

https://dspace.org/

Learning for practice: an analysis of the education process of graduate nurses in Malawi

Chilemba, Evelyn Baxter

2014-03-25
http://hdl.handle.net10539/14308

Downloaded from a DSpace repository. https://dspace.org/

LEARNING FOR PRACTICE: AN ANALYSIS OF THE EDUCATION PROCESS OF GRADUATE NURSES IN MALAWI

Evelyn Baxter Chilemba

A thesis submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfillment of the requirements for the degree

of

Doctor of Philosophy

Johannesburg, 2013

DECLARATION

I, Evelyn Baxter Chilemba declare that this thesis is my own work. It is being submitted for the degree Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

SIGNATURE.....

.....21st June..... **DAY OF**.....2013.....

ii

DEDICATION

I dedicate this work to my husband, Joel,
our two children, Timothy and Joanna,
her children Dalitso and Glory
and
to the memory of Robert Tsabola

ACKNOWLEDGEMENTS

I thank God for the gift of life and tremendous blessings he has given me in pursuit of this degree. He is awesome and magnificent for granting me His mercies each passing day.

I am greatly indebted to the following institutions and persons, without whose assistance a project of this nature would have been impossible.

I thank my supervisor, Professor Judith Bruce, who has guided me throughout the research process, for her constant encouragement, invaluable advice, and constructive criticism. I am deeply indebted to the special support that was accorded to me even in times of despair. You are so special; the Angel of God who was sent to me on time and may God enlarge your borders. It was an honor and privilege to work under your guidance.

My husband Joel, I salute you for the love shown to me when things were falling apart. Your encouraging words were a virtue to me for we all believe that with God all things are possible. Thanks for your love and encouragement.

My daughter, Joanna who always believed it was going to work God bless you for your prayers and support.

Timothy, my son for being a source of inspiration and always checked on how my school work was progressing. Thanks for your prayers and encouragement.

Late Robert and Dalitso, you are so special and wonderful to me. God bless you, for all the financial and spiritual support.

My sister, Ruth Mvuma and your family designated by God to bless people in times of need. I salute you for the love and support that you have given me throughout my studies.

My best Friend, Maureen Chirwa for encouraging words and visionary advice that brought comfort and transformation to my academic life God bless you.

My Mother, Felicia who never lived to see advancement in my professional journey, thank you Mama for being such a wonderful mother who believed in hard work at school .

My Father, I thank you for the love, support, encouragement and prayers.

Dr. and Mrs. Chilemba for the support throughout my studies and for being wonderful supporting parents.

Anna Chinombo, and your family for the friendship that makes us grow each passing day, God bless you.

Otilia Kang'ombe, my prayer partner thanks for all the testimonies and you never knew how they had helped me to believe on God, you are such a wonderful person.

My sisters Annie, Nellie and Mercy for the friendship we share thank you so much.

My brothers late Innocent, Limbani, Reverend Chapota and Lloyd for support and encouragement

The Librarian, Mr. Wella for the generous support in the library services and encouragement, thank you so much

The Research Director of Kamuzu College of Nursing Dr. A. Maluwa for your spiritual and physical support plus encouragement you came just on time thank you so much.

Lastly, but not least, thanks to the Kamuzu College of Nursing Management for the support offered and granting me the opportunity to study.

ABSTRACT

An analysis of the educational processes of graduate nurses followed anecdotal reports from stakeholders in Malawi on low levels of clinical performance and poor patient management skills among graduate nurses. Stakeholder observations pointed to issues around the educational preparation of graduate nurses. Learning for practice in nursing education is an absolute requirement for positive client outcomes in healthcare delivery. If graduate nurses' level of performance is in question the educational processes must be examined because the educational level makes a difference on how nurses practice, the stakeholders' observations of and concerns around graduate nurses must be taken into account and explored in terms of the educational processes deployed. This requirement gave an impetus to a two-phased, cross sectional, sequential explanatory mixed study, guided by pragmatic philosophical assumptions. Pragmatism emphasizes the fact that knowledge as social reality is based on beliefs and habits that are socially constructed.

The study population consisted of nurse educators (N=50) from the Kamuzu College of Nursing (KCN) and graduate nurses (N=235) from various clinical settings in Malawi who were invited to participate. In phase one all educators and graduate nurses were invited to complete questionnaires that aimed at determining the teaching styles of educators, learning styles and approaches, and critical thinking levels among graduate nurses. In phase two purposive sampling was used to select nurse educators and graduate nurses for in- depth interviews to determine their perceptions of the educational process and learning experiences respectively. Qualitative evaluation of twenty-one subjects (n=21) in the BSN curriculum provided evidence of curriculum quality in accordance with the Malawi Nurses and Midwives Council standards.

Data analysis, in phase one was conducted using the statistical package SPSS Version 16.0. Descriptive statistics were run for frequencies, means and standard deviation. Content analysis was used for the qualitative data analysis in phase two. The results of the study indicate that there in no diversity in the use of teaching styles among the educators; the Expert Teaching Style is the most preferred teaching style ($\bar{x}$ = 4.02 and SD = 1.06). The Facilitator Teaching Style was the least preferred method indicating lesser use of

facilitative skills among the educators. The lecture method is the dominant and most preferred teaching method among educators; graduate nurses indicated that interactive teaching strategies had enhanced their learning and that they learnt most from those teachers who taught with passion and used examples. The Personal Model Teaching Style was not preferred despite graduates' preference for this style. Learning diversity was also lacking among the learners where the Competitive Learning Style was the most preferred learning style ($\bar{x}$ =3.93 and SD 0.54). The Independent Learning Style was the least preferred learning style ($\bar{x}$ =2.84 and SD=0.80). This result concurs with the findings on learner dependence from the qualitative results. Curriculum evaluation showed that there were no small group teaching methods embedded in the BSN curriculum to reinforce interactive teaching methods. Despite educators stating that their teaching tasks were well planned there was no learner involvement in the teaching activities. The perceived challenges in the teaching tasks were in the form of information access, interconnectivity and physical resources that educators indicated influenced their choices of teaching methods.

Despite the mismatch of the teaching and learning styles, a deep approach to learning was reportedly prevalent among graduate nurses ($\bar{x}$ = 3.98 and SD 0.77) while surface approach was low at ($\bar{x}$ =3.24 and SD=1.00). The majority (65%) of graduate nurses reflected low levels of critical thinking abilities ($\bar{x}$ = 2.94 and SD= 0.95) despite the high scores in deep approach to learning. Curriculum evaluation revealed there were partial standards on the benchmarks for the process and tools for students' interest, learning styles and self-directedness (62.5%); assessing students' prior knowledge (87.5%) and transparency in curriculum document (50%). The educational processes in BSN program are mandated by the Malawi Nurses and Midwives Council standards and as such, the partial standards on the curriculum brings into question the quality of education offered. Therefore, based on these findings, recommendations are made for the improvement of nursing education practice in Malawi. The BSN curriculum benchmarks must reflect the integration of the four learning pillars with cross-cutting competencies to promote transformative learning and interdependence in education. There must be enhancement of the curriculum standards to foster the development of reasoning, thinking, imagination, confidence among the graduate nurses and future research is recommended for educational reforms in nursing.

