionate about. Passion is very important as most creative jobs, especially Graphic Design, require a great deal of personal involvement, time and dedication. Along with formal education, graphic designers must have artistic capacity and strong verbal, visual and written communication skills. Graphic Designers must also have strong portfolios that showcase examples of their best work which employers or potential clients generally consider during the hiring process. Designers must meet strict deadlines which makes the ability to manage time very important. Business and sales skills are also beneficial for this career, especially for graphic designers who are self-employed. Read more at http://study.com/articles/Graphic_Designer_Educational_Requirements_for_a_Career_in_Graphic_Design.html

Completeness of competencies: The competencies of a Graphic Designer are very well researched, categorised and explained in context, with excellent referencing. I have made a couple of notes on some of the topics discussed in the literature:

4. 4.3 Curiosity: Having a curious mind and the desire to know, is a competency that will encourage personal and professional growth in terms of improving skills (learning new abilities) and keeping track of emerging trends and technologies. 10

4. 4.4 Imagination: The ability to blend ideas, to see things not as they are, but as they can be. To imagine new possibilities that are fuelled by what we already know (past experiences or insight). 11

4. 4.6 Intuition: Instinctive knowledge and a level of awareness. Intuition goes together with three other major functions of the human mind – sensation, thinking and feeling. Carl Jung said: "*I regard intuition as a basic psychological function that mediates perception in an unconscious way. Intuition enables us to define the possibilities of a situation.*" 12

4. 4.7 Observation: Observation involves many, and sometimes, all of our senses. In my opinion, observation is not only what a designer see, hear and feel, but also to observe the reactions of clients and the impact of particular design themes or styles on a specific situation. 13

4. 4.10 Reflection: To me, reflection could also be referred to as mirroring (to mirror back on what one has experienced) in other words, the past event vs current image or the existing situation/problem shaped by past events. Reflection could also be the understanding of relationships between things. 14

4. 4.11 Subjectivity: Subjectivity could refer to how someone's judgement is shaped by personal feelings and preferences instead of outside influences. This attribute is what could give designers their unique design style and personality. 15

4. 4.12 Thinking skills: I have two questions: (1) How is thinking skills measured? (2) What can be used as evidence that someone has thinking skills. 16

4. 4.13 Summ About the design brief. In some cases it is necessary for the designer to set up a creative design brief by asking

Summary of Comments on Microsoft Word - Critical Reader Form - Miralde Kotzé

Page: 2

Number: 1 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:13:03 AM
The differentiation between these two terms are clearly explained in the preface of my thesis. I refer to competency/competencies within Chapter 3 and 4 since I refer to skills or abilities. If a programme have all these competencies, student will show competence.

Number: 2 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:23:30 AM
This comment was highlighted in section 4.2 as part of the background to the discipline.

Number: 3 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:30:02 AM
This is confirmed in section 4.6.2 where the design product and delivery of a professional product were identified as a predominant aspect.

Number: 4 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:33:34 AM
Comment noted in section 4.6.1 as missing from Table 4.4

Number: 5 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:36:13 AM
May form part of the creativity (section 4.2.2) and intuition (section 4.2.6).

Number: 6 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:37:27 AM
Noted and highlighted in section 4.6.1.

Number: 7 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:40:28 AM
Added to discipline background in section 4.2 as a cross reference to chapter 2, section 2.3.6.4.

Number: 8 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:41:22 AM
Noted in section 4.6.1

Number: 9 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:46:06 AM
Noted in section 4.6.1 as a missing personal characteristic.

Number: 10 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:50:23 AM
Noted in section 4.4.3

Number: 11 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:52:24 AM
Noted but not implemented since the literature on imagination is sufficient for the competency.

Number: 12 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:54:35 AM
Noted but not implemented since the compentency is complete to include this line of thinking.

Number: 13 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:57:25 AM
Comment implemented in section 4.4.7

Number: 14 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:57:58 AM
Comment noted but not implemented since the competency of reflection can include this line of thinking.

Number: 15 Author: Burger Subject: Sticky Note Date: 5/4/2016 10:59:33 AM
Noted and implemented in section.

Number: 16 Author: Burger Subject: Sticky Note Date: 5/4/2016 11:05:02 AM
These are two good questions which I addressed in the section by the following sentence:

"*This is a competency which is extremely difficult to measure since it is only evident once the design process is completed.*"

questions or setting up a questionnaire relevant to the aspects revolving around the desired design product or project objectives. This is proof that each designer's process is different. In this case, the creative project brief is my method of communication with the client (especially at the beginning phase of a project, even before the design quotation is released). In addition to the client summary or description of the project objectives, due to previous experience and knowledge gained, I am able to ask questions that were not mentioned in the original design brief received from the client. 1

Missing competencies: 2

- Communication in terms of defining the project objectives – especially in the brief-stage of the project, summarising or repeating the project brief back to the client, to make sure that "how the client see things" are in line with "how the designer understand things".
- Having a mind-set to do market research as part of having business skills (this could refer to the competency of curiosity), and the designer's ability to have a client perspective and not a designer perspective or as the literature stated "user-centred" and not "artist centred" outlook.



Signature

28/01/2016

Date

Page: 3

Number: 1 Author: Burger Subject: Sticky Note Date: 5/4/2016 11:11:05 AM
Noted and implemented in section.

Number: 2 Author: Burger Subject: Sticky Note Date: 5/4/2016 11:34:37 AM
Both missing competencies were added in the chapter in a new section now listed as 4.4.5 namely, interpretation.

APPENDICES OF SECTION B

B

APPENDIX B.2: E-MAIL CORRESPONDENCE FROM NELSON MANDELA METROPOLITAN UNIVERSITY PERTAINING TO THEIR ALTERNATIVE ACCESS PROGRAMME

Re: Research at NMMU

1 message

Swanepoel, Mike (Mr) (Summerstrand Campus North) <Mike.Swanepoel@nmmu.ac.za>
To: yolandi Burger <yolandibur@gmail.com>

Tue, Jan 24, 2017 at 11:51 AM

Hello Yolandi

The information you have about bridging for graphic design is not accurate. We had a 2 year bridging programme called Foundation Studies (not offered for the last 5 years) that allowed bridging into our generic first year programme which was called Introductory Studies. So the goal of bridging was to get students competent for Introductory Studies.
We have re curriculated 3 years ago and none of these programs exist currently.

We (The School of Music, Art and Design) are currently negotiating with the local College to reestablish certificate courses that will allow students with non-University entrance to transition from College to University. Negotiations are at an early stage and progressing extremely slowly. This engagement was part of the agreement reached with SAQA. Pretoria was concerned that what by dropping the Diploma qualifications we would exclude students because the entry criteria for the new degree moves the APS entry requirement from 29 to 32. At NMMU we run an internalCARR testing programme for students in the 26-31 APS band. On approval from CARR we may accept students with APS scores below 32.

Hope this helps.

Regards
Mike

Mike Swanepoel

Head of Department

Department of Applied Design

Nelson Mandela Metropolitan University

School of Music, Art and Design, Faculty of Arts, Summerstrand Campus (North)

mike@nmmu.ac.za

w 041 504 3247 (Secretary)

w 041 504 3317 (Direct) f 041 504 3529

http://fashiondesign.nmmu.ac.za

http://graphicdesign.nmmu.ac.za

http://photography.nmmu.ac.za

http://textiledesign.nmmu.ac.za

Music, Art & Design

Facebook: NMMU Collective Fashion Showcase and Graduate Exhibition

To receive e-mails of NMMU Art & Design exhibitions and events, sign up:

http://eepurl.com/qBiZb

Postal Address: Mr Mike Swanepoel • Department of Applied Design • PO Box 77000 • Nelson Mandela Metropolitan University • Port Elizabeth 6031

> On 24 Jan 2017, at 09:13, yolandi Burger <yolandibur@gmail.com> wrote:
>
> Dear Mr Mike Swanepoel (Head of Department: Applied Design)
>
> I hope you are well. I am Yolandi Burger and am currently busy with a PhD study titled: *Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic*

Design at the University of the Free State. The aim of this study is to investigate how a bridging programme in higher education can serve as a mechanism for student success in the Applied Art discipline of Graphic Design.

NMMU was identified as a higher education institution who offers bridging programmes in several faculties as well as Graphic Design. I obtained permission to involve your institution in my study from Prof Andrew Leitch (DVC: Research of NMMU). Please find attached my institutional permission. Therefore, I am contacting you to obtain department permission as well as contact information (name, surname and email) of relevant facilitators whom I can contact to participate. They will be required to complete a web-based questionnaire which will take approximately 30 minutes of their time and consist of three sections, namely interest-based, student success, and competencies sections. Participation in this study is voluntary and anonymity of participants will be protected. The questionnaire mentioned for my research is aimed at the following participant groups (in bold is applicable to your institution):

1) identification of competencies for Graphic Designers - only Graphic Design/relevant other discipline lecturers

2) identification of competencies of Bridging Programmes - only bridging programme lecturers (pre-degree; extended; foundation)

3) student success mechanisms in Higher Education - both Graphic Design/relevant other discipline lecturers and bridging programme lecturers since the focus of the study is Graphic Design bridging programmes.

The main aim of my study will be to develop a generic framework for bridging programmes in South African HE which I will apply to a Graphic Design bridging programme. The motivation for using the specific participant groups are that there are only a few Graphic Design bridging programmes in South Africa, therefore the need to use two associated participant groups namely: main stream GD lecturers and bridging programme lecturers of other faculties.

I am of the opinion that NMMU staff can make a valuable contribution. Please find attached my institutional permission letter from NMMU to conduct research.

I would truly appreciate your feedback. If you have any questions please feel free to contact me via yolandibur@gmail.com or 079 849 5931.

Kind regards

Yolandi Burger

<NMMU_Permission Institutional Support.pdf><Ethical Clearance letter - Burger - extension till 2016.pdf>

NOTICE: Please note that this eMail, and the contents thereof, is subject to the standard NMMU eMail disclaimer which may be found at: http://www.nmmu.ac.za/disclaimer/email.htm

SECTION C

C

LIST OF APPENDICES

Appendix C.1: Ethical clearance from the University of the Free State

Appendix C.2: Ethical clearance from participating higher education institutions

Appendix C.3: Pilot study for the questionnaire survey aimed at achieving research objectives 1 and 2

Appendix C.4: Feedback questionnaire for the pilot questionnaire survey aimed at achieving research objectives 1 and 2

Appendix C.5: Final self-structured web-based questionnaire survey aimed at achieving research objectives 1 and 2

Appendix C.6: E-mail invitation to prospective HE teacher participants to partake in the questionnaire survey aimed at research objectives 1 and 2

Appendix C.7: Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objectives 1 and 2

Appendix C.8: Final self-structured web-based SOAR analysis aimed at achieving research objective 3

Appendix C.9: E-mail invitation to prospective HE teacher participants to partake in the SOAR analysis aimed at research objective 3

Appendix C.10: Pilot study for the SOAR analysis aimed at achieving research objective 3

Appendix C.11: Feedback questionnaire for the pilot SOAR analysis aimed at achieving research objective 3

Appendix C.12: Printed invitation to prospective student participants to partake in the SOAR analysis aimed at research objective 3

Appendix C.13: Short message service (SMS) invitation to prospective participants to partake in the SOAR analysis aimed at research objective 3

Appendix C.14: Final self-structured printed SOAR analysis for student participants aimed at achieving research objective 3

Appendix C.15: Dissemination avenues for the research design and methodology for the questionnaire survey aimed at objective 3

Appendix C.16: Pilot study for the expert validation questionnaire aimed at achieving research objective 4

Appendix C.17: Feedback questionnaire for the pilot expert validation questionnaire aimed at achieving research objective 4

Appendix C.18: Final self-structured web-based expert validation questionnaire aimed at achieving research objective 4

PLEASE NOTE: The institutions that participated in this study are also not identified in these appendices due to the rollout of the Protection of Personal Information Act (POPI) number four of 2013 (RSA, 2013:2), and since declarations of anonymity had to be completed and signed by the researcher at various institutions as stipulated in section 5.3.2. Therefore, all identifying elements in these appendices are blocked out.

APPENDICES OF SECTION C

C

APPENDIX C.1: ETHICAL CLEARANCE FROM THE UNIVERSITY OF THE FREE STATE

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

Faculty of Education
Ethics Office

Room 12
Winkie Direko Building
Faculty of Education
University of the Free State
P.O. Box 339
Bloemfontein 9300
South Africa

T: +27(0)51 401 9922
F: +27(0)51 401 2010

www.ufs.ac.za
BarclayA@ufs.ac.za

17 October 2012

ETHICAL CLEARANCE APPLICATION:

MECHANISMS FOR STUDENT SUCCESS IN A HIGHER EDUCATION BRIDGING PROGRAMME FOR THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN

Dear Ms Y Burger

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence, is:

UFS-EDU-2012-0053

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension in writing.

We request that any changes that may take place during the course of your research project be submitted in writing to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours sincerely,



Andrew Barclay
Faculty Ethics Officer

Faculty of Education
Ethics Office

Room 12
Winkie Direko Building
Faculty of Education
University of the Free State
P.O. Box 339
Bloemfontein 9300
South Africa

T: +27(0)51 401 9922
F: +27(0)51 401 2010

www.ufs.ac.za
BarclayA@ufs.ac.za

14 May 2014

ETHICAL CLEARANCE APPLICATION:

REGISTERED TITLE:
MECHANISMS FOR STUDENT SUCCESS IN A HIGHER EDUCATION BRIDGING PROGRAMME FOR THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN

Dear Ms Y Burger

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted an extension for your ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence, is:

UFS-EDU-2012-0053

This ethical clearance number is valid until 2015. Should you require more time to complete this research, please apply for an extension in writing.

We request that any changes that may take place during the course of your research project be submitted in writing to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours sincerely,



Andrew Barclay
Faculty Ethics Officer

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

Faculty of Education
Ethics Office

Room 12
Winkie Direko Building
Faculty of Education
University of the Free State
P.O. Box 339
Bloemfontein 9300
South Africa

T: +27(0)51 401 9922
F: +27(0)51 401 2010

www.ufs.ac.za
BarclayA@ufs.ac.za

21 January 2016

ETHICAL CLEARANCE APPLICATION:

REGISTERED TITLE:
A BRIDGING PROGRAMME AS MECHANISM FOR STUDENT SUCCESS IN THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN

Dear Ms Y Burger

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted an extension for your ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence, is:

UFS-EDU-2012-0053

This ethical clearance number is valid until 2016. Should you require more time to complete this research, please apply for an extension in writing.

We request that any changes that may take place during the course of your research project be submitted in writing to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours sincerely,



Christa Duvenhage
Faculty Ethics Officer

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS UV

Faculty of Education
Ethics Office

Room 12
Winkie Direko Building
Faculty of Education
University of the Free State
P.O. Box 339
Bloemfontein 9300
South Africa

T: +27(0)51 401 9922
F: +27(0)51 401 2010

www.ufs.ac.za
BarclayA@ufs.ac.za

16 March 2017

ETHICAL CLEARANCE APPLICATION:

REGISTERED TITLE:
A BRIDGING PROGRAMME AS MECHANISM FOR STUDENT SUCCESS IN THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN

Dear Ms Y Burger

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted an extension for your ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence, is:

UFS-EDU-2012-0053

This ethical clearance number is valid until 2018. Should you require more time to complete this research, please apply for an extension in writing.

We request that any changes that may take place during the course of your research project be submitted in writing to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours sincerely,



Christa Duvenhage
Faculty Ethics Officer

APPENDICES OF SECTION C

APPENDIX C.2: ETHICAL CLEARANCE FROM PARTICIPATING HIGHER EDUCATION INSTITUTIONS

C

PROF L LABUSCHAGNE
EXECUTIVE DIRECTOR: RESEARCH DEPARTMENT
Tel: *+27 12 429 6368 / 2446*
Email: *llabus@[redacted]ac.za*
Address: [redacted]

04 September 2014

Ms Yolandi Burger
University of the Free State

Dear Ms Burger

PERMISSION TO DO RESEARCH INVOLVING[redacted] STAFF, STUDENTS OR DATA

A study into "Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design"

Your application regarding permission to conduct research involving [redacted] staff, students or data in respect of the above study has been received and was considered by the [redacted] Senate Research and Innovation and Higher Degrees Committee (SRIHDC) on 07 August 2014.

It is my pleasure to inform you that permission has been granted for this study as set out in your application.

The Department: Legal Services gives final approval for access to records of the [redacted] (Section 18(1) of the Promotion of Access to Information Act, Act No. 2 of 2000) Regulation 6.

We would like to wish you well in your research undertaking.

Kind regards

PROF L LABUSCHAGNE
EXECUTIVE DIRECTOR: RESEARCH

national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

4) *The identity of participants will not be revealed in any reports resulting from this research.*

Note:
The reference number [top right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the URERC.

Kind regards,



pp Dr RG Visagie

Prof M Schoeman
Deputy Chairperson
[redacted] Research Ethics Review Committee
Tel 012 433 9491
E-mail schoemi@[redacted]

[redacted]

[redacted] RESEARCH ETHICS REVIEW COMMITTEE

2014-07-31

Ref #: 2014_URERC_001
Ms Y Burger
Student #:2010048409 (UFS)

Dear Ms Y Burger,

Decision: Ethics Approval

Name: Burger Y, Department of Higher Education Studies, Faculty of Education, University of the Free State (yolandiburger@gmail.com)

Supervisor: Dr SP van Tonder

Co-supervisor: Dr JH van Schoor

Proposal: Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design

Qualification: PhD Higher Education

Thank you for the application for research ethics clearance by the [redacted] Research Ethics Review Committee for the above mentioned research. Final approval is granted for the duration of the study.

The resubmitted documentation was reviewed in compliance with the [redacted] Policy on Research Ethics by the URERC on 31 July 2014.

The proposed research may now commence with the proviso that:

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Unisa Research Ethics Review Committee (Visagrg@unisa.ac.za; 012 4292478). An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*
3) *The researcher will ensure that the research project adheres to any applicable*

[redacted]

24 January 2014

Mrs Yolandi Burger
c/o Faculty of Education
University of Free State
Email: yolandibur@gmail.com

Dear Mrs Burger

RE: PERMISSION TO CONDUCT RESEARCH
STUDENT NO. 2010048409

Gatekeeper's permission is hereby granted for you to conduct research at the [redacted] provided Ethical clearance has been obtained. We note the title of your research project is:

"Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design at the University of the Free State".

It is noted that you will be constituting your sample with a request for responses on the website. The request must be placed on the notice system http://notices[redacted].ac.za. A copy of this letter (Gatekeeper's approval) together with the ethical clearance must be attached when requesting the services. You are not authorized to distribute the questionnaire to staff and students using Microsoft Outlook address book.

Please note that the data collected must be treated with due confidentiality and anonymity.

Yours sincerely

MR M C BALOYI
REGISTRAR

[redacted]

[redacted]

20 January 2016

Mrs Yolandi Burger (2010048409)
Department of Higher Education
University of Free State

Dear Mrs Burger,

Protocol reference number: HSS/0033/014D
Project title: A bridging programme as mechanism for student success in the Applied Art Discipline of Graphic Design

Full Approval – Expedited Application

With regards to your application received on 09 January 2014. The documents submitted have been accepted by the Humanities & Social Sciences Research Ethics Committee and **FULL APPROVAL** for the protocol has been granted.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....

Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Dr SP van Tonder and Dr JH van Schoor

[redacted]



ETHICS CLEARANCE

Dear Y Burger

Ethical Clearance Number: 2016-014

Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design

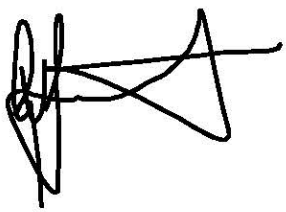
Ethical clearance for this study is granted subject to the following conditions:

- If there are major revisions to the research proposal based on recommendations from the Faculty Higher Degrees Committee, a new application for ethical clearance must be submitted.
- If the research question changes significantly so as to alter the nature of the study, it remains the duty of the student to submit a new application.
- It remains the student's responsibility to ensure that all ethical forms and documents related to the research are kept in a safe and secure facility and are available on demand.
- Please quote the reference number above in all future communications and documents.

The Faculty of Education Research Ethics Committee has decided to

☒ Grant ethical clearance for the proposed research.
☐ Provisionally grant ethical clearance for the proposed research
☐ Recommend revision and resubmission of the ethical clearance documents

Sincerely,



Prof Geoffrey Lautenbach
Chair: FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE
15 April 2016

- **Sections B-G**. The indication in your E-mail (dated Feb 5, 2014) that "… the survey is designed on SurveyMonkey using its logic skip function … I will provide you with this survey before any participants participate early March/April 2014" is in order and duly noted.

The Chairperson of the Research Ethics Committee of [redacted] reviewed the revised project documents on February 6, 2014. **Final approval** is granted to the study. The decision will be tabled at the next REC meeting on March 3, 2014 for notification.

The proposed research project may now continue with the proviso that:

1) The researcher/s will conduct the study according to the procedures and methods indicated in the approved proposal, particularly in terms of any undertakings and/or assurances made regarding informed consent and the confidentiality of the collected data.
2) The proposal (inclusive of the applicable information leaflet/s, informed consent document/s, interview guide/s and/or questionnaire/s) will again be submitted to the Committee for prospective ethical clearance if there are any substantial changes from the existing proposal, particularly if those changes affect any of the study-related risks for the research participants.
3) The researcher will act within the parameters of any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

Note:

The reference number [top right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants.

Annual review:

1. The formal ethics approval of all research projects need to be renewed on an annual basis.
2. The current ethics approval expiry date for this project is **June 30, 2015**.
3. No research activities may continue after the ethics approval expiry date indicated on the formal Research Ethics Committee approval letter.
4. The Research Ethics Progress Report (electronic copy available at the following website: http://www.tut.ac.za/Other/rninew/ResearchEthicsCommittees/Pages/default.aspx) constitutes an application for such ethics approval renewal and must be submitted to the REC by **May 15, 2015**.

Yours sincerely,

WA HOFFMANN (Dr)
Chairperson: Research Ethics Committee
[Ref#2014=01=014=BurgerY]

[redacted]

[redacted]

February 6, 2014

Ref #: REC2014/01/014
Name: Burger Y
Student #: 2010048409 (UFS)

Ms Y Burger
Dept of Higher Education Studies
Faculty of Education
University of the Free State

Dear Ms Burger,

Decision: Final Approval

Name: Burger Y
Proposal: *Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design*
Qualification: PhD Higher Education
Supervisor: Dr SP van Tonder
Co-supervisor: Dr JH van Schoor

Thank you for submitting the revised project documents for ethics clearance by the [redacted] Research Ethics Committee (REC). In reviewing the documents, the comments and notes below are tabled for your consideration, attention and notification:

- **Web-based Questionnaire**

  - **Section A, Participant Number**. The removal of the "Participant Number" item is in order and duly noted.
  - **Section A, Institutions**. The correction of the spelling error is in order and duly noted.

[redacted]

[redacted]

Research Ethics Committee

[redacted]

January 6, 2015

Ref #: REC2014/01/014
Name: Burger Y
Student #: 2010048409 (UFS)

Ms Y Burger
Dept of Higher Education Studies
Faculty of Education
University of the Free State

Dear Ms Burger,

Decision: Extension of Ethics Approval

Name: Burger Y
Proposal: *Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design*
Qualification: PhD Higher Education
Supervisor: Dr SP van Tonder
Co-supervisor: Dr JH van Schoor

Thank you for submitting an application to extend your project's ethics approval.

- **Research Ethics Progress Report (E-mail, dated 6 January 2015)**

  - **Research activities**. The REC took note that you were unable to conduct any research activity during the report period (Jan 2014 to June 2015) due to work-related challenges.

[redacted]

[redacted]

26 January 2016

Ms Yolandi Burger
Faculty of Education
University of the Free State

Dear Ms Burger

Re: ***Mechanism for student Success in a Higher Education Bridging Programme for the Applied Art Discipline of Graphic Design***

The researcher has confirmed that all the aspects of the study, i.e. its purpose and methodology remains the same as put forward in the researcher's original application in 2014. Institutional permission for this study is therefore extended to the end of December 2016.

The researcher will continue to adhere to the following conditions:

- the researcher must obtain the participants' full informed consent for all aspects of their participation,
- participation is voluntary,
- participants may withdraw their participation at any time, and without consequence,
- data must be collected in a way that ensures the anonymity of all participants,
- individuals may not be identified in the results of the study,
- data that is collected may only be used for the purpose of this study,
- the privacy of individuals must be respected and protected.

Best wishes,

I. Cloete.

Prof Ian Cloete
Senior Director: Institutional Research and Planning

[redacted]

[redacted]

23 January 2014

Ms Yolandi Burger
Faculty of Education
University of the Free State

Dear Ms Burger

Re: ***Mechanism for student Success in a Higher Education Bridging Programme for the Applied Art Discipline of Graphic Design***

Institutional permission is granted for soliciting the participation of [redacted] bridging programme facilitators for the purposes of this research project as stipulated the in the research proposal.

This permission is granted on the following conditions:

- the researcher must obtain the participants' full informed consent for all aspects of their participation,
- participation is voluntary,
- participants may withdraw their participation at any time, and without consequence,
- data must be collected in a way that ensures the anonymity of all participants,
- individuals may not be identified in the results of the study,
- data that is collected may only be used for the purpose of this study,
- the privacy of individuals must be respected and protected.

Best wishes,

Jan Botha
Senior Director Institutional Research and Planning Division

[redacted]

TO WHOM IT MAY CONCERN
(University Free State)

RESEARCH ETHICAL CLEARANCE NO: MGI/1/2012/06

24 January 2017

RE: APPROVAL TO CONDUCT RESEARCH AT [redacted]
[FORMERLY KNOW AS [redacted]
MRS YOLANDI BURGER – Student number: 2010048391

This is to confirm that the Research Committee of the [redacted], acting on behalf of the EXCO of [redacted], on 26 July 2012 has granted Mrs Yolandi Burger approval to undertake a research project involving staff and students at [redacted], towards her PhD (Higher Education) degree as follows:

RESEARCH TITLE:

A bridging programme framework as a mechanism for student success in the Applied Art discipline of Graphic Design

It is understood that appropriate protocols, with particular reference to consent by, and confidentiality for all participants, will be observed. It is further understood that the findings of the research will be made available to the [redacted] EXCO.

The Management of [redacted] wishes Mrs Burger well with her research project.

Professor Marvin M. Kambuwa
Dean: Research and Postgraduate Development
& Chair: Research Committee

Dr. Johan Freysen
Vice Principal (Academic)

15 August 2016

(Institutional permission for conducting research)

UFS-EDU-2012-0053

Dear Ms Yolandi Burger

TITLE: MECHANISMS FOR STUDENT SUCCESS IN A HIGHER EDUCATION BRIDGING PROGRAMME FOR THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN AT THE UNIVERSITY OF THE FREE STATE

I **Professor Andrew Leitch, DVC: Research and Engagement** grant permission to Ms Yolandi Burger to conduct research among the academic staff in the department of Applied Art discipline of Graphic Design at [redacted] A copy of the study will be highly appreciated once finalised.

SIGNATURE:

DATE: 15 August 2016

[redacted]

TO WHOM IT MAY CONCERN
(University Free State)

RESEARCH ETHICAL CLEARANCE NO: MGI/1/2012/06

26 July 2012

RE: APPROVAL TO CONDUCT RESEARCH AT [redacted]
MRS YOLANDI BURGER – Student number: 2010048391

This is to confirm that the Research Committee of the [redacted], acting on behalf of the EXCO of [redacted] on 26 July 2012 has granted Mrs Yolandi Burger approval to undertake a research project involving staff and students at [redacted], towards her PhD (Higher Education) degree as follows:

RESEARCH TITLE:

A bridging programme framework as a mechanism for student success in the Applied Art discipline of Graphic Design

It is understood that appropriate protocols, with particular reference to consent by, and confidentiality for all participants, will be observed. It is further understood that the findings of the research will be made available to the [redacted] EXCO.

The Management of [redacted] wishes Mrs Burger well with her research project.

Professor Marvin M. Kambuwa
Dean: Research and Postgraduate Development
& Chair: Research Committee

Dr. Johan Freysen
Vice Principal (Academic)

[redacted]

Ms Yolandi Burger

Student number: 2010048391 (UOFS)

PERMISSION TO CONDUCT RESEARCH: "MECHANISMS FOR STUDENT SUCCESS IN A HIGHER EDUCATION BRIDGING PROGRAMME FOR THE APPLIED ART DISCIPLINE OF GRAPHIC DESIGN".

Dear Ms Y Burger

This is to confirm that you have been granted permission for research/study and access to staff data at the [redacted] in connection with your registered study programme.

The conditions of the permission are:

- The survey will not interrupt any of the official activities at the [redacted];
- You will supply us with the copy of your report;
- The cost of all related activities will be covered by yourself;
- Recruitment of participants is the sole responsibility of yourself;
- Voluntary nature of the potential participant's decision to consent to participate should be strictly observed;
- You should not disclose a potential participant's decision to participate or otherwise to any other party;
- Permission does not compel, in any sense, participation of staff members or students in your survey.

DIRECTOR: ACADEMIC PLANNING

DR DM BALIA

20 JANUARY 2014

[redacted]

Office of the Research Ethics Committee	Faculty of Informatics and Design

At a meeting of the Faculty Research Ethics Committee, ethical clearance was granted to MRS YOLANDI BURGER for research activities related to her Doctor of Philosophy degree in Higher Education at the University of Free State. Mrs Burger intends to collect her research data in the Department of Applied Design at [redacted] and will require consent in principle from [redacted] management.

Title thesis:	A bridging programme as mechanism for student success in the Applied Art discipine of Graphic Design

Comments

Research activities are restricted to those detailed in the research proposal.

[redacted]	4/8/2016
Signed: Faculty Research Ethics Committee	**Date**

[redacted]

[redacted]

16 August 2016

Mrs Yolandi Burger
P.O Box 37029,
Langenhoven Park,
9330

Email: yolandibur@gmail.com

Dear Mrs Burger

RE: PERMISSION TO CONDUCT RESEARCH AT [redacted]

The Institutional Ethics Committee received your application entitled "A bridging programme as mechanism for student success in the Applied Art discipline of Graphic Design", together with the dossier of supporting documents.

Permission is herewith granted for you to do research at the [redacted]

Wishing you the best in your study.

Sincerely

[redacted]

APPENDICES OF SECTION C

C

APPENDIX C.3: PILOT STUDY FOR THE QUESTIONNAIRE SURVEY AIMED AT ACHIEVING RESEARCH OBJECTIVES 1 AND 2

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

INFORMED CONSENT

Dear prospective participant

This survey aims to investigate your own views pertaining to the most important generic and discipline specific competencies required for good alternative access programmes and possible supporting student success mechanisms for Graphic Design students. You were selected to participate in this survey because you are a lecturer in Graphic Design, in a related discipline, and/or in an alternative access programmes. By completing this survey, you agree that the information you provide may be used for research purposes, including dissemination through peer-reviewed publications and conference proceedings.

It is anticipated that the analysed information collected will be used to embed mechanisms for student success in a framework for good alternative access programmes for Graphic Design students in South Africa. You are, however, under no obligation to complete the survey and you can withdraw from the study prior to submitting the survey. The survey has been designed to be anonymous, meaning that I shall have no way of connecting the information that you provide to you personally. Consequently, you will not be able to withdraw from the study once you have clicked the submit button. If you choose to participate in this survey it will take up no more than 30 minutes of your time. You will not benefit from your participation as an individual; however, it is envisioned that the findings of this study will contribute to a framework for good alternative access programmes for Graphic Design.

Permission to conduct research was obtained from all the Higher Education institutions listed below. However, if you are a facilitator at any other institution and wish to complete the survey in your personal capacity you may proceed. Should you have any questions regarding the ethical aspects of the study, you may contact the chairperson of the Ethics Board of the Faculty of Education, University of the Free State or alternatively the chairperson of your specific institution at the contact details listed below.

- *Central University of Technology, Free State*
  051 507 3304 / nmahaba@cut.ac.za
- *Midrand Graduate Institute* (Ref nr: MGI/1/2012/06)
  011 690 1717 / lukem@mgi.ac.za
- *Nelson Mandela Metropolitan University*
  041 504 2016 / Andrew.leitch@nmmu.ac.za
- *Tshwane University of Technology* (Ref nr: REC2014/01/014)
  012 382 5154 / HoffmannWA@tut.ac.za
- *University of Johannesburg* (Ref nr:2016-014)
  011 559 3016 / geoffl@uj.ac.za
- *University of KwaZulu-Natal* (HSS/0033/014D)
  031 260 8350 / snymanm@ukzn.ac.za
- *University of South Africa* (Ref nr: 2014_URERC_001)
  012 4292478 / visagrg@unisa.ac.za
  Report any serious unethical behaviour to the UNISA Toll Free Hotline 0800 86 96 93
- *University of Stellenbosch*
  021 808 3967 / amlitwa@sun.ac.za
- *University of the Free State* (Ref nr: UFS-EDU-2012-0053)
  051 401 9922 / duvenhageCS@ufs.ac.za

The primary researcher, Mrs Y. Burger can be contacted during office hours at 079 849 5931 / yolandibur@gmail.com. The promoters of the study, Dr S.P. van Tonder and Dr J.H. van Schoor, can be contacted during office hours at 051 401 9174 / vTonderSP@ufs.ac.za and 051 401 3799 / vschoorj@ufs.ac.za respectively.

* 1. I, hereby voluntarily agree to participate in the above-mentioned research project and declare that I am 18 years or older.

◯ I agree ◯ I do not agree

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

CLARIFICATION OF TERMINOLOGY

Alternative access programmes
Alternative access programmes, for the purposes of this research, include bridging programmes, extended programmes, foundation programmes and university preparation programmes.

Competency/competencies and competence
For the purpose of this research, a competency is defined as knowledge, skills, abilities, attitudes, values and/or behaviour that an individual must possess within a specific discipline to successfully perform a particular task. The plural form is competencies. Competence, on the other hand, is the ability to do a complex task well or efficiently and which requires a cluster of competencies in order to be performed successfully.

Student success mechanism
A mechanism that improves students' success in higher education, thereby improving student retention and throughput rates in higher education.

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

SECTION A - DEMOGRAPHIC

This section contains compulsory demographic questions that will be used to dissect the information provided in section B, C and D of this questionnaire.

* 1. Teaching experience (select only one)

- ◯ Alternative access programme for Graphic Design *(please complete sections A, B, C and D)*
- ◯ Main stream Graphic Design programme *(please complete sections A, C and D)*
- ◯ Other alternative access programme *(please complete sections A, B and D)*

* 2. Teaching experience in programme (select only one)

- ◯ 12 months or less
- ◯ 1 - 2 years
- ◯ 3 - 4 years
- ◯ 5+ years

* 3. Institution/s were you are/were involved (multiple answers allowed)

- ☐ Cape Peninsula University of Technology
- ☐ Central University of Technology
- ☐ Durban University of Technology
- ☐ Midrand Graduate Institute
- ☐ Mangosuthu University of Technology
- ☐ Nelson Mandela Metropolitan University
- ☐ North-West University
- ☐ Rhodes University
- ☐ Other (please specify)
- ☐ Stellenbosch University
- ☐ Tshwane University of Technology
- ☐ University of Cape Town
- ☐ University of the Free State
- ☐ University of Fort Hare
- ☐ University of Johannesburg
- ☐ University of Kwazulu-Natal
- ☐ University of Limpopo
- ☐ University of Pretoria
- ☐ University of South Africa
- ☐ University of Western Cape
- ☐ University of Witwatersrand
- ☐ University of Zululand
- ☐ Vaal University of Technology
- ☐ Walter Sisulu University

* 4. Faculty/ies in which you lecture/d (multiple answers allowed)

- [ ] Agricultural Sciences
- [ ] Economic Sciences
- [ ] Education
- [ ] Engineering
- [ ] Health Sciences
- [ ] Law
- [ ] Management Sciences
- [ ] Natural Sciences
- [ ] The Humanities
- [ ] Theology
- [ ] Other (please specify)

* 5. Level of involvement in programme (multiple answers allowed)

- [ ] Part-time lecturer
- [ ] Student Assistant
- [ ] Lecturer Assistant
- [ ] Junior Lecturer
- [ ] Lecturer
- [ ] Senior Lecturer
- [ ] Associate Professor
- [ ] Professor
- [ ] Management
- [ ] Coordinator
- [ ] Other (please specify)

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

SECTION B - GENERIC COMPETENCIES

This section is only applicable to lectures in mainstream Graphic Design programmes and lecturers in alternative access Graphic Design programmes.

The section contains discipline-specific competencies, as identified form literature, for Graphic Designers. It consists of two sections, namely B.1 and B.2. Section B.1 is quantitative in nature and requires that you rate the importance of each listed generic competency according to a five-point Likert scale ranging from not important to very important as the two extremes.

Section B.2 is qualitative and requires that you motivate your ratings of the competencies in Section B.1.

SECTION B.1

* 1. As an alternative access programme lecturer, you are required to incorporate generic competencies into your curriculum's design. Please indicate the importance of the following generic competencies for you, as an alternative access programme lecturer, by using the four-point likert scale (1 - not important; 2 - less important; 3 - average; 4 - important; 5 - very important).

	Not important	Less important	Average	Important	Very important
Collaboration with individuals and group work/team work	○	○	○	○	○
Communication skills (written and oral)	○	○	○	○	○
Computer skills	○	○	○	○	○
Creative thinking skills	○	○	○	○	○
Critical thinking skills	○	○	○	○	○
Deadline orientated	○	○	○	○	○
Design orientated thinking skill	○	○	○	○	○
E-learning technologies	○	○	○	○	○
Emotional intelligence	○	○	○	○	○
Entrepreneurial skills	○	○	○	○	○
Information literacy	○	○	○	○	○
Innovative thinking skills	○	○	○	○	○
Interpretation	○	○	○	○	○

	Not important	Less important	Average	Important	Very important
Learning styles and strategies	○	○	○	○	○
Listening and note-taking	○	○	○	○	○
Memory	○	○	○	○	○
Multi-tasking	○	○	○	○	○
Organisational and planning skills	○	○	○	○	○
Presentation skills	○	○	○	○	○
Problem solving	○	○	○	○	○
Reading skills	○	○	○	○	○
Referencing	○	○	○	○	○
Reflection	○	○	○	○	○
Research skills	○	○	○	○	○
Responsibility towards the clients/employers	○	○	○	○	○
Responsibility towards the community	○	○	○	○	○
Responsibility towards the profession	○	○	○	○	○
Revision and examination techniques	○	○	○	○	○
Self-management / prioritise workload/tasks	○	○	○	○	○
Self-motivated / motivation	○	○	○	○	○
Stress management / work under pressure	○	○	○	○	○
Study skills	○	○	○	○	○
Time management skills	○	○	○	○	○
Visual communication	○	○	○	○	○
Work independently	○	○	○	○	○

Other (please specify)

SECTION B.2

* 2. Please motivate a minimum of one (1) to a maximum of ten (10) of the generic competencies you selected in Section B.1 as very important. Please motivate your rating of the competency as very

important by typing your motivation in the text box provided next to the relevant competency.

Since these questions is qualitative in nature, please answer honestly and in as much detail as possible.

Collaboration with individuals and group work/team work	
Communication skills (written and oral)	
Computer skills	
Creative thinking skills	
Critical thinking skills	
Deadline orientated	
Design orientated thinking skill	
E-learning technologies	
Emotional intelligence	
Entrepreneurial skills	
Information literacy	
Innovative thinking skills	
Interpretation of information	
Learning styles and strategies	
Listening and note-taking	
Memory	
Multi-tasking	
Organisational and planning skills	
Presentation skills	
Problem solving	
Reading skills	
Referencing	
Reflection	
Research skills	
Responsibility towards the clients/employers	

Responsibility towards the community	
Responsibility towards the profession	
Revision and examination techniques	
Self-management / prioritise workload/tasks	
Self-motivated / motivation	
Stress management / work under pressure	
Study skills	
Time management skills	
Visual communication	
Work independently	

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

SECTION C - DISCIPLINE SPECIFIC COMPETENCIES

This section is only applicable to lectures in mainstream Graphic Design programmes and lecturers in alternative access Graphic Design programmes.

The section contains discipline-specific competencies, as identified form literature, for Graphic Designers. It consists of two sections, namely C.1 and C.2. Section C.1 is quantitative in nature and requires that you rate the importance of each listed discipline-specific competency according to a five-point Likert scale ranging from not important to very important as the two extremes.

Section C.2 is qualitative and requires that you motivate your ratings of the competencies in Section C.1.

SECTION C.1

* 1. As a Graphic Design programme lecturer (main stream and/or alternative access programme), you are required to incorporate discipline-specific competencies into the curriculum you teach. Please rate the importance of each of the discipline-specific competencies in the Graphic Design programme you teach by using the five-point Likert scale (1 - not important; 2 - less important; 3 - average; 4 - important; 5 - very important).

	Not important	Less important	Average	Important	Very important
Applying design elements and principles	○	○	○	○	○
Applying design techniques	○	○	○	○	○
Collaboration with individuals and group work/team work	○	○	○	○	○
Communication skills (written and oral)	○	○	○	○	○
Creative thinking skills	○	○	○	○	○
Creativity	○	○	○	○	○
Critical thinking skills	○	○	○	○	○
Curiosity	○	○	○	○	○
Deadline orientated	○	○	○	○	○
Design orientated thinking skill	○	○	○	○	○
Entrepreneurial skills	○	○	○	○	○

	Not important	Less important	Average	Important	Very important
Imagination	○	○	○	○	○
Innovation	○	○	○	○	○
Innovative thinking skills	○	○	○	○	○
Interpretation of information	○	○	○	○	○
Intuition	○	○	○	○	○
Multi-tasking	○	○	○	○	○
Observation	○	○	○	○	○
Organisational and planning skills	○	○	○	○	○
Originality	○	○	○	○	○
Passion	○	○	○	○	○
Problem solving	○	○	○	○	○
Reflection	○	○	○	○	○
Responsibility towards other designers	○	○	○	○	○
Responsibility towards the clients/employers	○	○	○	○	○
Responsibility towards the community	○	○	○	○	○
Responsibility towards the profession	○	○	○	○	○
Self-management / prioritise workload/tasks	○	○	○	○	○
Self-motivated / motivation	○	○	○	○	○
Stress management / work under pressure	○	○	○	○	○
Time management skills	○	○	○	○	○
Visual communication	○	○	○	○	○
Work independently	○	○	○	○	○

Other (please specify)

SECTION C.2

* 2. Please motivate a minimum of one (1) to a maximum of ten (10) of the discipline specific competencies you selected in Section C.1 as very important. Please motivate your rating of the

competency as very important by typing your motivation in the text box provided next to the relevant competency.

Since these questions is qualitative in nature, please answer honestly and in as much detail as possible.

Applying design elements and principles	
Applying design techniques	
Collaboration with individuals and group work/team work	
Communication skills (written and oral)	
Creative thinking skills	
Creativity	
Critical thinking skills	
Curiosity	
Deadline orientated	
Design orientated thinking skill	
Entrepreneurial skills	
Imagination	
Innovation	
Innovative thinking skills	
Interpretation of information	
Intuition	
Multi-tasking	
Observation	
Organisational and planning skills	
Originality	
Passion	
Problem solving	
Reflection	
Responsibility towards other designers	

Responsibility towards the clients/employers	
Responsibility towards the community	
Responsibility towards the profession	
Self-management / prioritise workload/tasks	
Self-motivated / motivation	
Stress management / work under pressure	
Time management skills	
Visual communication	
Work independently	

PILOT: COMPETENCIES REQUIRED FOR GOOD ALTERNATIVE ACCESS PROGRAMMES AND POSSIBLE SUPPORTING SUCCESS MECHANISMS FOR GRAPHIC DESIGN STUDENTS

SECTION D - STUDENT SUCCESS MECHANISMS

This section is applicable to lecturers in both mainstream and alternative access programmes for Graphic Design students.

The section relates to mechanisms for ensuring student success as identified in literature. It also consists of two sections, namely D.1 and D.2. Section D.1 is quantitative in nature and requires of you to rate the importance of the listed success mechanisms according to a five-point Likert scale ranging from not important to very important as the two extremes. Section D.2 is qualitative and requires that you motivate your rating of a maximum of three success mechanisms that you rated as very important in D.1.

SECTION D.1

* 1. As a lecturer (whether in a mainstream and/or an alternative access programme), you are required to incorporate student success mechanisms into the curriculum that you teach. Please rate the importance of each of the student success mechanisms according to the five-point Likert scale (1 - not important; 2 - less important; 3 - average; 4 - important; 5 - very important).

	Not important	Less important	Average	Important	Very important
Academic advising	○	○	○	○	○
Positive learning environment	○	○	○	○	○
Teaching and learning strategies (e.g. flipping the classroom and high impact practices).	○	○	○	○	○
Student engagement	○	○	○	○	○
Student motivation	○	○	○	○	○

Other (please specify)

SECTION D.2

* 2. Please motivate a minimum of one (1) to a maximum of five (5) student success mechanisms selected in Section D.1 as very important. Please write your motivation opposite to the mechanism

Since these questions is qualitative in nature, please answer honestly and in as much detail as possible.

Academic advising	
Learning environment	
Teaching and learning strategies	
Student engagement	
Student motivation	

APPENDICES OF SECTION C

C

APPENDIX C.4: FEEDBACK QUESTIONNAIRE FOR THE PILOT QUESTIONNAIRE SURVEY AIMED AT ACHIEVING RESEARCH OBJECTIVES 1 AND 2

FEEDBACK FROM THE PILOT STUDY - COMPETENCIES AND STUDENT SUCCESS MECHANISMS

Welcome to the feedback questionnaire for the *Competencies required for good alternative access programmes for Graphic Design and student success mechanisms which support these programmes* questionnaire that you completed recently as part of a pilot study for my PhD titled: Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design at the University of the Free State. This questionnaire aims to provide feedback in regard to difficulty of completion, logical order, type of questions and language.

I truly appreciate your willingness to share your experience. The questionnaire will take approximately 10 minutes of your time. Your participation in this study is voluntary and your anonymity will be protected.

* I hereby voluntarily agree to participate in the above-mentioned research project and declare that I have been fully informed about the study and that I am 18 years or older.

- ◯ I agree
- ◯ I do not agree

FEEDBACK FROM THE PILOT STUDY - COMPETENCIES AND STUDENT SUCCESS MECHANISMS

* How did you find the completion of the questionnaire for the pilot study?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice

* How did you experience the logical order of the questionnaire?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice

* How did you experience the type of questions asked?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

* How did you experience the language used in the questionnaire?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

Are there anything else you want to add?

APPENDICES OF SECTION C

C

APPENDIX C.5: FINAL SELF-STRUCTURED WEB-BASED QUESTIONNAIRE SURVEY AIMED AT ACHIEVING RESEARCH OBJECTIVES 1 AND 2

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

INFORMED CONSENT

Dear prospective participant

This survey aims to investigate your personal views pertaining to the key generic and discipline-specific competencies and support mechanisms that should be included in alternative access programmes for Graphic Design students. You were identified as a prospective participant in this survey because you are a lecturer in Graphic Design, in a related discipline and/or in an alternative access programme. By completing this survey, you agree that the information you provide may be used for research purposes, including the dissemination thereof through peer-reviewed publications and conference proceedings.

It is anticipated that the analysed information collected could be used to embed mechanisms for student success in a framework for good alternative access programmes for Graphic Design students in South Africa. Please note, however, that you are under no obligation to complete the survey and you may withdraw from the study prior to submitting the survey. The survey has furthermore been designed to be completed anonymously and as such the researcher and promoters shall have no way of connecting any information furnished to any of the participants personally. Consequently, you will not be able to withdraw from the study once you have clicked the "submit survey" button. If you decide to participate in this survey, it will require no more than 30 minutes of your time. You will not benefit from your participation as an individual; however, it is envisioned that the findings of this study will contribute to a framework for good alternative access programmes for Graphic Design students.

Permission to conduct this research was obtained from all the higher education institutions listed below. However, if you are a facilitator at any other institution and wish to complete the survey in your personal capacity, you may proceed. Should you have any questions regarding the ethical aspects of the study, you may contact the chairperson of the Ethics Board of the Faculty of Education, University of the Free State, or alternatively the chairperson of your specific institution at the contact details listed below.

- Central University of Technology, Free State
  051 507 3304 / nmahaba@cut.ac.za
- Cape Peninsula University of Technology
  021 460 3539 / sitholesi@cput.ac.za
- Midrand Graduate Institute (Ref nr: MGI/1/2012/06)
  011 690 1717 / lukem@mgi.ac.za
- Nelson Mandela Metropolitan University
  041 504 2016 / Andrew.leitch@nmmu.ac.za
- Tshwane University of Technology (Ref nr: REC2014/01/014)
  012 382 5154 / HoffmannWA@tut.ac.za
- University of Johannesburg (Ref nr: 2016-014)
  011 559 3016 / geoffl@uj.ac.za
- University of KwaZulu-Natal (HSS/0033/014D)
  031 260 8350 / snymanm@ukzn.ac.za
- University of South Africa (Ref nr: 2014_URERC_001)
  012 429 2478 / visagrg@unisa.ac.za
  Report any serious unethical behaviour to the UNISA Toll Free Hotline 0800 86 96 93
- University of Stellenbosch
  021 808 3967 / amlitwa@sun.ac.za
- University of the Free State (Ref nr: UFS-EDU-2012-0053)
  051 401 9922 / duvenhageCS@ufs.ac.za

The primary researcher, Mrs Y. Burger, can be contacted during office hours at 079 849 5931 / yolandibur@gmail.com. The promoters of the study, Drs S.P. van Tonder and J.H. van Schoor, can be contacted during office hours at 051 401 9174 / vTonderSP@ufs.ac.za and 051 401 3799 / vschoorj@ufs.ac.za respectively.

* 1. I hereby voluntarily agree to participate in the above-mentioned research project and declare that I am 18 years or older and that I have read and understand all the information and conditions pertaining to this survey.

◯ I agree ◯ I do not agree

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

CLARIFICATION OF TERMINOLOGY

Alternative access programmes
Alternative access programmes, for the purposes of this research, include bridging programmes, extended programmes, foundation programmes and university preparation programmes of which the aim is to widen student access to higher education and training programmes.

Competency/competencies and competence
For the purpose of this research, a competency is defined as knowledge, skills, abilities, attitudes, values and/or behaviour that an individual must possess, uphold, or exhibit within a specific discipline to successfully perform a particular task. The plural form of this term is competencies. Competence, on the other hand, is the ability to perform a complex task well or efficiently but which requires the application of a cluster of competencies in order to be performed successfully.

Graphic Design programmes
For the purpose of this research, a Graphic Design programme is defined as any qualification offered at a Higher Education Institution (public or private) that leads to graduates that can practice as Graphic Designers upon successful completion.

Student success mechanism
A mechanism that improves students' success in higher education, thereby improving student retention and throughput rates in higher education.

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

SECTION A - DEMOGRAPHIC

This section contains compulsory demographic questions that will be used to dissect the information provided in Sections B, C and D of the questionnaire.

* 1. Teaching experience (select only one)

- ◯ Alternative access programme for Graphic Design *(Please complete Sections A, B, C and D)*
- ◯ Mainstream Graphic Design programme *(Please complete Sections A, C and D)*
- ◯ Other alternative access programmes *(Please complete Sections A, B and D and ensure to click this option in Section B again to be directed towards Section D)*

* 2. Teaching experience in programme (select only one)

- ◯ 12 months or less
- ◯ 1 - 2 years
- ◯ 3 - 4 years
- ◯ 5+ years

* 3. Institution/s where you are/were involved (multiple answers allowed)

- ☐ Cape Peninsula University of Technology
- ☐ Central University of Technology
- ☐ Nelson Mandela Metropolitan University
- ☐ Pearson Institute of Higher Education (formerly MGI)
- ☐ Tshwane University of Technology
- ☐ University of Johannesburg
- ☐ University of KwaZulu-Natal
- ☐ University of South Africa
- ☐ University of Stellenbosch
- ☐ University of the Free State
- ☐ Other (please specify)

* 4. Faculty/ies in which you lecture/d (multiple answers allowed)

- ☐ Agricultural Sciences
- ☐ Economic Sciences
- ☐ Education
- ☐ Engineering
- ☐ Health Sciences
- ☐ Law
- ☐ Management Sciences
- ☐ Natural Sciences
- ☐ The Humanities
- ☐ Theology
- ☐ Other (please specify)

* 5. Level of involvement in the relevant programme (multiple answers allowed)

- ☐ Part-time Lecturer
- ☐ Student Assistant
- ☐ Lecturer Assistant
- ☐ Junior Lecturer
- ☐ Lecturer
- ☐ Senior Lecturer
- ☐ Associate Professor
- ☐ Professor
- ☐ Management
- ☐ Coordinator
- ☐ Other (please specify)

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

SECTION B - GENERIC COMPETENCIES

This section is only applicable to lecturers in mainstream Graphic Design programmes and lecturers in alternative access Graphic Design programmes.

The section contains generic competencies for Graphic Designers as identified from the literature. It consists of two sections, namely B.1 and B.2. Section B.1 is quantitative in nature and requires that you rate the importance of each listed generic competency according to a five-point Likert scale ranging from "not important" to "very important" as the two extremes.

Section B.2 is qualitative and requires that you motivate your ratings of the generic competencies in Section B.1.

1. If you are a lecturer in another alternative access programme, please click here to be directed to Section D at the end of this section.

- ◯ Yes, I am a lecturer in another alternative access programme
- ◯ No, I am not a lecturer in another alternative access programme

SECTION B.1

* 2. As a lecturer in an alternative access programme, you are required to incorporate generic competencies into the curriculum you teach. Please indicate the importance of the following generic competencies for you, as an alternative access programme lecturer, by using the five-point Likert scale (1 - not important; 2 - less important; 3 - moderately important; 4 - important; 5 - very important).

	Not important	Less important	Moderately important	Important	Very important
Collaboration with individuals and group work/teamwork	◯	◯	◯	◯	◯
Communication skills (written and oral)	◯	◯	◯	◯	◯
Computer skills	◯	◯	◯	◯	◯
Creative thinking skills	◯	◯	◯	◯	◯
Critical thinking skills	◯	◯	◯	◯	◯
Deadline-orientated	◯	◯	◯	◯	◯
Design-orientated thinking skills	◯	◯	◯	◯	◯
E-learning technologies	◯	◯	◯	◯	◯
Emotional intelligence	◯	◯	◯	◯	◯
Entrepreneurial skills	◯	◯	◯	◯	◯

	Not important	Less important	Moderately important	Important	Very important
Information literacy	○	○	○	○	○
Innovative thinking skills	○	○	○	○	○
Interpretation	○	○	○	○	○
Learning styles and strategies	○	○	○	○	○
Listening and note-taking	○	○	○	○	○
Memory	○	○	○	○	○
Multitasking	○	○	○	○	○
Organisational and planning skills	○	○	○	○	○
Presentation skills	○	○	○	○	○
Problem-solving	○	○	○	○	○
Reading skills	○	○	○	○	○
Referencing	○	○	○	○	○
Reflection	○	○	○	○	○
Research skills	○	○	○	○	○
Responsibility towards clients/employers	○	○	○	○	○
Responsibility towards the community	○	○	○	○	○
Responsibility towards the profession	○	○	○	○	○
Revision and examination techniques	○	○	○	○	○
Self-management	○	○	○	○	○
Self-motivated / motivation	○	○	○	○	○
Stress management	○	○	○	○	○
Study skills	○	○	○	○	○
Time management skills	○	○	○	○	○
Visual communication	○	○	○	○	○
Work independently	○	○	○	○	○

Other (please specify)

SECTION B.2

* 3. Please motivate a minimum of one (1) to a maximum of ten (10) of the generic competencies you selected in Section B.1 as "important" and/or "very important". Please motivate your rating of the competency as "important" and/or "very important" by typing your motivation in the text box provided next to the relevant competency.

Since these questions are qualitative in nature, please answer honestly and in as much detail as possible.

Collaboration with individuals and group work/teamwork	
Communication skills (written and oral)	
Computer skills	
Creative thinking skills	
Critical thinking skills	
Deadline-orientated	
Design-orientated thinking skills	
E-learning technologies	
Emotional intelligence	
Entrepreneurial skills	
Information literacy	
Innovative thinking skills	
Interpretation of information	
Learning styles and strategies	
Listening and note-taking	
Memory	
Multitasking	
Organisational and planning skills	
Presentation skills	
Prioritise workload/tasks	
Problem-solving	

Reading skills	
Referencing	
Reflection	
Research skills	
Responsibility towards clients/employers	
Responsibility towards the community	
Responsibility towards the profession	
Revision and examination techniques	
Self-management	
Self-motivated / motivation	
Stress management	
Study skills	
Time management skills	
Visual communication	
Work independently	
Work under pressure	

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

SECTION C - DISCIPLINE-SPECIFIC COMPETENCIES

This section is only applicable to lecturers in mainstream Graphic Design programmes and lecturers in alternative access Graphic Design programmes.

The section contains discipline-specific competencies for Graphic Designers as identified from the literature. It consists of two sections, namely C.1 and C.2. Section C.1 is quantitative in nature and requires that you rate the importance of each listed discipline-specific competency according to a five-point Likert scale ranging from "not important" to "very important" as the two extremes.

Section C.2 is qualitative and requires that you motivate your ratings of the discipline-specific competencies in Section C.1.

SECTION C.1

* 1. As a Graphic Design lecturer in a mainstream and/or alternative access programme, you are required to incorporate discipline-specific competencies into the curriculum you teach. Please rate the importance of each of the discipline-specific competencies in the Graphic Design programme you teach by using the five-point Likert scale (1 - not important; 2 - less important; 3 - moderately important; 4 - important; 5 - very important).

	Not important	Less important	Moderately important	Important	Very important
Applying design elements and principles	○	○	○	○	○
Applying design techniques	○	○	○	○	○
Collaboration with individuals and group work/teamwork	○	○	○	○	○
Communication skills (written and oral)	○	○	○	○	○
Creative thinking skills	○	○	○	○	○
Creativity	○	○	○	○	○
Critical thinking skills	○	○	○	○	○
Curiosity	○	○	○	○	○
Deadline-orientated	○	○	○	○	○
Design-orientated thinking skills	○	○	○	○	○
Entrepreneurial skills	○	○	○	○	○
Imagination	○	○	○	○	○
Innovation	○	○	○	○	○
Innovative thinking skills	○	○	○	○	○
Interpretation of information	○	○	○	○	○
Intuition	○	○	○	○	○
Multitasking	○	○	○	○	○
Observation	○	○	○	○	○
Organisational and planning skills	○	○	○	○	○
Originality	○	○	○	○	○
Passion	○	○	○	○	○
Prioritise workload/tasks	○	○	○	○	○
Problem solving	○	○	○	○	○

	Not important	Less important	Moderately important	Important	Very important
Reflection	○	○	○	○	○
Responsibility towards other designers	○	○	○	○	○
Responsibility towards clients/employers	○	○	○	○	○
Responsibility towards the community	○	○	○	○	○
Responsibility towards the profession	○	○	○	○	○
Self-management	○	○	○	○	○
Self-motivated / motivation	○	○	○	○	○
Stress management	○	○	○	○	○
Time management skills	○	○	○	○	○
Visual communication	○	○	○	○	○
Work independently	○	○	○	○	○
Work under pressure	○	○	○	○	○

Other (please specify)

SECTION C.2

* 2. Please motivate a minimum of one (1) to a maximum of ten (10) of the discipline specific competencies you selected in Section C.1 as "important" and/or "very important". Please motivate your rating of the competency as "important" and/or "very important" by typing your motivation in the text box provided next to the relevant competency.

Since these questions are qualitative in nature, please answer honestly and in as much detail as possible.

Applying design elements and principles

Applying design techniques

Collaboration with individuals and group work/teamwork

Communication skills (written and oral)

Creative thinking skills

Creativity	
Critical thinking skills	
Curiosity	
Deadline-orientated	
Design-orientated thinking skills	
Entrepreneurial skills	
Imagination	
Innovation	
Innovative thinking skills	
Interpretation of information	
Intuition	
Multitasking	
Observation	
Organisational and planning skills	
Originality	
Passion	
Prioritise workload/tasks	
Problem-solving	
Reflection	
Responsibility towards other designers	
Responsibility towards clients/employers	
Responsibility towards the community	
Responsibility towards the profession	
Self-management	
Self-motivated / motivation	
Stress management	
Time management skills	

Visual communication	
Work independently	
Work under pressure	

FINAL: GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

SECTION D - STUDENT SUCCESS MECHANISMS

This section is applicable to lecturers in both mainstream and alternative access programmes for Graphic Design students, as well as lecturers in other alternative access programmes.

The section relates to mechanisms for ensuring student success as identified in the literature. It also consists of two sections, namely D.1 and D.2. Section D.1 is quantitative in nature and requires of you to rate the importance of the listed success mechanisms according to a five-point Likert scale ranging from "not important" to "very important" as the two extremes. Section D.2 is qualitative and requires that you motivate your rating of a maximum of three success mechanisms as very important in D.1.

SECTION D.1

* 1. As a lecturer, whether in a mainstream and/or any alternative access programme, you are required to incorporate student success mechanisms into the curriculum that you teach. Please rate the importance of each of the listed student success mechanisms according to the five-point Likert scale (1 - not important; 2 - less important; 3 - moderately important; 4 - important; 5 - very important).

	Not important	Less important	Moderately important	Important	Very important
Academic advising	○	○	○	○	○
Positive learning environment	○	○	○	○	○
Teaching and learning strategies (e.g. flipping the classroom and high impact practices).	○	○	○	○	○
Student engagement	○	○	○	○	○
Student motivation	○	○	○	○	○

Other (please specify)

SECTION D.2

* 2. Please motivate a minimum of one (1) to a maximum of five (5) student success mechanisms you selected in Section D.1 as "important" and/or "very important". Please write your motivation opposite to the mechanism

Since these questions are qualitative in nature, please answer honestly and in as much detail as possible.

Academic advising	
Learning environment that contributes to student learning	
Teaching and learning strategies (e.g. flipping the classroom and high impact practices)	
Student engagement	
Student motivation	

APPENDICES OF SECTION C

C

APPENDIX C.6: E-MAIL INVITATION TO PROSPECTIVE HE TEACHER PARTICIPANTS TO PARTAKE IN THE QUESTIONNAIRE SURVEY AIMED AT RESEARCH OBJECTIVES 1 AND 2

Generic and discipline-specific competencies

1 message

yolandi Burger <yolandibur@gmail.com> Mon, Jan 23, 2017 at 1:19 PM
To: Yolandi Burger <yolandibur@gmail.com>

GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AND SUPPORT MECHANISMS TO BE INCLUDED IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN STUDENTS

Dear prospective participant

You were recently invited to participate in a survey conducted by Mrs Y. Burger under the supervision of Drs S.P. van Tonder and J.H. van Schoor of the School of Higher Education Studies at the University of the Free State. The aforementioned survey forms part of Mrs Burger's doctoral research in Higher Education Studies and it is envisioned that the findings of this research will contribute to a framework for good alternative access programmes for Graphic Design students.

The survey you are referred to below has been specifically designed to identify the key generic and discipline-specific competencies and support mechanisms that should be included in alternative access programmes for Graphic Design students. You were identified as a prospective participant in this survey because you are a lecturer in Graphic Design, in a related discipline and/or in an alternative access programme. By completing this survey, you agree that the information you provide may be used for research purposes, including the dissemination thereof through peer-reviewed publications and conference proceedings.

When accessing the survey, you will first be presented with a section outlining the background, aim and relevant particulars of the research project which the survey questionnaire has been designed to address. The survey has furthermore been designed to be completed anonymously and as such the researcher and promoters shall have no way of connecting any information furnished to any of the participants personally. Please also note that you are under no obligation to complete the survey and you may withdraw from the study prior to finally submitting the survey. Should you decide to participate, you will be expected to confirm your informed consent for taking part by indicating as such on the first page of the questionnaire.

Further information on as well as ethical considerations pertaining to the survey are provided in more detail in the introduction to the survey questionnaire.

The primary researcher, Mrs Y. Burger, can be contacted during office hours at 079 849 5931 / yolandibur@gmail.com. The promoters of the study, namely Drs S.P. van Tonder and J.H. van Schoor, can be contacted during office hours at 051 401 9174 / vTonderSP@ufs.ac.za and 051 401 3799 / vschoorj@ufs.ac.za respectively.

Click the button below to start or continue the survey. **However, if you feel the survey is not applicable to you please click the unsubcribe link below in order to opt out from futher communication regarding this survey.**

Begin Survey

Please do not forward this email as its survey link is unique to you.
Unsubscribe from this list

Powered by SurveyMonkey

APPENDICES OF SECTION C

C

APPENDIX C.7: DISSEMINATION AVENUES FOR THE RESEARCH DESIGN AND METHODOLOGY FOR THE QUESTIONNAIRE SURVEY AIMED AT OBJECTIVES 1 AND 2

[redacted]

Burger, Yolandie <yolandieb@[redacted]>

Re: Graphic Design job ads/trends - third year GD

1 message

Burger, Yolandie [redacted]
To: "Linde, Doret" [redacted]

24 July 2015 at 09:04

Hi Doret

Hope you are well. Doret, I am so sorry I forgot about it completely. Please find attached, but take note this was my final draft to my supervisors so there are still some questions I have for them. You can look at the tables and figures as these will provide you with outlines you need.

If I may ask a favour from you, will you be willing to read through the chapter as a critical reader and give me feedback? I would truly appreciate it :). This is in any way my next step after my supervisors approve the last comments of the chapter.

Enjoy your day!

Best regards

Yolandi Burger

[redacted]

Click here for our disclaimer notice

On 23 July 2015 at 14:10, Linde, Doret <doretl@[redacted]> wrote:

> Hi Yolandie,
> I hope you are doing wonderfully. Looks like we are going to freeze again this weekend, you better keep warm! Yolandie, I know Sue has chatted to you about the idea of possibly having only one stream in GD third year, I am trying to gather some evidence to either support or debunk that. She mentioned to me that you have done some research in terms of industry and what is being advertised and required in graphic design job advertisements. I was wondering if you could possibly assist with this information?
>
> Kind Regards,
>
> [redacted]

[redacted]



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CHAPTER 3_Competencies required of Graphic Designers_May 2015.docx
204K

RE: Contribution to redesign of qualifications

1 message

Lizette Carstens <lcarstens@[redacted] Wed, Nov 29, 2017 at 8:34 AM
To: Yolandi Burger <yolandibur@gmail.com>

Dear Yolandi

Thank you again for sharing the list of competencies identified in your studies with me. It was most helpful. I used it as a starting point for a curriculum co-design workshop and it proved extremely useful for opening up the conversation and not allowing it to get caught up in module-specific details too early on.

Kind regards

Lizette Carstens

[redacted]

[redacted]

From: yolandi Burger [mailto:yolandibur@gmail.com]
Sent: Tuesday, 28 November 2017 9:06 PM
To: Lizette Carstens <lcarstens@[redacted]
Subject: Contribution to redesign of qualifications

Dear Lizette

I hope you are well. Lizette, I am busy writing up my last few pages of my PhD and cannot find our email correspondence with regards to the list of competencies which I shared with you during the workshop you presented for the redesign of the graphic design qualification earlier the year. Is it possible that you can just confirm via email that I did share with you and maybe how you used my research in the redesign of the curriculum? Even if it merely provided guidance :) I want to note it my research please.

I hope you have a wonderful day.

NB: Withdrawal from DEFSA conference

1 message

yolandi Burger <yolandibur@gmail.com> Sun, Jul 2, 2017 at 7:40 PM
To: secretariat@defsa.org.za

Dear DEFSA Secretariat

I hope you are well. In the light of complications with my pregnancy, I have decided in consultation with my supervisor and co-author, Dr Fanus van Tonder, to withdraw my application for the upcoming DEFSA conference since I will not be able to meet the paper submission deadline of 24 July 2017. I apologise for the withdrawal at such a late stage.

I hope you have a wonderful day further.

Kind regards
Yolandi Burger

Design Education Forum of Southern Africa

Design Education Conference 2017

Hosted by Tshwane University of Technology & Inscape Education Group

Decolonise!

Dear Yolandi Burger
Inscape Education Group
yolandibur@gmail.com

Thank you for submitting your abstract

Knowledge sources for the design of a curriculum in the vocational discipline of graphic design

to the 2017 DEFSA conference.

Congratulations. Your abstract has been accepted after a double-blind peer review process. The template for the submission of your paper and the copyright form are available on the DEFSA website http://www.defsa.co.za/. The deadline for the upload of the full paper is 24th July 2017, and 20th September 2017 for the final presentation.

All papers presented at the conference will undergo a second double-blind peer review before final inclusion in the conference proceedings. The review process will ensure that the proceedings will consist of high-quality papers that meet the appropriate academic requirements.

The detail on conference registration and payments arrangements will shortly be updated on the DEFSA website; please visit the website regularly for the latest news. The conference committee must receive your payment by 31 July 2017 if you want to qualify for the early bird registration fee. DEFSA is a non-profit organisation, and we are unfortunately not in the position to offer financial assistance to authors.

Best Wishes
2017 DEFSA CONFERENCE ORGANISING COMMITTEE.

Tshwane University of Technology
We empower people

INSCAPE EDUCATION GROUP

Design Education Forum of Southern Africa

14th National Design Education Conference 2017

Hosted by Tshwane University of Technology & Inscape Education Group

27 — 29 September 2017
Freedom Park, City of Tshwane

#Decolonise!

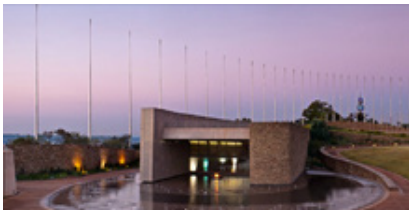
Design educators reflecting on the call for the decolonisation of education

The year two thousand and sixteen will be noted in the annals of history as a watershed year in South African Higher Education. The calls by South African students for decolonised education have been emphatically professed, loud and clear. As design educators, we need to interrogate our role in decolonising design education.

James Wang uses Aristotle's theories of "reason, imagination, and practical intellect" when he writes on "The Importance of Aristotle to Design Thinking" (2013:4). He distinguishes between makers and doers. Makers are concerned with making excellent products while doers are concerned with justice, public values and social issues. Wang claims that designers, with a predisposition as makers, thus have a deficiency in getting involved with real, pertinent social issues. Wang's argument is based on the theories of one of the founders of Western academe, a trend that is pertinent in many papers delivered at past DEFSA conferences. In contrast to Wang's distinction between "makers" and "doers", Buchanan states that "the quality of design is distinguished not merely by technical skill of execution or by aesthetic vision but by the moral and intellectual purpose toward which technical and artistic skill is directed" (2001:37).

With the 2017 #Decolonise! Conference design educators are provided with the opportunity to reflect on, and critically interrogate the notion of Decolonisation in relation to design education with the aim of transforming existing practices. Asking questions on who, what, where, when and how? Examples of questions which require our urgent attention include: What is our understanding of the call for decolonised education? How do our curricula and pedagogical approaches stand up to this call? What values, assumptions and truths underlie our discipline? To what extent do we incorporate the context and knowledge of the South, and more specifically of Africa into our discipline? How do we bring practitioners of design into the conversation? How are we contributing textbooks and learning resources to this project? What do our students have to say on these issues?

Through a strategic partnership with Freedom Park, and its Department of Heritage and Knowledge, DEFSA will be hosting its 14th national conference to engage with the theme of Decolonising Design Education. The Design Education Forum of Southern Africa invites all role-players in design to submit academic papers that will contribute to this discourse.



Buchanan, R. 2001. Human Dignity and Human Rights: Thoughts on the Principles of Human-Centered Design. Design Issues 17(3): 35-39.
Wang, J. 2013. The Importance of Aristotle to Design Thinking. Design Issues 29(2): 4-15.

To decolonise the tradition of academic conferences, the sub-themes of this conference will be 'generated' by the trends identified in the submissions received taking cognisance of the who, what, where, when and how approach while taking into account the contexts of the author in design education.

DATE

27-28 September 2017
Freedom Park, City of Tshwane

KEYNOTE SPEAKERS

Keynote speaker will be announced early in 2017.

ORGANISING COMMITTEE

Hosts:

Prof Mzo Sirayi	*Executive Dean Faculty of the Arts, TUT*
Ms Kate Chmela-Jones	*DEFSA President, VUT*

Chair:

Mr Herman Botes	*Tshwane University of Technology* *Botesh@tut.ac.za*

Co-Chair:

Dr Sue Giloi	*DEFSA President-Elect, INSCAPE Education Group* *Conference@defsa.org.za*

Members:

Prof Anne Mason	*Tshwane University of Technology*
Prof Rudi de Lange	*Tshwane University of Technology*
Dr AW Bussiahn	*Tshwane University of Technology*
Ms Tsholofelo Matome	Tshwane University of Technology
Mr Schalk van Staden	*Tshwane University of Technology*
Mr Clifford Moleko	*Tshwane University of Technology*
Ms Rene Van Der Merwe	*Tshwane University of Technology*
Mr Tumelo Rasedile	Tshwane University of Technology
Ms Helen Bührs	*INSCAPE Education Group*
Ms Amanda Breytenbach	*University of Johannesburg*
Prof Deirdre Pretorius	*University of Johannesburg*
Prof Amira Osman	*University of Johannesburg*
Ms Farieda Nazier	*University of Johannesburg*
Ms Danelle Heenop	*Vaal University of Technology*
Mr Thinus Mathee	*Vaal University of Technology*
Ms Reshma Maharajh	*Vaal University of Technology*

Conference Secretariat:

Ms Gwen Baloyi (Bookings & payments)	Baloyig@tut.ac.za
Ms Sandra de Beer (General Enquiries)	*DeBeerSE@tut.ac.za*
Dr Sue Giloi (Paper submissions)	*Conference@defsa.org.za*
Ms Irene Botes (Marketing, sponsors and PR)	*Botesjc@tut.ac.za*

FEES

- R2 000 early bird rate for registration before 31 July 2017
- R2 500 for registration after 1 August 2017
- R1 500 full-time students (Excluding staff)
- R600 gala evening 27 September.
  Venue: the //hapo interpretative centre, Freedom Park. Named in Khoi for the word "dream", the //hapo interpretative centre tells the story of Africa, and of South Africa specifically, in seven parts. Each part is a distinct element in the evolution of the great continent.

WORKSHOP

Don't miss the workshop on Friday 29 September.
The theme of the workshop will be announced in due course.
Workshop costs: Academics: R1100, Students: R650

Freedom PARK a heritage destination
an agency of the Department of Arts and Culture

Tshwane University of Technology
We empower people

INSCAPE EDUCATION GROUP

CITY OF TSHWANE
IGNITING EXCELLENCE

Design Education Forum of Southern Africa

14th National Design Education Conference 2017

#Decolonise!

Submission of Abstract

The Abstract submission deadline for the first call for papers is on or before ***4 April 2017***. Your abstract must be no more than 300-500 words. The abstract should be a concise statement of the problem, approach, and conclusions of the work described. It should clearly state the paper's contribution to the field. Typically, three to five Keywords should be taken from your submission.

Full Paper Assessment Criteria

The assessment of final papers is considerably more stringent than for an abstract. Your final paper will be assessed based on a wide range of criteria including the following:

- Does the paper address the conference theme?
- Is the paper academically sound?
- Does the paper contribute to the field of design education?
- Does the paper title reflect its content?
- Is the structure of the paper clear and logical?
- Are the problems, methodology and claims or conclusions clear?
- Does the paper include sufficient relevant related theory and is such knowledge clearly portrayed and correctly cited?
- Are parts of the paper weak or lacking, and how could these be improved?
- Are illustrations or diagrams relevant and correctly captioned, and do they contribute to the understanding of the material?
- Does the paper adhere to the style guidelines including footnotes, referencing, removal of personal references, headings and subheadings, keywords, etc.?
- Is the paper professionally presented: no grammatical or typographical errors, shoddy or poorly chosen wording, incorrect use of terms or other quality issues?

Page Size

Material on each A4 page should be justified, with a 2.54 cm margin right around. It is important to check these margins even if you use this Word template because they might have been overwritten by your local settings.

Important

To be able to see the links to submit a paper, review a paper or see your papers and reviews, you need to REGISTER and LOG IN to the DEFSA website (www.defsa.co.za).

Usernames and passwords are case-sensitive. Please note that your paper is being submitted for blind peer review. All references to the author in the body of the paper should be removed before submission. It is critical that your paper addresses the conference theme.

Acceptance of your abstract is not a guarantee that your paper will also be accepted. If your evaluation showed "needs clarification" in any aspect, please make sure that clarification is provided in your final abstract and paper.
If your evaluation showed "not acceptable" in any aspect, you might need to adjust your research topic and methodology to produce an acceptable paper.

Page numbering, headers and footers
Do NOT include headers, footers or page numbers in your submission. These will be added when the publication is assembled.

Formatted Text
Please use the template provided. Word styles have been provided to save you time and effort, and ensure consistency.

- Paragraphs: justified (left and right), 13pt spacing, 6pt above and below paragraphs.
- Normal text: Please use 11-point Calibri font.
- Abstract and keywords: italicised.

Section Headings
The headings of sections (or Heading 3) should be in Calibri 14-pt (not bold) using sentence case, i.e. only the initial letters of the first words and proper names capitalised.
Subsections (or Heading 4 on the template)
The headings of subsections should be in Calibri 11-pt bold using sentence case
Sub-subsections
The heading for sub-subsections should be in Calibri 11-pt bold, italic with initial letters capitalised

Figures/Captions
Figures and tables should be inserted at the appropriate point in your text. Each figure should have a figure caption in Calibri 10 point bold font. They should be numbered (e.g., "Table 1" or "Figure 2"), centred and placed beneath the figure or table. Please note that the words "Figure" or "Table" should be spelt out (e.g., "Figure" rather than "Fig.").
Please note that the papers will be printed in black and white. Therefore you should supply the final file with black and white graphics only. You may use coloured figures for the sake of the version on the Web, as long as they translate well into gray-scale.

References
The abbreviated Harvard system of citation should be used. References should be published materials accessible to the public. Internal technical reports may be cited only if they are easily accessible (i.e. you give an Internet address within your citation). Proprietary information may not be cited.
http://www.usq.edu.au/library/referencing/harvard-agps-referencing-guide

Language, style and content
Please make sure that your paper is in clear, readable English. With regard to spelling and punctuation, you may use any dialect of English (e.g., British, Canadian or US), provided this is done consistently. Hyphenation is optional.

To ensure suitability for the international audience of our conference, please pay attention to the following:

- Use simple sentence structure and common vocabulary. Avoid long sentences and complex sentence structures. Use semicolons and punctuation correctly.
- Briefly, define or explain all technical terms.
- Explain acronyms the first time they are used in your text, thereafter they may appear as acronyms e.g. South Africa (SA), thereafter SA.
- Clarify local references.
- Use unambiguous forms for culturally-localized concepts, such as times, dates, currencies and numbers (e.g., "1-5-99" or "5/1/99" may mean January 5th or May 1st.
- Try to minimise the use of gender-specific pronouns (he, she) and other gendered words (chairman, manpower). Use gender-neutral language or try to structure sentences so that gender-specific pronouns are avoided.

Total Word Length
Full papers should be no longer than 5,000 words, including title and references. Longer papers will not be included in the Research Proceedings.

File Name
For your paper to be accepted it must be formatted as a Microsoft Word file (.docx or .doc), of 5Mb or less, including diagrams (if any).
Your file must be named using the same style as your abstract was returned to you to make sure it is easy to identify i.e. **Abstractno_keyword.docx**
To avoid upload problems and make sure that your abstract, please ensure that there are no spaces or punctuation in the filename, and that there are 40 or less characters before the .'docx'.

Conclusion
It is important that you write for a general audience. This guideline is intended to help you achieve a professional presentation. By adhering to the guideline, you ensure that your paper is shown in the conference proceedings exactly as you intended. You also reduce wasted time and effort of rework and ensure an impressive presentation of all conference papers.
We thank you for your cooperation and look forward to receiving your "print-ready" paper.

Acknowledgements
We thank all authors, committee members, and volunteers for their hard work and contributions in providing guidelines, reviewing abstracts and papers, preparing the official proceedings and assisting with numerous tasks to ensure a professional and informative event.

APPENDICES OF SECTION C

C

APPENDIX C.8: FINAL SELF-STRUCTURED WEB-BASED SOAR ANALYSIS AIMED AT ACHIEVING RESEARCH OBJECTIVE 3

TEACHER_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

General Information

Welcome to the SOAR Analysis questionnaire for [redacted] Graphic Design bridging programme. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR) of the current Graphic Design bridging programme at [redacted] in which you lectured during 2011 and/or 2012. The information that is collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. This survey is done as part of my PhD studies in Higher Education Studies at the University of the Free State.