ABBREVIATIONS AND ACRONYMS

BSN	-	Bachelor of Science in Nursing
CT	-	Critical thinking
KCN	-	Kamuzu College of Nursing
MNMC	-	Malawi Nurses and Midwives Council
RN	-	Registered Nurse
UNESCO	-	United Nations Education Scientific Commission
USA	-	United States of America
WHO	-	World Health Organization

TABLE OF CONTENTS

DECLARATION ..... **Error! Bookmark not defined.**

DEDICATION iii

ACKNOWLEDGEMENTS iv

ABSTRACT vi

ABBREVIATIONS AND ACRONYMS viii

TABLE OF CONTENTS ix

LIST OF TABLES xviii

LIST OF APPENDIXES xx

CHAPTER ONE 1

OVERVIEW OF THE STUDY 1

1.0 INTRODUCTION 1

1.1 The Bachelor of Science in Nursing Programme in Malawi (BSc) 3

1.1.1 Stakeholder feedback on BSN programme 6

1.2 Rationale for the Study 8

1.3 Significance of the Study 9

1.4 Statement of the Problem 10

1.5 Research Purpose 11

1.6 Objectives 11

1.7 Definition of Key Concepts 12

1.7.1 Learning for practice 12

1.7.2 Education process 12

1.7.3 Traditional teaching approaches 13

1.7.4 Graduate nurse 13

1.7.5 Critical thinking 13

1.8 Overview of research design and methods 13

1.9 Lay-Out of the Thesis 17
1.10 Conclusion 17
CHAPTER TWO 18
LITERATURE REVIEW 18
2.0 INTRODUCTION 18
2.1 Overview of Nursing Education 19
2.1.1 International Perspectives 20
2.1.2 National perspectives 26
2.1.2.1 Nurse Education in Malawi 27
2.1.2.2 Professional regulation in Malawi 28
2.2 Theoretical Perspectives 29
2.2.1 The Conceptual Framework 30
2.2.1.1 Learning to know 31
2.2.1.2 Learning to do 33
2.2.1.3 Learning to live together 35
2.2.1.4 Learning to be 37
2.2.2 Treasures within the pillars of learning to learn 38
2.3 Learning for practice 39
2.3.1. Learning in higher education 41
2.3.2 BSN curriculum and learning for practice 45
2.3.3 Deep learning and the process of learning for practice 48
2.3.3.1 Teaching styles and deep learning process 50
2.3.3.2 Learning styles and deep learning 56
2.3.3.3 Critical thinking and deep learning 61
2.3.4Approaches to learning 64
2.3.4.1 Deep approach to learning 66
2.3.4.2 Surface approach to learning. 68

2.4 Conclusion 69

CHAPTER THREE 70

RESEARCH DESIGN AND METHODS 70

3.0 INTRODUCTION 70

3.1 Research Design 70

3.1.1 Epistemology 72

3.1.2 Meta-theoretical assumptions 73

3.2 Research Methods 75

3.2.1 Study population 75

3.2.1.1 Inclusion criteria 76

3.2.1.2 Exclusion criteria 76

3.2.2 Sample selection and sample size 76

3.2.2.1 Phase 1 76

3.2.2.2 Phase 2 77

3.2.3 Research sites 78

3.3 Pilot Study 79

3.4 Data Collection: Phase 1- Quantitative Data 79

3.4.1 The instruments 79

3.4.1.1 Grasha teaching styles inventory: version 3.0 for educators 80

3.4.1.2 Grasha-Reichmann Learning Style Scales Questionnaire for 81

3.4.1.3 Biggs Revised Two Factor Study Process Questionnaire: R-SPQ-2F 82

3.4.1.4. The Watson- Glaser Critical Thinking Appraisal form S. 83

3.4.1.5 Curriculum rubric 84

3.4.2 Data collection procedure 85

3.4.2.1 Nurse educators 85

3.4.2.2 Graduate nurses 85

3.4.2.3 Data Collection: Curriculum Evaluation 86
3.5 Data Collection: Phase 2-Qualitative Data 87
3.5.1 Interview with nurse educators 87
3.5.2 Interviews with graduate nurses 89
3.6 Data management 89
3.6.1 Phase 1 89
3.6.2 Phase 2 90
3.7 Data Analysis 91
3.7.1 Phase 1 91
3.7.1.1 Teaching style inventory data 91
3.7.1.2 Grasha- Reichmann Learning Styles data 91
3.7.1.3 Study Process data 91
3.7.1.4 Critical thinking data 92
3.7.2.1 Analysis of interview data with educators and graduate nurses 93
3.8.1 Phase 1 quantitative design 96
3.8.1.1 Reliability 97
3.8.1.2 Validity 98
3.8.2 Phase 2 102
3.8.2.1 Credibility 102
3.8.2.2 Transferability 103
3.8.2.3 Dependability 103
3.9 Ethical Considerations 104
3.9.1 Means of gaining access in qualitative data 105
3.10 Conclusion 108
CHAPTER FOUR 109
RESULTS: PHASE 1 109
4.0 INTRODUCTION 109

4.1 Results: Nurse educators' teaching styles 109
4.1.1 Expert Teaching Style 110
4.1.2 Formal Authority Teaching Style 111
4.1.3 Personal Model teaching style 113
4.1.4 Facilitator Teaching Style 114
4.1.5 Delegator Teaching Style 115
4.2.2 Avoidant Learning Style 119
4.2.3 Collaborative Learning Style 120
4.2.4 Dependent Learning Style 121
4.2.5 Competitive Learning Style 122
4.3.6 Participant Learning Style 124
4.3 Results: Graduate nurses' learning approaches 125
4.3.1 Deep motive 126
4.3.2 Deep strategy 127
4.3.3 Deep approach to learning 128
4.3.4 Surface motive 129
4.3.5 Surface strategy 130
4.3.6 Surface approach to learning 131
4.4 Critical thinking abilities 133
4.4.1 Making inferences 134
4.4.2 Recognition of assumptions 135
4.4.3 Making deductions 136
4.4.4 Making interpretations 136
4.4.5 Evaluating arguments 137
4.4.6 Percentile scores 138
4.5 Evaluation of quality on BSN curriculum 139
4.5.1 Assessing students' interest, learning styles and self-directedness 140

4.5.2 Assessing students' prior knowledge in curriculum 142
4.5.3 A standard-based content outline 142
4.5.4 Articulated learning outcomes 143
4.5.5 Suggested teaching strategies/approaches 145
4.5.5.1 Learner prior knowledge and meaning construction 145
4.5.5.2 Multisensory teaching strategies 146
4.5.6 Suggested assessment strategies 146
4.5.6.1 Transparency in assessment, formative and summative assessments 146
4.5.7 Suggested teaching and learning resources. 147
4.5.7.1 Compulsory resource list, relevance and validity 147
4.6 Conclusion 148

CHAPTER FIVE 149
RESULTS: PHASE 2 149
5.0 INTRODUCTION 149
5.1 Educators' Perceptions of the BSN Programme 149
5.1.1 Theme 1: Perceptions of Own Teaching 150
5.1.1.1 Sub-theme 1: Lectures are preferred 151
5.1.1.2 Sub-theme 2: Creating student dependence 154
5.1.1.3 Sub-theme 3: Teaching guided by learner classroom characteristics 156
5.1.2 Theme 2: Teaching Thinking 157
5.1.2.1 Sub-theme 1: Learner understanding 157
5.1.2.2 Sub-theme 2: Learner involvement 159
5.1.3 Theme 3: Teaching Resources 160
5.1.3.1 Sub-theme: Challenges in the education process 161
5.1.4 Theme 4: Perceived Nature Of BSN Learning 162
5.1.4.1 Sub-theme 1: Learning and lecture sequence 163

5.1.4.2 Sub- theme 2: High student numbers 165
5.1.5 Theme 5: Improving Classroom Learning..... 166
5.1.5.1 Sub-theme 1: Participatory learning..... 166
5.1.5.2 Maintaining educational quality..... 167
5.1.5.3 Promoting learner feedback..... 168
5.1.6 Conclusions from nurse educator interviews..... 169
5.2 Graduate Nurses Perceptions of the BSN Programme..... 170
5.2.1 Theme 1: Perceptions of Own Learning In BSN Programme 171
5.2.1.1 Sub-theme 1: Self-involvement 171
5.2.1.2 Equipped With Knowledge..... 173
5.2.1.3 Sub-theme 2: Relatedness in curriculum 175
5.2.2. Theme 2: Preferred Learning Methods 176
5.2.2.1 Sub-theme 1: Lecturing helps learning..... 177
5.2.2.1 Interactive method..... 178
5.2.3 Theme 3: Learning to Think..... 182
5.2.3.1 Sub-theme 1: Not going beyond the teacher..... 182
5.2.3.2 Sub- theme 2. Learning for assessment..... 186
5.2.3.3 Sub-theme 3: Resource struggle..... 184
5.2.3.4 Sub-theme 4: Making sense of learning 184
5.2.4 Theme 5: Learning for Assessment..... 186
5.2.4.1 Sub-theme: Assessments instill fear in learning 188
5.2.4.2 Sub-theme 2: Memorization required..... 188
5.2.4 3 Sub-theme 3: Time and timing 189
5.2.5 Theme 5: Readiness for Professional Role..... 189
5.2.5.1 Sub-theme 1: Dependence on authority figures..... 190
5.2.5.2. Sub-theme 2: Feeling overwhelmed..... 192
5.2.6 Conclusions from graduate nurse interviews..... 194