I truly appreciate your willingness to share your knowledge and experience. The questionnaire will not take more than 30 minutes of your time and consists of two sections, namely interest-based and analysis sections. Once you have completed all the questions, please click on the submit button. Please note that you will not be able to submit if you haven't answered all the required questions. These questions are marked with an asterisk. Your participation in this study is voluntary and your anonymity will be protected as SurveyMonkey will not capture your IP address.

If you have any questions regarding the questionnaire or need assistance please contact me by e-mail or 079 849 5931.

* I hereby voluntarily agree to participate in the above-mentioned research project and declare that I have been fully informed about the study and that I am 18 years or older.

- ◯ I agree
- ◯ I don't agree

TEACHER_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

SECTION A

This section contains questions that will guide section B of the questionnaire in regard to your interest in this study.

* [redacted] campus where you lectured (you may select more than one option)

- ☐ Bedfordview
- ☐ Bloemfontein (pilot study)
- ☐ Cape Town
- ☐ Durban
- ☐ Durbanville
- ☐ East London
- ☐ Midrand
- ☐ Nelspruit
- ☐ Port Elizabeth
- ☐ Potchefstroom
- ☐ Pretoria
- ☐ Randburg

* Time frame when you taught in the Graphic Design bridging programme

- ◯ Not lecturing in the programme
- ◯ 2010 or earlier
- ◯ 2011
- ◯ 2012
- ◯ 2013

Graphic Design modules that you have lectured and are currently lecturing (you may select more than one option)

- ☐ Applied Colour and Design
- ☐ Design Fundamentals
- ☐ Bridging English A
- ☐ Bridging English B
- ☐ Human Development A
- ☐ Human Development B
- ☐ Introduction to Graphic Design
- ☐ Student Skills A
- ☐ Students Skills B

TEACHER_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

SECTION B

This section contains questions concerning the SOAR analysis of the Graphic Design bridging programme at [redacted] Please respond to all four questions honestly and in as much detail as possible.

* Strengths are defined as the things that the programme is performing very well, i.e. its advantages. What do you view as this programme's greatest strengths and why?

* Threats to or weaknesses of a programme may be seen as opprtunities to improve the programme. Think of such threats and weaknesses and then indicate what opportunities they create for improvement in the programme and why?

* Aspirations are defined as your future expectations or wishes for this programme. What are your future expectations or wishes for this programme so that it can serve as a mechanism for student success in this discipline and why?

* What method can we use to determine whether and to what extent we met your future expectations or wishes which you identified in the previous question?

STUDENT_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

General Information

Welcome to the SOAR Analysis questionnaire for [redacted] Graphic Design bridging programme. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR) of the current Graphic Design bridging programme at [redacted] which you attended during 2011 and/or 2012. The information that is collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. This survey is done as part of my PhD studies in Higher Education Studies at the University of the Free State.

I truly appreciate your willingness to share your knowledge and experience. You may complete the questionnaire via your cellphone, tablet or computer. The questionnaire will not take more than 30 minutes of your time and consists of two sections, namely interest-based and analysis sections. Once you have completed all the questions, please click on the submit button. Please note that you will not be able to submit if you haven't answered all the required questions. These questions are marked with an asterisk. Your participation in this study is voluntary and your anonymity will be protected as SurveyMonkey will not capture your IP address.

If you have any questions regarding the questionnaire or need assistance please contact me by e-mail or 079 849 5931.

* I hereby voluntarily agree to participate in the above-mentioned research project and declare that I have been fully informed about the study and that I am 18 years or older.

- ◯ I agree
- ◯ I don't agree

STUDENT_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

SECTION A

* [redacted] campus where you were enrolled (you may select more than one)

- ☐ Bedfordview
- ☐ Bloemfontein (pilot study)
- ☐ Cape Town
- ☐ Durban
- ☐ Durbanville
- ☐ East London
- ☐ Midrand
- ☐ Nelspruit
- ☐ Port Elizabeth
- ☐ Potchefstroom
- ☐ Pretoria
- ☐ Randburg

* Time frame when you attended the Pre-Degree Graphic Design programme at [redacted]

- ◯ 2010 or earlier
- ◯ 2011
- ◯ 2012

Please select the reason why you were selected for the Graphic Design pre-degree programme

◯ Less than 25 points for matric results ◯ Portfolio did not meet requirements

Select the modules for which you were enrolled (you may select more than one option)

- ☐ Applied Colour and Design
- ☐ Bridging English A
- ☐ Bridging English B
- ☐ Computer Skills
- ☐ Design Fundamentals
- ☐ Human Development A
- ☐ Human Development B
- ☐ Introduction to Graphic Design
- ☐ Student Skills A
- ☐ Student Skills B

Which modules did you successfully complete that you selected in the previous question? (you may select more than one option)

- ☐ Applied Colour and Design
- ☐ Bridging English A
- ☐ Bridging English B
- ☐ Computer Skills
- ☐ Design Fundamentals
- ☐ Human Development A
- ☐ Human Development B
- ☐ Introduction to Graphic Design
- ☐ Student Skills A
- ☐ Student Skills B

STUDENT_SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN BRIDGING PROGRAMME

SECTION B

This section contains questions concerning the SOAR analysis of the Graphic Design bridging programme at [redacted] Please respond to all four questions honestly and in as much detail as possible.

* Strengths are defined as the things that the programme is performing very well, i.e. its advantages. What do you view as this programme's greatest strengths and why?

* Threats to or weaknesses of a programme may be seen as opprtunities to improve the programme. Think of such threats and weaknesses and then indicate what opportunities they create for improvement in the programme and why?

* Aspirations are defined as your future expectations or wishes for this programme. What are your future expectations or wishes for this programme so that it can serve as a mechanism for student success in this discipline and why?

* What method can we use to determine whether and to what extent we met your future expectations or wishes which you identified in the previous question?

APPENDICES OF SECTION C

C

APPENDIX C.9: E-MAIL INVITATION TO PROSPECTIVE HE TEACHER PARTICIPANTS TO PARTAKE IN THE SOAR ANALYSIS AIMED AT RESEARCH OBJECTIVE 3

SOAR Analysis of [redacted] Graphic Design Pre-Degree Programme

1 message

yolandi Burger <yolandibur@gmail.com> Tue, Jan 24, 2017 at 11:18 AM
To: Yolandi Burger <yolandibur@gmail.com>

Dear Prospective Participant

I hope you are well. I am Yolandi Burger and am enrolled for my PhD study at the University of the Free State titled: Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design. The aim of this study is to investigate how a bridging programme in higher education can best serve as a mechanism for student success in the Applied Art discipline of Graphic Design.

You have been identified to participate in this study by completing a SOAR analysis questionnaire. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR analysis) of the current Graphic Design bridging programme at [redacted] in which you lectured during 2011 and/or 2012. The information that is collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. I shall truly appreciate your participation to share your knowledge and experience about this programme. The questionnaire will not take more than 30 minutes of your time and consist of two sections, namely interest-based and analysis sections.

To participate in this questionnaire please click on the following link that will redirect you to the web-based questionnaire so that you can complete it online: https://www.surveymonkey.com/s.aspx?sm=w5H50mg_2fJfbmsYfGaT_2fVaQ_3d_3d . Once you have completed all the questions, please click on the submit button. Please note that you will not be able to submit if you haven't answered all the required questions.

Your participation in this study is voluntary and your anonymity will be protected as SurveyMonkey will not capture your IP address in your response.

If you have any questions regarding the questionnaire or need assistance, please contact me via e-mail yolandibur@gmail.com or 079 849 5931.

Please note: If you do not wish to receive further emails from me, please click here https://www.surveymonkey.com/optout.aspx?sm=w5H50mg_2fJfbmsYfGaT_2fVaQ_3d_3d. You will then be automatically removed from my mailing list.

Kind regards

Yolandi Burger
RESEARCHER

APPENDICES OF SECTION C

C

APPENDIX C.10: PILOT STUDY FOR THE SOAR ANALYSIS AIMED AT ACHIEVING RESEARCH OBJECTIVE 3

SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN

General Information

Welcome to the SOAR Analysis questionnaire for [redacted] Graphic Design bridging programme. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR) of the current Graphic Design bridging programme at [redacted] in which you lecture or which you attended in the past 24 months. A printed copy of this questionnaire is also available from your academic coordinator for your convenience. The information that is collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. This survey is done as part of my PhD in Higher Education at the University of the Free State.

I truly appreciate your willingness to share your knowledge and experience. The questionnaire will take approximately 30 minutes of your time and consist of two sections, namely interest-based and analysis sections. Once you have completed all the questions, please click on the submit button. Please note that you will not be able to submit if you haven't answered all the required questions. Your participation in this study is voluntary and your anonymity will be protected as SurveyMonkey will not caputure your IP address.

If you have any questions regarding the questionnaire or need assistance please contact me by e-mail or 079 849 5931.

Please click the "next" button if you voluntarily agree to participate in the above-mentioned research project and declare that you are 18 years or older.

SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN

SECTION A

This section contains questions that will guide section B of the questionnaire in regard to interest in this study.

*** [redacted] campus where you are currently lecturing / enrolled**

- ◯ Bedfordview
- ◯ Cape Town
- ◯ Durban
- ◯ Durbanville
- ◯ East London
- ◯ Midrand
- ◯ Nelspruit
- ◯ Port Elizabeth
- ◯ Potchefstroom
- ◯ Pretoria
- ◯ Randburg

*** Your role in [redacted] Graphic Design programme**

- ◯ Facilitator
- ◯ Student
- ◯ Neither

SOAR ANALYSIS QUESTIONNAIRE for GRAPHIC DESIGN

SECTION A - FACILITATORS

***Teaching experience in the Graphic Design bridging programme**

- ◯ Not lecturing in the programme
- ◯ 12 months or less
- ◯ 13 months - 24 months
- ◯ More than 24 months

Graphic Design modules that you have lectured and are currently lecturing

- ☐ Applied Colour and Design
- ☐ Design Fundamentals
- ☐ Introduction to Graphic Design

SOAR ANALYSIS QUESTIONNAIRE for GRAPHIC DESIGN

SECTION A - STUDENTS

***Date of completion of the Graphic Design bridging programme at** [redacted]

◯ 12 months or less ◯ 13 - 24 months ◯ More than 24 months

Graphic Design modules that you have completed

☐ Applied Colour and Design ☐ Design Fundamentals ☐ Introduction to Graphic Design

SOAR ANALYSIS QUESTIONNAIRE for [redacted] GRAPHIC DESIGN

SECTION B

This section contains questions concerning the SOAR analysis of the Graphic Design bridging programme at [redacted]
Please respond to all four questions honestly and in as much detail as possible.

***Strenths are defined as the things that the programme is doing really well and what are its advances. What do you view as this programme's greatest strengths?**

***Opportunities are the threads and weaknesses of the programmes that are expressed as opportunities. Opportunities are a chance for the Graphic Design bridging programme to progress or advance. What do you view as the best opportunities for this programme?**

***Aspirations are defined as your future expectations or wishes for this programme. What are your aspirations for this programme?**

***What measure can be used to determine when we have met your wishes/aspirations which you identified in the previous question?**

APPENDICES OF SECTION C

C

APPENDIX C.11: FEEDBACK QUESTIONNAIRE FOR THE PILOT SOAR ANALYSIS AIMED AT ACHIEVING RESEARCH OBJECTIVE 3

Feedback from the Pilot Study - SOAR Analysis

Welcome to the feedback questionnaire for the SOAR Analysis questionnaire that you completed recently as part of a pilot study for my PhD titled: Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design at the University of the Free State. This questionnaire aims to provide feedback in regard to ...

I truly appreciate your willingness to share your experience. The questionnaire will take approximately 10 minutes of your time. Your participation in this study is voluntary and your anonymity will be protected.

* I hereby voluntarily agree to participate in the above-mentioned research project and declare that I have been fully informed about the study and that I am 18 years or older.

- ◯ I agree
- ◯ I don't agree

Feedback from the Pilot Study - SOAR Analysis

This section pertains to the SOAR Analysis questionnaire which you completed as part of a pilot study.

* How did you find the completion of the SOAR Analysis Questionnaire for the pilot study?

Easy	Medium	Hard
◯	◯	◯

Please provide a reason for your choice

* How did you experience the logical order of the questionnaire?

Easy	Medium	Hard
◯	◯	◯

Please provide a reason for your choice

* How did you experience the type of questions asked?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

* How did you experience the language used in the questionnaire?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

Are there anything else you want to add?

APPENDICES OF SECTION C

C

APPENDIX C.12: PRINTED INVITATION TO PROSPECTIVE STUDENT PARTICIPANTS TO PARTAKE IN THE SOAR ANALYSIS AIMED AT RESEARCH OBJECTIVE 3

[redacted]

13 March 2013

Dear Student

PILOT PHASE ON BLOEMFONTEIN CAMPUS

I hope you are well. You have been identified as a participant for a pilot phase of a PhD study on the Bloemfontein Campus. The study is titled: Mechanisms for student success in a higher education bridging programme for the Applied Art discipline of Graphic Design. The aim of this study is to investigate how a bridging programme in higher education can best serve as a mechanism for student success in the Applied Art discipline of Graphic Design.

Your participation in this pilot phase will consist of completing a SOAR analysis questionnaire and providing feedback on the structure, language, and suitability of this questionnaire. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR analysis) of the current Graphic Design bridging programme at [redacted] in which you were enrolled for during 2011 and/or 2012. I shall truly appreciate your participation to share your knowledge and experience about this programme

Please report to the Innovation Liar on Thursday, 14 March 2013 from 12:00 – 13:00 for participation in the pilot phase. If you have any questions regarding the questionnaire or need assistance, please contact me via e-mail yolandieb[redacted]

Kind regards

Yolandi Burger
RESEARCHER

C

APPENDIX C.13: SHORT MESSAGE SERVICE (SMS) INVITATION TO PROSPECTIVE PARTICIPANTS TO PARTAKE IN THE SOAR ANALYSIS AIMED AT RESEARCH OBJECTIVE 3

SMS TO STUDENT SOAR ANALYSIS QUESTIONNAIRE

Dear prospective participant

You are invited to participate in an online survey regarding [redacted]'s bridging programme for graphic design for which you were registered during 2011 and/or 2012. Please click on the following link to start with the survey: https://www.surveymonkey.com/r/[redacted]soar Your participation is greatly appreciated.

Should you have any queries you are welcome to contact me at yolandibur@gmail.com.

Kind regards
Yolandi Burger
RESEARCHER

APPENDICES OF SECTION C

C

APPENDIX C.14: FINAL SELF-STRUCTURED PRINTED SOAR ANALYSIS FOR STUDENT PARTICIPANTS AIMED AT ACHIEVING RESEARCH OBJECTIVE 3

STUDENT SOAR ANALYSIS QUESTIONNAIRE
for
[redacted]'S GRAPHIC DESIGN BRIDGING PROGRAMME

Welcome to the SOAR Analysis questionnaire for [redacted]'s Graphic Design pre-degree programme. This questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR) of the current Graphic Design bridging programme at [redacted] which you attended during 2011 and/or 2012. The information that is collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. This survey is done as part of my PhD studies in Higher Education Studies at the University of the Free State. This research has been approved by [redacted]'s Ethical Committee (Research Ethical Clearance no: [redacted]/1/2012/06).

I truly appreciate your willingness to share your knowledge and experience. The questionnaire will not take more than 30 minutes of your time and consists of two sections, namely interest-based and analysis sections. Once you have completed all the questions please place the completed survey in the envelope provided, seal it and hand back to your Academic Coordinator or Academic Administrator. Your participation in this study is voluntary and your anonymity will be protected as all surveys will be treated as confidential and no personal details will be captured.

If you have any questions regarding the questionnaire or need assistance please contact me by email or 079 849 5931.

I, herby voluntarily agree to participate in the above-mentioned research project and declare that I am 18 years or older.

☐ I agree ☐ I don't agree

Recommendations on answers selected:

I agree	Please continue to the next question
I don't agree	Please exit out of questionnaire

SECTION A
This section contains questions that will guide section B of the questionnaire in regard to interest in this study and how you will be able to participate.

[redacted] campus where you are currently lecturing / enrolled

- ☐ Bedfordview
- ☐ Cape Town
- ☐ Durban
- ☐ Durbanville
- ☐ East London
- ☐ Midrand
- ☐ Nelspruit
- ☐ Port Elizabeth
- ☐ Potchefstroom
- ☐ Pretoria
- ☐ Randburg

Date of completion of the Graphic Design bridging programme at [redacted]

- ☐ 2010 or earlier
- ☐ 2011
- ☐ 2012

Recommendations on answers selected:

2010 or earlier	Thank you for your participation, unfortunately this questionnaire is not relevant to you.
2011	Please continue to the next question
2012	Please continue to the next question

Please select the reason why you were selected for the Graphic Design pre-degree programme

- ☐ Less than 25 points for matric results
- ☐ Portfolio did not meet requirement

Select the modules for which you were enrolled (you may select more than one option)

- ☐ Applied Colour and Design
- ☐ Design Fundamentals
- ☐ Student Skills A
- ☐ Bridging English A
- ☐ Human Development A
- ☐ Student Skills B
- ☐ Bridging English B
- ☐ Human Development B
- ☐ Computer Skills
- ☐ Introduction to Graphic Design

SECTION B

This section contains questions concerning the SOAR analysis of the Graphic Design bridging programme at [redacted]. Please respond to all four questions honestly and in as much detail as possible.

Strengths are defined as the things that the programme is doing really well and what are its advances. What do you view as this programme's greatest strengths?

Opportunities are the threads and weaknesses of the programmes that are expressed as opportunities. Opportunities are a chance for the Graphic Design bridging programme to progress or advance. What do you view as the best opportunities for this programme?

Aspirations are defined as your future expectations or wishes for this programme. What are your aspirations for this programme?

What measure can be used to determine when we have met your wishes/aspirations which you identified in the previous question?

END OF SURVEY

PO Box 37029
Langenhoven Park
BLOEMFONTEIN
9330

09 September 2013

Dear Student

STUDENT SOAR ANALYSIS INFORMATION LETTER

This letter serves the purpose to provide you with information regarding the SOAR Analysis questionnaire for [redacted]'s Graphic Design pre-degree programme, which is attached to this letter. The questionnaire aims to identify the strengths, opportunities, aspirations and results (SOAR) of the current Graphic Design bridging programme at [redacted] which you attended during 2011 and/or 2012. The information collected will be analysed and used to embed mechanisms for student success in a framework for bridging programmes in the Applied Art discipline of Graphic Design in South Africa. This survey is done as part of my PhD studies in Higher Education Studies at the University of the Free State. This research has been approved by [redacted]'s Ethical Committee (Research Ethical Clearance no: [redacted]/1/2012/06).

I truly appreciate your willingness to share your knowledge and experience. The questionnaire will not take more than 30 minutes of your time and consists of two sections, namely interest-based and analysis sections. Once you have completed all the questions please place the completed survey in the envelope provided, seal it and hand back to your Academic Coordinator or Academic Administrator or alternatively you may post the registered envelope yourself. **Your participation in this study is voluntary and your anonymity will be protected as all surveys will be treated as confidential and no personal details will be captured**.

If you have any questions regarding the questionnaire or need assistance please contact me by email or 079 849 5931.

Kind regards

Yolandi Burger
RESEARCHER

APPENDICES OF SECTION C

C

APPENDIX C.15: DISSEMINATION AVENUES FOR THE RESEARCH DESIGN AND METHODOLOGY FOR THE QUESTIONNAIRE SURVEY AIMED AT OBJECTIVE 3

17 February 2016

To Whom It May Concern:

As the then Dean of the Creative Arts and Communication Faculty at [redacted] from 2008 to 2015, Graphic Design degree and Graphic Design specific Foundation Programme modules were designed and developed by lecturers within the faculty. This material was distributed to multiple campuses.

In 2014 and 2015 Yolandi Burger provided the curriculum development team at [redacted] with an early version of her findings chapter from her Doctoral research. In this chapter she outlined some of the advantages and disadvantages of the existing Foundation Programme modules. This material was considered by the lecturers tasked with revising the GD degree programme and the GD Foundation Programme modules. The information proved valuable in informing the team of areas of alignment between the Foundation Programme modules and the 1st year of the GD Degree. The information was incorporated into revisions and also considered when choosing to introduce a new and additional GD Foundation Programme module.

Kind regards,

Sue Giloi
Postgraduate Academic Manager

APPENDICES OF SECTION C

C

APPENDIX C.16: PILOT STUDY FOR THE EXPERT VALIDATION QUESTIONNAIRE AIMED AT ACHIEVING RESEARCH OBJECTIVE 4

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

INFORMED CONSENT

Dear prospective participant

This survey aims to investigate your personal experience and viewpoints pertaining to the possible feasibility and value of a proposed framework which is based on the findings of my research. The objectives of this survey are to evaluate key features and identify possible shortcomings from the opinions of experts in order to adapt and refine the current framework. You were identified as a prospective 'expert' participant in this survey because you possess relevant knowledge in Graphic Design, in a related discipline, alternative access programmes and/or in curriculum development/design. By completing this survey, you agree that the information you provide may be used for research purposes, including the dissemination thereof through peer-reviewed publications and conference proceedings.

It is anticipated that the information collected through this questionnaire could be used towards a final proposed framework with embedded mechanisms for curriculum design components, generic and discipline-specific competencies for graphic designers and success mechanisms for good alternative access programmes for graphic design students in South Africa. Please note, however, that you are under no obligation to complete the survey and you may withdraw from the study prior to submitting the survey. The survey has furthermore been designed to be completed anonymously and as such, neither the researcher nor her promoters will have no way of connecting any information collected to any of the survey participants. However, you will not be able to withdraw from the study once you have clicked the "submit survey" button. If you decide to participate in this survey, it will require no more than 45 minutes of your time. You will not benefit from your participation as an individual; however, it is envisioned that the findings of this study will contribute to a framework for good alternative access programmes for graphic design students. Ethics clearance to conduct this research was obtained from the University of the Free State (Ref nr: UFS-EDU-2012-0053).

The research focuses on your personal experience and viewpoints and not that of your organisation. Should you have any questions regarding the ethical aspects of the study, you may contact the chairperson of the Ethics Board of the Faculty of Education, University of the Free State 051 401 9922/duvenhageCS@ufs.ac.za.

The primary researcher, Mrs Y. Burger, can be contacted during office hours at 079 849 5931/yolandibur@gmail.com. The promoter of the study, Dr. S.P. van Tonder can be contacted during office hours at 051 401 9174/vTonderSP@ufs.ac.za.

* I hereby voluntarily agree to participate in the above-mentioned research project, declare that I am 18 years or older and that I have read and understand all the information and conditions pertaining to this survey.

- ◯ I agree
- ◯ I do not agree

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

CLARIFICATION OF TERMINOLOGY

Alternative access programmes

A programme which extends or augments an undergraduate diploma or degree programme in higher education and training in South Africa that provides alternative access for non-traditional students. For the purpose of this study, alternative access programmes include bridging, foundation, extended and preparation programmes in higher education and training.

Alternative access programmes for graphic design

A programme which extends or augments an undergraduate graphic design diploma or degree programme in higher education and training in South Africa that provides alternative access for non-traditional students (aligned to the definition of alternative access programmes). For the purpose of this study, alternative access programmes for graphic design include bridging, foundation, extended and preparation graphic design or other related discipline programmes in higher education and training.

Competency/competencies and competence

Competence and competency are often interchangeable in the literature depending on the definition of the term within a specific study. For the purpose of this study, and in alignment with the Oxford dictionary, a competency is defined as knowledge, skills, abilities, attitudes, values and/or behaviour that an individual must possess within a specific discipline/profession in order to successfully perform a particular task. The plural form is competencies. Competence, on the other hand, is the ability to do something well or efficiently and is a cluster of competencies.

Graphic Design programmes

Graphic design is classified within the third category of visual and performing arts under the subsection of design and applied arts. The third Classification of Educational Subject Matter (CESM) category defines the disciplines within this category as fields of study that focus on the creation and interpretation of works to express ideas in various forms. For the purpose of this research, a graphic design programme is defined as any qualification offered at a Higher Education institution (public or private) that leads to graduates that can practice as graphic designers upon successful completion.

Higher education teachers

Different terms are used to describe someone teaching or facilitating student learning in higher education (e.g. lecturer, facilitator, instructor, trainer, tutor, etc) which depends on the person's context and/or teaching style. The term of higher education teacher is used throughout this study in order to accommodate the different contexts and teaching styles.

Student

A student is defined for the purpose of this study as a person studying at a higher education institution.

Student success mechanisms

A student success mechanism refers to teaching/learning activities that aim at improving students' success in higher education and training, thereby improving student retention and throughput rates in higher education.

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

STRUCTURE OF THE QUESTIONNAIRE FOR THE REVIEW AND VALIDATION OF THE PROPOSED FRAMEWORK

This questionnaire is divided into the following sections and sub-sections of the proposed framework for embedding critical elements in alternative access programmes for graphic design:

SECTION A - CURRICULUM/PROGRAMME DESIGN OF THE PROPOSED FRAMEWORK
- **Sub-section A.1 - General aspects pertaining to programme design (9 sub-subsections)**

SECTION B - AIM, GOALS, AND INTENDED LEARNING OUTCOMES OF THE PROPOSED FRAMEWORK
- **Sub-section B.1 - General aspects pertaining to aims, goals, and/or intended learning outcomes (7 sub-subsections)**
- **Sub-section B.2 - Aims and goals of alternative access programmes (4 sub-subsections)**
- **Sub-section B.3 - Intended learning outcomes (9 sub-subsections)**

SECTION C - CURRICULUM CONTENT OF THE PROPOSED FRAMEWORK
- **Sub-section C.1 - General aspects pertaining to curriculum content (7 sub-subsections)**
- **Sub-section C.2 - Organising curriculum content (4 sub-subsections)**
- **Sub-section C.3 - Selecting curriculum content (5 sub-subsections)**

SECTION D - TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK
- **Sub-section D.1 - General aspects pertaining to teaching and learning (7 sub-subsections)**
- **Sub-section D.2 - Student learning and learning approaches/styles (10 sub-subsections)**
- **Sub-section D.3 - Teaching and teaching styles (22 sub-subsections)**
- **Sub-section D.4 - Teaching and learning activities (8 sub-subsections)**

SECTION E - ASSESSMENT TASKS OF THE PROPOSED FRAMEWORK
- **Sub-section E.1 - General aspects of assessment (8 sub-subsections)**
- **Sub-section E.2 - Assessment approaches/forms and tasks (4 sub-subsections)**

SECTION F - COMPETENCIES AND SUCCESS MECHANISMS OF THE PROPOSED FRAMEWORK
- **Sub-section F.1 - Competencies of the proposed framework (i.e. generic and discipline-specific; 1 sub-section)**
- **Sub-section F.2 - Success mechanisms of the proposed framework (1 sub-section)**

Please note that questions marked with * in the questionnaire require an answer.

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

DEMOGRAPHIC INFORMATION

This section contains compulsory demographic questions that will be used to dissect the information provided in Section B of the questionnaire.

* Expert experience according to your discipline of knowledge/profession (you may select more than one answer)

- [ ] Alternative access programmes
- [ ] Curriculum development/design
- [ ] Graphic design
- [ ] Other (please specify)

* Expert experience according to years (you are required to select only one answer)

- ( ) <5 years
- ( ) 5 – 10 years
- ( ) 11+ years

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION A – CURRICULUM/PROGRAMME DESIGN OF THE PROPOSED FRAMEWORK

Section A contains one (1) sub-section (i.e. A.1) that list activities of the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section A.1 - General aspects pertaining to programme design

Sub-section A.1 contains nine (9) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* A.1 .1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1 .1.1 acknowledge that the graphic design community has its own culture, networks, and languages.	○	○	○	○
A.1.1.2 acknowledge the inevitability of change (e.g. demands and needs for curriculum/programme design).	○	○	○	○

* A.1.2 adhere to the demands and needs of/for:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.2.1 didactics (i.e. teaching and learning).	○	○	○	○
A.1.2.2 educational administration.	○	○	○	○
A.1.2.3 industry.	○	○	○	○
A.1.2.4 real life.	○	○	○	○
A.1.2.5 the community.	○	○	○	○

* A.1.3 adhere to the following South African programme design requirements:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.3.1 Adherence to professional body requirements (if applicable).	○	○	○	○
A.1.3.2 Align with national and/or regional industry, knowledge and socio-cultural needs.	○	○	○	○
A.1.3.3 Articulate opportunities with other programmes and higher education and training institutions.	○	○	○	○
A.1.3.4 Coherence of modules and/or courses of the programme (e.g. level, credits, purpose, etc.).	○	○	○	○
A.1.3.5 Integrate work-based learning or learning in a work-based environment into the curriculum design.	○	○	○	○
A.1.3.6 Involve relevant stakeholders (e.g. academic peers, employers and professional bodies) in the design process.	○	○	○	○
A.1.3.7 Promote students' understanding of the specific discipline/profession (i.e. graphic design).	○	○	○	○
A.1.3.8 Provide opportunities for students to master competencies associated with the discipline/occupation (i.e. graphic design).	○	○	○	○

* A.1.4 apply the following recommended curriculum design parameters for the proposed flexible curriculum framework for South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.4.1 Incorporate sufficient foundation provision (e.g. generic and discipline-specific competencies) and student success mechanisms.	◯	◯	◯	◯
A.1.4.2 Integrate the foundation provision into the core curriculum.	◯	◯	◯	◯
A.1.4.3 Students should eventually achieve the same exit levels and standards as the registered mainstream programme.	◯	◯	◯	◯
A.1.4.4 Support and enhancement graduate attributes of the higher education institution.	◯	◯	◯	◯
A.1.4.5 Provide greater exposure to the discipline (without overloading) in order to enhance the curriculum.	◯	◯	◯	◯
A.1.4.6 Provide curriculum pathways for students who may complete a diploma or degree in the minimum duration by exemption from a maximum of 120 credits of foundation provision.	◯	◯	◯	◯
A.1.4.7 Steadily increase intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree.	◯	◯	◯	◯
A.1.4.8 Use an appropriate starting point according to students' prior knowledge.	◯	◯	◯	◯

* A.1.5 design the curriculum/programme:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.5.1 according to a purposeful plan.	◯	◯	◯	◯
A.1.5.2 in a systematic manner.	◯	◯	◯	◯

* A.1.6 employ a/an:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.6.1 appropriate method to design a curriculum/programme.	○	○	○	○
A.1.6.2 comprehensive process.	○	○	○	○
A.1.6.3 continuous process.	○	○	○	○
A.1.6.4 decision-making process.	○	○	○	○
A.1.6.5 interdisciplinary process.	○	○	○	○

* A.1.7 link knowledge and experiences of the curriculum/programme (i.e. integration by converging the knowledge and experiences).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* A.1.8 take into account students' developmental level in regard to all curriculum design components.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* A.1.9 use the existing curriculum as a starting point for curriculum/programme design.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section A.1?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION B – AIM, GOALS, AND INTENDED LEARNING OUTCOMES OF THE PROPOSED FRAMEWORK

Section B contains three (3) sub-sections (i.e. B.1, B.2, and B.3) that list activities of the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section B.1 - General aspects pertaining to aims, goals, and intended learning outcomes

Sub-section B.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* B.1.1 acknowledge the diverse student population of South Africa as a given.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.1.2 align aims, goals and intended learning outcomes with the following levels of curriculum design:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.2.1 Higher education institutions' programme mix.	○	○	○	○
B.1.2.2 Higher education institutions' programme policies and procedures.	○	○	○	○
B.1.2.3 Individual learning programme design.	○	○	○	○
B.1.2.4 Module design within learning programmes.	○	○	○	○
B.1.2.5 South African higher education legislation.	○	○	○	○
B.1.2.6 Teaching of the programme (in terms of modules) that results in micro-curriculum design in the classroom.	○	○	○	○
B.1.2.7 The community's philosophy of life and views on higher education in South Africa.	○	○	○	○

* B.1.3 align admission requirements of the programme:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.3.1 to promote equity.	○	○	○	○
B.1.3.2 to widen access.	○	○	○	○
B.1.3.3 with the degree of complexity of learning required.	○	○	○	○

* B.1.4 align the curriculum components to the higher education and training institution's vision, mission, goals and planning structures.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.1.5 align with the discipline/profession itself.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.1.6 employ additional admission requirements such as:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.6.1 aptitude tests (e.g. English proficiency tests).	◯	◯	◯	◯
B.1.6.2 discipline-specific requirements (e.g. design portfolios).	◯	◯	◯	◯

* B.1.7 promote curriculum design for student success through academic development initiatives.

Not necessary	*Uncertain*	*Useful*	*Essential*
◯	◯	◯	◯

Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.1?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION B – AIM, GOALS, AND INTENDED LEARNING OUTCOMES OF THE PROPOSED FRAMEWORK

Sub-section B.2 - Aims and goals of alternative access programmes

Sub-section B.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* B.2.1 address the articulation gap between secondary and higher education in South Africa.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.2.2 implement a curriculum structure that aligns with South African students' prior knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.2.3 incorporate student success mechanisms to ensure successful completion of the access programme as well as the eventual qualification.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.2.4 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.2.4.1 an academic foundation for underprepared students that includes generic and discipline-specific competencies.	○	○	○	○
B.2.4.2 alternative access to higher education for talented but previously disadvantaged students and advantaged and disadvantaged students but with physical or other disabilities (e.g. learning disabilities, etc.).	○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.2?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION B – AIM, GOALS, AND INTENDED LEARNING OUTCOMES OF THE PROPOSED FRAMEWORK

Sub-section B.3 - Intended learning outcomes

Sub-section B.3 contains nine (9) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* B.3.1 align the learning outcomes with the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.1.1 appropriate National Qualification Framework level and its associated level descriptors.	○	○	○	○
B.3.1.2 critical cross-field and developmental outcomes of the South African Qualifications Authority.	○	○	○	○
B.3.1.3 purposes of alternative access programmes (e.g. widening access for previously disadvantaged students, provide an academic foundation for underprepared students, etc.).	○	○	○	○

* B.3.2 apply constructive alignment to ensure intended learning outcomes are aligned with teaching and learning activities and assessment tasks.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.3.3 apply the following four ‘essential’ or ‘power’ principles of Outcome-Based Education in a consistent, systematic, creative and simultaneous manner:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.3.1 Backward design learning outcomes from the aims and goals of the institution or programme.	○	○	○	○
B.3.3.2 Formulate clear learning outcomes (which both the student and teacher understand) will guide the creation of other components in the curriculum design.	○	○	○	○
B.3.3.3 Set high expectations i.e. that students will be able to achieve the intended learning outcomes.	○	○	○	○
B.3.3.4 Take into account students’ different learning paces in achieving the learning outcomes so that the intended learning outcomes expand opportunity and provide support for student success.	○	○	○	○

* B.3.4 critically base learning outcomes on students’ prior abilities and knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.3.5 derive learning outcomes from the discipline and profession’s knowledge base.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.3.6 formulate:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.6.1 intended learning outcomes that will develop both generic and discipline-specific competencies.	○	○	○	○
B.3.6.2 the intended learning outcomes of students’ learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students.	○	○	○	○

* B.3.7 employ various levels of the different taxonomies for cognitive, psychomotor, and affective domains when designing intended learning outcomes in order to ensure an appropriate balance between the levels of complexity within the taxonomy.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* B.3.8 follow the following guidelines when formulating intended learning outcomes at module level:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.8.1 Decide whether the intended learning outcomes requires declarative (understanding of knowledge) or functioning knowledge (application, creation, solving of problems and a lifelong learning orientation).	○	○	○	○
B.3.8.2 Start the intended learning outcome with the preface “[T]he student will”.	○	○	○	○
B.3.8.3 Specify an action verb at the appropriate level of understanding/performance/complexity.	○	○	○	○
B.3.8.4 Specify an object or topic that relate to the verb (e.g. the content).	○	○	○	○
B.3.8.5 Specify the context in which the verb and object are used (e.g. specific discipline).	○	○	○	○

* B.3.9 foster and expose students to discipline knowledge in order to enhance student success and retention.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.3?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION C – CURRICULUM CONTENT OF THE PROPOSED FRAMEWORK

Section C contains three (3) sub-sections (i.e. C.1, C.2, and C.3) that list activities of the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section C.1 - General aspects pertaining to curriculum content

Sub-section C.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* C.1.1 acknowledge the role of the orientation (i.e. attitude, beliefs or feelings) of the curriculum designer in regard to curriculum content.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.1.2 adhere to curriculum/programme design criteria pertaining to curriculum content:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.1.2.1 Correlation of content.	○	○	○	○
C.1.2.2 Scope of content.	○	○	○	○
C.1.2.3 Sequence of content.	○	○	○	○

* C.1.3 align curriculum content with the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.1.3.1 aims, goals, purposes and the learning outcomes of a specific higher education institution (i.e. graduate attributes), programme/qualification outcomes and module outcomes respectively.	○	○	○	○
C.1.3.2 specific National Qualification Framework level descriptors	○	○	○	○

* C.1.4 design and evaluate learning materials that will ensure alignment with programme's aims, goals and purposes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.1.5 ensure the coherency of different modules' content with the level, credits, purpose, learning outcomes, weights and delivery.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.1.6 involve higher education teachers on all campuses of a higher education institution in selecting and organising the curriculum content.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.1.7 organise and select curriculum content holistically in order to have a more coherent programme overall.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.1?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION C – CURRICULUM CONTENT OF THE PROPOSED FRAMEWORK

Sub-Section C.2 - Organising curriculum content

Sub-section C.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* C.2.1 distribute:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.2.1.1 discipline modules evenly throughout the duration of alternative access programmes.	○	○	○	○
C.2.1.2 distribute the workload of modules in accordance with students' abilities to manage the amount of curriculum content.	○	○	○	○

* C.2.2 organise curriculum/module content:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.2.2.1 according to students' academic needs.	○	○	○	○
C.2.2.2 according to a method/s that are personally and academically appropriate for the student and/or higher education teacher.	○	○	○	○
C.2.2.3 for horizontal alignment.	○	○	○	○
C.2.2.4 for vertical alignment.	○	○	○	○

* C.2.3 provide sufficient time for repetition and revision of curriculum content.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.2.4 select an appropriate organising type for curriculum content (e.g. logical, psychological, political, and practical), depending on the purpose of the programme/module.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.2?

SECTION C – CURRICULUM CONTENT OF THE PROPOSED FRAMEWORK

Sub-section C.3 - Selecting curriculum content

Sub-section C.3 contains five (5) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* C.3.1 balance:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.1.1 experiential knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○
C.3.1.2 practical knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○
C.3.1.3 theoretical knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○

* C.3.2 incorporate:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.2.1 disciplinary content at an appropriate level to serve the programme’s purpose.	○	○	○	○
C.3.2.2 theoretical depth at an appropriate level to serve the programme’s purpose.	○	○	○	○

* C.3.3 include:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.3.1 a language component in all theory modules to assist with the development of students' communication skills.	○	○	○	○
C.3.3.2 foundation provision content to assist students to deal with the obstacles.	○	○	○	○
C.3.3.3 foundation provision content to assist students with their learning skills.	○	○	○	○
C.3.3.4 foundation provision content to provide students with motivation.	○	○	○	○

* C.3.4 revise the content every semester/year (to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* C.3.5 select curriculum content that:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.5.1 addresses current needs of all stakeholders (e.g. industry, students, higher education teachers, etc).	○	○	○	○
C.3.5.2 builds on students' prior abilities and knowledge.	○	○	○	○
C.3.5.3 contributes to the development of generic competencies.	○	○	○	○
C.3.5.4 contributes to the development of discipline-specific competencies.	○	○	○	○
C.3.5.5 converges into a meaningful whole.	○	○	○	○
C.3.5.6 empowers students to achieve their full potential.	○	○	○	○
C.3.5.7 is achievable.	○	○	○	○
C.3.5.8 is balanced in extent and depth of study.	○	○	○	○
C.3.5.9 is in alignment with learner input.	○	○	○	○

Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.5.10 is in alignment with choices.			
C.3.5.11 is in alignment with students' existing knowledge.			
C.3.5.12 is in alignment with students' needs.			
C.3.5.13 is in alignment with key procedures of the discipline.			
C.3.5.14 is in alignment with key concepts of the discipline.			
C.3.5.15 is in alignment with key criteria of the discipline.			
C.3.5.16 is stimulating and motivating.			
C.3.5.17 promotes cognitive skills.			
C.3.5.18 promotes affective skills.			
C.3.5.19 promotes psychomotor skills.			
C.3.5.20 provides opportunities for self-discovery.			
C.3.5.21 is realistic, manageable, accessible and viable.			
C.3.5.22 is relevant.			
C.3.5.23 represents the purpose of the module.			
C.3.5.24 requires a focussed attention (e.g. awareness of the basic structure of what is to be learned and the priorities in the module content elements).			
C.3.5.25 serves the realisation of aims.			
C.3.5.26 supports students inside and outside of the class.			

Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.3?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION D – TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK

Section D contains four (4) sub-sections (i.e. D.1, D.2, D.3, and D.4) that list activities of the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section D.1 - General aspects pertaining to teaching and learning

Sub-section D.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* D.1.1 avoid the marginalisation of students and higher education teachers of alternative access programmes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.1.2 employ mechanisms to monitor student progress.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.1.3 ensure that higher education teachers and students have access to sufficient learning material.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.1.4 identify and unteach erroneous prior knowledge and bias.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.1.5 integrate discipline-specific characteristics into the teaching and learning activities of the core curriculum.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.1.6 select suitable learning materials to promote the achievement of the:

Not necessary	*Uncertain*	*Useful*	*Essential*
D.1.6.1 learning outcomes of the programme.			
○	○	○	○
D.1.6.2 purpose of the programme.			
○	○	○	○

* D.1.7 use appropriate teaching and learning activities (e.g. methods, materials, and opportunities) that align with the purpose of the programme.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.1?

SECTION D – TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK

Sub-section D.2 - Student learning and learning approaches/styles

Sub-section D.2 contains ten (10) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* D.2.1 acknowledge different:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.1.1 learning approaches/styles of a diverse student population.	○	○	○	○
D.2.1.2 cultures of students pertaining to economic stances.	○	○	○	○
D.2.1.3 cultures of students pertaining to environmental issues/situations.	○	○	○	○
D.2.1.4 cultures of students pertaining to genders.	○	○	○	○
D.2.1.5 cultures of students pertaining to political views.	○	○	○	○
D.2.1.6 cultures of students pertaining to religions.	○	○	○	○
D.2.1.7 cultures of students pertaining to social trends.	○	○	○	○

* D.2.2 acknowledge discipline-specific characteristics of student learning:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.2.1 Doing and making is a fundamental aspect of learning in design education.	○	○	○	○
D.2.2.2 Learning is dialogic in nature if teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision.	○	○	○	○
D.2.2.3 Learning is unconstrained if it emphases a variety of solutions to a specific problem.	○	○	○	○
D.2.2.4 Students are uncomfortable with theory and writing since it is viewed as unrelated to the practical component.	○	○	○	○
D.2.2.5 Students can learn through peers and senior students within the informal studio setting of design education.	○	○	○	○
D.2.2.6 Students should work for long periods on projects through which they can learn a variety of key technical skills for employment.	○	○	○	○
D.2.2.7 Students should work for long periods on projects through which they can learn a variety of personal skills for employment.	○	○	○	○
D.2.2.8 Students should work for long periods on projects through which they can learn a variety of professional skills for employment.	○	○	○	○
D.2.2.9 The teacher guides and advises the student during this solution phase, rather than dictating.	○	○	○	○

* D.2.3 create teaching/learning activities and assessment tasks that require of students to apply a deep learning process instead of a surface approach by requiring students to use higher-order thinking skills.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.2.4 encourage:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.4.1 a student-centred approach to learning.	○	○	○	○
D.2.4.2 student learning through real-world projects in the design industry.	○	○	○	○

* D.2.5 foster:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.5.1 critical thinkers in design education.	○	○	○	○
D.2.5.2 independent thinkers in design education.	○	○	○	○
D.2.5.3 intellectual abilities in both hemispheres of students' brains in order to meet challenges of this century.	○	○	○	○
D.2.5.4 self-analytical thinkers in design education.	○	○	○	○

* D.2.6 motivate students to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.6.1 interact frequently with teachers and other students.	○	○	○	○
D.2.6.2 perceive and adopt high expectations of achievement.	○	○	○	○
D.2.6.3 take responsibility for their own learning.	○	○	○	○

* D.2.7 promote student development for success through academic development initiatives.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.2.8 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.8.1 opportunities for students to compete with peers.	○	○	○	○
D.2.8.2 opportunities for students to give feedback to higher education teachers.	○	○	○	○
D.2.8.3 support for students through academic development initiatives to promote student success.	○	○	○	○

* D.2.9 use students' learning styles to identify suitable teaching and learning activities.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.2.10 use teaching and learning activities and assessment tasks that:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.10.1 are proven to have a high impact on student learning.	◯	◯	◯	◯
D.2.10.2 promote active learning amongst students.	◯	◯	◯	◯
D.2.10.3 promote engagement with the curriculum content, teaching and learning activities and assessment tasks.	◯	◯	◯	◯
D.2.10.4 promote interaction with peers.	◯	◯	◯	◯

Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.2?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION D – TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK

Sub-section D.3 - Teaching and teaching styles

Sub-section D.3 contains twenty-two (22) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* D.3.1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.1.1 that different students often require different content delivery strategies.	○	○	○	○
D.3.1.2 that the core principles of the discipline (i.e. graphic design) are taught through practice as rules-of-thumb and knowledge from teachers or masters of the discipline.	○	○	○	○

* D.3.2 act as:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.2.1 mentor for students.	○	○	○	○
D.3.2.2 nurturer for students (to contribute to the holistic development of students in studio practice disciplines such as graphic design).	○	○	○	○

* D.3.3 actively practice as a designer in the industry in order to promote simulation-based learning for design students.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.4 attend academic, professional and staff development initiatives to promote their own knowledge, skills and teaching competence.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.5 be aware of their own learning style/approach.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.6 connect new information to prior knowledge of students in a meaningful way.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.7 develop professional and personal characteristics attributed to good higher education teachers.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.8 enhance student engagement with small student higher education teacher ratio in alternative access programmes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.9 ensure that their employed teaching style aligns with:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.9.1 students' learning needs.	○	○	○	○
D.3.9.2 students' epistemological conditions (i.e. scope of knowledge).	○	○	○	○

* D.3.10 focus on students' individual needs to ensure no learner is left behind.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.11 highlight the value of what is to be learned for students.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.12 implement the following guidelines for technology-based teaching:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.12.1 Become an innovative professional role model in the present age of technology.	○	○	○	○
D.3.12.2 Continuously improve their own teaching by demonstrating the use of new digital tools and resources.	○	○	○	○
D.3.12.3 Design and develop digital-age authentic learning experiences that align with assessment tasks.	○	○	○	○
D.3.12.4 Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices.	○	○	○	○
D.3.12.5 Facilitate and inspire student learning and creativity through the use of technology in teaching and learning activities and in assessment tasks.	○	○	○	○

* D.3.13 implement the following considerations during the presentation of teaching and learning activities:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.13.1 align students' previous knowledge with the intended learning outcomes and assessment tasks.	○	○	○	○
D.3.13.2 create a positive and safe classroom environment.	○	○	○	○
D.3.13.3 provide opportunity and sufficient time for students to master skills.	○	○	○	○
D.3.13.4 reflect on the achievement of intended learning outcomes.	○	○	○	○
D.3.13.5 use appropriate activities to accommodate students' learning styles.	○	○	○	○

* D.3.14 posses the stipulated qualifications, experience and teaching competence required of higher education teachers at a specific level.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.3.15 promote and/or employ:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.15.1 a variety of teaching styles/strategies according to the type of module.	○	○	○	○
D.3.15.2 a variety of teaching styles/strategies according to the type of students.	○	○	○	○
D.3.15.3 active learning rather than passive engagement.	○	○	○	○

* D.3.16 promote and/or employ the following student-centred teaching approaches and styles to teaching in design education:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.16.1 Teaching that offers students a range of practical and technical skills through demonstration to show ways of making or doing.	○	○	○	○
D.3.16.2 Teaching that aims to develop students' critical skills through student interaction by means of individual, group or teamwork, to form opinions and ideas.	○	○	○	○
D.3.16.3 Teaching that aims to develop students' practical skills through student interaction by means of individual, group or teamwork, to form opinions and ideas.	○	○	○	○
D.3.16.4 Teaching that aims to develop students' technical skills through student interaction by means of individual, group or teamwork, to form opinions and ideas.	○	○	○	○
D.3.16.5 Teaching that encourages peer learning (to develop students' skills and conceptions in preparation for professional practice).	○	○	○	○
D.3.16.6 Teaching that emphasises conceptual thinking skills to improve self-directed research, practice, and conceptual skills.	○	○	○	○
D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills.	○	○	○	○
D.3.16.8 Teaching that motivates and enable students to change themselves as a person or to make changes in their life world.	○	○	○	○

* D.3.17 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.17.1 academic support in order to create scaffolding of knowledge.	◯	◯	◯	◯
D.3.17.2 additional support to students in theory modules (since graphic design students view it as unrelated to the practical component).	◯	◯	◯	◯
D.3.17.3 ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material.	◯	◯	◯	◯
D.3.17.4 prompt feedback on students' learning.	◯	◯	◯	◯

* D.3.18 respect the diverse:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.18.1 talents of students.	◯	◯	◯	◯
D.3.18.2 ways of how students learn.	◯	◯	◯	◯

* D.3.19 select:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.19.1 suitable methods to promote the achievement of the purpose of the programme.	◯	◯	◯	◯
D.3.19.2 suitable methods to promote the achievement of the learning outcomes of the programme.	◯	◯	◯	◯
D.3.19.3 suitable opportunities to promote the achievement of the purpose of the programme.	◯	◯	◯	◯
D.3.19.4 suitable opportunities to promote the achievement of the learning outcomes of the programme.	◯	◯	◯	◯

* D.3.20 set and maintain high but realistic expectations and goals (which are appropriately aligned to teaching and learning activities and intended learning outcomes).

Not necessary	*Uncertain*	*Useful*	*Essential*
◯	◯	◯	◯

* D.3.21 teach students how to give feedback to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.21.1 themselves.	○	○	○	○
D.3.21.2 their peers.	○	○	○	○

* D.3.22 use:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.22.1 professional staff development opportunities provided by higher education institutions to upgrade teaching methods.	○	○	○	○
D.3.22.2 the full available contact time with students with a focused effort.	○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.3?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION D – TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK

Sub-section D.4 - Teaching and learning activities

Sub-section D.4 contains eight (8) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* D.4.1 adhere to the following principles to select teaching and learning activities:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.1.1 Align to the specific community (i.e. graphic design community).	○	○	○	○
D.4.1.2 Assist to achieve one or more of the aligned aims, goals, objectives, outcomes and/or purposes of the programme.	○	○	○	○
D.4.1.3 Be appropriate in regards to class size (number of students).	○	○	○	○
D.4.1.4 Be appropriate in regards to students needs (i.e. abilities, interests, talents, and learning styles to only name a few).	○	○	○	○
D.4.1.5 Be appropriate in regards to the teacher (i.e. personality, preferences, knowledge, and abilities, to only name a few).	○	○	○	○
D.4.1.6 Be appropriate in regards to time constraints.	○	○	○	○
D.4.1.7 Be feasible in regard to availability of resources.	○	○	○	○
D.4.1.8 Be feasible in regard to the number of staff involved.	○	○	○	○
D.4.1.9 Be feasbile in regard to programme requirements.	○	○	○	○
D.4.1.10 Highlight real-life application within the community or industry.	○	○	○	○

* D.4.2 change teaching and learning activities for facilitating declarative intended learning outcomes every fifteen minutes for maximum student concentration.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.4.3 employ:

Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.3.1 teaching and learning activities for functioning knowledge by incorporating declarative intended learning outcomes in these activities.			
○	○	○	○
D.4.3.2 technology-based teaching and learning activities to facilitate higher order learning.			
○	○	○	○

* D.4.4 focus on what students do rather than what higher education teachers do when building declarative knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.4.5 promote active learning by:

Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.5.1 employing a variety of teaching and learning activities for greater student engagement.			
○	○	○	○
D.4.5.2 selecting teaching and learning activities that require interactions between higher education teachers, students, and outside experts to meet this century's needs.			
○	○	○	○

* D.4.6 select appropriate teaching and learning activities to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.6.1 balance intellectual challenges in order to create scaffolding of knowledge.	○	○	○	○
D.4.6.2 facilitate deep learning that builds understanding.	○	○	○	○
D.4.6.3 foster the South African Qualification Authority's critical cross-field and developmental outcomes by selecting teaching and learning activities to achieve functioning intended learning outcomes.	○	○	○	○
D.4.6.4 let students apply their knowledge to real-world situations (within different contexts).	○	○	○	○
D.4.6.5 mimic real-world situations for design students (such as teaching and learning activities associated with functioning intended learning outcomes).	○	○	○	○
D.4.6.6 promote/ensure a deep approach to student learning.	○	○	○	○
D.4.6.7 promote/ensure creativity by ensuring teaching and learning activities are adventurous, enjoyable and stimulating.	○	○	○	○
D.4.6.8 promote/ensure constructive alignment with intended learning outcomes and assessment tasks.	○	○	○	○
D.4.6.9 transform the student to a practitioner in the first year of mainstream design education.	○	○	○	○

* D.4.7 start discipline-specific teaching and learning activities with a written brief in project-based learning which provides a focus for students' learning.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* D.4.8 specify in the brief the following:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.8.1 the format of the design outcome/product.	◯	◯	◯	◯
D.4.8.2 the presentation requirements of the design outcome/product.	◯	◯	◯	◯
D.4.8.3 the restraints and parameters of the design outcome/product.	◯	◯	◯	◯
D.4.8.4 the time period allowed for completing the brief.	◯	◯	◯	◯

Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.4?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION E – ASSESSMENT TASKS OF THE PROPOSED FRAMEWORK

Section E contains two (2) sub-sections (i.e. E.1 and E.2) that list activities of the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section E.1 - General aspects pertaining to assessment

Sub-section E.1 contains eight (8) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* E.1.1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.1.1 that assessment in design education differs from conventional assessment in other disciplines.	○	○	○	○
E.1.1.2 the impact that assessment has on student learning.	○	○	○	○
E.1.1.3 the impact that assessment has on student motivation.	○	○	○	○

* E.1.2 adhere to the four principles of good assessment:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.2.1 Fairness	○	○	○	○
E.1.2.2 Practicability	○	○	○	○
E.1.2.3 Reliability	○	○	○	○
E.1.2.4 Validity	○	○	○	○

* E.1.3 assess the design process and person and not only the design product since these elements are also important in design education.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.1.4 avoid placing emphasis on students' mastering of only design techniques for the execution of the design product in design education.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.1.5 employ effective evaluation as an integral part of the curriculum/programme design.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.1.6 ensure:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.6.1 the reliability of the assessment system and procedures.	○	○	○	○
E.1.6.2 the rigour of the assessment system and procedures.	○	○	○	○
E.1.6.3 the security of the assessment system and procedures.	○	○	○	○

* E.1.7 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.7.1 adequate number of assessment opportunities.	○	○	○	○
E.1.7.2 adequate preparation for assessments (e.g. revision and exam techniques which is a generic competency).	○	○	○	○
E.1.7.3 in advance the criteria and standards used in assessment and evaluation and the nature of the instruments.	○	○	○	○

* E.1.8 use examiners and moderators that possess the necessary skilled judgments and training to assess the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.8.1 achievement of intended learning outcomes.	○	○	○	○
E.1.8.2 quality of the design product in design education.	○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section E.1?

SECTION E – ASSESSMENT TASKS OF THE PROPOSED FRAMEWORK

Sub-section E.2 - Assessment approaches/forms and tasks

Sub-section E.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* E.2.1 employ technology-based assessment tasks (e.g. e-learning technologies which is a generic competency).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.2.2 ensure that assessment tasks are constructively aligned with the intended learning outcomes of the specific curriculum, as well as the teaching and learning activities.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.2.3 select appropriate assessment approaches/forms and tasks (e.g. internal and external examination and moderation).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* E.2.4 use a variation of assessment approaches/forms and tasks that are appropriate to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.2.4.1 accommodate the needs of a diverse student population.	○	○	○	○
E.2.4.2 expose students to a variety of assessment approaches/forms and tasks.	○	○	○	○
E.2.4.3 nurture discipline-specific practices (such as the crit session).	○	○	○	○
E.2.4.4 replace ineffective approaches/forms and tasks.	○	○	○	○

Do you have any comments and/or suggestions with regard to the activities listed in sub-section E.2?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION F – COMPETENCIES AND SUCCESS MECHANISMS OF THE PROPOSED FRAMEWORK

Section F contains two (2) sub-sections (i.e. F1 and F.2). The identified competencies (i.e. generic and/or discipline-specific), and student success mechanisms of the proposed framework are listed in this section as identified from the primary (i.e. questionnaire survey and SOAR analysis) and secondary (i.e. non-empirical literature study) research of the related study. Please make use of the 4-point scale to rate each competency or mechanism listed in Sections F.1 and F.2 of the proposed framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each competency or mechanism listed in a sub-section, please type your comments about the particular subsection and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section F.1 - Generic and/or discipline-specific competencies

Sub-section F.1 contains one (1) sub-subsection that lists the competencies of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* F.1.1 foster the following proposed competencies (i.e. generic and/or discipline-specific) in the curriculum design components of higher education alternative access programmes for graphic design in South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
Accuracy	○	○	○	○
Adaptable in nature	○	○	○	○
aesthetic gaze (developing)	○	○	○	○
Applying design elements and principles	○	○	○	○
Applying design techniques	○	○	○	○
Attention to detail	○	○	○	○
Collaboration with individuals and group work/teamwork				

Not necessary	*Uncertain*	*Useful*	*Essential*
Communication skills (written and oral)			
Computer skills			
Creative thinking skills			
Creativity			
Critical thinking skills			
Curiosity			
Deadline-orientated			
decision-making			
Design-orientated thinking skills			
determination			
Efficient			
E-learn technologies			
Emotional intelligence			
Entrepreneurial skills			
Imagination			
Information literacy			
Innovation			

Not necessary	*Uncertain*	*Useful*	*Essential*
Innovative thinking skills			
Interpersonal skills			
Interpretation of information			
Intuition			
Learning styles and strategies			
Listening and note-taking			
Memory			
Multi-tasking			
Observation			
Organisational and planning skills			
Originality			
Passion			
personal development of the student himself/herself			
Presentation skills			
Prioritise workload/tasks			
Problem solving			
Reading skills			

Not necessary	*Uncertain*	*Useful*	*Essential*
Referencing			
Reflection			
Research skills			
Responsibility towards clients/employers			
Responsibility towards other designers			
Responsibility towards the community			
Responsibility towards the profession			
Revision and examination techniques			
Self-management			
Self-motivated / motivation			
Stress management			
Study skills (appropriate)			
Subjectivity			
Time management skills			
Visual communication			
Work independently			
Work under pressure			

Not necessary	*Uncertain*	*Useful*	*Essential*
◯	◯	◯	◯

Do you have any comments and/or suggestions with regard to the competencies listed in sub-section F.1?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

SECTION F – COMPETENCIES AND SUCCESS MECHANISMS OF THE PROPOSED FRAMEWORK

Sub-section F.2 - Student success mechanisms

Sub-section F.2 contains one (1) sub-subsection that lists the proposed student success mechanisms of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* F.2.1 employ the following proposed student success mechanisms in the curriculum design components of higher education alternative access programmes for graphic design in South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
Academic advising	○	○	○	○
Positive learning environment	○	○	○	○
Teaching and learning strategies (i.e. high impact practices (HIPs) and flipping the classroom)	○	○	○	○
Student engagement	○	○	○	○
Student motivation	○	○	○	○
Support (i.e. financial aid, campus resources, and operations)	○	○	○	○
Repetition with remedial actions	○	○	○	○

Do you have any comments and/or suggestions with regard to the success mechanisms listed in sub-section F.2?

PILOT - EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS

Overall, do you have any comments and/or suggestions with regard to the proposed framework presented in this questionnaire?

APPENDICES OF SECTION C

C

APPENDIX C.17: FEEDBACK QUESTIONNAIRE FOR THE PILOT EXPERT VALIDATION QUESTIONNAIRE AIMED AT ACHIEVING RESEARCH OBJECTIVE 4

Welcome to the feedback questionnaire for theEVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR EMBEDDING CRITICAL ELEMENTS IN ALTERNATIVE ACCESS PROGRAMMES FOR GRAPHIC DESIGN IN ORDER TO SERVE AS A MECHANISM FOR STUDENT SUCCESS questionnaire that you completed recently as part of a pilot study for my PhD titled: A curriculum design framework for alternative access programmes that supports student success in graphic design at the University of the Free State. This questionnaire aims to provide feedback in regard to the difficulty of completion, logical order, type of questions and language.

I truly appreciate your willingness to share your experience. The questionnaire will take approximately 10 minutes of your time. Your participation in this study is voluntary and your anonymity will be protected.

* 1. I hereby voluntarily agree to participate in the above-mentioned research project and declare that I have been fully informed about the study and that I am 18 years or older.

- ◯ I agree
- ◯ I do not agree

* 2. How did you find the completion of the questionnaire for the pilot study?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice

* 3. How did you experience the logical order of the questionnaire?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice

* 4. How did you experience the type of questions asked?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

* 5. How did you experience the language used in the questionnaire?

Easy	Medium	Hard
○	○	○

Please provide a reason for your choice with suitable examples

6. Are there anything else you want to add?

APPENDICES OF SECTION C

C

APPENDIX C.18: FINAL SELF-STRUCTURED WEB-BASED EXPERT VALIDATION QUESTIONNAIRE AIMED AT ACHIEVING RESEARCH OBJECTIVE 4

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

INFORMED CONSENT

Dear prospective participant

This survey aims to investigate your personal experience and viewpoints pertaining to the possible feasibility and value of a proposed framework which is based on the findings of my research. The objectives of this survey are to evaluate key features and identify possible shortcomings from the opinions of experts in order to adapt and refine the current framework. You were identified as a prospective 'expert' participant in this survey because you possess relevant knowledge in Graphic Design, in a related discipline, alternative access programmes and/or in curriculum development/design. By completing this survey, you agree that the information you provide may be used for research purposes, including the dissemination thereof through peer-reviewed publications and conference proceedings.

It is anticipated that the information collected through this questionnaire could be used towards a final proposed framework with embedded mechanisms for curriculum design components, generic and discipline-specific competencies for graphic designers, and success mechanisms for effective alternative access programmes for graphic design students in South Africa. Please note, however, that you are under no obligation to complete the survey and you may withdraw from the study prior to submitting the survey questionnaire. The survey furthermore has been designed to be completed anonymously and as such, neither the researcher nor her promoters in any way will be able to link any information collected to any of the survey participants. However, you will not be able to withdraw from the study once you have clicked the "submit survey" button. If you decide to participate in this survey, it will require no more than 45 minutes of your time. You will not benefit from your participation as an individual; however, it is envisioned that the findings of this study will contribute to a framework for good alternative access programmes for graphic design students. Ethics clearance to conduct this research was obtained from the University of the Free State (Ref no: UFS-EDU-2012-0053).

The research focuses on your personal experience and viewpoints and not that of your organisation. Should you have any questions regarding the ethical aspects of the study, you may contact the chairperson of the Ethics Board of the Faculty of Education, University of the Free State by phoning 051 401 9922 or by e-mail at duvenhageCS@ufs.ac.za.

The primary researcher, Mrs Y. Burger, can be contacted during office hours by phoning her on 079 849 5931, by e-mailing her at yolandibur@gmail.com. The promoter of the study, Dr S.P. van Tonder may be contacted during office hours at 051 401 9174/vTonderSP@ufs.ac.za.

* 1. I hereby voluntarily agree to participate in the above-mentioned research project, declare that I am 18 years or older and that I have read and understand all the information and conditions pertaining to this survey.

- ◯ I agree
- ◯ I do not agree

CLARIFICATION OF TERMINOLOGY

Alternative access programmes

A programme which extends or augments an undergraduate diploma or degree programme in higher education and training in South Africa that provides alternative access for non-traditional students. For the purpose of this study, alternative access programmes include bridging, foundation, extended and preparation programmes in higher education and training.

Alternative access programmes for graphic design

A programme which extends or augments an undergraduate graphic design diploma or degree programme in higher education and training in South Africa that provides alternative access for non-traditional students (aligned to the definition of alternative access programmes). For the purpose of this study, alternative access programmes for graphic design include bridging, foundation, extended and preparation graphic design or other related discipline programmes in higher education and training.

Competency/competencies and competence

Competence and competency are often used interchangeably in the literature depending on the definition of the term within a specific study. For the purpose of this study, and in alignment with the Oxford Dictionary, competencies are defined as knowledge, skills, abilities, attitudes, values and/or behaviour that an individual must possess within a specific discipline/profession in order to successfully perform a particular task. The single form is competency. Competence, on the other hand, is the ability to do something well or efficiently and is a cluster of competencies.

Graphic Design programmes

Graphic design is classified within the third category of visual and performing arts under the subsection of design and applied arts. The third Classification of Educational Subject Matter (CESM) category defines the disciplines within this category as fields of study that focus on the creation and interpretation of works to express ideas in various forms. For the purpose of this research, a graphic design programme is defined as any qualification offered at a Higher Education institution (public or private) that delivers graduates that can practise as graphic designers on successful completion.

Higher education teachers

Different terms are used to describe someone teaching or facilitating student learning in higher education (e.g. lecturer, facilitator, instructor, trainer, tutor, etc.), depending on the person's context and/or teaching style. The term of higher education teacher is used throughout this study in order to accommodate the different contexts and teaching styles.

Student

A student is defined for the purpose of this study as a person studying at a higher education institution.

Student success mechanisms

A student success mechanism refers to teaching-learning activities which are aimed at improving students' success in higher education and training, thereby improving student retention and throughput rates in higher education.

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

STRUCTURE OF THE QUESTIONNAIRE FOR THE REVIEW AND VALIDATION OF THE PROPOSED FRAMEWORK

This questionnaire is divided into the following sections and sub-sections of the proposed framework for embedding critical elements in alternative access programmes for graphic design:

SECTION A - CURRICULUM/PROGRAMME DESIGN OF THE PROPOSED FRAMEWORK
- **Sub-section A.1 - General aspects pertaining to programme design (9 sub-subsections)**

SECTION B - AIM, GOALS, AND INTENDED LEARNING OUTCOMES OF THE PROPOSED FRAMEWORK
- **Sub-section B.1 - General aspects pertaining to aims, goals, and/or intended learning outcomes (7 sub-subsections)**
- **Sub-section B.2 - Aims and goals of alternative access programmes (4 sub-subsections)**
- **Sub-section B.3 - Intended learning outcomes (9 sub-subsections)**

SECTION C - CURRICULUM CONTENT OF THE PROPOSED FRAMEWORK
- **Sub-section C.1 - General aspects pertaining to curriculum content (7 sub-subsections)**
- **Sub-section C.2 - Organising curriculum content (4 sub-subsections)**
- **Sub-section C.3 - Selecting curriculum content (5 sub-subsections)**

SECTION D - TEACHING AND LEARNING ACTIVITIES OF THE PROPOSED FRAMEWORK
- **Sub-section D.1 - General aspects pertaining to teaching and learning (7 sub-subsections)**
- **Sub-section D.2 - Student learning and learning approaches/styles (10 sub-subsections)**
- **Sub-section D.3 - Teaching and teaching styles (22 sub-subsections)**
- **Sub-section D.4 - Teaching and learning activities (8 sub-subsections)**

SECTION E - ASSESSMENT TASKS OF THE PROPOSED FRAMEWORK
- **Sub-section E.1 - General aspects of assessment (8 sub-subsections)**
- **Sub-section E.2 - Assessment approaches/forms and tasks (4 sub-subsections)**

SECTION F - COMPETENCIES AND SUCCESS MECHANISMS OF THE PROPOSED FRAMEWORK
- **Sub-section F.1 - Competencies of the proposed framework (i.e. generic and discipline-specific; 1 sub-section)**
- **Sub-section F.2 - Success mechanisms of the proposed framework (1 sub-section)**

Please note that questions marked with an * in the questionnaire require an answer.

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

DEMOGRAPHIC INFORMATION

This section contains compulsory demographic questions that will be used to dissect the information provided in Section B of the questionnaire.

* 2. Expert experience according to your discipline of knowledge or profession (you may select more than one answer)

- [ ] Alternative access programmes
- [ ] Curriculum development/design
- [ ] Graphic design
- [ ] Other (please specify)

* 3. Expert experience according to years (you are required to select only one answer)

- ( ) <5 years
- ( ) 5 – 10 years
- ( ) 11+ years

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION A: CURRICULUM/PROGRAMME DESIGN TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section A contains one (1) sub-section (i.e. A.1) that lists activities to be included in the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section A.1: General aspects pertaining to programme design

Sub-section A.1 contains nine (9) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 4. A.1 .1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1 .1.1 acknowledge that the graphic design community has its own culture, networks, and languages.	○	○	○	○
A.1.1.2 acknowledge the inevitability of change (e.g. demands and needs for curriculum/programme design).	○	○	○	○

* 5. A.1.2 adhere to the demands and needs of/for:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.2.1 didactics (i.e. teaching and learning).	○	○	○	○
A.1.2.2 educational administration.	○	○	○	○
A.1.2.3 industry.	○	○	○	○
A.1.2.4 real life.	○	○	○	○
A.1.2.5 the community.	○	○	○	○

* 6. A.1.3 adhere to the following South African programme design requirements:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.3.1 Adherence to professional body requirements (if applicable).	○	○	○	○
A.1.3.2 Aligned with national and/or regional industry, knowledge and socio-cultural needs.	○	○	○	○
A.1.3.3 Articulate opportunities with other programmes and higher education and training institutions.	○	○	○	○
A.1.3.4 Coherence of modules and/or courses of the programme (e.g. level, credits, purpose, etc.).	○	○	○	○
A.1.3.5 Integrate work-based learning or learning in a work-based environment into the curriculum design.	○	○	○	○
A.1.3.6 Involve relevant stakeholders (e.g. academic peers, employers and professional bodies) in the design process.	○	○	○	○
A.1.3.7 Promote students' understanding of the specific discipline/profession (i.e. graphic design).	○	○	○	○
A.1.3.8 Provide opportunities for students to master competencies associated with the discipline/occupation (i.e. graphic design).	○	○	○	○

* 7. A.1.4 apply the following recommended curriculum design parameters for the proposed flexible curriculum framework for South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.4.1 Incorporate sufficient foundation provision (e.g. generic and discipline-specific competencies) and student success mechanisms.	◯	◯	◯	◯
A.1.4.2 Integrate the foundation provision (e.g. generic and discipline-specific competencies) into the core curriculum.	◯	◯	◯	◯
A.1.4.3 Students eventually should achieve the same exit levels and standards as the registered mainstream programme.	◯	◯	◯	◯
A.1.4.4 Support and enhance graduate attributes of the higher education institution.	◯	◯	◯	◯
A.1.4.5 Provide greater exposure to the discipline (without overloading) in order to enhance the curriculum.	◯	◯	◯	◯
A.1.4.6 Provide curriculum pathways for students who may complete a diploma or degree in the minimum duration by exemption from a maximum of 120 credits of foundation provision.	◯	◯	◯	◯
A.1.4.7 Steadily increase intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree.	◯	◯	◯	◯
A.1.4.8 Use an appropriate starting point according to students' prior knowledge.	◯	◯	◯	◯

* 8. A.1.5 design the curriculum/programme:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.5.1 according to a purposeful plan.	◯	◯	◯	◯
A.1.5.2 in a systematic manner.	◯	◯	◯	◯

* 9. A.1.6 employ a/an:

	Not necessary	*Uncertain*	*Useful*	*Essential*
A.1.6.1 appropriate method to design a curriculum/programme.	○	○	○	○
A.1.6.2 comprehensive process.	○	○	○	○
A.1.6.3 continuous process.	○	○	○	○
A.1.6.4 decision-making process.	○	○	○	○
A.1.6.5 interdisciplinary process.	○	○	○	○

* 10. A.1.7 link knowledge and experiences of the curriculum/programme (i.e. integration by converging the knowledge and experiences).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 11. A.1.8 take into account students' developmental level with regard to all curriculum design components.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 12. A.1.9 use the existing curriculum as a starting point for curriculum/programme design.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

13. Do you have any comments and/or suggestions with regard to the activities listed in sub-section A.1?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION B: AIM, GOALS, AND INTENDED LEARNING OUTCOMES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section B contains three (3) sub-sections (i.e. B.1, B.2, and B.3) that list activities to be included in the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section B.1: General aspects pertaining to aims, goals, and intended learning outcomes

Sub-section B.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 14. B.1.1 acknowledge the diverse student population of South Africa as a given.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 15. B.1.2 align aims, goals and intended learning outcomes with the following levels of curriculum design:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.2.1 Higher education institutions' programme mix.	○	○	○	○
B.1.2.2 Higher education institutions' programme policies and procedures.	○	○	○	○
B.1.2.3 Individual learning programme design.	○	○	○	○
B.1.2.4 Module design within learning programmes.	○	○	○	○
B.1.2.5 South African higher education legislation.	○	○	○	○
B.1.2.6 Teaching in the programme (in terms of modules) that results in micro-curriculum design in the classroom.	○	○	○	○
B.1.2.7 The community's philosophy of life and views on higher education in South Africa.	○	○	○	○

* 16. B.1.3 align admission requirements of the programme:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.3.1 to promote equity.	○	○	○	○
B.1.3.2 to widen access.	○	○	○	○
B.1.3.3 with the degree of complexity of learning required.	○	○	○	○

* 17. B.1.4 align the curriculum components to the higher education and training institution's vision, mission, goals and planning structures.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 18. B.1.5 align with the discipline/profession itself.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 19. B.1.6 employ additional admission requirements such as:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.1.6.1 aptitude tests (e.g. English proficiency tests).	◯	◯	◯	◯
B.1.6.2 discipline-specific requirements (e.g. design portfolios).	◯	◯	◯	◯

* 20. B.1.7 promote curriculum design for student success through academic development initiatives.

Not necessary	*Uncertain*	*Useful*	*Essential*
◯	◯	◯	◯

21. Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.1?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION B: AIM, GOALS, AND INTENDED LEARNING OUTCOMES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section B.2: Aims and goals of alternative access programmes

Sub-section B.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 22. B.2.1 address the articulation gap between secondary and higher education in South Africa.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 23. B.2.2 implement a curriculum structure that aligns with South African students' prior knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 24. B.2.3 incorporate student success mechanisms to ensure successful completion of the access programme as well as the eventual qualification.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 25. B.2.4 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.2.4.1 an academic foundation for underprepared students that includes generic and discipline-specific competencies.	○	○	○	○
B.2.4.2 alternative access to higher education for talented but previously disadvantaged students and advantaged and disadvantaged students but with physical or other disabilities (e.g. learning disabilities, etc.).	○	○	○	○

26. Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.2?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION B: AIM, GOALS, AND INTENDED LEARNING OUTCOMES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section B.3: Intended learning outcomes

Sub-section B.3 contains nine (9) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 27. B.3.1 align the learning outcomes with the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.1.1 appropriate National Qualifications Framework level and its associated level descriptors.	○	○	○	○
B.3.1.2 critical cross-field and developmental outcomes of the South African Qualifications Authority.	○	○	○	○
B.3.1.3 purposes of alternative access programmes (e.g. widening access for previously disadvantaged students, provide an academic foundation for underprepared students, etc.).	○	○	○	○

* 28. B.3.2 apply constructive alignment to ensure intended learning outcomes are aligned with teaching and learning activities and assessment tasks.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 29. B.3.3 apply the following four ‘essential’ or ‘power’ principles of Outcomes-Based Education in a consistent, systematic, creative and simultaneous manner:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.3.1 Backward designed learning outcomes from the aims and goals of the institution or programme.	○	○	○	○
B.3.3.2 Formulate clear learning outcomes (which both the student and teacher understand) that will guide the creation of other components in the curriculum design.	○	○	○	○
B.3.3.3 Set high expectations, i.e. that students will be able to achieve the intended learning outcomes.	○	○	○	○
B.3.3.4 Take into account students’ different learning paces in achieving the learning outcomes so that the intended learning outcomes expand opportunity and provide support for student success.	○	○	○	○

* 30. B.3.4 base learning outcomes on students’ prior abilities and knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 31. B.3.5 derive learning outcomes from the discipline and profession’s knowledge base.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 32. B.3.6 formulate:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.6.1 intended learning outcomes that will develop both generic and discipline-specific competencies.	○	○	○	○
B.3.6.2 the intended learning outcomes of students’ learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students.	○	○	○	○

* 33. B.3.7 employ various levels of the different taxonomies for cognitive, psychomotor, and affective domains when designing intended learning outcomes in order to ensure an appropriate balance between the levels of complexity within the taxonomy.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 34. B.3.8 follow the following guidelines when formulating intended learning outcomes at module level:

	Not necessary	*Uncertain*	*Useful*	*Essential*
B.3.8.1 Decide whether the intended learning outcomes require declarative (understanding of knowledge) or functioning knowledge (application, creation, solving of problems and a lifelong learning orientation).	○	○	○	○
B.3.8.2 Start the intended learning outcome with the preface “[T]he student will”.	○	○	○	○
B.3.8.3 Specify an action verb at the appropriate level of understanding/performance/complexity.	○	○	○	○
B.3.8.4 Specify an object or topic that relates to the verb (e.g. the content).	○	○	○	○
B.3.8.5 Specify the context in which the verb and object are used (e.g. specific discipline).	○	○	○	○

* 35. B.3.9 foster, and expose students to discipline knowledge in order to enhance student success and retention.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

36. Do you have any comments and/or suggestions with regard to the activities listed in sub-section B.3?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION C: CURRICULUM CONTENT TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section C contains three (3) sub-sections (i.e. C.1, C.2, and C.3) that list activities to be included in the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section C.1: General aspects pertaining to curriculum content

Sub-section C.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 37. C.1.1 acknowledge the role of the orientation (i.e. attitude, beliefs or feelings) of the curriculum designer with regard to curriculum content.

Not necessary	*Uncertain*	*Useful*	*Essential*
◯	◯	◯	◯

* 38. C.1.2 adhere to curriculum/programme design criteria pertaining to curriculum content:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.1.2.1 Correlation of content.	◯	◯	◯	◯
C.1.2.2 Scope of content.	◯	◯	◯	◯
C.1.2.3 Sequence of content.	◯	◯	◯	◯

* 39. C.1.3 align curriculum content with the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.1.3.1 aims, goals, purposes and the learning outcomes of a specific higher education institution (i.e. graduate attributes), programme/qualification outcomes and module outcomes respectively.	○	○	○	○
C.1.3.2 specific National Qualifications Framework level descriptors	○	○	○	○

* 40. C.1.4 design and evaluate learning materials that will ensure alignment with programme's aims, goals and purposes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 41. C.1.5 ensure the coherency of different modules' content with the level, credits, purpose, learning outcomes, weights and delivery.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 42. C.1.6 involve higher education teachers on all campuses of a higher education institution in selecting and organising the curriculum content.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 43. C.1.7 organise and select curriculum content holistically in order to have a more coherent programme overall.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

44. Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.1?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION C: CURRICULUM CONTENT TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-Section C.2: Organising curriculum content

Sub-section C.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 45. C.2.1 distribute:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.2.1.1 discipline modules evenly throughout the duration of alternative access programmes.	○	○	○	○
C.2.1.2 distribute the workload of modules in accordance with students' abilities to manage the amount of curriculum content.	○	○	○	○

* 46. C.2.2 organise curriculum/module content:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.2.2.1 according to students' academic needs.	○	○	○	○
C.2.2.2 according to a method/s that is/are personally and academically appropriate for the student and/or higher education teacher.	○	○	○	○
C.2.2.3 for horizontal alignment.	○	○	○	○
C.2.2.4 for vertical alignment.	○	○	○	○

* 47. C.2.3 provide sufficient time for repetition and revision of curriculum content.

	Not necessary	*Uncertain*	*Useful*	*Essential*
	○	○	○	○

* 48. C.2.4 select an appropriate organising type for curriculum content (e.g. logical, psychological, political, and practical), depending on the purpose of the programme/module.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

49. Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.2?