5.3 Conclusion 195

CHAPTER SIX 195

INTEGRATED DISCUSSIONS OF RESULTS 196

6.0 INTRODUCTION 196

6.1 Discussion of the results 196

6.1.1 The teaching process 196

6.1.2 The learning experiences 203

6.1.3 Curriculum processes and tools 210

6.6 Conclusion 215

CHAPTER SEVEN 215

MAIN FINDINGS, RECOMMENDATIONS AND CONCLUSION 216

7.0 INTRODUCTION 216

7.1 SUMMARY OF MAIN RESULTS 216

7.1.1Lack of diversity in teaching styles and methods 216

7.1.2 Habitual learning styles and learner dependence 217

7.1.3 Low critical thinking scoring 218

7.1.4 BSN curriculum with partial standards 219

7.2 Recommendations 221

7.2.1 Transforming the BSN curriculum 221

7.2.1.1 Advance the promotion of deep learning 221

7.2.1.3 Assess learning in line with core competences 222

7.3 Areas for Further Research 223

7.4 Conclusion 223

REFERENCES 225

APPENDICES xx

LIST OF FIGURES

Figure 2.1 A conceptual framework for learning for practice (adopted from UNESCO 2004) 31
Figure 2.2 Conceptualized relationship among variables .....
Figure 2.3 Deep learning processes 49
Figure 3.1 Sequential Explanatory Design (Adapted from Creswell & Plano Clark, 2006).....71
Figure 4.1 Graduate nurses' percentile scores on critical thinking 139
Figure 4.2 Participants scoring on students self assessment 138
Figure 4.3 Participants responses on inclusion of appropriate levels of cognitive domain ...144

LIST OF TABLES

Table 1.1 Number of subjects and theoretical hours (adopted from the 4

Table 1.2 Clinical placements and number of hours for the BSN Programme (adopted from the KCN BSN curriculum) 5

Table1.3 Outline of the design and methods.....15

Table 2.1 Blends of teaching styles and learning styles (Adopted from Grasha, 2002b)…… …….61

Table 3.1 Grasha teaching style scores (Grasha, 2002) 80

Table 3.2 Grasha-Reichmann Learning Style Scales scores (Grasha, 2002). 82

Table 3.3 Clinical sites and number of respondents 85

Table 3.4 Selected BSN subjects containing nursing content (n=21)..... 87

Table 3.5 Constitutive codes Graduate nurses 94

Table 3.6 Constitutive codes Educators……...93

Table 3.7 Expert ratings on scoring of curriculum rubric.....101

Table 4.1 Distribution of educators' Expert Teaching Style (n=44).....111

Table 4.2 Distribution of educators' Formal Authority Teaching Style (n=44).....112

Table 4.3 Distribution of Personal Model Teaching Style (n=44).....114

Table 4.4 Distribution of educators' Facilitator Teaching Style (n=44) 115

Table 4.5 Distribution of educators' Delegator Teaching Style (n=44).....116

Table 4.6 Teaching styles mean scores and standard deviation (n=44) 117

Table 4.7 Distribution of the graduate nurses' Independent Learning Style (n=200) .119

Table 4.8 Graduate nurses distribution of the Avoidant Learning Style (n=200) 120

Table 4.9 Graduate nurses' distribution of Collaborative Learning Style (n=200).....121

Table 4.10 Graduate nurses' distribution of the Dependent Learning Style (n=200)....122

Table 4.11 Graduate nurses' distribution of Competitive Learning Style(n=200).....123

Table 4. 12 Graduate nurses' distribution of Participant Learning Style (n=200) 124

Table 4.13 Means and standard deviation of Graduate nurses' learning styles (n=200) 125

Table 4.15 Frequency table for Deep motive scores n=200.....127

Table 4.16 Item statements for Deep Strategy (n=200).....128
Table 4.17 Frequency table for Deep Strategy Scores (n=200).....128
Table 4.18 Frequency table for Deep approach to learning scores (n=200).....129
Table 4.19 Item statements for Surface Motive.....129
Table 4.21 Item statements for Surface Strategy 130
Table 4.22 Frequency table for Surface Strategy scores (n=200).....131
Table 4.23 Frequency table for Surface approach to learning (n=200) 131
Table 4.24 Learning approaches means scores and standard deviations (n=200).....132
Table 4.25 Spearman's correlation of the learning approaches.....133
Table 4.26 Frequency table on making Inference scores (n=200).....135
Table 4.26 Graduate nurses' scores in Recognition of assumption (n=200).....135
Table 4.27 Graduate nurses' score in making Deductions (n=200).....136
Table 4.28 Graduate nurses scoring on making Interpretations (n=200) 137
Table 4.29 Graduate nurses' scoring on ability in Evaluating Arguments (n=200) ...137
Table 4.30 Critical Thinking Mean scores and Standard Deviation of sample (n=200) ……138
Table 4.31 Responses on inclusion of requisite knowledge and assessments in BSN curriculum (n=8).....142
Table 4.32 Responses on curriculum addresses future or relevant national content standards (n=8) 143
Table 4.33 Participants responses on teaching strategies inclusion in curriculum (n=8) 145
Table 4.34 Participants responses on curriculum informing teaching and learning (n=8) 147
Table 4.35 BSN curriculum inclusion of minimum/compulsory resource list (n=8)...147
Table 5.1 Constitutive themes and sub themes for educators (n=10)……150
Table 5.2 Constitutive themes and sub-themes for graduate nurses.....171

LIST OF APPENDICES

A - Grasha Teaching Style Inventory

B - Grasha Riechmann Learning Style

C - Biggs revised two factor study Process Questionnaire

D - Watson-Glaser Critical Thinking Appraisal Form S

E - Curriculum Rubric

F - Invitation Letter for Educators

G - Invitation Letter for Graduate Nursing

H - Interview Guide for Nurse Educators

I - Transcripts with Notes

J - Interview Guide for Graduate Nurses

K - Ethical Clearance
(Human Research Ethics Committee – University of the Witwatersrand)

L - Post graduate committee -Approval of Title

M - Ethical clearance, Ethics Committee Malawi

N & O - Permission Letters: Principal Kamuzu College of Nursing and Ministry of Health

P - Letters of Permission to Hospital directors

Q & R - Permission letter to ethics committee in Malawi

S - Percentile Scores

T - Nurses and Midwives Council Professional outcomes

CHAPTER ONE
OVERVIEW OF THE STUDY

1.0 INTRODUCTION

Learning for practice is a process in nursing education that results from deep learning when concrete learning experiences in the classroom lead to new learning experiences in clinical areas where nurses practice. Deep learning is thus crucial to the development of learning for practice in nursing as this may facilitate the application of subject content in clinical practice. Deep learning involves the development of conceptual knowledge, procedural knowledge, strategic knowledge, personal knowledge and professional knowledge from the subject content (August-Brady, 2005; Cree & Clapton, 2004). Deep learning is essential to learning for practice because the developed knowledge base results from the efforts that the learner puts into the learning situation to gain mastery and insight. In support of this notion is an excerpt by John Dewey the educational psychologist who describes "effort" in terms of spiritual or intellectual efforts in any learning experience (Garrison, 1999:297).

Learning effort could enhance the development of a knowledge base that facilitates reasoning and thinking with its application to diverse settings leading to learning for practice. Learning for practice, therefore is when students can utilize deep learning approaches, learning efforts, learning intentions and conceptualize subject content to develop reasoning, decision-making, problem-solving and critical thinking as these are known as "treasures", ideal for dynamic complex clinical settings (Zhaou n.d.). Learning for practice is core to teaching and learning processes in the nursing profession because there is a growing universal demand for well prepared professionals (Ralph, Walker & Wimmer, 2007a). Learning as a process was described by the Delors's report, (2001) on learning to learn as a "treasure within". This is because learning would enable the full development of an individual in totality to work in dynamic settings, due to the development of capacities in thinking and reasoning that promote precise decision-making (Lawale & Bory-Adams, 2010).

Critical thinking emanates from deep learning and is an integral component in nursing education for students to make clinical judgments and decisions concerning clients' care. The development of critical thinking and clinical judgment are pre-requisites to learning

for practice if nursing graduates are to meet the demands of the clinical environment. The use of innovative, creative teaching and deep learning approaches is fundamental in learning for practice. Research shows that there is a positive effect on lowering mortality rates where BSN primed nurses' work and that high nursing education levels are significantly associated with optimistic patient outcomes (Aiken, Clarke, Lake & Cheney, 2008).

However, there is also a growing concern among stakeholders that nurses are not well prepared for practice, pointing to possible deficiencies in the undergraduate education process. In Malawi specifically, there are stakeholder complaints about and anecdotal evidence of low levels of clinical performance and poor patient management skills among graduate nurses. This in turn may point to issues and challenges in their education process. The education processes need to be explored, specifically the Bachelor of Science in Nursing (BSN) degree in respect of its professional outcomes and graduate nurses' experiences of the curriculum. More specifically, there is a need to ascertain whether the education processes promote the attainment of professional competences as specified by the Malawi Nurses and Midwives Council (MNMC).

The need to change the way health professionals are taught, including nurses, is emphasized by WHO (2007) and authors such as Diekelman, Ironside and Harlow (2003). A major goal of teaching in undergraduate nursing curricula is learning for practice, where graduate nurses must be equipped with a sense of confidence that can make them succeed in becoming competent autonomous practitioners (Lauder, Watson, Topping, Holland, Johnson, Porter & Behr, 2008). The treasures of learning within a nursing curriculum include the development of a sense of confidence and abilities in making inferences, assumptions, deductions, interpretations and evaluating arguments. These treasures within learning are crucial outcomes in BSN programmes, because they lead to the development of metacognitive awareness amongst most learners (Pintrich, 2003; Schneider & Lockl, 2002).

Despite existing challenges in all clinical practice environments including those in Malawi, Sullivan and Chumbley (2010) state that a sound theoretical knowledge base may empower students for facing these challenges. Empowerment results in reasoning through issues,

making decisions, solving problems, becoming critical thinkers and being able to make clinical judgments that would facilitate graduate nurses' for learning to practice. It is important to note that critical thinking and clinical judgment abilities promote decision making in practice environments. Therefore, the perceived concerns from the stakeholders about the low levels of clinical performance may be addressed by an analysis of the educational processes of the graduate nurses; this would include more particularly the attainment of the MNMC and Ministry of Health directives for graduate nurse education in Malawi. While the importance of the clinical environment is acknowledged, this study is delimited to the educational processes in the theoretical context of a university.

1.1 THE STUDY CONTEXT

The BSN programme at the Kamuzu College of Nursing (KCN), in the University of Malawi was established in 1996; this followed the results of a needs assessment that the college had undertaken with key stakeholders. The aim was to improve nursing education and to increase the numbers of registered nurses with a Bachelor of Science degree. The BSN curriculum is a four year degree programme that admits students only after passing at form four, from either public or private secondary schools. The minimum requirements include credit grades in the core Malawi School Certificate Examination subjects specifically in Mathematics, Biology, Physical Science and English, plus two other credits in any other relevant subject.

The curriculum design for the BSN programme follows a building design where students are expected to build on from previous subject knowledge at each level. The building design model supports a curriculum standard that considers learners prior knowledge in the learning tasks to foster inquiring skills among the learners. The choice of teaching styles and learning styles might be influenced by the curriculum design because most curriculum designs have descriptive, prescriptive, predictive and or explanatory elements to varying degrees. Despite a choice of a particular curriculum design a better articulation and mapping of different pedagogical process tools and techniques provide a pedagogic approach that is more reflexive and consistent with learning. Learners' prior knowledge is core to intrinsic motivation because the education that helps learners to question, examine and reflect on ideas has a relationship with the development of thinking and mastery of subject content.

Supporting courses such as Chemistry, English Language and communication, Human anatomy and Physiology, Microbiology, Psychology and Sociology are offered mostly in the first year of study and the nursing core subjects are introduced from the second year to fourth year. The supporting courses form a basis for the development of reasoning and thinking skills, as such the courses which are offered at the beginning of the programme. Upon completion of the program the graduates get a Bsc degree in nursing. The teaching of subject content is organized in blocks varying between four to six weeks depending on scope of subject content. The number of theoretical hours for the four year programme amounts to one thousand two hundred and thirty- seven (1237) hours. The normal prescribed theoretical hours by the MNMC are one thousand two hundred (1200) hours, meaning that the training period is within the normal prescribed time of training. Table 1.1 displays the number of subjects and the number of theoretical hours in the BSN curriculum.

Table 1.1 Number of subjects and theoretical hours (adopted from the KCN BSN curriculum)

Subjects	**Number of Hours**
English Language and Communication	33
Biochemistry	40
Chemistry	60
Human Anatomy and Physiology	136
Community Health Nursing	100
Microbiology	40
Sociology	44
Psychology	60
Medical Nursing	150
Surgical nursing	150
Pediatrics	55
Professionalism	66
Principles and Practice of Management	40
Research Methodology	60
Mental Health and Psychiatric Nursing	42
Pharmacology	66
Principles and Practice of Education	40
Statistics	55

The teaching strategies that are deployed in the classroom are largely influenced by traditional approaches to teaching according to the curriculum document. The lecture method is dominant in the curriculum document and in classroom teaching activities. The

observation on the teaching strategies portrays a picture of a teacher-centered curriculum and might influence how graduate nurses might learn for practice. Summative and formative assessments are done routinely; 40% constitutes the formative evaluation mark and 60%, the summative evaluation mark in all nursing subjects. The benchmark for assessment in any programme is important to learning goals because the teaching tasks are to be aligned with the assessments (Biggs and Tang, 2007). External moderation is done only at year four (final year) and an internal assessor/moderator system is used for the remaining nursing courses. The supporting courses in the first year have no internal assessors and this could be viewed as a threat to quality assurance. Moderation is core to quality in learning and as such the current moderation mechanism in the BSN programme would have an impact on learning for practice.

Theoretical blocks are followed by clinical placements where the students rotate through different clinical settings of the approved hospitals depending on the subject content completed. Placement of students in clinical areas after theoretical teaching reinforces understanding and mastery of subject content. However, this arrangement has some demerits but it suits the current programme because of the multiple clinical sites that are used which are further apart, with some geographical challenges. The total clinical time amounts to three thousand, four hundred and forty (3440) hours superseding the normal prescribed hours of three thousand and three hundred hours prescribed by the Malawi Nurses and Midwives Council. The students rotate in a variety of clinical settings throughout the four years in approved hospitals throughout the country. There are some designated preceptors in each of the hospitals who support students learning specifically in the fourth year of study. The preceptors are identified by the college in an effort to promote clinical learning and foster responsibility among the learners. Table 1.2 depicts the clinical setting placements and the expected minimum number of hours per allocation.

Table 1.2 Clinical placements and number of hours for the BSN Programme (adopted from the KCN BSN curriculum)

Clinical setting	**No. Hours**
Community Nursing	480
Medical Nursing	960
Surgical Nursing	400
Pediatric Nursing	240

Clinical setting	No. Hours
Gynaecology Nursing	200
Psychiatric Nursing	240
Ophthalmic Nursing	80
Operating Theatre	200
Outpatient and Casualty	80
Family Planning	80
Basic Nursing	240
Night Duty	240

1.1.1 Stakeholder feedback on BSN programme

The Kamuzu College of Nursing (KCN) held a stakeholders' meeting in September, 2005, in an effort to solicit feedback on graduate nurses' clinical performance after graduation. The stakeholders' meeting was held almost ten years after the programme was introduced. The stakeholders comprised delegates from the Ministry of Health, who are the Permanent Secretary for Health, Director of Nursing Services, senior nursing officers, the Registrar for the Malawi Nurses and Midwives Council, senior nursing officers from the Nurses and Midwives Council of Malawi, senior nursing officials from the Christian Health Association of Malawi (CHAM), the University Vice–Chancellor and Registrar, Faculty members from the Chancellor College , Department of Education, the Bunda College of Agriculture and the Kamuzu College of Nursing. This feedback formed the basis for the analysis and review process of the BSN curriculum.