SECTION C: CURRICULUM CONTENT TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section C.3: Selecting curriculum content

Sub-section C.3 contains five (5) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 50. C.3.1 balance:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.1.1 experiential knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○
C.3.1.2 practical knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○
C.3.1.3 theoretical knowledge and skills with appropriate disciplinary content and theoretical depth.	○	○	○	○

* 51. C.3.2 incorporate:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.2.1 disciplinary content at an appropriate level to serve the programme's purpose.	○	○	○	○
C.3.2.2 theoretical depth at an appropriate level to serve the programme's purpose.	○	○	○	○

* 52. C.3.3 include:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.3.1 a language component in all theory modules to assist with the development of students' communication skills.	○	○	○	○
C.3.3.2 foundation provision content to assist students to deal with the obstacles.	○	○	○	○
C.3.3.3 foundation provision content to assist students with their learning skills.	○	○	○	○
C.3.3.4 foundation provision content to provide students with motivation.	○	○	○	○

* 53. C.3.4 revise the content every semester/year (to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 54. C.3.5 select curriculum content that:

	Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.5.1 addresses current needs of all stakeholders (e.g. industry, students, higher education teachers, etc.).	○	○	○	○
C.3.5.2 builds on students' prior abilities and knowledge.	○	○	○	○
C.3.5.3 contributes to the development of generic competencies.	○	○	○	○
C.3.5.4 contributes to the development of discipline-specific competencies.	○	○	○	○
C.3.5.5 converges into a meaningful whole.	○	○	○	○
C.3.5.6 empowers students to achieve their full potential.	○	○	○	○
C.3.5.7 is accessible.	○	○	○	○
C.3.5.8 is achievable.	○	○	○	○
C.3.5.9 is balanced in extent and depth of study.	○	○	○	○

Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.5.10 is in alignment with student input.			
○	○	○	○
C.3.5.11 is in alignment with student choices.			
○	○	○	○
C.3.5.12 is in alignment with students' existing knowledge.			
○	○	○	○
C.3.5.13 is in alignment with students' needs.			
○	○	○	○
C.3.5.14 is in alignment with key procedures of the discipline.			
○	○	○	○
C.3.5.15 is in alignment with key concepts of the discipline.			
○	○	○	○
C.3.5.16 is in alignment with key criteria of the discipline.			
○	○	○	○
C.3.5.17 is manageable.			
○	○	○	○
C.3.5.18 is motivating.			
○	○	○	○
C.3.5.19 is realistic.			
○	○	○	○
C.3.5.20 is relevant.			
○	○	○	○
C.3.5.21 is stimulating.			
○	○	○	○
C.3.5.22 is viable.			
○	○	○	○
C.3.5.23 promotes cognitive skills.			
○	○	○	○
C.3.5.24 promotes affective skills.			
○	○	○	○
C.3.5.25 promotes psychomotor skills.			
○	○	○	○
C.3.5.26 provides opportunities for self-discovery.			
○	○	○	○

Not necessary	*Uncertain*	*Useful*	*Essential*
C.3.5.27 represents the purpose of the module.			
C.3.5.28 requires a focussed attention (e.g. awareness of the basic structure of what is to be learned and the priorities in the module content elements).			
C.3.5.29 serves the realisation of aims.			
C.3.5.30 supports students inside and outside of the class			

55. Do you have any comments and/or suggestions with regard to the activities listed in sub-section C.3?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION D: TEACHING AND LEARNING ACTIVITIES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section D contains four (4) sub-sections (i.e. D.1, D.2, D.3, and D.4) that list activities to be included in the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section D.1: General aspects pertaining to teaching and learning

Sub-section D.1 contains seven (7) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 56. D.1.1 avoid the marginalisation of students and higher education teachers of alternative access programmes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 57. D.1.2 employ mechanisms to monitor student progress.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 58. D.1.3 ensure that higher education teachers and students have access to sufficient learning material.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 59. D.1.4 identify and unteach erroneous prior knowledge and bias.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 60. D.1.5 integrate discipline-specific characteristics into the teaching and learning activities of the core curriculum.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 61. D.1.6 select suitable learning materials to promote the achievement of the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.1.6.1 learning outcomes of the programme.	○	○	○	○
D.1.6.2 purpose of the programme.	○	○	○	○

* 62. D.1.7 use appropriate teaching and learning activities (e.g. methods, materials, and opportunities) that align with the purpose of the programme.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

63. Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.1?

SECTION D: TEACHING AND LEARNING ACTIVITIES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section D.2: Student learning and learning approaches/styles

Sub-section D.2 contains ten (10) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 64. D.2.1 acknowledge different:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.1.1 learning approaches/styles of a diverse student population.	○	○	○	○
D.2.1.2 cultures of students pertaining to economic stances.	○	○	○	○
D.2.1.3 cultures of students pertaining to environmental issues/situations.	○	○	○	○
D.2.1.4 cultures of students pertaining to gender.	○	○	○	○
D.2.1.5 cultures of students pertaining to political views.	○	○	○	○
D.2.1.6 cultures of students pertaining to religion.	○	○	○	○
D.2.1.7 cultures of students pertaining to social trends.	○	○	○	○

* 65. D.2.2 acknowledge discipline-specific characteristics of student learning:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.2.1 Doing and making are fundamental aspects of learning in design education.	○	○	○	○
D.2.2.2 Learning is dialogic in nature if teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision.	○	○	○	○
D.2.2.3 Learning is unconstrained if it emphases a variety of solutions to a specific problem.	○	○	○	○
D.2.2.4 Students are uncomfortable with theory and writing since it is viewed as unrelated to the practical component.	○	○	○	○
D.2.2.5 Students can learn through peers and senior students within the informal studio setting of design education.	○	○	○	○
D.2.2.6 Students should work for long periods on projects through which they can learn a variety of key technical skills for employment.	○	○	○	○
D.2.2.7 Students should work for long periods on projects through which they can learn a variety of personal skills for employment.	○	○	○	○
D.2.2.8 Students should work for long periods on projects through which they can learn a variety of professional skills for employment.	○	○	○	○
D.2.2.9 The teacher guides and advises the student during this solution phase, rather than dictates.	○	○	○	○

* 66. D.2.3 create teaching/learning activities and assessment tasks that require of students to apply a deep learning process instead of a surface approach by requiring students to use higher-order thinking skills.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 67. D.2.4 encourage:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.4.1 a student-centred approach to teaching and learning.	○	○	○	○
D.2.4.2 student learning through real-world projects in the design industry.	○	○	○	○

* 68. D.2.5 foster:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.5.1 critical thinking in design education.	○	○	○	○
D.2.5.2 independent thinking in design education.	○	○	○	○
D.2.5.3 intellectual abilities in both hemispheres of students' brains in order to meet challenges of this century.	○	○	○	○
D.2.5.4 self-analytical thinking in design education.	○	○	○	○

* 69. D.2.6 motivate students to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.6.1 interact frequently with other students.	○	○	○	○
D.2.6.2 interact frequently with teachers.	○	○	○	○
D.2.6.3 perceive and adopt high expectations of achievement.	○	○	○	○
D.2.6.4 take responsibility for their own learning.	○	○	○	○

* 70. D.2.7 promote student development for success through academic development initiatives.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 71. D.2.8 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.8.1 opportunities for students to compete with peers.	○	○	○	○
D.2.8.2 opportunities for students to give feedback to higher education teachers.	○	○	○	○

* 72. D.2.9 use students' learning styles to identify suitable teaching and learning activities.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 73. D.2.10 use teaching and learning activities and assessment tasks that:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.2.10.1 are proven to have a high impact on student learning.	○	○	○	○
D.2.10.2 promote active learning amongst students.	○	○	○	○
D.2.10.3 promote engagement with the curriculum content, teaching and learning activities and assessment tasks.	○	○	○	○

74. Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.2?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION D: TEACHING AND LEARNING ACTIVITIES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section D.3: Teaching and teaching styles

Sub-section D.3 contains twenty-two (22) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 75. D.3.1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.1.1 that different students often require different content delivery strategies.	○	○	○	○
D.3.1.2 that the core principles of the discipline (i.e. graphic design) are taught through practice as rules-of-thumb and knowledge from teachers or masters of the discipline.	○	○	○	○

* 76. D.3.2 act as:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.2.1 mentor for students.	○	○	○	○
D.3.2.2 nurturer for students (to contribute to the holistic development of students in studio practice disciplines such as graphic design).	○	○	○	○

* 77. D.3.3 actively practise as a designer in the industry in order to promote simulation-based learning for design students.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 78. D.3.4 attend academic, professional and staff development initiatives to promote their own knowledge, skills and teaching competence.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 79. D.3.5 be aware of their own learning style/approach.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 80. D.3.6 connect new information to prior knowledge of students in a meaningful way.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 81. D.3.7 develop professional and personal characteristics attributed to good higher education teachers.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 82. D.3.8 enhance student engagement through small student: higher education teacher ratios in alternative access programmes.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 83. D.3.9 ensure that their employed teaching style aligns with:

Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.9.1 students' learning needs.			
○	○	○	○
D.3.9.2 students' epistemological conditions (i.e. students' existing scope of knowledge).			
○	○	○	○

* 84. D.3.10 focus on students' individual needs to ensure no learner is left behind.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 85. D.3.11 highlight the value of what is to be learned for students.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 86. D.3.12 implement the following guidelines for technology-based teaching:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.12.1 Become an innovative professional role model in the present age of technology.	○	○	○	○
D.3.12.2 Continuously improve their own teaching by demonstrating the use of new digital tools and resources.	○	○	○	○
D.3.12.3 Design and develop digital-age authentic learning experiences that align with assessment tasks.	○	○	○	○
D.3.12.4 Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices.	○	○	○	○
D.3.12.5 Facilitate and inspire student learning and creativity through the use of technology in teaching and learning activities and in assessment tasks.	○	○	○	○

* 87. D.3.13 implement the following considerations during the presentation of teaching and learning activities:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.13.1 align students' previous knowledge with the intended learning outcomes and assessment tasks.	○	○	○	○
D.3.13.2 create a positive and safe classroom environment.	○	○	○	○
D.3.13.3 provide opportunity and sufficient time for students to master skills.	○	○	○	○
D.3.13.4 reflect on the achievement of intended learning outcomes.	○	○	○	○
D.3.13.5 use appropriate activities to accommodate students' learning styles.	○	○	○	○

* 88. D.3.14 possess the stipulated qualifications, experience and teaching competence required of higher education teachers at a specific level.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 89. D.3.15 promote and/or employ:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.15.1 a variety of teaching styles/strategies according to the type of module.	○	○	○	○
D.3.15.2 a variety of teaching styles/strategies according to the type of students.	○	○	○	○
D.3.15.3 active learning rather than passive engagement.	○	○	○	○

* 90. D.3.16 promote and/or employ the following student-centred teaching approaches and styles to teaching in design education:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.16.1 Teaching that offers students a range of practical and technical skills through demonstration to show ways of making or doing.	○	○	○	○
D.3.16.2 Teaching that aims to develop students' critical thinking skills through student interaction by means of individual, group or teamwork, to form opinions and ideas.	○	○	○	○
D.3.16.3 Teaching that aims to develop students' practical skills through student interaction by means of individual, group or teamwork to form opinions and ideas.	○	○	○	○
D.3.16.4 Teaching that aims to develop students' technical skills through student interaction by means of individual, group or teamwork to form opinions and ideas.	○	○	○	○
D.3.16.5 Teaching that encourages peer learning (to develop students' skills and conceptions in preparation for professional practice).	○	○	○	○
D.3.16.6 Teaching that emphasises conceptual thinking skills to improve self-directed research, practice, and conceptual skills.	○	○	○	○
D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills.	○	○	○	○
D.3.16.8 Teaching that motivates and enable students to change themselves as a person or to make changes in their life world.	○	○	○	○

* 91. D.3.17 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.17.1 academic support in order to create scaffolding of knowledge.	○	○	○	○
D.3.17.2 additional support to students in theory modules (since graphic design students view it as unrelated to the practical component).	○	○	○	○
D.3.17.3 ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material.	○	○	○	○
D.3.17.4 prompt feedback on students' learning.	○	○	○	○

* 92. D.3.18 respect the diverse:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.18.1 talents of students.	○	○	○	○
D.3.18.2 ways of how students learn.	○	○	○	○

* 93. D.3.19 select:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.19.1 suitable methods to promote the achievement of the purpose of the programme.	○	○	○	○
D.3.19.2 suitable methods to promote the achievement of the learning outcomes of the programme.	○	○	○	○
D.3.19.3 suitable opportunities to promote the achievement of the purpose of the programme.	○	○	○	○
D.3.19.4 suitable opportunities to promote the achievement of the learning outcomes of the programme.	○	○	○	○

* 94. D.3.20 set and maintain high but realistic expectations and goals (which are appropriately aligned to teaching and learning activities and intended learning outcomes).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 95. D.3.21 teach students how to give feedback to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.21.1 themselves.	○	○	○	○
D.3.21.2 their peers.	○	○	○	○

* 96. D.3.22 use:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.3.22.1 professional staff development opportunities provided by higher education institutions to upgrade teaching methods.	○	○	○	○
D.3.22.2 the full available contact time with students with a focused effort.	○	○	○	○

97. Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.3?

SECTION D: TEACHING AND LEARNING ACTIVITIES TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section D.4: Teaching and learning activities

Sub-section D.4 contains eight (8) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 98. D.4.1 adhere to the following principles to select teaching and learning activities:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.1.1 Align to the specific community (i.e. graphic design community).	○	○	○	○
D.4.1.2 Assist to achieve one or more of the aligned aims, goals, objectives, outcomes and/or purposes of the programme.	○	○	○	○
D.4.1.3 Be appropriate with regard to students' needs (i.e. abilities, interests, talents, and learning styles to only name a few).	○	○	○	○
D.4.1.4 Be appropriate with regard to teacher attributes (i.e. personality, preferences, knowledge, and abilities, to only name a few).	○	○	○	○
D.4.1.5 Be appropriate with regard to time constraints.	○	○	○	○
D.4.1.6 Be feasible with regard to availability of resources.	○	○	○	○
D.4.1.7 Be feasible with regard to the number of staff involved.	○	○	○	○
D.4.1.8 Be feasbile with regard to programme requirements.	○	○	○	○
D.4.1.9 Be suitable with regards to class size (number of students).	○	○	○	○
D.4.1.10 Highlight real-life application within the community or industry.	○	○	○	○

* 99. D.4.2 change teaching and learning activities for facilitating declarative intended learning outcomes every fifteen minutes for maximum student concentration.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 100. D.4.3 employ:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.3.1 teaching and learning activities for functioning knowledge by incorporating declarative intended learning outcomes in these activities.	○	○	○	○
D.4.3.2 technology-based teaching and learning activities to facilitate higher order learning.	○	○	○	○

* 101. D.4.4 focus on what students do rather than what higher education teachers do when building declarative knowledge.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 102. D.4.5 promote active learning by:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.5.1 employing a variety of teaching and learning activities for greater student engagement.	○	○	○	○
D.4.5.2 selecting teaching and learning activities that require interactions between higher education teachers, students, and outside experts to meet this century's needs.	○	○	○	○

* 103. D.4.6 select appropriate teaching and learning activities to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.6.1 balance intellectual challenges in order to create scaffolding of knowledge.	○	○	○	○
D.4.6.2 facilitate deep learning that builds understanding.	○	○	○	○
D.4.6.3 foster the South African Qualification Authority's critical cross-field and developmental outcomes by selecting teaching and learning activities to achieve functioning intended learning outcomes.	○	○	○	○
D.4.6.4 let students apply their knowledge to real-world situations (within different contexts).	○	○	○	○
D.4.6.5 mimic real-world situations for design students (such as teaching and learning activities associated with functioning intended learning outcomes).	○	○	○	○
D.4.6.6 promote/ensure creativity by ensuring teaching and learning activities are adventurous, enjoyable and stimulating.	○	○	○	○
D.4.6.7 promote/ensure constructive alignment with intended learning outcomes and assessment tasks.	○	○	○	○
D.4.6.8 transform the student to a practitioner in the first year of mainstream design education.	○	○	○	○

* 104. D.4.7 start discipline-specific teaching and learning activities with a written brief in project-based learning which provides a focus for students' learning.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 105. D.4.8 specify the following in the brief:

	Not necessary	*Uncertain*	*Useful*	*Essential*
D.4.8.1 the format of the design outcome/product.	○	○	○	○
D.4.8.2 the presentation requirements of the design outcome/product.	○	○	○	○
D.4.8.3 the restraints and parameters of the design outcome/product.	○	○	○	○
D.4.8.4 the time period allowed for completing the brief.	○	○	○	○

106. Do you have any comments and/or suggestions with regard to the activities listed in sub-section D.4?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION E: ASSESSMENT TASKS TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section E contains two (2) sub-sections (i.e. E.1 and E.2) that list activities to be included in the proposed framework. Please make use of the 4-point scale to rate each activity of the framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each activity listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section E.1: General aspects pertaining to assessment

Sub-section E.1 contains eight (8) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 107. E.1.1 acknowledge:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.1.1 that assessment in design education differs from conventional assessment in other disciplines.	○	○	○	○
E.1.1.2 the impact that assessment has on student learning.	○	○	○	○
E.1.1.3 the impact that assessment has on student motivation.	○	○	○	○

* 108. E.1.2 adhere to the four principles of good assessment:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.2.1 Fairness	○	○	○	○
E.1.2.2 Practicability	○	○	○	○
E.1.2.3 Reliability	○	○	○	○
E.1.2.4 Validity	○	○	○	○

* 109. E.1.3 assess the design process and person and not only the design product since these elements are also important in design education.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 110. E.1.4 avoid placing emphasis on students' mastering of only design techniques for the execution of the design product in design education.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 111. E.1.5 employ effective evaluation as an integral part of the curriculum/programme design.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 112. E.1.6 ensure:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.6.1 the reliability of the assessment system and procedures.	○	○	○	○
E.1.6.2 the rigour of the assessment system and procedures.	○	○	○	○
E.1.6.3 the security of the assessment system and procedures.	○	○	○	○

* 113. E.1.7 provide:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.7.1 adequate number of assessment opportunities.	○	○	○	○
E.1.7.2 adequate preparation for assessments (e.g. revision and exam techniques, which are generic competencies).	○	○	○	○
E.1.7.3 in advance the criteria and standards used in assessment and evaluation and the nature of the instruments.	○	○	○	○

* 114. E.1.8 use examiners and moderators that possess the necessary skilled judgment and training to assess the:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.1.8.1 achievement of intended learning outcomes.	○	○	○	○
E.1.8.2 quality of the design product in design education.	○	○	○	○

115. Do you have any comments and/or suggestions with regard to the activities listed in sub-section E.1?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION E: ASSESSMENT TASKS TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section E.2: Assessment approaches/forms and tasks

Sub-section E.2 contains four (4) sub-subsections that list activities of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 116. E.2.1 employ technology-based assessment tasks (e.g. e-learning technologies which is a generic competency).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 117. E.2.2 ensure that assessment tasks are constructively aligned with the intended learning outcomes, and teaching and learning activities of the specific curriculum.

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 118. E.2.3 select appropriate assessment approaches/forms and tasks (e.g. internal and external examination and moderation).

Not necessary	*Uncertain*	*Useful*	*Essential*
○	○	○	○

* 119. E.2.4 use a variation of assessment approaches/forms and tasks that are appropriate to:

	Not necessary	*Uncertain*	*Useful*	*Essential*
E.2.4.1 accommodate the needs of a diverse student population.	○	○	○	○
E.2.4.2 expose students to a variety of assessment approaches/forms and tasks.	○	○	○	○
E.2.4.3 nurture discipline-specific practices (such as the crit session).	○	○	○	○
E.2.4.4 replace ineffective approaches/forms and tasks.	○	○	○	○

120. Do you have any comments and/or suggestions with regard to the activities listed in sub-section E.2?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION F: COMPETENCIES AND SUCCESS MECHANISMS TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Section F contains two (2) sub-sections (i.e. F1 and F.2). The identified competencies (i.e. generic and/or discipline-specific), and student success mechanisms to be included in the proposed framework are listed in this section as identified from the primary (i.e. questionnaire survey and SOAR analysis) and secondary (i.e. non-empirical literature study) research of the related study. Please make use of the 4-point scale to rate each competency or mechanism listed in Sections F.1 and F.2 of the proposed framework according to its importance (in your personal opinion). The 4-point scale you are requested to use is as follows: Essential (4); Useful (3); Uncertain (2); Not necessary (1). After rating the importance of each competency or mechanism listed in a sub-section, please type your comments about the particular sub-section and the listed activities. Please feel free to express your own views, concerns and/or suggestions.

Sub-section F.1: Generic and/or discipline-specific competencies

Sub-section F.1 contains one (1) sub-subsection that lists the competencies of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 121. F.1.1 foster the following proposed competencies (i.e. generic and/or discipline-specific) in the curriculum design components of higher education alternative access programmes for graphic design in South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
Accuracy	○	○	○	○
Adaptable in nature	○	○	○	○
Aesthetic gaze (developing)	○	○	○	○
Applying design elements and principles	○	○	○	○
Applying design techniques	○	○	○	○
Attention to detail	○	○	○	○

	Not necessary	*Uncertain*	*Useful*	*Essential*
Collaboration with individuals and group work/teamwork	○	○	○	○
Communication skills (written and oral)	○	○	○	○
Computer skills	○	○	○	○
Creative thinking skills	○	○	○	○
Creativity	○	○	○	○
Critical thinking skills	○	○	○	○
Curiosity	○	○	○	○
Deadline-orientated	○	○	○	○
Decision-making	○	○	○	○
Design-orientated thinking skills	○	○	○	○
Determination	○	○	○	○
Efficient	○	○	○	○
E-learning technologies	○	○	○	○
Emotional intelligence	○	○	○	○
Entrepreneurial skills	○	○	○	○
Imagination	○	○	○	○
Information literacy	○	○	○	○

Not necessary	*Uncertain*	*Useful*	*Essential*
Innovation			
Innovative thinking skills			
Interpersonal skills			
Interpretation of information			
Intuition			
Learning styles and strategies			
Listening and note-taking			
Memory			
Multi-tasking			
Observation			
Organisational and planning skills			
Originality			
Passion			
Personal development of the student himself/herself			
Presentation skills			
Prioritise workload/tasks			
Problem solving			

	Not necessary	*Uncertain*	*Useful*	*Essential*
Reading skills	○	○	○	○
Referencing	○	○	○	○
Reflection	○	○	○	○
Research skills	○	○	○	○
Responsibility towards clients/employers	○	○	○	○
Responsibility towards other designers	○	○	○	○
Responsibility towards the community	○	○	○	○
Responsibility towards the profession	○	○	○	○
Revision and examination techniques	○	○	○	○
Self-management	○	○	○	○
Self-motivated / motivation	○	○	○	○
Stress management	○	○	○	○
Study skills (appropriate)	○	○	○	○
Subjectivity	○	○	○	○
Time management skills	○	○	○	○
Visual communication	○	○	○	○
Work independently	○	○	○	○

	Not necessary	*Uncertain*	*Useful*	*Essential*
Work under pressure	◯	◯	◯	◯

122. Do you have any comments and/or suggestions with regard to the competencies listed in sub-section F.1?

FINAL: EVALUATION AND VALIDATION OF A PROPOSED FRAMEWORK FOR ALTERNATIVE ACCESS PROGRAMMES THAT SUPPORTS STUDENT SUCCESS IN GRAPHIC DESIGN

SECTION F: COMPETENCIES AND SUCCESS MECHANISMS TO BE INCLUDED IN THE PROPOSED FRAMEWORK

Sub-section F.2: Student success mechanisms

Sub-section F.2 contains one (1) sub-subsection that lists the proposed student success mechanisms of the proposed framework.

Curriculum/programme designers and/or higher education teachers of alternative access programmes for graphic design should:

* 123. F.2.1 employ the following proposed student success mechanisms in the curriculum design components of higher education alternative access programmes for graphic design in South Africa:

	Not necessary	*Uncertain*	*Useful*	*Essential*
Academic advising	○	○	○	○
Positive learning environment	○	○	○	○
Teaching and learning strategies (i.e. high impact practices (HIPs) and flipping the classroom)	○	○	○	○
Student engagement	○	○	○	○
Student motivation	○	○	○	○
Support (i.e. financial aid, campus resources, and operations)	○	○	○	○
Repetition with remedial actions	○	○	○	○

124. Do you have any comments and/or suggestions with regard to the success mechanisms listed in sub-section F.2?

125. Overall, do you have any comments and/or suggestions with regard to the proposed framework presented in this questionnaire?

SECTION D

LIST OF APPENDICES

Appendix D.1: Frequency/number of participants who rated each generic competency at a particular level of importance *(n = 25)*

Appendix D.2: Frequency/number of participants who rated each discipline-specific competency at a particular level of importance *(n = 16)*

Appendix D.3: Frequency/number of participants who rated each student success mechanism at a particular level of importance *(n = 33)*

Appendix D.4: Organic Atlas.ti network diagram of South African HE teacher participants' analysis of generic and discipline-specific competencies as well as student success mechanisms

Appendix D.5: Frequencies of primary and secondary codes per theme for HE teacher participants in the SOAR analysis

Appendix D.6: Organic Atlas.ti network diagram of HE teacher participants' analysis of the specific private HEI's existing AAP for graphic design

Appendix D.7: Frequencies of primary and secondary codes per theme for national HE teacher participants

Appendix D.8: Organic Atlas.ti network diagram of the analysis of student participants' responses regarding the specific private HEI's existing AAP for graphic design

Appendix D.9: Frequencies of primary and secondary codes per theme for student participants

Appendix D.10: Proposed aspects pertaining to curriculum/programme design pertaining to AAPs for graphic design (Section A; *n = 9*)

Appendix D.11: Proposed activities pertaining to the aims, goals, and/or intended learning outcomes pertaining to AAPs for graphic design (Section B; *n = 9*)

Appendix D.12: Proposed activities pertaining to the curriculum content pertaining to AAPs for graphic design (Section C; *n = 9*)

Appendix D.13: Proposed teaching and learning activities pertaining to AAPs for graphic design (Section D; *n = 9*)

Appendix D.14: Proposed assessment tasks pertaining to AAPs for graphic design (Section E; *n = 9*)

Appendix D.15: Proposed generic and discipline-specific competencies, and success mechanisms pertaining to AAPs for graphic design (Section F; *n = 9*)

APPENDICES OF SECTION D

D

APPENDIX D.1: FREQUENCY/NUMBER OF PARTICIPANTS WHO RATED EACH GENERIC COMPETENCY AT A PARTICULAR LEVEL OF IMPORTANCE *(n = 25)*

Appendix D.1: Frequency/number of participants who rated each generic competency at a particular level of importance *(n = 25)*

Generic competencies	not important (1)		less important (2)		moderately important (3)		Important (4)		very important (5)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
Collaboration with individuals and group work/teamwork	2	8.00%	0	0.00%	6	24.00%	6	24.00%	11	44.00%	**3.96**
Communication skills (written and oral)	0	0.00%	0	0.00%	0	0.00%	5	20.00%	20	80.00%	**4.80**
Computer skills	0	0.00%	0	0.00%	4	16.00%	9	36.00%	12	48.00%	**4.32**
Creative thinking skills	1	4.00%	0	0.00%	1	4.00%	11	44.00%	12	48.00%	**4.32**
Critical thinking skills	0	0.00%	0	0.00%	2	8.00%	8	32.00%	15	60.00%	**4.52**
Deadline-orientated	0	0.00%	0	0.00%	1	4.00%	13	52.00%	11	44.00%	**4.40**
Design-orientated thinking skills	1	4.00%	1	4.00%	6	24.00%	8	32.00%	9	36.00%	**3.92**
E-learning technologies	0	0.00%	3	12.00%	8	32.00%	9	36.00%	5	20.00%	**3.64**
Emotional intelligence	1	4.00%	1	4.00%	4	16.00%	16	64.00%	3	12.00%	**3.76**
Entrepreneurial skills	3	12.00%	2	8.00%	10	40.00%	8	32.00%	2	8.00%	**3.16**
Information literacy	0	0.00%	0	0.00%	4	16.00%	11	44.00%	10	40.00%	**4.24**
Innovative thinking skills	0	0.00%	1	4.00%	3	12.00%	11	44.00%	10	40.00%	**4.20**
Interpretation of information	0	0.00%	0	0.00%	3	12.00%	10	40.00%	12	48.00%	**4.36**
Learning styles and strategies	0	0.00%	0	0.00%	5	20.00%	10	40.00%	10	40.00%	**4.20**
Listening and note-taking	1	4.00%	0	0.00%	3	12.00%	10	40.00%	11	44.00%	**4.20**
Memory	0	0.00%	1	4.00%	5	20.00%	14	56.00%	5	20.00%	**3.92**
Multitasking	0	0.00%	0	0.00%	10	40.00%	9	36.00%	6	24.00%	**3.84**
Organisational and planning skills	0	0.00%	1	4.00%	6	24.00%	8	32.00%	10	40.00%	**4.08**
Presentation skills	1	4.00%	1	4.00%	6	24.00%	9	36.00%	8	32.00%	**3.88**
Problem-solving	0	0.00%	0	0.00%	2	8.00%	11	44.00%	12	48.00%	**4.40**
Reading skills	0	0.00%	0	0.00%	2	8.00%	9	36.00%	14	56.00%	**4.48**
Referencing	0	0.00%	0	0.00%	2	8.00%	13	52.00%	10	40.00%	**4.32**
Reflection	0	0.00%	1	4.00%	5	20.00%	13	52.00%	6	24.00%	**3.96**
Research skills	0	0.00%	0	0.00%	5	20.00%	13	52.00%	7	28.00%	**4.08**
Responsibility towards clients/employers	2	8.00%	2	8.00%	7	28.00%	7	28.00%	7	28.00%	**3.60**
Responsibility towards the community	1	4.00%	5	20.00%	3	12.00%	10	40.00%	6	24.00%	**3.60**

Generic competencies	not important (1)		less important (2)		moderately important (3)		Important (4)		very important (5)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
Responsibility towards the profession	2	8.00%	2	8.00%	5	20.00%	9	36.00%	7	28.00%	**3.68**
Revision and examination techniques	0	0.00%	2	8.00%	3	12.00%	10	40.00%	10	40.00%	**4.12**
Self-management	0	0.00%	2	8.00%	0	0.00%	10	40.00%	13	52.00%	**4.36**
Self-motivated / motivation	0	0.00%	1	4.00%	1	4.00%	8	32.00%	15	60.00%	**4.48**
Stress management	0	0.00%	1	4.00%	1	4.00%	13	52.00%	10	40.00%	**4.28**
Study skills (appropriate)	0	0.00%	0	0.00%	1	4.00%	14	56.00%	10	40.00%	**4.36**
Time management skills	0	0.00%	1	4.00%	1	4.00%	10	40.00%	13	52.00%	**4.40**
Visual communication	0	0.00%	1	4.00%	4	16.00%	7	28.00%	13	52.00%	**4.28**
Work independently	1	4.00%	0	0.00%	0	0.00%	12	48.00%	12	48.00%	**4.36**
Other	None										
Number of participant responses per rating category	**16**		**29**		**129**		**354**		**347**		**-**
% participant responses per rating category	**1.83%**		**3.31%**		**14.74%**		**40.46%**		**39.66%**		**-**
Overall mean of the mean of importance ratings	**-**		**-**		**-**		**-**		**-**		**4.13**
Standard deviation	**-**		**-**		**-**		**-**		**-**		**0.34**

APPENDICES OF SECTION D

D

APPENDIX D.2: FREQUENCY/NUMBER OF PARTICIPANTS WHO RATED EACH DISCIPLINE-SPECIFIC COMPETENCY AT A PARTICULAR LEVEL OF IMPORTANCE *(n = 16)*

Appendix D.2: Frequency/number of participants who rated each discipline-specific competency at a particular level of importance *(n = 16)*

Discipline-specific competencies	not important (1)		less important (2)		moderately important (3)		Important (4)		very important (5)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
Applying design elements and principles	0	0.00%	1	6.25%	0	0.00%	2	12.50%	13	81.25%	**4.69**
Applying design techniques	0	0.00%	0	0.00%	1	6.25%	2	12.50%	13	81.25%	**4.75**
Collaboration with individuals and group work/teamwork	0	0.00%	0	0.00%	3	18.75%	5	31.25%	8	50.00%	**4.31**
Communication skills (written and oral)	0	0.00%	0	0.00%	4	25.00%	6	37.50%	6	37.50%	**4.13**
Creative thinking skills	0	0.00%	0	0.00%	1	6.25%	3	18.75%	12	75.00%	**4.69**
Creativity	0	0.00%	1	6.25%	1	6.25%	3	18.75%	11	68.75%	**4.50**
Critical thinking skills	0	0.00%	0	0.00%	2	12.50%	4	25.00%	10	62.50%	**4.50**
Curiosity	0	0.00%	1	6.25%	4	25.00%	6	37.50%	5	31.25%	**3.94**
Deadline-orientated	0	0.00%	1	6.25%	1	6.25%	2	12.50%	12	75.00%	**4.56**
Design-orientated thinking skills	0	0.00%	0	0.00%	0	0.00%	6	37.50%	10	62.50%	**4.63**
Entrepreneurial skills	1	6.25%	1	6.25%	4	25.00%	5	31.25%	5	31.25%	**3.75**
Imagination	0	0.00%	1	6.25%	2	12.50%	5	31.25%	8	50.00%	**4.25**
Innovation	0	0.00%	2	12.50%	2	12.50%	4	25.00%	8	50.00%	**4.13**
Innovative thinking skills	0	0.00%	2	12.50%	1	6.25%	4	25.00%	9	56.25%	**4.25**
Interpretation of information	0	0.00%	0	0.00%	2	12.50%	6	37.50%	8	50.00%	**4.38**
Intuition	2	12.50%	2	12.50%	3	18.75%	4	25.00%	5	31.25%	**3.50**
Multitasking	1	6.25%	2	12.50%	3	18.75%	6	37.50%	4	25.00%	**3.63**
Observation	0	0.00%	1	6.25%	1	6.25%	8	50.00%	6	37.50%	**4.19**
Organisational and planning skills	0	0.00%	1	6.25%	1	6.25%	5	31.25%	9	56.25%	**4.38**
Originality	0	0.00%	1	6.25%	2	12.50%	6	37.50%	7	43.75%	**4.19**
Passion	0	0.00%	1	6.25%	2	12.50%	3	18.75%	10	62.50%	**4.38**
Prioritise workload/tasks	0	0.00%	1	6.25%	0	0.00%	9	56.25%	6	37.50%	**4.25**
Problem solving	0	0.00%	0	0.00%	1	6.25%	6	37.50%	9	56.25%	**4.50**
Reflection	0	0.00%	1	6.25%	1	6.25%	6	37.50%	8	50.00%	**4.31**
Responsibility towards other designers	0	0.00%	2	12.50%	3	18.75%	9	56.25%	2	12.50%	**3.69**
Responsibility towards clients/employers	2	12.50%	0	0.00%	0	0.00%	6	37.50%	8	50.00%	**4.13**

Discipline-specific competencies	not important (1)		less important (2)		moderately important (3)		Important (4)		very important (5)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
Responsibility towards the community	1	6.25%	2	12.50%	1	6.25%	6	37.50%	6	37.50%	**3.88**
Responsibility towards the profession	1	6.25%	1	6.25%	3	18.75%	6	37.50%	5	31.25%	**3.81**
Self-management	0	0.00%	1	6.25%	2	12.50%	4	25.00%	9	56.25%	**4.31**
Self-motivated / motivation	0	0.00%	0	0.00%	2	12.50%	5	31.25%	9	56.25%	**4.44**
Stress management	0	0.00%	2	12.50%	1	6.25%	4	25.00%	9	56.25%	**4.25**
Time management skills	0	0.00%	2	12.50%	1	6.25%	3	18.75%	10	62.50%	**4.31**
Visual communication	0	0.00%	0	0.00%	2	12.50%	5	31.25%	9	56.25%	**4.44**
Work independently	0	0.00%	0	0.00%	1	6.25%	9	56.25%	6	37.50%	**4.31**
Work under pressure	0	0.00%	1	6.25%	1	6.25%	6	37.50%	8	50.00%	**4.31**
Other	Developing an aesthetic gaze (mentioned by at least one respondent)										
Number of participant responses per rating category	**8**		**31**		**59**		**179**		**283**		**-**
% participant responses per rating category	**1.43%**		**5.54%**		**10.53%**		**31.96%**		**50.54%**		**-**
Overall mean of the mean of importance ratings	**-**		**-**		**-**		**-**		**-**		**4.25**
Standard deviation	**-**		**-**		**-**		**-**		**-**		**0.31**

APPENDICES OF SECTION D

D

APPENDIX D.3: FREQUENCY/NUMBER OF PARTICIPANTS WHO RATED EACH STUDENT SUCCESS MECHANISM AT A PARTICULAR LEVEL OF IMPORTANCE *(n = 33)*

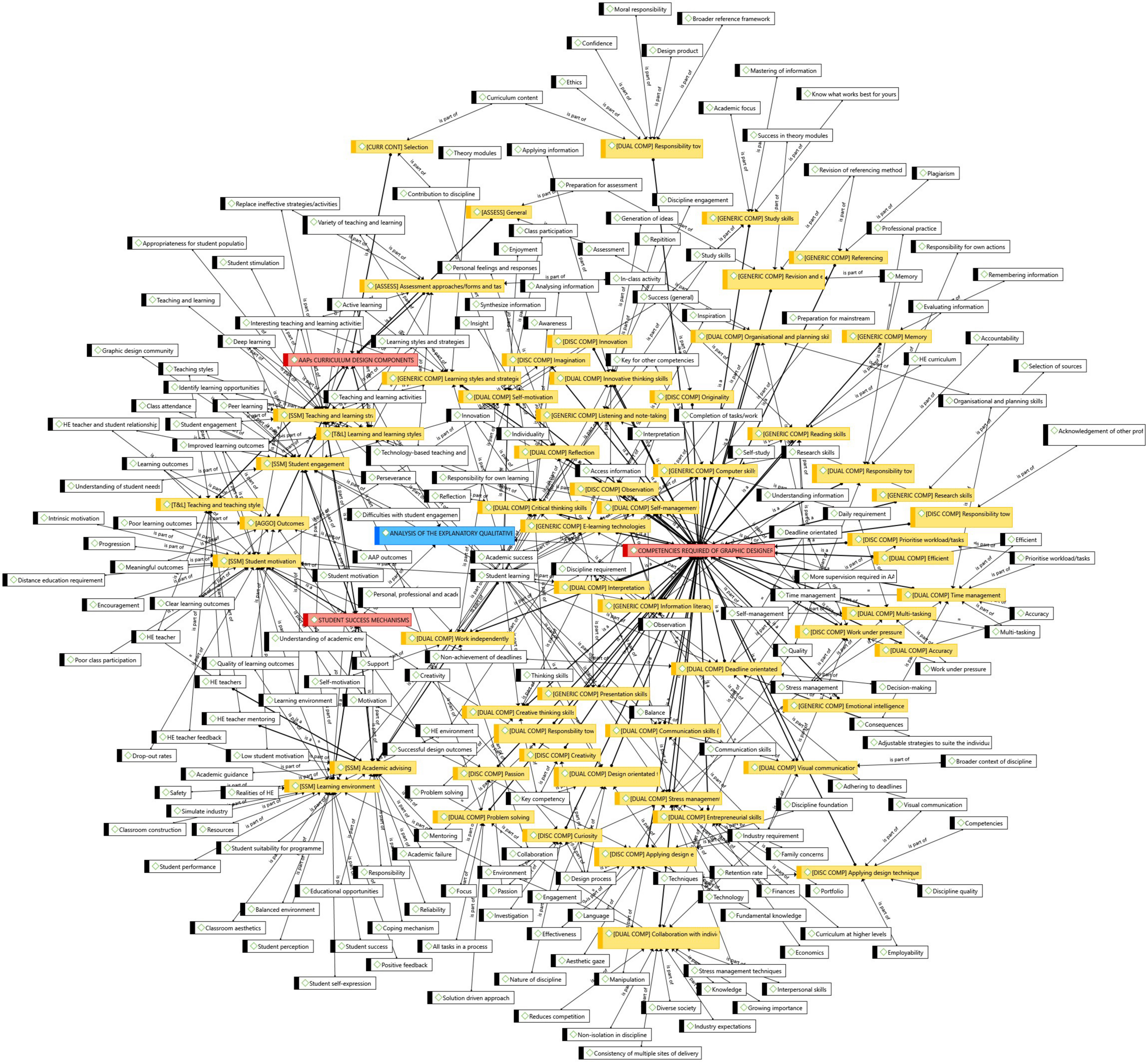
Appendix D.3: Frequency/number of participants who rated each student success mechanism at a particular level of importance *(n = 33)*