The aim of evaluating the BSN programme came amidst negative remarks about the preparation of the graduate nurses. There had been no documented feedback to KCN from stakeholders reflecting graduate nurses' clinical performance since the inception of the BSN programme in 1996. Stakeholders reported low levels of clinical performance and lack of patient management skills as major weaknesses in some of the graduate nurses. The observations and concerns about graduate nurses' performances in practice then posed a major question about the quality of the educational processes that are used to deliver the nursing curriculum at KCN. Despite the observed low levels of performance among the graduate nurses the college had a good number of lecturers in positions and there is good infrastructure with current library facilities to support students' learning (KCN, 2005)).

The perceived low performance of the KCN graduate nurses needed to be explored in terms of teaching and learning approaches that are deployed during the educational programme to ascertain whether graduate nurses indeed learn for practice. Furthermore, it was important to determine how graduate nurses perceive their own level of theoretical knowledge and their educational preparedness for the clinical environment.

From the seminal work of Schon (1983:42) on reflective learning the notion of the clinical environment was described as "a swampy lowland area". In a swampy lowland area there are complex problems within professional practice because of the grey areas and uncertainties on the professional roles. Malawian clinical environments might also be described as swampy lowland areas due to the shortage of qualified nurses in ward settings, few role models, overcrowded wards and inadequate material resources. The swampy lowland areas therefore, require graduate nurses to think, reflect and reason through the issues in practice in order to perform optimally.

Learning for optimal performance in practice requires good teaching. Biggs and Tang (2007a) define good teaching as one that enables most of the students to use their level of cognitive processes required for the accomplishment of learning outcomes in any learning situation. It is therefore expected that the processes of teaching and learning for practice would enable graduate nurses to develop these skills. To navigate the swampy areas then might require determining how the process of educating Malawian graduate nurses particularly at KCN, take place, ultimately to promote critical thinking, reflection and clinical judgment. Pearcey and Draper (2008) contend that the values of caring, compassion and kindness are passed on and reaffirmed by a specific paradigm in the learning process through good teaching.

Learning among graduate nurses could also be considered as "treasures within," (Delors, 1996) if the attributes of learning for practice are manifested in the educational process. There is a need to determine then if the teaching and learning approaches currently being utilized, promote the development of learning for practice attributes which include critical thinking among graduate nurses.

1.2 RATIONALE FOR THE STUDY

The proposed study is a result of my own reflective and reflexive concerns and observations as an educator at Kamuzu College of Nursing. As an educator, I perceive the educational processes of the graduate nurses to be challenging as a result of a number of anecdotal feedback reports that the graduate nurses are not ready for practice. Graduate nurses' educational preparation is presumed to be at high level to enable them to reason through patient care issues and to think critically in order to make sound decisions regarding client care in clinical settings.

If graduate nurses are perceived to be inadequately prepared the reasons for this could be multifaceted. The teaching and learning processes are only one aspect to be explored to determine whether these processes had indeed accorded graduate nurses the opportunity to learn for practice. Being an educator at the college requires some reflection on why graduate nurses' performance in practice is considered less than adequate by stakeholders, yet university teaching is assumed to develop high level thinkers for the practice environment. If graduate nurses are described as not ready for work by some and not readily assimilated into practice environments then the teaching and learning approaches must be analyzed in line with the abilities and treasures within the learning for practice curriculum (Burns, 2004; Gallanger, 2004).

The exploration of the educational processes of graduate nurses at KCN in the BSN programme is thus mandatory. Student nurses' approaches to learning have an important impact on the development of reasoning and critical thinking as a requirement for learning for practice. According to Levette-Jones (2005) some universities claim to have provided broad and comprehensive preparatory education to graduates but instead developed beginning rather than competent practitioners. The determination of reasoning, problem solving and critical thinking skills amongst students in undergraduate nursing programmes is therefore important for establishing the methods of education that would be used for learning for practice (Ozturk, Muslu & Dide, 2008).

The BSN curriculum contains the core subject content with designed teaching approaches for imparting knowledge to graduate nurses. Do the existing curriculum and teaching approaches enhance the efforts and attributes among graduate nurses in order to learn for practice? It is therefore, against this background that the study is proposed with the aim to

gain more insight into the teaching and learning processes and the experiences of the educators and graduate nurses.

1.3 SIGNIFICANCE OF THE STUDY

The literature shows that nurses with a BSN degree are well prepared to meet the patients/clients' demands placed on them particularly in countries like the USA, UK, Australia, Canada and Iran (Hill, 2002; Sullivan & Chumbley, 2010). There is also evidence that the nursing education level is a factor for patient safety and quality of patient care (Aiken et al., 2008; Cheek & Jones, 2003; Danielson & Berntsson, 2007; Gerrish, 2000; Wellard, Bethune, & Heggen, 2007).

Generally, there is sparse literature on nursing education from the Malawian perspective. Turale, Ito and Nakao (2008) indicate that although nursing education practices may possibly share similarities; there are some distinctions from country to country because education operates in different cultural, social, political, historical and economic contexts. This underscores the need to explore learning for practice in the educational processes of the graduate nurses in Malawi. It is hoped that the findings will contribute to a body of knowledge in nursing education that specifically address issues of graduate nurse education from an African perspective. Findings may also provide additional insight into the teaching and learning approaches, styles and strategies currently being used in the education of graduate nurses in Malawi and also how graduate nurses perceive their BSN programme towards preparing them for clinical practice.

Furthermore, the results would provide evidence for curriculum change and could set the scene for curriculum innovations and integration of appropriate and progressive teaching and learning approaches. This could further enhance a professional climate that would build trust, promote communication and develop autonomy among graduate nurses. The enhanced professional climate would positively contribute to quality client care that would result in reduced morbidity and mortality rates. The results could form the basis of a model of professional competence and professional accountability necessary for nurses' clinical work in resource limited clinical settings.

1.4 STATEMENT OF THE PROBLEM

Learning for practice in the nursing profession is an absolute requirement if graduate nurses are to contribute to positive client outcomes in the delivery of nursing care. Anecdotal reports from stakeholders on low levels of clinical performance and poor patient management skills among graduate nurses in Malawi point to issues surrounding the educational preparation of nurses. This requires exploration and analysis of the educational processes in terms of nurses' acquisition of critical thinking abilities and the type of teaching and learning approaches that are deployed during their educational preparation.

If graduate nurses' level of performance is in question then the education processes must be examined. If the education level makes a difference on how graduate nurses practice, the stakeholders' observations of and concerns around graduate nurses must be taken into account and explored in terms of the educational processes currently being implemented. Traditional teaching approaches do not necessarily enhance learning for practice. It is postulated that, for the most, nursing students are exposed to traditional approaches and adopt a surface approach to learning, which does not readily facilitate reasoning, decision-making, critical thinking and problem -solving skills to enable them to function optimally in practice.

It is imperative then that aspects of their educational preparation are investigated and explored in terms of graduates' levels of critical thinking, teaching and learning approaches/styles and the educational experiences. How graduates and nurse educators, perceive their educational preparedness for practice thus becomes an important aspect of this investigation. Thus, how is learning for practice facilitated in the KCN BSN programme? The teaching and learning processes of over a period of five years between 2005 and 2009 were analyzed for the purpose of this research.

1.5 RESEARCH PURPOSE

The purpose of this two-phased study was to determine how graduate nurses at KCN learn for practice. Survey questionnaires were used in the first phase to examine nurse educators' teaching approaches/styles and graduate nurses' learning approaches and their levels of critical thinking upon graduating from KCN. This information was used as baseline data for the second phase. In the second phase interview guides were used to solicit the perspectives from nurse educators and graduate nurses regarding the concept learning for practice and their perceptions of the education that was offered and received respectively.

Specifically, the following research questions were posed:

a) What are the predominant teaching styles used by nurse educators in the BSN programme?
b) What are the predominant learning styles that BSN graduates had used during their period of study at KCN as nursing students?
c) How did BSN graduates /nursing students approach their learning with reference to motive and strategies?
d) What is the level of critical thinking abilities among nurses who graduated from KCN?
e) What is the quality of the nursing curriculum with reference to the MNMC's professional outcomes?
f) How do university nurse educators perceive the graduate nurses learning experiences for practice?
g) How do graduate nurses' perceive their own preparedness for clinical practice as a result of their BSN education programme?

1.6 OBJECTIVES

The objectives of this study were to:

Phase 1

- Determine the teaching styles employed by nurse educators in the BSN programme by using the Teaching Style Inventory Version 3.0 (Grasha).
- Determine the learning styles employed by the graduate nurses during the BSN programme using Grasha-Reichmann Student Learning Style scales.

- Through the use of the Biggs Revised Two Factor Study Process Questionnaire, determine the learning approaches (motive and strategy) used by graduate nurses during their BSN programme.
- Analyse the quality of the BSN curriculum in relation to the MNMC professional outcomes using a modified Quality Curriculum Evaluation Rubric.
- Determine the levels of critical thinking (CT) among graduate nurses according to a self-report CT scale (Watson- Glaser critical thinking appraisal form S).

Phase 2

- Explore nurse educators' perceptions of the BSN graduate education towards learning for practice.
- Explore graduate nurses' perceptions of their BSN education towards learning for practice.

1.7 DEFINITION OF KEY CONCEPTS

Theoretical and operational definitions of the key concepts in this study are as follows:

1.7.1 Learning for practice

Learning for practice involves the activity of obtaining knowledge, developing understanding and the application of a knowledge base or a repertoire of skills into practice (Phillips, McNaught, & Kennedy, 2010). In this study learning for practice refers to an organized classroom approach that promotes deep learning among individual learners in an effort to confront presuppositions in classroom learning, explore alternative perspectives, and renovate old ways for understanding and acting on new perspectives in practice settings.

1.7.2 Education process

An education process brings change in individuals and acts as a benchmark in assuring quality in learning because of the introduced forms of knowledge, skills and attitudes; it has a fundamental role in personal and social development (Delors, 1996; Maher, 2004). In this study education process means the process of imparting expertise and knowledge to individuals through teaching and learning approaches. In this study it will include the

curriculum, the teaching processes and the learning processes in the context of graduate (BSN) nurse education.

1.7.3 Traditional teaching approaches

Traditional teaching approaches are teaching approaches that are imposed on students where they are expected to passively and obediently receive and believe the content supplied by the teachers. Teachers are the instruments by which knowledge is transmitted (*Collins English Dictionary*, 2000). In this study traditional teaching approaches mean routine teaching approaches that encourage mostly surface approaches to learning subject content.

1.7.4 Graduate nurse

A graduate nurse is a nurse who has a university degree (Hornby, 2000). In this study a graduate nurse is a registered nurse who has obtained a 4-year Bachelor of Science in Nursing (BSN) degree from KCN at the University of Malawi.

1.7.5 Critical thinking

Critical thinking is defined by Watson and Glaser (2006) as attitudes of inquiry that involve an ability to recognize the existence of problems and an acceptance of the general need for evidence in support of what is asserted to be true. In this study critical thinking develops amongst students during classroom teaching when they establish inquiring minds on the issues of the subject content and its application to clinical practice.

1.8 OVERVIEW OF RESEARCH DESIGN AND METHODS

Research design and methods is core to the conduct of research because they guide the research process towards yielding scientific data. A research design is a plan that explains how the researcher intends to conduct the research study (Bryman, 2004). The design basically provides a framework for the collection and analysis of data and any choice of research design reflects decisions about the priority being given to a range of aspects in the research process (Sarantakos, 2005). However, research methods are associated with different types of research design. A research method is a technique for collecting data. The purposes of a research design and research methods vary depending on the nature and

purpose of the study, population, structure of research and ideologies. In this study the design and methods that were used are depicted in Table 1.3.

Table1.3 Outline of the design and methods

Study Objectives	Population Invited	Sample and Sampling	Data Collection	Data Analysis
PHASE 1: QUANTITATIVE DATA				
1. Determine teaching styles/ approaches used by nurse educators in BSN programme	Nurse educators N=50	Total population responded Sample n=44	Method: Questionnaire. Tool: Grasha Teaching Styles Inventory Version 3.0	Descriptive statistics: – Frequency tables – Mean – Standard deviation
2. Determine the learning styles/ approaches used by graduate nurses during study programme	Graduate nurses, 2005-2009 N=384	Total population Invited sample n=200	Method: Questionnaires. Tools: Grasha–Reichmann Learning Style Scales,	Descriptive statistics – Frequencies – Mean – Standard deviation
3. Determine learning approaches used by graduate nurses during study programme	Graduate nurses, 2005-2009 N=384	Total population Invited sample n=200	Method: Biggs Two Factor Revised Study Process Questionnaire	Descriptive statistics – Frequencies – Mean Standard deviation
4. Determine the critical thinking levels among the graduate nurses	All graduate nurses, N=384 2005-2009	Total population Invited n=200	Method - Questionnaire, Tool Watson-Glaser CT Appraisal Form S	Descriptive statistics – Frequency tables – Graphs – Mean – Standard deviation
5. Analyze the quality of the BSN curriculum in relation to the MNMC professional outcomes	Subjects in BSN curriculum document, N=21	Nursing subjects for years 1,2,3,4 n=21	Curriculum Rubric with likert scale of 1 to 3	Descriptive statistics – Frequency tables – Graphs – Mean – Standard deviation

Study Objectives	Population Invited	Sample and Sampling	Data Collection	Data Analysis
PHASE 2: QUALITATIVE DATA				
6. Explore nurse educators perceptions on the BSN education towards learning for practice	All nurse educators N=50	Purposive sampling n=12	Method- In-depth interviews , Tool- semi structured interview guide	Content analysis
7. Explore graduate nurses' perception on their BSN education towards learning for practice	All graduate nurses, N=384	Purposive sampling n=20	Method- In-depth interviews , Tool- semi structured interview guide	Content analysis

1.9 LAY-OUT OF THE THESIS

- Chapter one: "Orientation to the study", introduces the empirical basis of the study and outlines the background to the research process in order to answer the research questions.
- Chapter two: "Literature review", examines literature to gain an in-depth understanding of aspects regarding nursing education processes for graduate nurses.
- Chapter three: "Research design and methods", describes the research design, strategies and methods of the study.
- Chapter four: "Results from phase 1", presents the study findings in relation to the research questions and objectives of phase 1.
- Chapter five: "Results from phase 2", presents the study findings in relation to the research questions and objectives of phase 2.
- Chapter six: "Integrated discussions of the results", an integrated discussion of phase 1 and phase 2 study findings.
- Chapter seven: "Main findings, Conclusions and Recommendations" are made for operationalisation in nursing education.

1.10 CONCLUSION

This chapter provided an overview of and the background to the study including an introduction to the concept learning for practice. Learning for practice is a pre-requisite for the delivery of quality client care resulting from deep approaches to learning. A deep approach to learning is fundamental to the development of critical thinking and clinical judgment as core elements in professional practice. The rationale for conducting the study has been outlined as the generation of knowledge that may provide insight into ideal teaching tasks and learning approaches in the BSN programme.

The problem statement incorporates the concerns and observations regarding the low levels of clinical performance among graduate nurses at KCN. The research purpose and objectives are stated to show what processes will be studied to determine if the graduate nurses' learning experiences reflect learning for practice. In the following chapter, the relevant literature reviewed will be presented.

CHAPTER TWO
LITERATURE REVIEW

2.0 INTRODUCTION

During the literature review process, literature on learning for practice was examined in order to determine and understand its aspects in relation to the processes for BSN graduate education. In this chapter an overview of nursing education internationally and nationally is provided; perspectives of higher education as part of graduate nurse education, deep learning with teaching and learning efforts and intentions are discussed to provide a conceptual understanding of learning for practice. Curriculum perspectives of the four pillars of learning, critical thinking and metacognition concepts are examined in relation to learning for practice. Some approaches that may promote deep learning as a pre-requisite to learning for practice are also discussed.