Student success mechanisms	not important (1)		less important (2)		moderately important (3)		Important (4)		very important (5)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
Academic advising	0	0.00%	1	3.04%	8	24.24%	13	39.39%	11	33.33%	**4.03**
Positive learning environment	0	0.00%	0	0.00%	3	9.09%	14	42.42%	16	48.48%	**4.39**
Teaching and learning strategies (e.g. flipping the classroom and high impact practices).	1	3.04%	0	0.00%	5	15.15%	13	39.39%	14	42.42%	**4.18**
Student engagement	0	0.00%	0	0.00%	0	0.00%	9	27.27%	24	72.73%	**4.73**
Student motivation	0	0.00%	0	0.00%	1	3.04%	8	24.24%	24	72.73%	**4.70**
Other (please specify)	Repetitive remedial actions A writing centre Improving study skills										
Number of participant responses per rating category	**1**		**1**		**17**		**57**		**89**		**-**
% participant responses per rating category	**0.61%**		**0.61%**		**10.30%**		**34.54%**		**53.94%**		**-**
Overall mean of the mean of importance ratings	**-**		**-**		**-**		**-**		**-**		**4.41**
Standard deviation	**-**		**-**		**-**		**-**		**-**		**0.31**

APPENDICES OF SECTION D

D

APPENDIX D.4: ORGANIC ATLAS.TI NETWORK DIAGRAM OF SOUTH AFRICAN HE TEACHER PARTICIPANTS' ANALYSIS OF GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES AS WELL AS STUDENT SUCCESS MECHANISMS


Moral responsibility
Broader reference framework
Confidence
Design product
Ethics
Mastering of information
Curriculum content
Know what works best for yours
Academic focus
[CURR CONT] Selection
Theory modules
Applying information
[DUAL COMP] Responsibility tov
Success in theory modules
Revision of referencing method
Plagiarism
Preparation for assessment
Contribution to discipline
Discipline engagement
Replace ineffective strategies/activities
[ASSESS] General
Variety of teaching and learning
Generation of ideas
[GENERIC COMP] Study skills
Class participation
Professional practice
Appropriateness for student populatio
Repitition
Responsibility for own actions
Enjoyment
Assessment
Study skills
[GENERIC COMP] Referencing
Student stimulation
Personal feelings and responses
In-class activity
[GENERIC COMP] Revision and e
Memory
Remembering information
[ASSESS] Assessment approaches/forms and tas
Analysing information
Success (general)
Teaching and learning
Active learning
Synthesize information
Evaluating information
Inspiration
Interesting teaching and learning activities
Insight
Awareness
Preparation for mainstream
Deep learning
Learning styles and strategies
[DISC COMP] Innovation
[DUAL COMP] Organisational and planning ski
[GENERIC COMP] Memory
Accountability
Graphic design community
AAPs CURRICULUM DESIGN COMPONENTS
[DISC COMP] Imagination
Key for other competencies
HE curriculum
Teaching styles
[GENERIC COMP] Learning styles and strategie
[DUAL COMP] Innovative thinking skills
Selection of sources
Identify learning opportunities
[DUAL COMP] Self-motivation
[DISC COMP] Originality
Teaching and learning activities
Class attendance
Peer learning
[SSM] Teaching and learning stra
Innovation
[GENERIC COMP] Listening and note-taking
Completion of tasks/work
Organisational and planning skills
HE teacher and student relationship
Student engagement
[T&L] Learning and learning styles
Individuality
Interpretation
[GENERIC COMP] Reading skills
Acknowledgement of other prof
Improved learning outcomes
Technology-based teaching and
[DUAL COMP] Reflection
Self-study
Research skills
Learning outcomes
[SSM] Student engagement
Access information
[GENERIC COMP] Computer skills
[DUAL COMP] Responsibility tov
Understanding of student needs
Perseverance
Responsibility for own learning
[DISC COMP] Observation
Understanding information
[GENERIC COMP] Research skills
[T&L] Teaching and teaching style
Reflection
[DUAL COMP] Critical thinking skills
[DUAL COMP] Self-managemen
Intrinsic motivation
Difficulties with student engagemen
Daily requirement
[DISC COMP] Responsibility tow
Poor learning outcomes
[AGGO] Outcomes
[GENERIC COMP] E-learning technologies
Deadline orientated
Progression
ANALYSIS OF THE EXPLANATORY QUALITATIVE
[DISC COMP] Prioritise workload/tasks
Efficient
COMPETENCIES REQUIRED OF GRAPHIC DESIGNEF
Meaningful outcomes
[SSM] Student motivation
AAP outcomes
Academic success
[DUAL COMP] Efficient
Prioritise workload/tasks
Discipline requirement
Distance education requirement
Student motivation
Student learning
More supervision required in AA
[DUAL COMP] Interpretation
Personal, professional and acad
Time management
[DUAL COMP] Time management
Encouragement
Clear learning outcomes
[GENERIC COMP] Information literacy
Self-management
[DUAL COMP] Multi-tasking
Accuracy
STUDENT SUCCESS MECHANISMS
Observation
[DISC COMP] Work under pressure
Multi-tasking
HE teacher
Understanding of academic env
[DUAL COMP] Work independently
Quality
[DUAL COMP] Accuracy
Poor class participation
Non-achievement of deadlines
Work under pressure
Quality of learning outcomes
Support
[DUAL COMP] Deadline orientated
Creativity
Thinking skills
Stress management
Decision-making
HE teachers
Self-motivation
[GENERIC COMP] Presentation skills
[GENERIC COMP] Emotional intelligence
Learning environment
Motivation
Balance
[DUAL COMP] Creative thinking skills
HE teacher mentoring
Consequences
HE environment
[DUAL COMP] Responsbility tow
[DUAL COMP] Communication skills (
HE teacher feedback
Adjustable strategies to suite the individua
Successful design outcomes
Communication skills
Drop-out rates
Low student motivation
[DISC COMP] Creativity
[DUAL COMP] Visual communicatior
Broader context of discipline
[SSM] Academic advising
[DISC COMP] Passion
[DUAL COMP] Design orientated
Academic guidance
Adhering to deadlines
[SSM] Learning environment
Problem solving
Safety
Realities of HE
Key competency
[DUAL COMP] Stress managemen
Discipline foundation
Visual communication
Simulate industry
[DUAL COMP] Problem solving
[DUAL COMP] Entrepreneurial skills
Competencies
Classroom construction
Resources
Mentoring
[DISC COMP] Curiosity
Industry requirement
Student suitability for programme
Collaboration
[DISC COMP] Applying design e
Family concerns
Academic failure
Student performance
Responsibility
Environment
Design process
Techniques
Retention rate
[DISC COMP] Applying design technique
Educational opportunities
Focus
Passion
Engagement
Technology
Finances
Portfolio
Discipline quality
Balanced environment
Reliability
Investigation
Language
Fundamental knowledge
Classroom aesthetics
Coping mechanism
Effectiveness
[DUAL COMP] Collaboration with indivi
Curriculum at higher levels
Student perception
Student success
All tasks in a process
Economics
Employability
Positive feedback
Aesthetic gaze
Stress management techniques
Student self-expression
Nature of discipline
Manipulation
Knowledge
Interpersonal skills
Solution driven approach
Diverse society
Growing importance
Reduces competition
Industry expectations
Non-isolation in discipline
Consistency of multiple sites of delivery

APPENDICES OF SECTION D

D

APPENDIX D.5: FREQUENCIES OF PRIMARY AND SECONDARY CODES PER THEME FOR HE TEACHER PARTICIPANTS IN THE SOAR ANALYSIS

Appendix D.5: Frequencies of primary and secondary codes per theme for higher education teacher participants in the SOAR analysis

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
THEME 1: CURRICULUM DESIGN COMPONENTS OF AAPs (indicated in red in the network diagram)			
Aims, goals, objectives and intended learning outcomes: General aspects *(n = 8)*	[A] Admission requirements *(n = 1)* [A] Aptitude tests *(n = 1)* [O] Academic leadership in programme *(n = 1)* [O] Admission requirements *(n = 5)* [O] Implementation of summer school *(n = 1)* [O] Selection process *(n = 1)* [O] Student response towards the programme *(n = 1)* [R] Review of admission requirements *(n = 1)*	***Aims, goals, objectives and intended learning outcomes:*** Intended learning outcomes *(n = 33)*	[A] Academic confidence *(n = 1)* [A] Academic skills *(n = 1)* [A] Basic computer skills *(n = 1)* [A] Basic discipline skills *(n = 3)* [A] Discipline exposure *(n = 1)* [A] Discipline specific skills *(n = 1)* [A] General knowledge *(n = 1)* [A] Generic skills as coping mechanism *(n = 1)* [A] Knowledge of the discipline *(n = 3)* [A] More stringent academic focus *(n = 1)* [A] Nurturing of discipline learners *(n = 1)* [A] Student preparedness *(n = 2)* [O] Academic literacy *(n = 1)* [O] Basic literacy *(n = 1)* [O] First language of students *(n = 1)* [O] General knowledge *(n = 1)* [O] Language capability of students *(n = 2)* [O] Misconception of discipline in HE *(n = 1)* [O] Perception of importance of English *(n = 1)* [O] Poor English (langue, writing and reading) *(n = 2)* [O] Realignment of curriculum outcomes *(n = 1)* [O] Student abilities *(n = 1)* [O] Student diversity *(n = 1)* [R] Clarification of programme objectives *(n = 1)* [R] Curriculum review according to NQF level *(n = 2)* [R] Future student careers *(n = 1)* [R] Student abilities *(n = 2)* [R] Tailoring curriculum to student needs *(n = 1)* [S] Discipline exposure *(n = 3)* [S] Discipline knowledge *(n = 1)* [S] Helping mechanism for a job *(n = 1)* [S] Programme serves its goal *(n = 1)* [S] Thinking skills *(n = 1)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Aims, goals, objectives and intended learning outcomes: Purpose of AAPs *(n = 16)*	[A] Academic experience *(n = 1)* [A] Diploma programme *(n = 3)* [A] More coherent overall programme *(n = 1)* [A] Relevance of the programme *(n = 1)* [A] Two-year programme/extended programme *(n = 1)* [O] Articulation gap *(n = 1)* [O] Epistemic transition *(n = 1)* [O] Guard against stigmatization *(n = 1)* [O] HE opportunity *(n = 1)* [O] Preparation for 1st year demands *(n = 1)* [O] Underprepared for 1st year *(n = 1)* [R] Diploma programme *(n = 2)* [R] Programme recognition *(n = 1)* [S] HE opportunity *(n = 2)* [S] Opportunity for a qualification (not to study further) *(n = 1)* [S] Opportunity to study *(n = 2)* [S] Student readiness *(n = 3)*	***Curriculum content:*** General aspects *(n = 11)*	[A] Academic and social support outside the class *(n = 1)* [A] Curriculum support students *(n = 1)* [O] Additional language support (for those who need it) *(n = 2)* [O] Implementation of summer school *(n = 1)* [O] Module content *(n = 1)* [O] Sufficient learning material *(n = 1)* [O] Theory support for students *(n = 1)* [R] Curriculum review according to NQF level *(n = 2)* [R] Investigating theoretical shortfalls *(n = 1)* [R] Curriculum content *(n = 2)* [R] Curriculum material *(n = 3)*
Curriculum content: Organisation *(n = 7)*	[A] Distribution of discipline modules in programme *(n = 1)* [A] More coherent overall programme *(n = 1)* [A] Teacher involvement in curriculum *(n = 2)* [O] Workload *(n = 4)* [R] Adherence to students' academic needs *(n = 1)* [R] Student abilities *(n = 2)* [R] Tailoring curriculum to student needs *(n = 1)*	***Curriculum content:*** Selection *(n = 46)*	[A] Academic skills *(n = 1)* [A] Basic computer skills *(n = 1)* [A] Content more discipline specific *(n = 3)* [A] Content more interactive, fun and creative *(n = 1)* [A] Discipline specific skills *(n = 3)* [A] Discipline thinking skills *(n = 1)* [A] Drawing *(n = 1)* [A] English module content *(n = 2)* [A] Generic skills as coping mechanism *(n = 1)* [A] Greater teacher autonomy *(n = 1)* [A] Implementation of a self-development course *(n = 1)* [A] In-depth language and math development *(n = 1)* [A] Less focus on discipline specific modules *(n = 1)* [A] More coherent overall programme *(n = 1)* [A] More stringent academic focus *(n = 1)* [A] Teacher involvement in curriculum *(n = 2)* [O] Art and design history module *(n = 1)* [O] Basic discipline skills *(n = 2)* [O] Brief content of discipline modules *(n = 1)* [O] Content more discipline specific *(n = 1)* [O] Curriculum input *(n = 1)* [O] Drawing *(n = 2)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
			[O] English module content *(n = 3)* [O] Language component in theory modules *(n = 1)* [O] Language, reading and writing skills *(n = 3)* [O] Module relevance *(n = 2)* [O] More discipline specific, less general modules *(n = 1)* [O] Revision of Student Skills module *(n = 1)* [O] Theory vs practical *(n = 3)* [R] Adherence to students' academic needs *(n = 1)* [R] Development of English course *(n = 1)* [R] Modules more discipline specific *(n = 1)* [R] Student abilities *(n = 2)* [R] Tailoring curriculum to student needs *(n = 1)* [R] Teacher participation *(n = 5)* [S] Generic skills *(n = 2)* [S] Language skills *(n = 2)* [S] Language software *(n = 1)* [S] Practical and theory introduction *(n = 1)* [S] Skills and abilities *(n = 3)* [S] Student development *(n = 2)* [S] Student interest in discipline specific subjects *(n = 2)* [S] Study skills *(n = 1)* [S] Thinking skills *(n = 1)*
Teaching and learning: General aspects *(n = 1)*	[S] Teaching and learning *(n = 1)*	***Teaching and learning:*** Learning and learning styles *(n = 3)*	[O] Understanding of content *(n = 1)* [R] Feedback *(n = 1)* [R] Student feedback *(n = 1)*
Teaching and learning: Teaching and teaching styles *(n = 16)*	[A] Contact time with students *(n = 1)* [A] Discipline fieldtrips *(n = 1)* [A] Greater teacher autonomy *(n = 1)* [A] Hands-on approach *(n = 1)* [A] Nurturing of discipline learners *(n = 1)* [A] Teacher experience *(n = 1)* [O] Small class sizes *(n = 1)* [O] Teacher feedback *(n = 1)* [O] teaching time on theory modules *(n = 1)* [O] Theory support for students *(n = 1)* [R] Feedback *(n = 1)* [R] No learner left behind motto *(n = 1)* [R] Teacher feedback *(n = 1)* [S] Hands on guidance *(n = 1)* [S] Lecturers know students *(n = 1)* [S] Small student lecturer ratio *(n = 1)*	***Assessment:*** General aspects *(n = 5)*	[O] Assessment structure of Student Skills *(n = 1)* [O] Curriculum input *(n = 1)* [O] Too many assessments *(n = 1)* [R] Assessments *(n = 3)* [S] Assessments *(n = 1)*

Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*	Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*
THEME 2: COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS (indicated in red in the network diagram)			
Discipline-specific competencies: Applying design elements and principles *(n = 4)*	[A] Basic discipline skills *(n = 1)* [O] Basic discipline skills *(n = 2)* [S] Basic discipline principles *(n = 1)* [S] Fundamentals of discipline *(n = 1)*	***Discipline-specific competencies:*** Applying design techniques – Tools *(n = 2)*	[A] Drawing *(n = 1)* [O] Drawing *(n = 2)*
Discipline-specific competencies: Creativity *(n = 2)*	[A] Concept development *(n = 1)* [S] Concept development *(n = 1)*	***Discipline-specific competencies:*** Discipline knowledge *(n=5)*	[A] Discipline exposure *(n = 1)* [A] Knowledge of the discipline *(n = 3)* [O] More discipline specific, less general modules *(n = 1)* [S] Design sensibility *(n = 1)* [S] Discipline knowledge *(n = 1)*
Discipline-specific competencies: General aspects *(n = 2)*	[A] Content more discipline specific *(n = 3)* [A] Discipline specific skills *(n = 3)*	***Discipline-specific competencies:*** Passion *(n = 1)*	[A] Passion for discipline *(n = 1)*
Discipline-specific competencies: Prioritise workload/tasks *(n = 1)*	[O] Workload *(n = 1)*	***Dual competencies:*** Communication skills *(n = 16)*	[A] English module content *(n = 2)* [A] In-depth language and math development *(n = 1)* [A] Language, reading and writing *(n = 1)* [O] Additional language support (for those who need it) *(n = 2)* [O] Communication *(n = 1)* [O] English module content *(n = 3)* [O] First language of students *(n = 1)* [O] Language capability of students *(n = 2)* [O] Language component in theory modules *(n = 1)* [O] Language, reading and writing skills *(n = 3)* [O] Perception of importance of English *(n = 1)* [O] Poor English (language, writing and reading) *(n = 2)* [R] Development of English course *(n = 1)* [S] Critical reading *(n = 1)* [S] Language skills *(n = 2)* [S] Language software *(n = 1)*
Dual competencies: Creative thinking skills *(n = 1)*	[S] Creative thinking *(n = 1)*	***Dual competencies:*** Critical thinking skills *(n = 2)*	[A] Critical thinking *(n = 1)* [S] Critical thinking *(n = 1)*

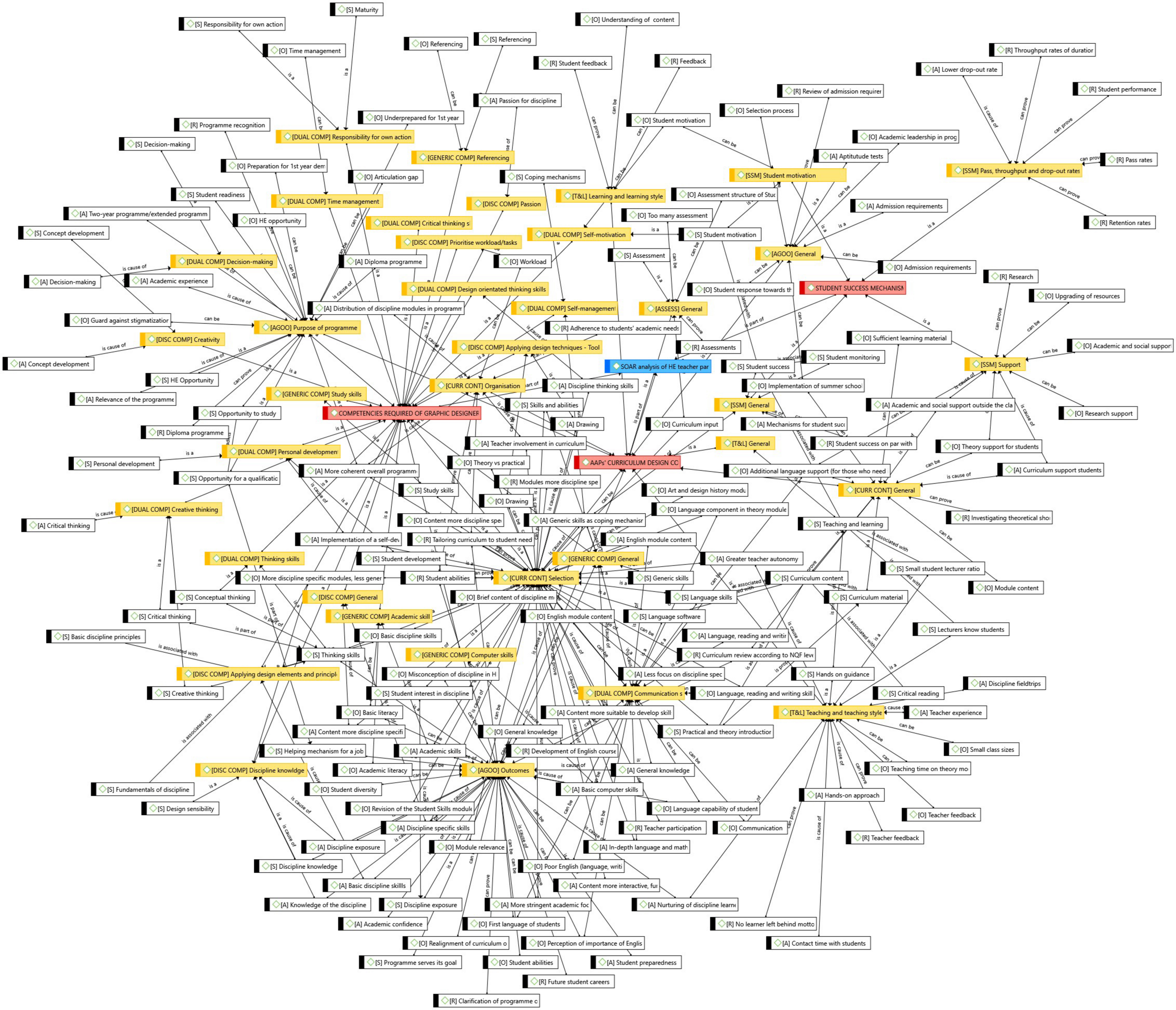
Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Dual competencies: Decision-making *(n = 2)*	[A] Decision-making *(n = 1)* [S] Decision-making *(n = 1)*	***Dual competencies:*** Design orientated thinking skills *(n = 1)*	[A] Discipline thinking skills *(n = 1)*
Dual competencies: Personal development *(n = 3)*	[A] Implementation of a self-development course *(n = 1)* [S] Personal development *(n = 1)* [S] Student development *(n = 2)*	***Dual competencies:*** Responsibility for own actions *(n = 2)*	[S] Maturity *(n = 1)* [S] Responsibility for own actions *(n = 1)*
Dual competencies: Self-management *(n = 2)*	[A] Generic skills as coping mechanism *(n = 1)* [S] Coping mechanisms *(n = 2)*	***Dual competencies:*** Self-motivation *(n = 2)*	[O] Student motivation *(n = 1)* [S] Student motivation *(n = 2)*
Dual competencies: Thinking skills *(n = 2)*	[S] Conceptual thinking *(n = 1)* [S] Thinking skills *(n = 1)*	***Dual competencies:*** Time management *(n = 1)*	[O] Time management *(n = 1)*
Generic competencies: Academic skills *(n = 3)*	[A] Academic skills *(n = 1)* [O] Academic literacy *(n = 1)* [O] Basic literacy *(n = 1)*	***Generic competencies:*** Computer skills *(n = 1)*	[A] Basic computer skills *(n = 1)*
Generic competencies: General aspects *(n = 6)*	[A] Content more suitable to develop skills *(n = 1)* [A] General knowledge *(n = 1)* [A] Generic skills as coping mechanism *(n = 1)* [O] General knowledge *(n = 1)* [S] Generic skills *(n = 2)* [S] Skills and abilities *(n = 3)*	***Generic competencies:*** Referencing *(n = 2)*	[O] Referencing*(n = 1)* [S] Referencing *(n = 1)*
Generic competencies: Study skills *(n = 1)*	[S] Study skills *(n = 1)*		

Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*	Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*
THEME 3: STUDENT SUCCESS MECHANISMS (indicated in red in the network diagram)			
General aspects *(n = 5)*	[A] Generic skills as coping mechanisms *(n = 1)* [A] Mechanisms for student success *(n = 1)* [R] Student success on par with 1st years *(n = 1)* [S] Student monitoring *(n = 1)* [S] Student success *(n = 4)*	***Pass, throughput and drop-out rates*** *(n = 5)*	[A] Lower drop-out rate *(n = 1)* [R] Pass rates *(n = 1)* [R] Retention rates *(n = 1)* [R] Student performance *(n = 2)* [R] Throughput rates of duration of study *(n = 1)*
Student motivation *(n = 2)*	[O] Student motivation *(n = 1)* [S] Student motivation *(n = 2)*	***Support*** *(n = 8)*	[A] Academic and social support outside the classroom *(n = 1)* [A] Curriculum support students *(n = 1)* [O] Academic and social support *(n = 1)* [O] Additional language support (for those who need it) *(n = 2)* [O] Research support *(n = 1)* [O] Theory support for students *(n = 1)* [O] Upgrading of resources *(n = 1)* [R] Research *(n = 4)*

APPENDICES OF SECTION D

D

APPENDIX D.6: ORGANIC ATLAS.TI NETWORK DIAGRAM OF HE TEACHER PARTICIPANTS' ANALYSIS OF THE SPECIFIC PRIVATE HEI'S EXISTING AAP FOR GRAPHIC DESIGN


[S] Maturity
[S] Responsibility for own action
[O] Time management
[O] Referencing
[S] Referencing
[O] Understanding of content
[R] Student feedback
[R] Feedback
[R] Throughput rates of duratior
[A] Lower drop-out rate
[R] Student performance
[R] Review of admission requirer
[O] Selection process
[O] Student motivation
[A] Passion for discipline
[O] Underprepared for 1st year
[R] Programme recognition
[S] Decision-making
[DUAL COMP] Responsibility for own action
[GENERIC COMP] Referencing
[O] Academic leadership in prog
[A] Aptitutude tests
[SSM] Pass, throughput and drop-out rates
[R] Pass rates
[O] Preparation for 1st year dem
[O] Articulation gap
[S] Coping mechanisms
[SSM] Student motivation
[S] Student readiness
[DUAL COMP] Time management
[T&L] Learning and learning style
[O] Assessment structure of Stuc
[A] Admission requirements
[A] Two-year programme/extended programm
[O] HE opportunity
[DISC COMP] Passion
[O] Too many assessment
[R] Retention rates
[S] Concept development
[DUAL COMP] Critical thinking s
[DUAL COMP] Self-motivation
[S] Student motivation
[DISC COMP] Prioritise workload/tasks
[A] Diploma programme
[S] Assessment
[AGOO] General
[O] Admission requirements
[DUAL COMP] Decision-making
[O] Workload
[A] Decision-making
[A] Academic experience
[R] Research
[O] Upgrading of resources
[DUAL COMP] Design orientated thinking skills
[O] Student response towards th
STUDENT SUCCESS MECHANISM
[A] Distribution of discipline modules in programn
[DUAL COMP] Self-managemen
[ASSESS] General
[O] Guard against stigmatizatior
[R] Adherence to students' academic needs
[O] Sufficient learning material
[AGOO] Purpose of programme
[DISC COMP] Creativity
[DISC COMP] Applying design techniques - Tool
[R] Assessments
[S] Student monitoring
[O] Academic and social suppor
[A] Concept development
SOAR analysis of HE teacher par
[S] Student success
[SSM] Support
[S] HE Opportunity
[A] Discipline thinking skills
[O] Implementation of summer schoo
[CURR CONT] Organisation
[A] Relevance of the programme
[GENERIC COMP] Study skills
[S] Skills and abilities
[SSM] General
[A] Academic and social support outside the cla
[O] Research support
[S] Opportunity to study
COMPETENCIES REQUIRED OF GRAPHIC DESIGNER
[A] Drawing
[O] Curriculum input
[A] Mechanisms for student succ
[R] Diploma programme
[A] Teacher involvement in curriculum
[T&L] General
[R] Student success on par with
[O] Theory support for students
[S] Personal development
[DUAL COMP] Personal developmen
[O] Theory vs practical
AAPs' CURRICULUM DESIGN CO
[O] Additional language support (for those who need
[A] Curriculum support students
[S] Opportunity for a qualificatic
[A] More coherent overall programm
[R] Modules more discipline spe
[CURR CONT] General
[S] Study skills
[O] Art and design history modu
[DUAL COMP] Creative thinking
[O] Drawing
[O] Language component in theory module
[A] Critical thinking
[O] Content more discipline spe
[A] Generic skills as coping mechanisr
[S] Teaching and learning
[R] Investigating theoretical shor
[A] Implementation of a self-dev
[R] Tailoring curriculum to student need
[A] English module content
[DUAL COMP] Thinking skills
[S] Student development
[GENERIC COMP] General
[A] Greater teacher autonomy
[S] Small student lecturer ratio
[O] More discipline specific modules, less gener
[R] Student abilities
[CURR CONT] Selection
[S] Generic skills
[S] Curriculum content
[O] Module content
[S] Conceptual thinking
[DISC COMP] General
[O] Brief content of discipline m
[S] Language skills
[S] Curriculum material
[S] Critical thinking
[GENERIC COMP] Academic skill
[O] English module content
[S] Language software
[S] Basic discipline principles
[O] Basic discipline skills
[A] Language, reading and writir
[S] Lecturers know students
[S] Thinking skills
[GENERIC COMP] Computer skills
[R] Curriculum review according to NQF leve
[DISC COMP] Applying design elements and principl
[O] Misconception of discipline in H
[A] Less focus on discipline spec
[S] Hands on guidance
[S] Creative thinking
[S] Student interest in discipline
[DUAL COMP] Communication s
[O] Language, reading and writing skill
[S] Critical reading
[A] Discipline fieldtrips
[O] Basic literacy
[A] Content more suitable to develop skill
[T&L] Teaching and teaching style
[A] Teacher experience
[A] Content more discipline specifi
[O] General knowledge
[S] Practical and theory introductior
[S] Helping mechanism for a job
[A] Academic skills
[R] Development of English course
[O] Small class sizes
[DISC COMP] Discipline knowldge
[O] Academic literacy
[AGOO] Outcomes
[A] General knowledge
[O] Teaching time on theory mo
[S] Fundamentals of discipline
[O] Student diversity
[A] Basic computer skills
[A] Hands-on approach
[S] Design sensibility
[O] Revision of the Student Skills module
[O] Language capability of student
[O] Teacher feedback
[A] Discipline specific skills
[R] Teacher participation
[O] Communication
[R] Teacher feedback
[A] Discipline exposure
[O] Module relevance
[A] In-depth language and math
[S] Discipline knowledge
[O] Poor English (language, writi
[A] Basic discipline skillls
[A] Content more interactive, fu
[A] Knowledge of the discipline
[S] Discipline exposure
[A] More stringent academic foc
[A] Nurturing of discipline learne
[A] Academic confidence
[O] First language of students
[R] No learner left behind motto
[O] Realignment of curriculum o
[O] Perception of importance of Englis
[A] Contact time with students
[S] Programme serves its goal
[O] Student abilities
[A] Student preparedness
[R] Future student careers
[R] Clarification of programme c
is a
is cause of
can be
can prove
is part of
is associated with

APPENDICES OF SECTION D

APPENDIX D.7: FREQUENCIES OF PRIMARY AND SECONDARY CODES PER THEME FOR NATIONAL HE TEACHER PARTICIPANTS

D

Appendix D.7: Frequencies of primary and secondary codes per theme for national higher education teacher participants

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
THEME 1: CURRICULUM DESIGN COMPONENTS OF AAPs (indicated in red in the network diagram)			
Aims, goals, objectives and intended learning outcomes: Intended learning outcomes *(n = 8)*	AAP learning outcomes *(n = 2)* Clear learning outcomes *(n = 1)* Improved learning outcomes *(n = 1)* Learning outcomes *(n = 1)* Meaningful outcomes (n = 1) Poor learning outcomes *(n = 1)* Quality of learning outcomes *(n = 1)* Successful design of learning outcomes *(n = 1)*	***Curriculum content:*** Selection *(n = 2)*	Contribution to discipline *(n = 1)* Curriculum content *(n = 1)*
Teaching and learning: Learning and learning styles *(n = 10)*	Active learning *(n = 1)* Deep learning *(n = 3)* Identify learning opportunities *(n = 1)* Improved learning outcomes *(n = 1)* Learning styles and strategies *(n = 2)* Peer learning *(n = 2)* Responsibility for own learning *(n = 4)* Teaching and learning activities *(n = 2)* Student learning *(n = 47)* Variety of teaching and learning activities *(n = 5)*	***Teaching and learning:*** Teaching and teaching styles *(n = 8)*	HE teacher and student relationship *(n = 1)* HE teacher feedback *(n = 1)* HE teacher mentoring *(n = 2)* HE teachers *(n = 3)* Teaching styles *(n = 1)* Teaching and learning activities *(n = 2)* Variety of teaching and learning activities *(n = 5)*
Assessment: Assessment approaches/ forms and tasks *(n = 6)*	In-class activity *(n = 1)* Interesting teaching and learning activities *(n = 1)* Replace ineffective strategies/activities *(n = 1)* Teaching and learning activities *(n = 2)* Technology-base teaching and learning activities *(n = 1)* Variety of teaching and learning activities *(n = 5)*	***Assessment:*** General aspects *(n = 2)*	Assessment *(n = 4)* Preparation for assessment *(n = 1)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
THEME 2: COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS (indicated in red in the network diagram)			
Discipline-specific competencies: Applying design elements and principles *(n = 9)*	Aesthetic gaze *(n = 1)* Design process *(n = 6)* Discipline foundation *(n = 6)* Effectiveness *(n = 1)* Fundamental knowledge Industry requirement *(n = 20)* Manipulation*(n = 1)* Quality *(n = 4)* Successful design of learning outcomes *(n = 1)*	***Discipline-specific competencies:*** Applying design techniques *(n = 5)*	Competencies *(n = 13)* Discipline quality *(n = 1)* Employability *(n = 2)* Techniques *(n = 2)* Visual communication *(n = 2)*
Discipline-specific competencies: Creativity *(n = 3)*	Creativity *(n = 3)* Design process *(n = 6)* Key competency *(n = 8)*	***Discipline-specific competencies:*** Curiosity (n=6)	Creativity *(n = 3)* Design process *(n = 6)* Investigation *(n = 2)* Nature of discipline *(n = 1)* Passion *(n = 1)* Techniques *(n = 2)*
Discipline-specific competencies: Imagination *(n = 1)*	Innovation *(n = 6)*	***Discipline-specific competencies:*** Innovation *(n = 1)*	Innovation *(n = 6)*
Discipline-specific competencies: Observation *(n = 4)*	Innovation *(n = 6)* Inspiration *(n = 1)* Interpretation *(n = 4)* Observation *(n = 2)*	***Discipline-specific competencies:*** Originality *(n = 1)*	Success (general) *(n = 5)*
Discipline-specific competencies: Passion *(n = 3)*	Focus *(n = 1)* Motivation *(n = 3)* Passion *(n = 1)*	***Discipline-specific competencies:*** Prioritise workload/tasks *(n = 2)*	Prioritise workload/tasks *(n = 10)* Time management (n = 12)
Discipline-specific competencies: Responsibility towards other designers *(n = 1)*	Acknowledgement of other professionals *(n = 1)*	***Discipline-specific competencies:*** Work under pressure *(n = 5)*	Deadline orientated *(n = 2)* Industry requirement *(n = 20)* Stress management *(n = 5)* Time management *(n = 12)* Work under pressure *(n = 3)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Dual competencies: Accuracy *(n = 1)*	Accuracy *(n = 1)*	***Dual competencies:*** Collaboration with individuals and group work/team work (n = 12)	Collaboration *(n = 2)* Communication skills *(n = 9)* Consistency of multiple sites of delivery *(n = 1)* Diverse society *(n = 1)* Environment *(n = 3)* Growing importance *(n = 1)* Industry expectations *(n = 3)* Interpersonal skills *(n = 1)* Knowledge *(n = 1)* Non-isolation in discipline *(n = 2)* Reduces competition *(n = 1)*
Dual competencies: Communication skills *(n = 4)*	Communication skills *(n = 9)* Discipline requirement *(n = 15)* Industry requirement *(n = 20)* Student learning *(n = 47)*	***Dual competencies:*** Creative thinking skills *(n = 5)*	Discipline requirement *(n = 15)* Key competency *(n = 8)* Problem solving *(n = 3)* Student learning *(n = 47)* Thinking skills *(n = 7)*
Dual competencies: Critical thinking skills *(n = 10)*	Analysing information *(n = 5)* Awareness *(n = 3)* Creativity *(n = 3)* Innovation *(n = 6)* Key for other competencies *(n = 2)* Observation *(n = 2)* Reflection *(n = 2)* Student learning *(n=47)* Synthesize information *(n = 1)* Thinking skills *(n = 7)*	***Dual competencies:*** Deadline orientated *(n = 9)*	Adhering to deadlines *(n = 1)* Adjustable strategies to suite the individual *(n = 1)* Consequences *(n = 3)* Deadline orientated *(n = 2)* Decision-making *(n = 2)* Discipline requirement *(n = 15)* Non-achievement of deadlines *(n = 1)* Student learning *(n = 47)* Time management *(n = 12)*
Dual competencies: Design orientated thinking skills *(n = 6)*	Design process *(n = 6)* Engagement *(n = 3)* Key competency *(n = 8)* Student learning *(n = 47)* Techniques *(n = 2)* Thinking skills *(n = 7)*	***Dual competencies:*** Efficient *(n = 1)*	Efficient *(n = 2)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Dual competencies: Entrepreneurial skills *(n = 4)*	Curriculum at higher levels *(n = 1)* Economics *(n = 2)* Portfolio *(n = 1)* Student learning *(n = 47)*	***Dual competencies:*** Innovative thinking skills *(n = 5)*	Access information *(n = 3)* Applying information (n=4) Discipline engagement *(n = 1)* Generation of ideas *(n = 1)* Student learning *(n = 47)*
Dual competencies: Interpretation of information *(n = 3)*	Discipline requirement (n = 15) Interpretation *(n = 4)* Student learning *(n = 47)*	***Dual competencies:*** Multi-tasking *(n = 6)*	Daily requirement *(n = 6)* Multi-tasking *(n = 1)* Self-management *(n = 2)* Stress management *(n = 5)* Time management *(n = 12)* Work under pressure *(n = 3)*
Dual competencies: Organisational and planning skills *(n = 5)*	Assessment *(n = 4)* Completion of tasks/work *(n = 4)* Deadline orientated *(n = 2)* Organisational and planning skills *(n = 1)* Success (general) *(n = 5)*	***Dual competencies:*** Problem solving *(n = 5)*	All tasks in a process *(n = 1)* Collaboration *(n = 2)* Personal, professional and academic tasks *(n = 1)* Problem solving *(n = 3)* Solution driven approach *(n = 1)*
Dual competencies: Reflection *(n = 4)*	Discipline requirement *(n = 15)* Insight *(n = 1)* Personal feelings and responses *(n = 1)* Reflection *(n = 2)*	***Dual competencies:*** Responsibility towards the clients/employers *(n = 4)*	Accountability *(n = 1)* Professional practice *(n = 4)* Quality *(n = 4)* Responsibility for own actions *(n = 1)*
Dual competencies: Responsibility towards the community *(n = 6)*	Broader reference framework *(n = 1)* Confidence *(n = 1)* Curriculum content *(n = 1)* Design product *(n = 1)* Ethics *(n = 1)* Moral responsibility *(n = 1)*	***Dual competencies:*** Responsibility towards the profession *(n = 1)*	Mentoring *(n = 2)*
Dual competencies: Self-management *(n = 10)*	Academic success *(n = 9)* Balance *(n = 2)* Completion of tasks/work *(n = 4)* Individuality *(n = 2)* More supervision required in AAPs *(n = 1)* Responsibility for own learning *(n = 4)* Self-management *(n = 2)* Stress management *(n = 5)* Student learning *(n = 47)* Time management *(n = 12)*	***Dual competencies:*** Self-motivation *(n = 10)*	Academic success *(n = 9)* Class participation *(n = 1)* Contribution to discipline *(n = 1)* Enjoyment *(n = 1)* Innovation *(n = 6)* Perseverance *(n = 3)* Responsibility for own learning *(n = 4)* Self-motivation *(n = 1)* Student learning *(n = 47)* Success (general) *(n = 5)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Dual competencies: Stress management *(n = 11)*	Academic success *(n = 9)* Balance *(n = 2)* Environment *(n = 3)* Family concerns *(n = 1)* Finances *(n = 1)* Language *(n = 3)* Retention rate *(n = 1)* Stress management *(n = 5)* Stress management techniques *(n = 2)* Technology *(n = 1)* Time management *(n = 12)*	***Dual competencies:*** Time management *(n = 8)*	Accuracy *(n = 1)* Consequences *(n = 3)* Efficient *(n = 2)* Multi-tasking *(n = 1)* Organisational and planning skills *(n = 1)* Prioritise workload/tasks *(n = 10)* Stress management *(n = 5)* Time management *(n = 12)*
Dual competencies: Visual communication *(n = 5)*	Broader context of discipline *(n = 1)* Communication skills *(n = 9)* Industry requirement *(n = 20)* Observation *(n = 2)* Visual communication *(n = 2)*	***Dual competencies:*** Work independently *(n = 6)*	AAP learning outcomes *(n = 2)* Collaboration *(n = 2)* Discipline requirement *(n = 15)* Responsibility for own learning *(n = 4)* Self-motivation *(n = 1)* Student learning *(n = 47)*
Generic competencies: Computer skills *(n = 7)*	Daily requirement *(n = 6)* Discipline requirement *(n = 15)* Key for other competencies *(n = 2)* Preparation for mainstream *(n = 1)* Research skills *(n = 1)* Student learning *(n = 47)* Time management *(n = 12)*	***Generic competencies:*** E-learning technologies *(n = 5)*	Access information *(n = 3)* HE environment *(n = 2)* Self-study *(n = 2)* Student learning *(n = 47)* Technology-based teaching and learning activities *(n = 1)*
Generic competencies: Emotional intelligence *(n = 2)*	Self-management *(n = 2)* Stress management *(n = 5)*	***Generic competencies:*** Information literacy *(n = 5)*	Access information *(n = 3)* Communication skills *(n = 9)* Discipline requirement *(n = 15)* Student learning *(n = 47)* Understanding information *(n = 9)*
Generic competencies: Learning styles and strategies *(n = 8)*	Academic success *(n = 9)* Active learning *(n = 1)* Individuality *(n = 2)* Interesting teaching and learning activities *(n = 1)* Learning styles and strategies *(n = 2)* Teaching and learning activities *(n = 2)* Theory modules *(n = 1)* Variety of teaching and learning activities *(n = 5)*	***Generic competencies:*** Listening and note-taking *(n = 5)*	Academic success *(n = 9)* Interpretation *(n = 4)* Repetition *(n = 2)* Student learning *(n = 47)* Study skills *(n = 1)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Generic competencies: Memory *(n = 2)*	Remembering information *(n = 1)* Memory *(n = 1)*	***Generic competencies:*** Presentation skills *(n = 3)*	Communication skills *(n = 9)* Discipline requirement *(n = 15)* Student learning *(n = 47)*
Generic competencies: Reading skills *(n = 2)*	Evaluating information *(n = 8)* HE curriculum *(n = 2)* In-class activity *(n = 1)* Self-study *(n = 2)* Time management *(n = 12)* Understanding information *(n = 9)*	***Generic competencies:*** Referencing *(n = 2)*	Plagiarism *(n = 3)* Revision of referencing method *(n = 1)*
Generic competencies: Research skills *(n = 2)*	Research skills *(n = 1)* Selection of sources *(n = 1)*	***Generic competencies:*** Revision and examination techniques *(n = 5)*	Memory *(n = 1)* Preparation for assessment *(n = 1)* Revision of referencing method *(n = 1)* Student learning *(n = 47)* Success in theory modules *(n = 1)*
Generic competencies: Study skills *(n = 6)*	Academic focus *(n = 1)* Know what works best for yourself *(n = 1)* Mastering of information *(n = 5)* Self-study *(n = 2)* Study skills *(n = 1)* Success (general) *(n = 5)*		

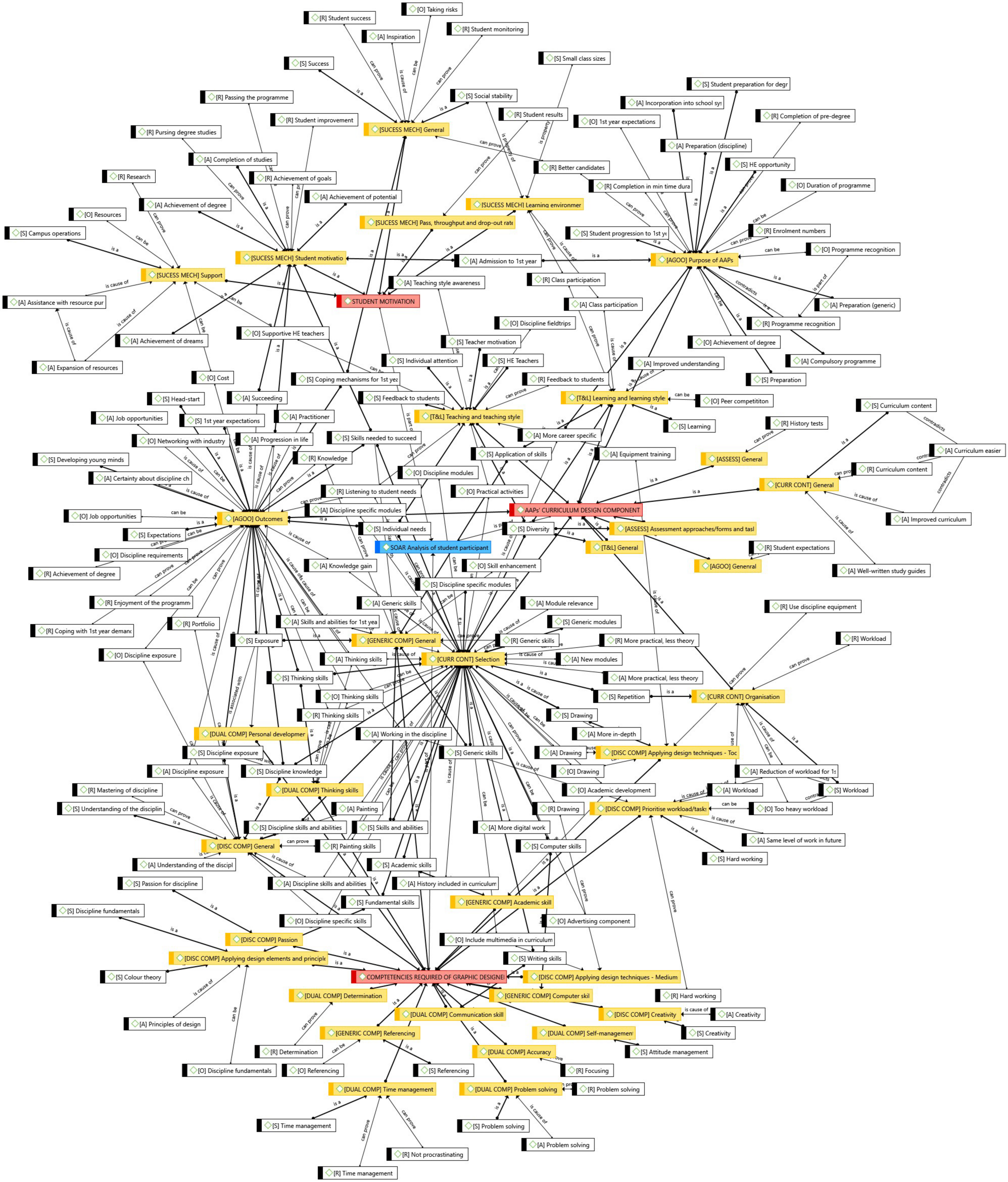
Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*	Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*
THEME 3: STUDENT SUCCESS MECHANISMS (indicated in red in the network diagram)			
Academic advising *(n = 16)*	Academic failure *(n = 1)* Academic guidance *(n = 2)* Academic success *(n = 9)* Coping mechanism *(n = 1)* Educational opportunities *(n = 1)* HE teacher mentoring *(n = 2)* HE teachers *(n = 3)* Low student motivation *(n = 1)* Mentoring *(n-= 2)* Motivation *(n = 3)* Realities of HE *(n = 1)* Reliability *(n = 1)* Responsibility *(n = 1)* Student learning *(n = 47)* Student suitability for programme *(n = 1)* Support *(n = 2)*	***Learning environment*** *(n = 19)*	Balanced environment *(n = 1)* Classroom aesthetics *(n = 1)* Classroom construction *(n = 1)* Environment *(n = 3)* HE environment *(n = 2)* HE teacher feedback *(n = 1)* Learning environment *(n = 4)* Positive feedback *(n = 1)* Quality of learning outcomes *(n = 1)* Resources *(n = 1)* Safety *(n = 1)* Simulate industry *(n = 1)* Student learning *(n = 47)* Student motivation *(n = 6)* Student perception *(n = 1)* Student performance *(n = 1)* Student self-expression *(n = 1)* Student success *(n = 1)* Understanding of academic environment *(n = 1)*
Student engagement *(n = 16)*	Class attendance *(n = 1)* Deep learning *(n = 3)* Difficulties with student engagement *(n = 1)* Graphic design community *(n = 1)* HE teacher and student relationship *(n = 1)* Identify learning opportunities *(n = 1)* Innovation *(n = 6)* Learning environment *(n = 4)* Peer learning *(n = 2)* Reflection *(n = 2)* Student engagement *(n = 9)* Student learning *(n = 47)* Student motivation *(n = 6)* Support *(n = 2)* Teaching and learning activities *(n = 2)* Understanding of student needs *(n = 1)*	***Student motivation*** *(n = 23)*	Clear learning outcomes *(n = 1)* Creativity *(n = 3)* Distance education requirement *(n = 5)* Drop-out rates *(n = 1)* Encouragement *(n = 1)* HE teachers *(n = 3)* Improved learning outcomes *(n = 1)* Interesting teaching and learning activities *(n = 1)* Intrinsic motivation *(n = 1)* Learning environment *(n = 4)* Learning outcomes *(n = 1)* Low student motivation *(n = 1)* Meaningful learning outcomes *(n = 1)* Motivation *(n = 3)* Non-achievement of deadlines *(n = 1)* Perseverance *(n = 3)* Poor class participation *(n = 1)* Poor learning outcomes *(n = 1)* Progression *(n = 1)* Self-motivation *(n = 1)* Student engagement *(n = 9)* Student learning *(n = 47)* Student motivation *(n = 6)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Teaching and learning strategies *(n = 18)*	Active learning *(n = 1)* Appropriateness for student population *(n = 1)* Deep learning *(n = 3)* Interesting teaching and learning activities *(n = 1)* Learning styles and strategies *(n = 2)* Peer learning *(n = 2)* Personal, professional and academic tasks *(n = 1)* Replace ineffective strategies/activities *(n = 1)* Student engagement *(n = 9)* Student learning *(n = 47)* Student motivation *(n = 6)* Student stimulation *(n = 1)* Teaching and learning *(n = 6)* Teaching and learning activities *(n = 2)* Teaching styles *(n = 1)* Technology-based teaching and learning activities *(n = 1)* Understanding of academic environment *(n = 1)* Variety of teaching and learning activities *(n = 5)*		

APPENDICES OF SECTION D

D

APPENDIX D.8: ORGANIC ATLAS.TI NETWORK DIAGRAM OF THE ANALYSIS OF STUDENT PARTICIPANTS' RESPONSES REGARDING THE SPECIFIC PRIVATE HEI'S EXISTING AAP FOR GRAPHIC DESIGN


[R] Student success
[O] Taking risks
[A] Inspiration
[R] Student monitoring
[S] Success
[S] Small class sizes
[S] Student preparation for degr
[A] Incorporation into school sys
[R] Passing the programme
[S] Social stability
[R] Student results
[O] 1st year expectations
[R] Completion of pre-degree
[R] Student improvement
[SUCESS MECH] General
[A] Preparation (discipline)
[R] Pursing degree studies
[R] Better candidates
[S] HE opportunity
[A] Completion of studies
[R] Completion in min time dura
[O] Duration of programme
[R] Research
[R] Achievement of goals
[A] Achievement of potential
[A] Achievement of degree
[SUCESS MECH] Learning environmer
[O] Resources
[SUCESS MECH] Pass, throughput and drop-out rate
[R] Enrolment numbers
[S] Campus operations
[S] Student progression to 1st ye
[SUCESS MECH] Student motivatio
[A] Admission to 1st year
[AGOO] Purpose of AAPs
[O] Programme recognition
[SUCESS MECH] Support
[A] Teaching style awareness
[R] Class participation
[A] Assistance with resource pur
STUDENT MOTIVATION
[A] Class participation
[A] Preparation (generic)
[O] Discipline fieldtrips
[R] Programme recognition
[A] Achievement of dreams
[O] Supportive HE teachers
[S] Teacher motivation
[O] Achievement of degree
[S] Individual attention
[S] HE Teachers
[A] Improved understanding
[A] Compulsory programme
[S] Coping mechanisms for 1st yea
[R] Feedback to students
[S] Preparation
[O] Cost
[A] Succeeding
[S] Feedback to students
[T&L] Learning and learning style
[O] Peer competititon
[S] Head-start
[A] Practitioner
[T&L] Teaching and teaching style
[S] Curriculum content
[A] Job opportunities
[S] 1st year expectations
[S] Learning
[R] History tests
[A] More career specific
[O] Networking with industry
[A] Progression in life
[S] Skills needed to succeed
[A] Curriculum easier
[S] Application of skills
[A] Equipment training
[S] Developing young minds
[R] Knowledge
[ASSESS] General
[R] Curriculum content
[O] Discipline modules
[A] Certainty about discipline ch
[CURR CONT] General
[R] Listening to student needs
[O] Practical activities
[A] Improved curriculum
[O] Job opportunities
[A] Discipline specific modules
AAPs' CURRICULUM DESIGN COMPONENT
[AGOO] Outcomes
[S] Individual needs
[S] Diversity
[ASSESS] Assessment approaches/forms and tasl
[S] Expectations
SOAR Analysis of student participant
[T&L] General
[R] Student expectations
[O] Discipline requirements
[A] Knowledge gain
[O] Skill enhancement
[AGOO] Genenral
[A] Well-written study guides
[R] Achievement of degree
[S] Discipline specific modules
[R] Enjoyment of the programm
[A] Generic skills
[A] Module relevance
[R] Use discipline equipment
[R] Portfolio
[A] Skills and abilities for 1st yea
[S] Generic modules
[R] Coping with 1st year demanc
[R] Workload
[S] Exposure
[GENERIC COMP] General
[R] Generic skills
[R] More practical, less theory
[O] Discipline exposure
[A] Thinking skills
[CURR CONT] Selection
[A] New modules
[S] Thinking skills
[A] More practical, less theory
[O] Thinking skills
[S] Repetition
[CURR CONT] Organisation
[R] Thinking skills
[S] Drawing
[DUAL COMP] Personal developmer
[A] Working in the discipline
[A] More in-depth
[S] Discipline exposure
[S] Generic skills
[A] Drawing
[DISC COMP] Applying design techniques - Toc
[A] Discipline exposure
[S] Discipline knowledge
[O] Drawing
[A] Reduction of workload for 1s
[R] Mastering of discipline
[DUAL COMP] Thinking skills
[O] Academic development
[A] Workload
[S] Workload
[S] Understanding of the disciplin
[A] Painting
[R] Drawing
[DISC COMP] Prioritise workload/tasks
[O] Too heavy workload
[S] Discipline skills and abilities
[S] Skills and abilities
[A] More digital work
[A] Same level of work in future
[DISC COMP] General
[R] Painting skills
[S] Computer skills
[S] Hard working
[A] Understanding of the discipl
[S] Academic skills
[S] Passion for discipline
[A] Discipline skills and abilities
[A] History included in curriculum
[S] Fundamental skills
[GENERIC COMP] Academic skill
[S] Discipline fundamentals
[O] Discipline specific skills
[O] Advertising component
[DISC COMP] Passion
[O] Include multimedia in curriculum
[DISC COMP] Applying design elements and principl
[S] Writing skills
[S] Colour theory
COMPTETENCIES REQUIRED OF GRAPHIC DESIGNEI
[DISC COMP] Applying design techniques - Medium
[DUAL COMP] Determination
[GENERIC COMP] Computer skil
[R] Hard working
[DUAL COMP] Communication skill
[DISC COMP] Creativity
[A] Creativity
[A] Principles of design
[GENERIC COMP] Referencing
[DUAL COMP] Self-managemen
[S] Creativity
[R] Determination
[DUAL COMP] Accuracy
[S] Attitude management
[O] Discipline fundamentals
[O] Referencing
[S] Referencing
[R] Focusing
[DUAL COMP] Time management
[DUAL COMP] Problem solving
[R] Problem solving
[S] Time management
[S] Problem solving
[A] Problem solving
[R] Not procrastinating
[R] Time management

APPENDICES OF SECTION D

D

APPENDIX D.9: FREQUENCIES OF PRIMARY AND SECONDARY CODES PER THEME FOR STUDENT PARTICIPANTS

Appendix D.9: Frequencies of primary and secondary codes per theme for student participants

Secondary codes (indicated in yellow) *n = number of primary codes*	**Primary codes (indicated in white)** *n = number of quotations in data set*	**Secondary codes (indicated in yellow)** *n = number of primary codes*	**Primary codes (indicated in white)** *n = number of quotations in data set*
THEME 1: CURRICULUM DESIGN COMPONENTS OF AAPs (indicated in red in the network diagram)			
Aims, goals, objectives and intended learning outcomes: General aspects *(n = 1)*	[R] Student expectations *(n = 1)*	***Aims, goals, objectives and intended learning outcomes:*** Intended learning outcomes *(n = 35)*	[A] Certainty about discipline choice *(n = 1)* [A] Discipline exposure *(n = 1)* [A] Job opportunities *(n = 4)* [A] Knowledge gain *(n = 3)* [A] Practitioner *(n = 9)* [A] Progression in life *(n = 2)* [A] Skills and abilities for 1st year *(n = 1)* [A] Succeeding *(n = 2)* [A] Thinking skills *(n = 1)* [A] Working in the discipline *(n = 4)* [O] Cost *(n = 1)* [O] Discipline exposure *(n = 6)* [O] Discipline requirements *(n = 1)* [O] Job opportunities *(n = 1)* [O] Networking with industry *(n = 1)* [O] Thinking skills *(n = 1)* [R] Achievement of degree *(n = 2)* [R] Coping with 1st year demands *(n = 1)* [R] Enjoyment of the programme *(n = 2)* [R] Knowledge *(n = 1)* [R] Listening to student needs *(n = 1)* [R] Portfolio *(n = 3)* [R] Pursing degree studies *(n = 1)* [R] Thinking skills *(n = 2)* [S] 1st year expectations *(n = 5)* [S] Coping mechanisms for 1st year *(n = 1)* [S] Developing young minds *(n = 1)* [S] Discipline exposure *(n = 1)* [S] Discipline knowledge *(n = 9)* [S] Expectations *(n = 7)* [S] Exposure *(n = 2)* [S] Head-start *(n = 1)* [S] Individual needs *(n = 1)* [S] Skills needed to succeed *(n = 1)* [S] Thinking skills *(n = 3)*

Secondary codes (indicated in yellow) *n = number of primary codes*	**Primary codes (indicated in white)** *n = number of quotations in data set*	**Secondary codes (indicated in yellow)** *n = number of primary codes*	**Primary codes (indicated in white)** *n = number of quotations in data set*
Aims, goals, objectives and intended learning outcomes: Purpose of AAPs *(n = 19)*	[A] Admission to 1st year *(n = 2)* [A] Compulsory programme *(n = 1)* [A]Incorporation into school system *(n = 1)* [A] More career specific *(n = 1)* [A] Preparation (discipline) *(n = 3)* [A] Preparation (generic) *(n = 1)* [O] 1st year expectations *(n = 1)* [O] Achievement of degree *(n = 2)* [O] Duration of programme *(n = 2)* [O] Programme recognition *(n = 1)* [R] Better candidates *(n = 1)* [R] Completion in min time duration *(n = 2)* [R] Completion of pre-degree *(n = 1)* [R] Enrolment numbers *(n = 1)* [R] Programme recognition *(n = 2)* [S} HE opportunity *(n = 3)* [S] Preparation *(n = 18)* [S] Student preparation for degree studies *(n = 3)* [S] Student progression to 1st year *(n = 7)*	***Curriculum content:*** General aspects *(n = 5)*	[A] Curriculum easier *(n = 1)* [A] Improved curriculum *(n = 2)* [A] Well-written study guides *(n = 1)* [R] Curriculum content *(n = 2)* [S] Curriculum content *(n = 8)*
Curriculum content: Organisation *(n = 6)*	[A] Reduction of workload for 1st year *(n = 1)* [A] Workload *(n = 3)* [O] Too heavy workload *(n = 1)* [R] Workload *(n = 3)* [S] Repetition *(n = 3)* [S] Workload *(n = 7)*	***Curriculum content:*** Selection *(n = 46)*	[A] Discipline skills and abilities *(n = 7)* [A] Discipline specific modules *(n = 3)* [A] Drawing *(n = 5)* [A] Generic skills *(n = 5)* [A] History included in curriculum *(n = 1)* [A] Knowledge gain *(n = 3)* [A] Module relevance *(n = 1)* [A] More career specific *(n = 1)* [A] More digital work *(n = 1)* [A] More-in-depth *(n = 1)* [A] More practical, less theory *(n = 1)* [A] New modules *(n = 1)* [A] Painting *(n = 1)* [A] Skills and abilities for 1st year *(n = 1)* [A] Thinking skills *(n = 1)* [O] Academic development *(n = 1)* [O] Advertising component *(n = 1)* [O]Discipline modules *(n = 4)* [O] Discipline specific skills *(n = 2)* [O] Drawing *(n = 2)* [O] Include multimedia in curriculum content *(n = 1)* [O] Practical activities *(n = 1)* [O] Thinking skills *(n = 1)* [R] Drawing *(n = 5)* [R] Generic skills *(n = 2)* [R] Knowledge *(n = 1)* [R] Listening to student needs *(n = 1)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
			[R] More practical, less theory *(n = 1)* [R] Painting skills *(n = 1)* [R] Thinking skills *(n = 2)* [S] Academic skills *(n = 1)* [S] Computer skills *(n = 2)* [S] Discipline knowledge *(n = 9)* [S] Discipline skills and abilities *(n = 3)* [S]Discipline specific modules *(n = 6)* [S] Diversity *(n = 1)* [S] Drawing *(n = 8)* [S] Fundamental skills *(n = 1)* [S] Generic modules *(n = 1)* [S] Generic skills *(n = 2)* [S] Individual needs *(n = 1)* [S] Repetition *(n = 3)* [S] Skills and abilities *(n = 8)* [S] Skills needed to succeed *(n = 1)* [S] Thinking skills *(n = 3)* [S] Writing skills *(n = 4)*
Teaching and learning: General aspects *(n = 1)*	[S] Diversity *(n = 1)*	***Teaching and learning:*** Learning and learning styles *(n = 7)*	[A] Class participation *(n = 1)* [A] Improved understanding *(n = 1)* [O] Peer competition *(n = 1)* [R] Class participation *(n = 1)* [S] Application of skills *(n = 2)* [S] Diversity *(n = 1)* [S] Learning *(n = 2)*
Teaching and learning: Teaching and teaching styles *(n = 13)*	[A] Equipment training *(n = 2)* [A] Teaching style awareness *(n = 1)* [O] Discipline fieldtrips *(n = 1)* [O] Practical activities *(n = 1)* [O] Supportive HE teachers *(n = 1)* [R] Feedback to students *(n = 1)* [R] Listening to student needs *(n = 1)* [S] Diversity *(n = 1)* [S] Feedback to students *(n = 2)* [S] HE teachers *(n = 4)* [S] Individual attention *(n = 1)* [S] Individual needs *(n = 1)* [S] Teacher motivation *(n = 1)*	***Assessment:*** Assessment approaches/ forms and tasks *(n = 1)*	[S] Diversity *(n = 1)*
Assessment: General aspects *(n = 1)*	[R} History tests *(n = 1)*		

Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*	Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*
THEME 2: COMPETENCIES REQUIRED OF GRAPHIC DESIGNERS (indicated in red in the network diagram)			
Discipline-specific competencies: Applying design elements and principles *(n = 5)*	[A] Principles of design *(n = 1)* [O] Discipline fundamentals *(n = 1)* [S] Colour theory *(n = 1)* [S] Discipline fundamentals *(n = 2)* [S] Fundamental skills *(n = 1)*	***Discipline-specific competencies:*** Applying design techniques – Media *(n = 1)*	[O] Include multimedia in curriculum content *(n = 1)*
Discipline-specific competencies: Applying design techniques – Tools *(n = 6)*	[A] Drawing *(n = 5)* [A] Equipment training *(n = 2)* [O] Drawing *(n = 2)* [R] Drawing *(n = 5)* [R] Use discipline equipment *(n = 1)* [S] Drawing *(n = 8)*	***Discipline-specific competencies:*** Creativity *(n = 2)*	[A] Creativity *(n = 1)* [S] Creativity *(n = 8)*
Discipline-specific competencies: General aspects *(n = 13)*	[A] Discipline exposure *(n = 1)* [A] Discipline skills and abilities *(n = 7)* [A] Painting *(n = 1)* [A] Understanding of the discipline *(n = 2)* [O] Discipline exposure *(n = 6)* [O] Discipline specific skills *(n = 2)* [R] Mastering of discipline *(n = 2)* [R] Painting skills *(n = 1)* [R] Portfolio *(n = 3)* [S] Discipline exposure *(n = 1)* [S] Discipline knowledge *(n = 9)* [S] Discipline skills and abilities *(n = 3)* [S] Understanding of the discipline *(n = 9)*	***Discipline-specific competencies:*** Passion *(n = 1)*	[S] Passion for discipline *(n = 1)*
Discipline-specific competencies: Prioritise workload/tasks *(n = 9)*	[A] Reduction of workload for 1st year *(n = 1)* [A] Same level of work in future *(n = 1)* [A] Working in the discipline *(n = 4)* [A] Workload *(n = 3)* [O] Too heavy workload *(n = 1)* [R] Hard working *(n = 5)* [R] Workload *(n = 3)* [S] Hard working *(n = 2)* [S] Workload *(n = 7)*	***Dual competencies:*** Accuracy *(n = 1)*	[R] Focussing *(n = 2)*
Dual competencies: Communication skills *(n = 1)*	[S] Writing skills *(n = 4)*	***Dual competencies:*** Determination *(n = 1)*	[R] Determination *(n = 2)*

Secondary codes (indicated in yellow) ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***	**Secondary codes (indicated in yellow)** ***n = number of primary codes***	**Primary codes (indicated in white)** ***n = number of quotations in data set***
Dual competencies: Personal development *(n = 1)*	[A] Progression in life *(n = 2)*	***Dual competencies:*** Problem solving *(n = 3)*	[A] Problem solving *(n = 1)* [R] Problem solving *(n = 1)* [S] Problem solving *(n = 1)*
Dual competencies: Self-management *(n = 1)*	[S] Attitude management *(n = 1)*	***Dual competencies:*** Thinking skills *(n = 4)*	[A] Thinking skills *(n = 1)* [O] Thinking skills *(n = 1)* [R] Thinking skills *(n = 2)* [S] Thinking skills *(n = 3)*
Dual competencies: Time management *(n = 3)*	[R] Not procrastinating *(n = 1)* [R] Time management *(n = 1)* [S] Time management *(n = 7)*	***Generic competencies:*** Academic skills *(n = 2)*	[O] Academic development *(n = 1)* [S] Academic skills *(n = 1)*
Generic competencies: Computer skills *(n = 1)*	[S] Computer skills *(n = 2)*	***Generic competencies:*** General aspects *(n = 10)*	[A] Generic skills *(n = 5)* [A] Skills and abilities for 1st year *(n = 1)* [O] Skill enhancement *(n = 1)* [R] Generic skills *(n = 2)* [R] Knowledge *(n = 1)* [S] Application of skills *(n = 2)* [S] Exposure *(n = 2)* [S] Generic skills *(n = 2)* [S] Skills and abilities *(n = 8)* [S] Skills needed to succeed *(n = 1)*
Generic competencies: Referencing *(n = 2)*	[O] Referencing *(n = 1)* [S] Referencing *(n = 4)*		

Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*	Secondary codes (indicated in yellow) *n = number of primary codes*	Primary codes (indicated in white) *n = number of quotations in data set*
THEME 3: STUDENT SUCCESS MECHANISMS (indicated in red in the network diagram)			
General aspects *(n = 7)*	[A] Inspiration *(n = 1)* [O] Taking risks *(n = 1)* [R] Better candidates *(n = 1)* [R] Student monitoring *(n = 1)* [R] Student success *(n = 2)* [S] Social stability *(n = 1)* [S] Success *(n = 2)*	***Learning environment*** *(n = 4)*	[A] Class participation *(n = 1)* [R] Class participation *(n = 1)* [S] Small class sizes *(n = 1)* [S] Social stability *(n = 1)*
Pass, throughput and drop-out rates *(n = 1)*	[R] Student results *(n = 4)*	***Student motivation*** (n = 11)	[A] Achievement of degree *(n = 1)* [A] Achievement of dreams *(n = 2)* [A] Achievement of potential *(n = 1)* [A] Admission to 1st year *(n = 2)* [A] Completion of studies *(n = 8)* [A] Progression in life *(n = 2)* [A] Succeeding *(n = 2)* [R] Achievement of goals *(n = 1)* [R]Passing the programme *(n = 1)* [R] Pursing degree studies *(n = 1)* [R] Student improvement *(n = 2)*
Support *(n = 7)*	[A] Assistance with resource purchases *(n = 1)* [A] Expansion of resources *(n = 1)* [O] Cost *(n = 1)* [O] Resources *(n = 1)* [O] Supportive HE teachers *(n = 1)* [R] Research *(n = 4)* [S] Campus operations *(n = 1)*		

APPENDIX D.10: PROPOSED ASPECTS PERTAINING TO CURRICULUM/PROGRAMME DESIGN PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION A; *n = 9*)

D

Appendix D.10: Proposed aspects pertaining to curriculum/programme design pertaining to AAPs for graphic design (Section A; *n = 9*)

Section A.1: General aspects pertaining to curriculum/programme design	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
A.1 .1 Acknowledge:									
A.1.1.1 that the graphic design community has its own culture, networks and languages.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.1.2 the inevitability of change (e.g. demands and needs for curriculum/programme design).	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
A.1.2 Adhere to the demands and needs of/for:									
A.1.2.1 didactics (i.e. teaching and learning).	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
A.1.2.2 educational administration.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
A.1.2.3 industry.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
A.1.2.4 real life.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
A.1.2.5 the community.	0	0.00%	1	11.11%	6	66.67%	2	22.22%	**3.11**
A.1.3 Adhere to the following South African programme design requirements:									
A.1.3.1 Adherence to professional body requirements (if applicable).	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
A.1.3.2 Aligned with national and/or regional industry, knowledge and socio-cultural needs.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.3.3 Articulate opportunities with other programmes and higher education and training institutions.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
A.1.3.4 Coherence of modules and/or courses of the programme (e.g. level, credits, purpose, etc.).	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.3.5 Integrate work-based learning or learning in a work-based environment into the curriculum design.	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
A.1.3.6 Involve relevant stakeholders (e.g. academic peers, employers and professional bodies) in the design process.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
A.1.3.7 Promote students' understanding of the specific discipline/profession (i.e. graphic design).	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**

Section A.1: General aspects pertaining to curriculum/programme design	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
A.1.3.8 Provide opportunities for students to master competencies associated with the discipline/occupation (i.e. graphic design).	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.4 Apply the following recommended curriculum design parameters for the proposed flexible curriculum framework for South Africa:									
A.1.4.1 Incorporate sufficient foundation provision (e.g. generic and discipline-specific competencies) and student success mechanisms.	0	0.00%	1	11.11%	0	0.00%	8	88.89%	**3.78**
A.1.4.2 Integrate the foundation provision (e.g. generic and discipline-specific competencies) into the core curriculum.	1	11.11%	1	11.11%	1	11.11%	6	66.67%	**3.33**
A.1.4.3 Students eventually should achieve the same exit levels and standards as the registered mainstream programme.	0	0.00%	1	11.11%	1	11.11%	7	77.78%	**3.67**
A.1.4.4 Support and enhance graduate attributes of the higher education institution.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
A.1.4.5 Provide greater exposure to the discipline (without overloading) in order to enhance the curriculum.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
A.1.4.6 Provide curriculum pathways for students who may complete a diploma or degree in the minimum duration by exemption from a maximum of 120 credits of foundation provision.	0	0.00%	1	11.11%	6	66.67%	2	22.22%	**3.11**
A.1.4.7 Steadily increase intellectual challenges and workload with no major step-changes between the different levels of the extended or augmented diploma or degree.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
A.1.4.8 Use an appropriate starting point according to students' prior knowledge.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
A.1.5 Design the curriculum/programme:									
A.1.5.1 according to a purposeful plan.	**0**	**0.00%**	**0**	**0.00%**	**0**	**0.00%**	**9**	**100.00%**	**4.00**
A.1.5.2 in a systematic manner.	**0**	**0.00%**	**0**	**0.00%**	**0**	**0.00%**	**9**	**100.00%**	**4.00**

Section A.1: General aspects pertaining to curriculum/programme design	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
A.1.6 Employ a/an:									
A.1.6.1 appropriate method to design a curriculum/programme.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
A.1.6.2 comprehensive process.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.6.3 continuous process.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
A.1.6.4 decision-making process.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.6.5 interdisciplinary process.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
A.1.7 Link knowledge and experiences of the curriculum/programme (i.e. integration by converging the knowledge and experiences).	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
A.1.8 Take into account students' developmental level with regard to all curriculum design components.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
A.1.9 Use the existing curriculum as a starting point for curriculum/ programme design.	**1**	**11.11%**	**1**	**11.11%**	**7**	**77.78%**	**0**	**0.00%**	**2.67**
Verbatim comments and/or suggestions	**EXPERT_4:** Foundational provision should be well-structured and linked or integrated ("Augmented" approach with mainstream modular content. **EXPERT_6:** Question A.1.3.8 not sure if the term mastery should be used in relation to this level, mastery in design would only be expected at Level 7 or 8. **EXPERT_8:** Where the foundation programme or bridging programme provides access to a degree, the level of overlap with degree modules is less important than adequate preparation for degrees or diplomas i.e. it may be useful to introduce content included in registered qualifications but the priority is making sure that students have the knowledge and skills in order to succeed within the degrees. **EXPERT_9:** Access courses are critical given that diploma's are being phased out. Major differentials in secondary school education means that many learners are implicitly excluded from the system on the basis of social class. This is especially the case in the creative disciplines.								

Section A.1: General aspects pertaining to curriculum/programme design	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	
Number of participant responses per rating category in section A.1	**4**		**10**		**102**		**181**		
% participant responses per rating category in section A.1	**1.35%**		**3.37%**		**34.34%**		**60.94%**		
Overall mean of the mean of importance ratings in section A.1									**3.55**
Standard deviation in section A.1									**0.27**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION A	**4**		**10**		**102**		**181**		
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION A	**1.35%**		**3.37%**		**34.34%**		**60.94%**		
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION A									**3.55**
STANDARD DEVIATION IN SECTION A									**0.27**

D

APPENDIX D.11: PROPOSED ACTIVITIES PERTAINING TO THE AIMS, GOALS, AND/OR INTENDED LEARNING OUTCOMES PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION B; *n = 9*)

Appendix D.11: Proposed activities pertaining to the aims, goals, and/or intended learning outcomes pertaining to AAPs for graphic design (Section B; *n = 9*)

Section B.1 ***General aspects pertaining to aims, goals, and/or intended learning outcomes***	**Not necessary (1)**		**Uncertain (2)**		**Useful (3)**		**Essential (4)**		**Mean of importance rating**
	Number/ frequency	**%**	***Number/ frequency***	**%**	***Number/ frequency***	**%**	***Number/ frequency***	**%**	
B.1.1 Acknowledge the diverse student population of South Africa as a given.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
B.1.2 Align aims, goals and intended learning outcomes with the following levels of curriculum design:									
B.1.2.1 Higher education institutions' programme mix.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
B.1.2.2 Higher education institutions' programme policies and procedures.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
B.1.2.3 Individual learning programme design.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
B.1.2.4 Module design within learning programmes.	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
B.1.2.5 South African higher education legislation.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
B.1.2.6 Teaching in the programme (in terms of modules) that results in micro-curriculum design in the classroom.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
B.1.2.7 The community's philosophy of life and views on higher education in South Africa.	0	0.00%	0	0.00%	8	88.89%	1	11.11%	**3.11**
B.1.3 Align admission requirements of the programme:									
B.1.3.1 to promote equity.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
B.1.3.2 to widen access.	0	0.00%	2	22.22%	2	22.22%	5	55.56%	**3.33**
B.1.3.3 with the degree of complexity of learning required.	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
B.1.4 Align the curriculum components to the higher education and training institution's vision, mission, goals and planning structures.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
B.1.5 Align with the discipline/profession itself.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
B.1.6 Employ additional admission requirements such as:									
B.1.6.1 aptitude tests (e.g. English proficiency tests).	**1**	**11.11%**	**1**	**11.11%**	**6**	**66.67%**	**1**	**11.11%**	**2.78**
B.1.6.2 discipline-specific requirements (e.g. design portfolios).	**1**	**11.11%**	**0**	**0.00%**	**6**	**66.67%**	**2**	**22.22%**	**3.00**
B.1.7 Promote curriculum design for student success through academic development initiatives.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**

Section B.1 ***General aspects pertaining to aims, goals, and/or intended learning outcomes***	**Not necessary (1)**		**Uncertain (2)**		**Useful (3)**		**Essential (4)**		**Mean of importance rating**
	Number/ frequency	***%***	***Number/ frequency***	***%***	***Number/ frequency***	***%***	***Number/ frequency***	***%***	
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section B.1	**4**		**7**		**58**		**75**		
% participant responses per rating category in section B.1	**2.78%**		**4.86%**		**40.28%**		**52.08%**		
Overall mean of the mean of importance ratings in section B.1									**3.42**
Standard deviation in section B.1									**0.29**

Section B.2 *Aims and goals*	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
B.2.1 Address the articulation gap between secondary and higher education in South Africa.	0	0.00%	1	11.11%	1	11.11%	7	77.78%	3.67
B.2.2 Implement a curriculum structure that aligns with South African students' prior knowledge.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	3.67
B.2.3 Incorporate student success mechanisms to ensure successful completion of the access programme as well as the eventual qualification.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	3.44
B.2.4 Provide:									
B.2.4.1 an academic foundation for underprepared students that includes generic and discipline-specific competencies.	0	0.00%	2	22.22%	3	33.33%	4	44.44%	3.22
B.2.4.2 alternative access to higher education for talented but previously disadvantaged students and advantaged and disadvantaged students but with physical or other disabilities (e.g. learning disabilities, etc.).	0	0.00%	1	11.11%	5	55.56%	3	33.33%	3.22
Verbatim comments and/or suggestions	**EXPERT_4:** All are very important to attend to **EXPERT_8:** In terms of 2.4.2. Not all institutions may be able to accommodate all disabilities, it is recommended that an institution rather focus on supporting one or two types well, and that there are alternative specialisation for support at other institutions. This results in higher quality support for students with disabilities, learning or physical.								
Number of participant responses per rating category in section B.2	**0**		**4**		**17**		**24**		
% participant responses per rating category in section B.2	**0.00%**		**8.89%**		**37.78%**		**53.33%**		
Overall mean of the mean of importance ratings in section B.2									**3.44**
Standard deviation in section B.2									**0.22**

Section B.3 *Intended learning outcomes*	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
B.3.1 Align the learning outcomes with the:									
B.3.1.1 appropriate National Qualifications Framework level and its associated level descriptors.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
B.3.1.2 critical cross-field and developmental outcomes of the South African Qualifications Authority.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
B.3.1.3 purposes of alternative access programmes (e.g. widening access for previously disadvantaged students, provide an academic foundation for underprepared students, etc.).	0	0.00%	2	22.22%	2	22.22%	5	55.56%	**3.33**
B.3.2 Apply constructive alignment to ensure intended learning outcomes are aligned with teaching and learning activities and assessment tasks.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
B.3.3 Apply the following four 'essential' or 'power' principles of Outcomes-Based Education in a consistent, systematic, creative and simultaneous manner:									
B.3.3.1 Backward designed learning outcomes from the aims and goals of the institution or programme.	0	0.00%	0	0.00%	7	77.78%	2	22.22%	**3.22**
B.3.3.2 Formulate clear learning outcomes (which both the student and teacher understand) that will guide the creation of other components in the curriculum design.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
B.3.3.3 Set high expectations, i.e. that students will be able to achieve the intended learning outcomes.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
B.3.3.4 Take into account students' different learning paces in achieving the learning outcomes so that the intended learning outcomes expand opportunity and provide support for student success.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
B.3.4 Base learning outcomes on students' prior abilities and knowledge.	**0**	**0.00%**	**1**	**11.11%**	**7**	**77.78%**	**1**	**11.11%**	**3.00**
B.3.5 Derive learning outcomes from the discipline and profession's knowledge base.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**