During the search strategy initially, an advanced search in Pubmed health electronic database was made through Boolean logic with key words of "Classroom learning AND Practice in nursing education not electronic learning". In total 210 entries yielded both relevant and non relevant items. Inclusion criteria for the selection of items comprised items that focused on classroom teaching, learning, learning styles, teaching thinking, critical thinking, pedagogy, and fitness for practice. The period of publication was also used as inclusion criteria with the aim of obtaining articles from around years 2000-2012. However, in some cases articles of around the 1990s, especially between 1995-1999 where these appeared relevant and important for the study, were also used. The search was also conducted with other key words like "teaching AND nursing education," which yielded 1092 entries; "teaching AND learning in nursing" yielded 1491 entries, which were both relevant and not relevant. A substantial number of sources were identified through the ancestry approach. This involved using citations from relevant articles or books to track other relevant literature sources (Polit & Beck, 2008)

2.1 OVERVIEW OF NURSING EDUCATION

International, regional and national issues, in line with the unmet health needs and local backgrounds of societies and communities influence how health and nursing education systems are organized around the world (WHO, 2010). This is why there is a growing universal demand for well prepared professionals in all disciplines documented in the writings of Hilton and Pollard (2005); Canadian Council on Learning (2006); World Health Organization (2006); Carnegie Foundation for the Advancement of Teaching (2006); Tanner (2010); Hanna (2011) and Derbyshire and Machin (2011).

The universal demands placed on the nursing profession require educators to recognize the significant professional roles of graduate nurses in an effort to improve nursing education outcomes ideal for the 21st century. Consequently, improvement of nursing education trends involves innovations in nursing education outcomes that can lead to excellence in nursing practice. Excellency in nursing practice entails risk taking, creativity, problem solving and critical thinking (Neuman, Pardue, Grady, Gray, Hobbins, Edelstein & Herman, 2009). To this end Barr and Clark (2011) wrote that improved students' academic performance and learning in higher education is a major concern in society that has to be tackled.

However, Braslavsky (2001) indicates that the society expects other people to learn in order to have abilities to think and make decisions affecting the societies after going through an education system. This is because the social and economic changes require adaptation in dealing with the advantages of change. There is a need therefore to change how graduate nurses are educated in order to adapt to the changing demands of practice (Benner, Sutphen, Leonard, & Day, 2009; Day, 2011; Institute of Medicine, 2010). In support Mailloux (2011) advocates for the use of the essentials of Baccalaureate education for professional practice as a framework for curriculum revision. The essential of Baccalaureate education as a curriculum framework emphasizes a graduate nurse who is able to know, to do, to live together, and to be (Lawale & Bory-Adams, 2010). The doing, knowing and being are similar to the prospects of the UNESCOs' four pillars of *learning to know, learning to do, learning to live together* and *learning to be.* The essentials of Baccalaureate education are hallmarks of curriculum revision to improve learning. Nurse educators must ensure that

there is integration in the teaching and learning styles/methods to promote learners' understanding in clients' needs and problems in practice. The process of understanding results in reasoning, problem solving and critical thinking as professional outcomes. Effective teaching enhances understanding and improves learning for practice (Biggs & Tang, 2007).

If graduate nurses are to learn for practice then the teaching should stimulate the threshold of their minds so as to enhance the application of knowledge to practice settings. The entering of the threshold of one's mind entails mastery and insight into the subject content. Therefore, nursing education as an important universal component of health care education should foster the development of a cognitive ability framework within the BSN programmes to promote learning for practice. This is because nurses take care of patients and clients in dynamic settings; hence the design of all educational processes for professional nursing must promote reasoning and thinking as essentials of the BSN curriculum (Benner et al, 2010).

Essential in curriculum development is therefore, the recognition of reasoning, problem solving, critical and creative thinking skills and the roles they play in the development of clinical reasoning skills for nursing practice. It is important to note that the choice of any learning paradigm drives nursing education to be either a liberating or an oppressive experience (Anderson, 2001; Keating, 2006).

2.1.1 International Perspectives

Internationally, there is focus on quality, safety and competence in nursing education among graduate nurse education as advocated by Piscotty, Grobbel, and Tzeng (2011); the Institute for Health Care improvement (2010); the Institute for Safe Medication Practices (2010) and Leapfrog Group (2010). Nursing education is viewed as an essential education programme internationally in line with statutory requirements. To this end the American Association of Colleges of Nursing (2008), argued for BSN programmes to provide stronger subject content bases in the humanities and sciences, which help in the building of the analytical and creative capacities. Analytical and creative skills are concepts in critical thinking that Watson and Glaser (2006) have described as abilities to make inference, recognition of

assumptions, deductions, interpretations and evaluation of arguments. These are abilities that promote decision making in practice settings and facilitate independent decision making. The International Commission on Education for the 21st century proposes the four pillars of *learning to learn* to attain positive educational outcomes (Delors, 1996; Lawale & Bory-Adams, 2010). The four learning pillars in *learning to learn* concept would build ground for fitness for practice in nursing education because each pillar enhances the developing practitioner into an independent individual with all the necessary competencies. *Learning to learn* is significant if nursing education is to produce the desired positive educational outcomes of learning in any educational endeavor. It is proposed that the BSN nursing curriculum be designed around the four pillars of learning. These include;

- *learning to know*; is when learners are expected to acquire understanding in the learning situation,
- *Learning to do*; for the application of knowledge in the environment;
- *Learning to live together*; for cooperation with other people in all activities and;
- *Learning to be,* for the development of the full potential of a total person (Nanzhao, 2000).

In support of the *learning to know* concept the Institute of Medicine (2010), points to the need for transformation in the way nurses are being educated in order to meet the diverse health care needs of clients. To this end Benner et al (2010) and the National League of Nursing (2005) argue that it is imperative for the nursing profession to plan seriously how a knowledge base could be designed for developing quality and relevant models of nursing education. The education of graduate nurses should reinforce understanding of subject content with its application to complex situations for quality safe practice. *Learning to live together* demands that graduate nurses as care givers must promote cooperation among colleagues, clients and be responsible citizens if they are to advance nursing knowledge internationally. Therefore, teaching and learning strategies for such type of achievements need to take into consideration the diversity of the teaching styles, learning styles and approaches among learners/nurses.

Learning to do aspires to connect knowledge, skills and competencies which are pre-requisites for learning for practice. Learners may be able to face uncertain worlds and also enhance the nature of work experiences if they are supported to learn to do in any educational encounter. *Learning to be* reflects on the importance of the development of reasoning and thinking among learners. Several researchers have questioned how nursing education programmes promote the acquisition of nurses' knowledge and skills that are needed to practice nursing (Cheek & Jones, 2003; Danielson & Berntsson, 2007; Gerrish, 2000; Wellard, Bethune & Heggen, 2007). This is because lack of thinking and reasoning skills is associated with inadequate acquisition of appropriate knowledge.

The acquisition of knowledge that is based on the four pillars of learning to learn as essential elements in the learning tasks would be popularly known as learning for practice. This is because the teaching and learning of student nurses' is in an organized classroom mode. There is also attainment of knowledge base which is believed to be critical for safe and competent delivery of client care. Chung, Wong and Cheung (2008) are of the view that work place realities require nurses to be competent in performing nursing activities and provide a forum for reality-based learning to nurture students to become registered nurses (RNs). The preparation of RNs varies from country to country depending on social-cultural factors and starts from Certificate, Diploma to Associate degree and baccalaureate degree (American Association of Colleges of Nursing, 2010). Turale, Ito and Nakao (2008) maintain that nursing education practices may share similarities while at the same time there are some distinguishable differences from country to country. It is well documented that RNs with a BSN degree internationally are presumed to be well prepared to meet the demands placed on them. This is because it is believed by nurse researchers that education has a strong impact on RNs ability to practice (Aiken et al., 2008; Friese, Lake, Aiken, Silber, & Sochalski, 2008; Van den Heede et al., 2009). The strong impact on the ability to practice results from the reasoning, thinking, problem solving and decision making abilities that emanate from the developed analytical and critical minds. The evidence shows that nursing education level is a factor in patient safety and quality of care (Aiken et al., 2008; Cheek & Jones, 2003; Danielson & Berntsson, 2007; Gerrish, 2000; Wellard et al., 2007).