Section B.3 *Intended learning outcomes*	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	
B.3.6 Formulate:									
B.3.6.1 intended learning outcomes that will develop both generic and discipline-specific competencies.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
B.3.6.2 the intended learning outcomes of students' learning in design education in an open-ended way since it is essential to the development of creativity and allows creative responses from students.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
B.3.7 Employ various levels of the different taxonomies for cognitive, psychomotor, and affective domains when designing intended learning outcomes in order to ensure an appropriate balance between the levels of complexity within the taxonomy.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
Verbatim comments and/or suggestions	**EXPERT_8:** The level of exit programme outcomes need to be set in accordance with the levels required in articulation degrees or diplomas where a foundation or access programme design is used, i.e. the level of the prior knowledge should not determine the exit outcomes, the level of competency needed for articulation or workplace competency **EXPERT_9:** Outcomes based education can be mechanistic and Taylorist going against learning in design which is usually constructivist.								
Number of participant responses per rating category in section B.3	**0**		**13**		**62**		**96**		
% participant responses per rating category in section B.3	**0.00%**		**7.60%**		**36.26%**		**56.14%**		
Overall mean of the mean of importance ratings in section B.3									**3.49**
Standard deviation in section B.3									**0.26**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION B	**4**	**24**	**137**	**195**
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION B	**1.11%**	**6.67%**	**38.06%**	**54.17%**
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION B				**3.45**
STANDARD DEVIATION IN SECTION B				**0.26**

APPENDICES OF SECTION D

D

APPENDIX D.12: PROPOSED ACTIVITIES PERTAINING TO THE CURRICULUM CONTENT PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION C; *n = 9*)

Appendix D.12: Proposed activities pertaining to the curriculum content pertaining to AAPs for graphic design (Section C; *n = 9*)

Section C.1 General aspects pertaining to curriculum content	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
C.1.1 Acknowledge the role of the orientation (i.e. attitude, beliefs or feelings) of the curriculum designer with regard to curriculum content.	**0**	**0,00%**	**1**	**11,11%**	**7**	**77,78%**	**1**	**11,11%**	**3.00**
C.1.2 Adhere to curriculum/programme design criteria pertaining to curriculum content:									
C.1.2.1 Correlation of content.	0	0,00%	0	0,00%	4	44,44%	5	55,56%	**3.56**
C.1.2.2 Scope of content.	0	0,00%	0	0,00%	4	44,44%	5	55,56%	**3.56**
C.1.2.3 Sequence of content.	0	0,00%	0	0,00%	3	33,33%	6	66,67%	**3.67**
C.1.3 Align curriculum content with the:									
C.1.3.1 aims, goals, purposes and the learning outcomes of a specific higher education institution (i.e. graduate attributes), programme/qualification outcomes and module outcomes respectively.	0	0,00%	0	0,00%	4	44,44%	5	55,56%	**3.56**
C.1.3.2 specific National Qualifications Framework level descriptors.	0	0,00%	0	0,00%	2	22,22%	7	77,78%	**3.78**
C.1.4 Design and evaluate learning materials that will ensure alignment with programme's aims, goals and purposes.	0	0,00%	0	0,00%	2	22,22%	7	77,78%	**3.78**
C.1.5 Ensure the coherency of different modules' content with the level, credits, purpose, learning outcomes, weights and delivery.	0	0,00%	0	0,00%	1	11,11%	8	88,89%	**3.89**
C.1.6 Involve higher education teachers on all campuses of a higher education institution in selecting and organising the curriculum content.	0	0,00%	1	11,11%	6	66,67%	2	22,22%	**3.11**
C.1.7 Organise and select curriculum content holistically in order to have a more coherent programme overall.	0	0,00%	0	0,00%	2	22,22%	7	77,78%	**3.78**

Section C.1 General aspects pertaining to curriculum content	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section C.1	**0**		**2**		**35**		**53**		
% participant responses per rating category in section C.1	**0.00%**		**2.22%**		**38.89%**		**58.89%**		
Overall mean of the mean of importance ratings in section C.1									**3.57**
Standard deviation in section C.1									**0.29**

Section C.2 Organising curriculum content	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	
C.2.1 Distribute:									
C.2.1.1 discipline modules evenly throughout the duration of alternative access programmes.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
C.2.1.2 the workload of modules in accordance with students' abilities to manage the amount of curriculum content.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
C.2.2 Organise curriculum/module content:									
C.2.2.1 according to students' academic needs.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.2.2.2 according to a method/s that is/are personally and academically appropriate for the student and/or higher education teacher.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
C.2.2.3 for horizontal alignment.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
C.2.2.4 for vertical alignment.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
C.2.3 Provide sufficient time for repetition and revision of curriculum content.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
C.2.4 Select an appropriate organising type for curriculum content (e.g. logical, psychological, political, and practical), depending on the purpose of the programme/module.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
Verbatim comments and/or suggestions	**EXPERT_6:** Need to look at the knowledge structure of the discipline and how best to sequence learning. **EXPERT_8:** Discipline modules should be scheduled when students have the requisite skills and knowledge normally regarded as prior knowledge.								
Number of participant responses per rating category in section C.2	**0**		**5**		**33**		**34**		
% participant responses per rating category in section C.2	**0.00%**		**6.94%**		**45.83%**		**47.22%**		
Overall mean of the mean of importance ratings in section C.2									**3.40**
Standard deviation in section C.2									**0.16**

Section C.3 *Selecting curriculum content*	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
C.3.1 Balance:									
C.3.1.1 experiential knowledge and skills with appropriate disciplinary content and theoretical depth.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.1.2 practical knowledge and skills with appropriate disciplinary content and theoretical depth.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.1.3 theoretical knowledge and skills with appropriate disciplinary content and theoretical depth.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.2 Incorporate:									
C.3.2.1 disciplinary content at an appropriate level to serve the programme's purpose.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
C.3.2.2 theoretical depth at an appropriate level to serve the programme's purpose.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.3 Include:									
C.3.3.1 a language component in all theory modules to assist with the development of students' communication skills.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
C.3.3.2 foundation provision content to assist students to deal with the obstacles.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
C.3.3.3 foundation provision content to assist students with their learning skills.	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
C.3.3.4 foundation provision content to provide students with motivation.	**1**	**11.11%**	**0**	**0.00%**	**6**	**66.67%**	**2**	**22.22%**	**3.00**
C.3.4 Revise the content every semester/year (to ensure it remains relevant and in alignment with the needs of industry for vocational disciplines such as graphic design).	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
C.3.5 Select curriculum content that:									

Section C.2 Organising curriculum content	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
C.3.5.1 addresses current needs of all stakeholders (e.g. industry, students, higher education teachers, etc.).	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.2 builds on students' prior abilities and knowledge.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
C.3.5.3 contributes to the development of generic competencies.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.4 contributes to the development of discipline-specific competencies.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.5 converges into a meaningful whole.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.6 empowers students to achieve their full potential.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.7 is accessible.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.8 is achievable.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
C.3.5.9 is balanced in extent and depth of study.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.10 is in alignment with student input.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.11 is in alignment with student choices.	**1**	**11.11%**	**1**	**11.11%**	**6**	**66.67%**	**1**	**11.11%**	**2.78**
C.3.5.12 is in alignment with students' existing knowledge.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
C.3.5.13 is in alignment with students' needs.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
C.3.5.14 is in alignment with key procedures of the discipline.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.15 is in alignment with key concepts of the discipline.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
C.3.5.16 is in alignment with key criteria of the discipline.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
C.3.5.17 is manageable.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.18 is motivating.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
C.3.5.19 is realistic.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
C.3.5.20 is relevant.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**

Section C.2 Organising curriculum content	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
C.3.5.21 is stimulating.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
C.3.5.22 is viable.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
C.3.5.23 promotes cognitive skills.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.24 promotes affective skills.	0	0.00%	1	11.11%	1	11.11%	7	77.78%	**3.67**
C.3.5.25 promotes psychomotor skills.	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
C.3.5.26 provides opportunities for self-discovery.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
C.3.5.27 represents the purpose of the module.	0	0.00%	1	11.11%	0	0.00%	8	88.89%	**3.78**
C.3.5.28 requires a focussed attention (e.g. awareness of the basic structure of what is to be learned and the priorities in the module content elements).	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
C.3.5.29 serves the realisation of aims.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
C.3.5.30 supports students inside and outside of the class.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
Verbatim comments and/or suggestions	**EXPERT_1:** The language component (C.3.3.1) serves a dual purpose, (i) application during study (ii) self-promoting (effective communication) in the professional world. **EXPERT_4:** C3.3 is very important								
Number of participant responses per rating category in section C.3	**4**		**10**		**107**		**239**		
% participant responses per rating category in section C.3	**1.11%**		**2.78%**		**29.72%**		**66.39%**		
Overall mean of the mean of importance ratings in section C.3									**3.61**
Standard deviation in section C.3									**0.23**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION C	**4**	**17**	**175**	**326**	
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION C	**0.77%**	**3.26%**	**33.52%**	**62.45%**	
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION C					**3.58**
STANDARD DEVIATION IN SECTION C					**0.24**

APPENDIX D.13: PROPOSED TEACHING AND LEARNING ACTIVITIES PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION D; *n = 9*)

D

Appendix D.13: Proposed teaching and learning activities pertaining to AAPs for graphic design (Section D; *n = 9*)

Section D.1 General aspects pertaining to teaching and learning	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.1.1 Avoid the marginalisation of students and higher education teachers of alternative access programmes.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.1.2 Employ mechanisms to monitor student progress.	**0**	**0.00%**	**0**	**0.00%**	**0**	**0.00%**	**9**	**100.00%**	**4.00**
D.1.3 Ensure that higher education teachers and students have access to sufficient learning material.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.1.4 Identify and unteach erroneous prior knowledge and bias.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.1.5 Integrate discipline-specific characteristics into the teaching and learning activities of the core curriculum.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.1.6 Select suitable learning materials to promote the achievement of the:									
D.1.6.1 learning outcomes of the programme.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.1.6.2 purpose of the programme.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.1.7 Use appropriate teaching and learning activities (e.g. methods, materials, and opportunities) that align with the purpose of the programme.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
Verbatim comments and/or suggestions	**EXPERT_4:** All is essential.								
Number of participant responses per rating category in section D.1	**4**		**7**		**58**		**75**		
% participant responses per rating category in section D.1	**2.78%**		**4.86%**		**40.28%**		**52.08%**		
Overall mean of the mean of importance ratings in section D1									**3.76**
Standard deviation in section D.1									**0.18**

Section D.2 Student learning and learning approaches/styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.2.1 Acknowledge different:									
D.2.1.1 learning approaches/styles of a diverse student population.	0	0.00%	2	22.22%	3	33.33%	4	44.44%	**3.22**
D.2.1.2 cultures of students pertaining to economic stances.	0	0.00%	2	22.22%	2	22.22%	5	55.56%	**3.33**
D.2.1.3 cultures of students pertaining to environmental issues/situations.	0	0.00%	2	22.22%	2	22.22%	5	55.56%	**3.33**
D.2.1.4 cultures of students pertaining to gender.	0	0.00%	2	22.22%	3	33.33%	4	44.44%	**3.22**
D.2.1.5 cultures of students pertaining to political views.	0	0.00%	3	33.33%	2	22.22%	4	44.44%	**3.11**
D.2.1.6 cultures of students pertaining to religion.	0	0.00%	3	33.33%	2	22.22%	4	44.44%	**3.11**
D.2.1.7 cultures of students pertaining to social trends.	**1**	**11.11%**	**0**	**0.00%**	**6**	**66.67%**	**2**	**22.22%**	**3.00**
D.2.2 Acknowledge discipline-specific characteristics of student learning:									
D.2.2.1 Doing and making are fundamental aspects of learning in design education.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.2.2 Learning is dialogic in nature if teachers are probing, prompting and questioning students to encourage them to review all possibilities and alternatives before making a decision.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.2.3 Learning is unconstrained if it emphases a variety of solutions to a specific problem.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.2.4 Students are uncomfortable with theory and writing since it is viewed as unrelated to the practical component.	0	0.00%	1	11.11%	6	66.67%	2	22.22%	**3.11**
D.2.2.5 Students can learn through peers and senior students within the informal studio setting of design education.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.2.6 Students should work for long periods on projects through which they can learn a variety of key technical skills for employment.	**0**	**0.00%**	**2**	**22.22%**	**6**	**66.67%**	**1**	**11.11%**	**2.89**
D.2.2.7 Students should work for long periods on projects through which they can learn a variety of personal skills for employment.	**0**	**0.00%**	**2**	**22.22%**	**6**	**66.67%**	**1**	**11.11%**	**2.89**

Section D.2 Student learning and learning approaches/styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.2.2.8 Students should work for long periods on projects through which they can learn a variety of professional skills for employment.	**0**	**0.00%**	**3**	**33.33%**	**4**	**44.44%**	**2**	**22.22%**	**2.89**
D.2.2.9 The teacher guides and advises the student during this solution phase, rather than dictates.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.3 Create teaching/learning activities and assessment tasks that require of students to apply a deep learning process instead of a surface approach by requiring students to use higher-order thinking skills.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.4 Encourage:									
D.2.4.1 a student-centred approach to teaching and learning.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.4.2 student learning through real-world projects in the design industry.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.2.5 Foster:									
D.2.5.1 critical thinking in design education.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.5.2 independent thinking in design education.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.2.5.3 intellectual abilities in both hemispheres of students' brains in order to meet challenges of this century.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.2.5.4 self-analytical thinking in design education.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.6 Motivate students to:	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.6.1 interact frequently with other students.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.6.2 interact frequently with teachers.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.2.6.3 perceive and adopt high expectations of achievement.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.6.4 take responsibility for their own learning.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.2.7 Promote student development for success through academic development initiatives.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**

Section D.2 Student learning and learning approaches/styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.2.8 Provide:									
D.2.8.1 opportunities for students to compete with peers.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.8.2 opportunities for students to give feedback to higher education teachers.	0	0.00%	0	0.00%	2	22,22%	7	77,78%	**3.78**
D.2.9 Use students' learning styles to identify suitable teaching and learning activities.	1	11.11%	0	0.00%	3	33.33%	5	55.56%	**3.33**
D.2.10 Use teaching and learning activities and assessment tasks that:									
D.2.10.1 are proven to have a high impact on student learning.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.2.10.2 promote active learning amongst students.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.2.10.3 promote engagement with the curriculum content, teaching and learning activities and assessment tasks.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
Verbatim comments and/or suggestions	**EXPERT_6:** Some issues with the use of contested concepts such as deep learning and surface approach.								
Number of participant responses per rating category in section D.2	**2**		**24**		**101**		**179**		
% participant responses per rating category in section D.2	**0.65%**		**7.84%**		**33.01%**		**58.50%**		
Overall mean of the mean of importance ratings in section D.2									**3.39**
Standard deviation in section D.2									**0.67**

Section D.3 Teaching and teaching styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.3.1 Acknowledge:									
D.3.1.1 that different students often require different content delivery strategies.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.1.2 that the core principles of the discipline (i.e. graphic design) are taught through practice as rules-of-thumb and knowledge from teachers or masters of the discipline.	0	0.00%	1	11.11%	6	66.67%	2	22.22%	**3.11**
D.3.2 Act as:									
D.3.2.1 mentor for students.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.2.2 nurturer for students (to contribute to the holistic development of students in studio practice disciplines such as graphic design).	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.3 Actively practise as a designer in the industry in order to promote simulation-based learning for design students.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
D.3.4 Attend academic, professional and staff development initiatives to promote their own knowledge, skills and teaching competence.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.5 Be aware of their (i.e. HE teachers) own learning style/approach.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.6 Connect new information to prior knowledge of students in a meaningful way.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.7 Develop professional and personal characteristics attributed to good higher education teachers.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.3.8 Enhance student engagement through small student: higher education teacher ratios in alternative access programmes.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.3.9 Ensure that their employed teaching style aligns with:									
D.3.9.1 students' learning needs.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
D.3.9.2 students' epistemological conditions (i.e. students' existing scope of knowledge).	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**

Section D.3 Teaching and teaching styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.3.10 Focus on students' individual needs to ensure no learner is left behind.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
D.3.11 Highlight the value of what is to be learned for students.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.3.12 Implement the following guidelines for technology-based teaching:									
D.3.12.1 Become an innovative professional role model in the present age of technology.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
D.3.12.2 Continuously improve their own teaching by demonstrating the use of new digital tools and resources.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.12.3 Design and develop digital-age authentic learning experiences that align with assessment tasks.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
D.3.12.4 Display an understanding of the digital culture's societal issues and responsibilities by exhibiting ethical behaviour in their professional practices.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.3.12.5 Facilitate and inspire student learning and creativity through the use of technology in teaching and learning activities and in assessment tasks.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.13 Implement the following considerations during the presentation of teaching and learning activities:									
D.3.13.1 align students' previous knowledge with the intended learning outcomes and assessment tasks.	0	0.00%	2	22.22%	2	22.22%	5	55.56%	**3.33**
D.3.13.2 create a positive and safe classroom environment.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.3.13.3 provide opportunity and sufficient time for students to master skills.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.13.4 reflect on the achievement of intended learning outcomes.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.3.13.5 use appropriate activities to accommodate students' learning styles.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.14 Posses the stipulated qualifications, experience and teaching competence required of higher education teachers at a specific level.	**0**	**0.00%**	**0**	**0.00%**	**0**	**0.00%**	**9**	**100.00%**	**4.00**

Section D.3 Teaching and teaching styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.3.15 Promote and/or employ:									
D.3.15.1 a variety of teaching styles/strategies according to the type of module.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.3.15.2 a variety of teaching styles/strategies according to the type of students.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.15.3 active learning rather than passive engagement.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.3.16 Promote and/or employ the following student-centred teaching approaches and styles to teaching in design education:									
D.3.16.1 Teaching that offers students a range of practical and technical skills through demonstration to show ways of making or doing.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.3.16.2 Teaching that aims to develop students' critical thinking skills through student interaction by means of individual, group or teamwork, to form opinions and ideas.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
D.3.16.3 Teaching that aims to develop students' practical skills through student interaction by means of individual, group or teamwork to form opinions and ideas.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.3.16.4 Teaching that aims to develop students' technical skills through student interaction by means of individual, group or teamwork to form opinions and ideas.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.16.5 Teaching that encourages peer learning (to develop students' skills and conceptions in preparation for professional practice).	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.16.6 Teaching that emphasises conceptual thinking skills to improve self-directed research, practice, and conceptual skills.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills.	1	11.11%	1	11.11%	1	11.11%	6	66.67%	**3.33**
D.3.16.8 Teaching that motivates and enable students to change themselves as a person or to make changes in their life world.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**

Section D.3 Teaching and teaching styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.3.17 Provide:									
D.3.17.1 academic support in order to create scaffolding of knowledge.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.17.2 additional support to students in theory modules (since graphic design students view it as unrelated to the practical component).	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.17.3 ample opportunities for students to demonstrate mastery by using a variety of teaching methods and material.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.17.4 prompt feedback on students' learning.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.18 Respect the diverse:									
D.3.18.1 talents of students.	1	11.11%	0	0.00%	5	55.56%	3	33.33%	**3.11**
D.3.18.2 ways of how students learn.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
D.3.19 Select:									
D.3.19.1 suitable methods to promote the achievement of the purpose of the programme.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.19.2 suitable methods to promote the achievement of the learning outcomes of the programme.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.19.3 suitable opportunities to promote the achievement of the purpose of the programme.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.19.4 suitable opportunities to promote the achievement of the learning outcomes of the programme.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.20 Set and maintain high but realistic expectations and goals (which are appropriately aligned to teaching and learning activities and intended learning outcomes).	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
D.3.21 Teach students how to give feedback to:									
D.3.21.1 themselves.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.3.21.2 their peers.	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**

Section D.3 Teaching and teaching styles	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.3.22 Use:									
D.3.22.1 professional staff development opportunities provided by higher education institutions to upgrade teaching methods.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.3.22.2 the full available contact time with students with a focused effort.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
Verbatim comments and/or suggestions	**EXPERT_4:** D.3.21 is very important **EXPERT_6:** This doesnt seem to be appropriate at foundation level. D.3.16.7 Teaching that emphasises original research to improve self-directed research, practice, and conceptual skills. **EXPERT 8:** There is a growing amount of research which questions the notions and specifically the measurement of student learning styles, the research suggests there is a greater efficacy in focusing on the lecturer utilising multiple teaching strategies and exploring the use of diagnostic assessment in a formative space.								
Number of participant responses per rating category in section D.3	**2**		**12**		**179**		**266**		
% participant responses per rating category in section D.3	**0.44%**		**2.61%**		**39.00%**		**57.95%**		
Overall mean of the mean of importance ratings in section D.3									**3.54**
Standard deviation in section D.3									**0.21**

Section D.4 Teaching and learning activities	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.4.1 Adhere to the following principles to select teaching and learning activities:									
D.4.1.1 Align to the specific community (i.e. graphic design community).	0	0.00%	0	0.00%	7	77.78%	2	22.22%	**3.22**
D.4.1.2 Assist to achieve one or more of the aligned aims, goals, objectives, outcomes and/or purposes of the programme.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.1.3 Be appropriate with regard to students' needs (i.e. abilities, interests, talents, and learning styles to only name a few).	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.1.4 Be appropriate with regard to teacher attributes (i.e. personality, preferences, knowledge and abilities, to only name a few).	**1**	**11.11%**	**2**	**22.22%**	**2**	**22.22%**	**4**	**44.44%**	**3.00**
D.4.1.5 Be appropriate with regard to time constraints.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.1.6 Be feasible with regard to availability of resources.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.1.7 Be feasible with regard to the number of staff involved.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.1.8 Be feasible with regard to programme requirements.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.1.9 Be suitable with regard to class size (number of students).	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.1.10 Highlight real-life application within the community or industry.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.2 Change teaching and learning activities for facilitating declarative intended learning outcomes every fifteen minutes for maximum student concentration.	**1**	**11.11%**	**2**	**22.22%**	**5**	**55.56%**	**1**	**11.11%**	**2.67**
D.4.3 Employ:									
D.4.3.1 teaching and learning activities for functioning knowledge by incorporating declarative intended learning outcomes in these activities.	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**

Section D.4 Teaching and learning activities	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.4.3.2 technology-based teaching and learning activities to facilitate higher order learning.	0	0.00%	1	11.11%	5	55.56%	3	33.33%	**3.22**
D.4.4 Focus on what students do rather than what higher education teachers do when building declarative knowledge.	0	0.00%	1	11.11%	6	66.67%	2	22.22%	**3.11**
D.4.5 Promote active learning by:									
D.4.5.1 employing a variety of teaching and learning activities for greater student engagement.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.5.2 selecting teaching and learning activities that require interactions between higher education teachers, students and outside experts to meet this century's needs.	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
D.4.6 Select appropriate teaching and learning activities to:									
D.4.6.1 balance intellectual challenges in order to create scaffolding of knowledge.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.4.6.2 facilitate deep learning that builds understanding.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
D.4.6.3 foster the South African Qualifications Authority's critical cross-field and developmental outcomes by selecting teaching and learning activities to achieve functioning intended learning outcomes.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
D.4.6.4 let students apply their knowledge to real-world situations (within different contexts).	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.6.5 mimic real-world situations for design students (such as teaching and learning activities associated with functioning intended learning outcomes).	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
D.4.6.6 promote/ensure creativity by ensuring teaching and learning activities are adventurous, enjoyable and stimulating.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
D.4.6.7 promote/ensure constructive alignment with intended learning outcomes and assessment tasks.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**

Section D.4 Teaching and learning activities	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
D.4.6.8 transform the student to a practitioner in the first year of mainstream design education.	**2**	**22.22%**	**1**	**11.11%**	**3**	**33.33%**	**3**	**33.33%**	**2.78**
D.4.7 Start discipline-specific teaching and learning activities with a written brief in project-based learning which provides a focus for students' learning.	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
D.4.8 Specify the following in the design brief:									
D.4.8.1 the format of the design outcome/product.	0	0.00%	1	11.11%	1	11.11%	7	77.78%	**3.67**
D.4.8.2 the presentation requirements of the design outcome/product.	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
D.4.8.3 the restraints and parameters of the design outcome/product.	0	0.00%	1	11.11%	1	11.11%	7	77.78%	**3.67**
D.4.8.4 the time period allowed for completing the brief.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section D.4	**4**		**18**		**101**		**147**		
% participant responses per rating category in section D.4	**1.48%**		**6.67%**		**37.41%**		**54.44%**		
Overall mean of the mean of importance ratings in section D.4									**3.45**
Standard deviation in section D.4									**0.28**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION D	**8**	**54**	**391**	**645**	
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION D	**0.73%**	**4.92%**	**35.61%**	**58.74%**	
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION D					**3.47**
STANDARD DEVIATION IN SECTION D					**0.52**

APPENDIX D.14: PROPOSED ASSESSMENT TASKS PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION E; *n = 9*)

D

Appendix D.14: Proposed assessment tasks pertaining to AAPs for graphic design (Section E; *n = 9*)

Section E.1 General aspects of assessment	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
E.1.1 Acknowledge:									
E.1.1.1 that assessment in design education differs from conventional assessment in other disciplines.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
E.1.1.2 the impact that assessment has on student learning.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.1.1.3 the impact that assessment has on student motivation.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
E.1.2 Adhere to the four principles of good assessment:									
E.1.2.1 Fairness	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.1.2.2 Practicability	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.2.3 Reliability	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
E.1.2.4 Validity	**0**	**0.00%**	**0**	**0.00%**	**0**	**0.00%**	**9**	**100.00%**	**4.00**
E.1.3 Assess the design process and person and not only the design product since these elements are also important in design education.	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
E.1.4 Avoid placing emphasis on students' mastering of only design techniques for the execution of the design product in design education.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
E.1.5 Employ effective evaluation as an integral part of the curriculum/programme design.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.6 Ensure:									
E.1.6.1 the reliability of the assessment system and procedures.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.1.6.2 the rigour of the assessment system and procedures.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.1.6.3 the security of the assessment system and procedures.	0	0.00%	1	11.11%	0	0.00%	8	88.89%	**3.78**

Section E.1 General aspects of assessment	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
E.1.7 Provide:									
E.1.7.1 adequate number of assessment opportunities.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.7.2 adequate preparation for assessments (e.g. revision and exam techniques, which are generic competencies).	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.7.3 in advance the criteria and standards used in assessment and evaluation and the nature of the instruments.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.8 Use examiners and moderators that possess the necessary skilled judgment and training to assess the:									
E.1.8.1 achievement of intended learning outcomes.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.1.8.2 quality of the design product in design education.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section E.1	**0**		**1**		**33**		**128**		
% participant responses per rating category in section E.1	**0.00%**		**0.62%**		**20.37%**		**79.01%**		
Overall mean of the mean of importance ratings in section E.1									**3.78**
Standard deviation in section E.1									**0.12**

Section E.2 Assessment approaches/forms and tasks	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
E.2.1 Employ technology-based assessment tasks (e.g. e-learning technologies which is a generic competency).	**1**	**11.11%**	**2**	**22.22%**	**4**	**44.44%**	**2**	**22.22%**	**2.78**
E.2.2 Ensure that assessment tasks are constructively aligned with the intended learning outcomes and teaching and learning activities of the specific curriculum.	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.2.3 Select appropriate assessment approaches/forms and tasks (e.g. internal and external examination and moderation).	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.2.4 Use a variation of assessment approaches/forms and tasks that are appropriate to:									
E.2.4.1 accommodate the needs of a diverse student population.	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
E.2.4.2 expose students to a variety of assessment approaches/forms and tasks.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
E.2.4.3 nurture discipline-specific practices (such as the crit session).	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
E.2.4.4 replace ineffective approaches/forms and tasks.	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section E.2	**1**		**2**		**16**		**44**		
% participant responses per rating category in section E.2	**1.59%**		**3.17%**		**25.40%**		**69.84%**		
Overall mean of the mean of importance ratings in section E.2									**3.63**
Standard deviation in section E.2									**0.39**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION E	**1**	**3**	**49**	**172**
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION E	**0.44%**	**1.33%**	**21.78%**	**76.44%**
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION E				**3.74**
STANDARD DEVIATION IN SECTION E				**0.23**

D

APPENDIX D.15: PROPOSED GENERIC AND DISCIPLINE-SPECIFIC COMPETENCIES, AND SUCCESS MECHANISMS PERTAINING TO AAPS FOR GRAPHIC DESIGN (SECTION F; *n = 9*)

Appendix D.15: Proposed generic and discipline-specific competencies, and success mechanisms pertaining to AAPs for graphic design (Section F; *n = 9*)

Section F.1 Generic and discipline-specific competencies	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
F.1.1 Accuracy	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
F.1.2 Adaptable in nature	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
F.1.3 Aesthetic gaze (developing)	0	0.00%	1	11.11%	4	44.44%	4	44.44%	**3.33**
F.1.4 Applying design elements and principles	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.5 Applying design techniques	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.6 Attention to detail	0	0.00%	1	11.11%	0	0.00%	8	88.89%	**3.78**
F.1.7 Collaboration with individuals and group work/teamwork	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
F.1.8 Communication skills (written and oral)	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.9 Computer skills	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.10 Creative thinking skills	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.11 Creativity	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.12 Critical thinking skills	1	11.11%	0	0.00%	0	0.00%	8	88.89%	**3.67**
F.1.13 Curiosity	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.14 Deadline-orientated	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.15 Decision-making	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.16 Design-orientated thinking skills	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.17 Determination	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.18 Efficiency	1	11.11%	0	0.00%	4	44.44%	4	44.44%	**3.22**

Section F.1 Generic and discipline-specific competencies	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
F.1.19 E-learn technologies	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
F.1.20 Emotional intelligence	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
F.1.21 Entrepreneurial skills	1	11.11%	1	11.11%	2	22.22%	5	55.56%	**3.22**
F.1.22 Imagination	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.23 Information literacy	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.24 Innovation	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.25 Innovative thinking skills	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.26 Interpersonal skills	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.27 Interpretation of information	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
F.1.28 Intuition	1	11.11%	0	0.00%	5	55.56%	3	33.33%	**3.11**
F.1.29 Learning styles and strategies	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
F.1.30 Listening and note-taking	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
F.1.31 Memory	0	0.00%	0	0.00%	7	77.78%	2	22.22%	**3.22**
F.1.32 Multi-tasking	1	11.11%	0	0.00%	3	33.33%	5	55.56%	**3.33**
F.1.33 Observation	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.34 Organisational and planning skills	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.35 Originality	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.36 Passion	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
F.1.37 Personal development of the student himself/herself	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**

Section F.1 Generic and discipline-specific competencies	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
F.1.38 Presentation skills	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
F.1.39 Prioritise workload/tasks	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.40 Problem solving	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.41 Reading skills	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.42 Referencing	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.43 Reflection	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
F.1.44 Research skills	1	11.11%	0	0.00%	3	33.33%	5	55.56%	**3.33**
F.1.45 Responsibility towards clients/employers	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.46 Responsibility towards other designers	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.47 Responsibility towards the community	0	0.00%	0	0.00%	1	11.11%	8	88.89%	**3.89**
F.1.48 Responsibility towards the profession	1	11.11%	0	0.00%	1	11.11%	7	77.78%	**3.56**
F.1.49 Revision and examination techniques	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
F.1.50 Self-management	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.51 Self-motivated / motivation	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.1.52 Stress management	0	0.00%	0	0.00%	6	66.67%	3	33.33%	**3.33**
F.1.53 Study skills (appropriate)	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
F.1.54 Subjectivity	1	11.11%	0	0.00%	5	55.56%	3	33.33%	**3.11**
F.1.55 Time management skills	0	0.00%	0	0.00%	3	33.33%	6	66.67%	**3.67**
F.1.56 Visual communication	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**

Section F.1 Generic and discipline-specific competencies	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	*Number/ frequency*	*%*	
F.1.57 Work independently	1	11.11%	0	0.00%	2	22.22%	6	66.67%	**3.44**
F.1.58 Work under pressure	0	0.00%	0	0.00%	2	22.22%	7	77.78%	**3.78**
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section F.1	**16**		**6**		**174**		**326**		
% participant responses per rating category in section F.1	**3.07%**		**1.15%**		**33.33%**		**62.45%**		
Overall mean of the mean of importance ratings in section F.1									**3.55**
Standard deviation in section F.1									**0.19**

Section F.2 Student success mechanisms	Not necessary (1)		Uncertain (2)		Useful (3)		Essential (4)		Mean of importance rating
	Number/ frequency	%	*Number/ frequency*	%	*Number/ frequency*	%	*Number/ frequency*	%	
F.2.1 Academic advising	0	0.00%	1	11.11%	7	77.78%	1	11.11%	3.00
F.2.2 Positive learning environment	0	0.00%	0	0.00%	4	44.44%	5	55.56%	**3.56**
F.2.3 High impact and alternative teaching and learning strategies	0	0.00%	1	11.11%	2	22.22%	6	66.67%	**3.56**
F.2.4 Student engagement	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
F.2.5 Student motivation	0	0.00%	0	0.00%	5	55.56%	4	44.44%	**3.44**
F.2.6 Support (i.e. financial aid, campus resources and operations)	0	0.00%	2	22.22%	4	44.44%	3	33.33%	**3.11**
F.2.7 Repetition with remedial actions	0	0.00%	1	11.11%	3	33.33%	5	55.56%	**3.44**
Verbatim comments and/or suggestions	• None								
Number of participant responses per rating category in section F.2	**0**		**6**		**28**		**29**		
% participant responses per rating category in section F.2	**0.00%**		**9.52%**		**44.44%**		**46.03%**		
Overall mean of the mean of importance ratings in section F.2									**3.37**
Standard deviation in section F.2									**0.22**

NUMBER OF PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION F	**16**	**12**	**202**	**355**	
% PARTICIPANT RESPONSES PER RATING CATEGORY IN SECTION F	**2.74%**	**2.05%**	**34.53%**	**60.68%**	
OVERALL MEAN OF THE MEAN OF IMPORTANCE RATINGS IN SECTION F					**3.53**
STANDARD DEVIATION IN SECTION F					**0.20**

SECTION E

LIST OF APPENDICES

Appendix E.1: E-mail invitation to present at the Scholarship of Teaching and Learning in Art and Design during 2018

APPENDICES OF SECTION E

E

APPENDIX E.1: E-MAIL INVITATION TO PRESENT AT THE SCHOLARSHIP OF TEACHING AND LEARNING IN ART AND DESIGN DURING 2018

Re: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats

1 message

Gray, Brenden <bgray@uj.ac.za> Wed, Nov 22, 2017 at 3:27 PM
To: yolandi Burger <yolandibur@gmail.com>
Cc: Shashi Cullinan Cook <shashi.cook@gmail.com>

Hi Yolandi – yes it would be great to meet and talk and thank you for the feedback on the presentation.

I would like to invite you to present at STAND (Scholarship of Teaching and Learning in Art and Design) group. We have captured part of our work on the following blog: ***https://standgroup.wordpress.com/*** Would you be interested in leading a seminar at STAND around the findings of your study?

As a department we are exploring setting up a graphic design education conference in +-2019 in partnership with graphic design courses in other institutions. Perhaps you would be interested in working on this.

Finally, Shashi and myself as part of our work in STAND are developing a proposal to examine acces, success and decolonisation in the first year in the creative disciplines and may be inviting institutions around the country to collaborate on the study. Would you be interested in such a project?

I am cc'ing in Shashi Cook convener of STAND into the conversation if you don't mind.

Best,

Brenden Gray

Brenden Gray
Head of Department
Graphic Design Department
University of Johannesburg
Faculty of Art, Design and Architecture
011 559 1020
bgray@uj.ac.za
https://www.uj.ac.za/faculties/fada/Department%20of%20Graphic%20Design/Pages/default.aspx

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From: yolandi Burger
Date: Tuesday, 21 November 2017 at 7:37 PM
To: Brenden Gray
Subject: Re: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats

Dear Brenden

Thank you so much for your feedback. I have already worked into my studies the flexible curriculum document. It lists proposals to address some of the problems you have highlighted in your presentation as well as suggestions to counter the problems of AAPs :) I would love to come and speak to you about my studies? Maybe in the year seeing that I am currently still finishing off my PhD :) Can I contact you next year or will you let me know when would suit you?

I know you didn't ask for feedback on your presentation but want to commend you on your presentation and you have a very good idea already of what the problem is - it sounds really interesting. I would support changing the assessment structure to year modules with continuous assessment (the student are always lost the first few months in HE) as well as a coordinator overseeing the 1st years' specifically - almost like a mentoring programme?

I hope you have a wonderful evening further.

Kind regards
Yolandi Burger

On Sun, Nov 19, 2017 at 1:09 PM, Gray, Brenden <bgray@uj.ac.za> wrote:

> Hi again Yolandi
>
> This is a very interesting study.
>
> Best,
>
> Brenden
>
> ---
>
> **From:** Brenden Gray
> **Date:** Sunday, 19 November 2017 at 1:00 PM
> **To:** "yolandibur@gmail.com"
> **Subject:** FW: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats
>
> Hi Yolanda
>
> Thanks for sending me the survey to complete. We are having discussions at FADA that might interest you. Attached a presentation I did recently plus an important study that has gone largely unnoticed in HE.
>
> It would be great if you could do a seminar at our Faculty at some point on your study.
>
> Best,
>
> Brenden
>
> **Brenden Gray**
> Head of Department
> Graphic Design Department
> University of Johannesburg
> Faculty of Art, Design and Architecture
> 011 559 1020
> bgray@uj.ac.za
> https://www.uj.ac.za/faculties/fada/Department%20of%20Graphic%20Design/Pages/default.aspx
>
> ---
>
> **From:** Brenden Gray
> **Date:** Monday, 06 November 2017 at 12:18 PM
> **To:** "laskarina@gmail.com"
> **Subject:** FW: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats
>
> Let's keep talking about and sharing… funding? Would love to know thoughts on first year study/interventions etc.…
>
> Best,
>
> Brenden
>
> ---
>
> **From:** Brenden Gray
> **Date:** Thursday, 26 October 2017 at 5:03 PM
> **To:** "Van Zyl, Andre"
> **Subject:** Re: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats
>
> Hi Andre

Attached a presentation I recently did with the graphic design department around problems we are experiencing in first year. Thought you might find it interesting. I referenced your work in the delivery of the presentation.

Best,

Brenden Gray
Head of Department
Graphic Design Department
University of Johannesburg
Faculty of Art, Design and Architecture
011 559 1020
bgray@uj.ac.za
https://www.uj.ac.za/faculties/fada/Department%20of%20Graphic%20Design/Pages/default.aspx

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From: "Van Zyl, Andre"
Date: Thursday, 26 October 2017 at 2:09 PM
To: Brenden Gray
Subject: RE: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats

Dear Brenden

Thank you for your e-mail and as always it was very good to see you too. I have attached a Word document containing the FFADA stats between 2007 and 2016. I am sorry to say that something in our system failed and we did not collect any FADA data during 2017… It is a 46 page document but gives you all the FADA data for all the available years.

There are Vital stats up to 2014 at the site pasted here http://www.che.ac.za/media_and_publications/monitoring-and-evaluation/vitalstats-public-higher-education-2014

You can contact Hannes Loock or prof Neels Fourie in DIPEM about the UGES data.

I look forward to reading the article you have attached and I look forward even more to the publications you will be getting up to once the PhD is done (all the best with that!)

Kind regards

andrevz@uj.ac.za

From: Gray, Brenden
Sent: 24 October 2017 07:20 PM
To: Van Zyl, Andre <andrevz@uj.ac.za>
Cc: Shashi Cullinan Cook <shashi.cook@gmail.com>

Subject: Results, FADA SQP, Student experience survey, FYE research papers, CHE Vital Stats
Importance: High

Dear Andre

It was good to see you the other day.

I wonder if you could assist me and a colleague.

I am presently writing a paper entitled "Theorising culture and inequality in a South African higher education context". Your research would be most useful in constructing my argument. I have stats for 2015 but I was wondering if you could send me results related to FADA for 2016 and if available 2017?

I am thinking along the lines the FADA SPQ results for 2016 and 2017.

If your unit has published material for 2015, 2016 and 2017 I would also like to know how to access it.

I would also be grateful if you can put me in touch with someone at DIPEM to obtain the student experience survey.

Lastly, do you know if a report similar to the CHE Vital Stats has been published since 2010?

I also attach and article of the kind of research a colleague and myself are collaborating on (after our PhD's are completed!)

Best,

Brenden

Brenden Gray

Head of Department

Graphic Design Department

University of Johannesburg

Faculty of Art, Design and Architecture

011 559 1020

bgray@uj.ac.za

https://www.uj.ac.za/faculties/fada/Department%20of%20Graphic%20Design/Pages/default.aspx