Some studies were done in several countries to determine how nurses were prepared for practice; following dissatisfactions with the performance in clinical settings in the USA Carnegie Foundation for advancement of teaching, United Kingdom, Canada, Australia and Iran (Hill, 2002; Sullivan & Chumbley, 2010). Stakeholder observations on RN preparation in Malawi relates to the international perspectives because quality, safety and competences are outcomes of nursing education. Nursing education processes are vital to the acquisition of the professional roles of graduate nurses as the American Association of Colleges of Nursing, (2008); Institute for Safe Medication Practices, (2010) and Institute for Healthcare Improvement, (2010) indicate quality, safety and competences are essential educational outcomes. Quality, safety and competence acquisition is attributed to reasoning, creativity and thinking on the part of the individual. Watson and Glaser (2006) identified analytical thinking as a pre-requisite to essential job function because critical thinking was conceptualized as a combination of knowledge, skills and attitudes.

As nursing education progresses internationally in the twenty-first century new directions in curricular design particularly in teaching and learning are required. This new direction for change is for the maintenance of a high standard of nurse who can be adequately prepared intellectually to perform in clinical practice. The literature by Endacott, Scholes, Buykx, Cooper, Kinsman & McConnell-Henry (2010); Scott, (2010) suggest that some curricula have contributed to diluted acute care skills of newly qualified nurses and doctors. This was because there was little evidence on the type of interventions offered by the professionals to significantly indicate that there were recognized cues that had prompted actions on the part of the nurse practitioners in clinical settings. Lack of acute care skills is an indication of the need to consider the integration of the *learning to learn* concept into nursing curricula for reinforcing teaching that promotes concrete learning experiences in practice.

Studies by Aiken, Clarke, Sloane, Lake and Chwney (2008) and Aiken, Clarke, Cheung, Sloane and Silber, (2003) found that nurses prepared at BSN level had higher levels of job satisfaction in the clinical settings, and that there was a clear link between higher levels of nursing education and better patient outcomes among clients. If indeed learning for practice could be perceived as a treasure within the BSN curriculum; the education of graduate

nurses in Malawi would be vitally important in promoting intellectual rigor, courage and pride along with technical skills and scientific knowledge plus compassion on which routine care would be based (Zhou, Nanzhao, & Sun Yunxiao, 2001;D'Antonio, 2004).

Universities claim they provide broad and comprehensive preparatory education for the development of beginning, rather than competent or expert practitioners who are critical, reflective and committed to lifelong learning (Levette-Jones, 2005). In this line Brooks and Brooks (2001) confirm that there is an intimate relationship between the process of the actual learning experiences and the type of education. This is because the knowledge base acquired has to reflect the anticipated professional roles and outcomes. It is important to note that internationally, any effective nursing education process moves on three successive levels of learning. According to Frenk, Chen, Bhutta, Cohen, and Serwadda (2010), these are informative, formative and transformative learning levels. The three successive levels of learning ensure that the developing professional acquires the integrated skills pre-requisite to professional roles and outcomes.

These three successive levels of learning correspond to the three dimensions of apprenticeship as founded by the Carnegie National Nursing Education study (Benner et al., 2010). The first level of informative learning relates to learning of theory and scientific methods that can be used and applied in practice settings. Informative learning focuses on acquiring knowledge and skills and produces experts for practice as a requirement for professional practice. This level also relates to the first and second pillars of learning to know, and learning to do, where the constructed knowledge base is to be applied appropriately in practice settings. Learning for practice relates to this level and demands the use of appropriate teaching and learning styles/approaches that would facilitate the acquisition of the information that is to be applied in practice.

Formative learning relates to the mastery of skilful practice. This in turn promotes the production of a professional who is socialized around professional values to deliver safe quality care. Professional values enhance ethical practice and are crucial to professional practice and are promoted through critical thinking skills. Ethical practice may be enhanced

when there is an ability to make inferences, recognize assumptions, make deductions, interpretations and evaluate arguments in practice. Formative learning is in line with learning to live together as a pre-requisite to self-awareness and self-management that facilitates therapeutic relationships.

Transformative learning relates to the formation of professional identity and agency to promote the development of leadership with the purpose of producing enlightened change agents within the practice arena. Graduate nurses assume leadership positions soon after qualifying therefore, their socialization should be around professional values in any learning endeavor to promote inform change within the practice settings. Leadership and becoming a change agent is essential in the training of graduate nurses because the ethical comportment provides professional identity (Benner et al, 2010).

All three successive learning processes are essential in learning for practice and can be part of the four pillars of learning to learn. The use of the three successive learning processes in graduate education may enhance the development of positive professional outcomes. The positive professional outcomes that may emerge in graduate nurses are critical thinking, clinical reasoning, clinical judgment, and confidence in reason, creativity and inquisitiveness. These positive professional outcomes match the Watson-Glaser critical thinking attributes of inferences, recognition of assumptions, deductions, interpretation and evaluation of arguments (Watson & Glaser, 2006).

Frenk et al (2010) refer to three generations of educational reform that have occurred in professional education internationally in view of the recommended professional outcomes for the twenty-first century. These are; a first generation science- based curriculum; second generation introduced problem based instructional innovation and third generation which is system- based for improving the performance of health systems; by adapting the core professional competences to specific contexts while drawing on global knowledge. The educators are to be mindful specifically in Malawi of these generations so that the educational outcomes of the BSN programme respond to the ideal generation reform of the

21st century. The notion supports what Bruce et al (2010) have proposed on the need to include generational diversity in nursing education programmes.

However, the transformation of the educational processes would be envisioned in conjunction with the educators' willingness to transform the approaches of teaching and learning in line with the four pillars of *learning to learn* and the three dimensions of the apprenticeships proposed for the preparation of RNs. This is in response to the international reforms; Day, (2005) and Benner and Sutphen, (2007) argue that education that involves current challenges is kept alive and relevant to students' meaningful learning in practice settings. The international scene has set pace for reform in the educational curricula for professional nurses and the educators have an obligation to construct and align the nursing curriculum with the aim of meeting the four pillars of learning to learn in each and every country (Day, 2005) and Benner and Sutphen, 2007).

2.1.2 National perspectives

This section gives an overview of nursing education in Malawi. Malawi is a landlocked country in eastern and central Africa, south of the equator. It covers a land area of ninety-four thousand (94,000) square kilometers and a lake area of twenty-nine thousand (29,000) square kilometers. The country is divided into three administrative regions, the North, Central and South. Each region contains a number of smaller subdivisions known as districts; in total there are twenty-nine districts. The three major cities are Blantyre, Lilongwe and Mzuzu situated in one of each of the regions.

The population of Malawi is approximately fourteen million, with an annual growth rate of 1.9% Malawi National Health Plan (2010). The mortality and morbidity rates are high, thus the infant mortality rate is 69 per 1000 live births, less than five years old mortality is 122 per 1,000 live births, and the maternal mortality rate is 675 per 100,000 live births and the average life expectancy stands at 44 years. Despite the primary health care approach, Malawi has a continuing disease burden.

The continuing disease burden in Malawi requires well prepared nurse professionals who have the capacity to deliver quality care at the bedside most of the time as the nurses' role in health care is critical. However, the education and training of nurses in Malawi has been influenced by a number of factors as discussed in the text that follows.

2.1.2.1 Nurse Education in Malawi

Two categories of nurses are trained in Malawi: registered nurses (RNs) and enrolled nurses. The education and training of RNs started in 1965 at the Queen Elizabeth Central Hospital under the Blantyre School of Nursing; the programme was a three year certificate in nursing. The training of enrolled nurses was the first to be introduced, and was commenced in 1956 with the support of the missionaries. Enrolled nurses' training spans over two years and at completion they are enrolled in a roll register with the Malawi Nurses and Midwives Council.

The move to educate and train registered nurses at tertiary level in Malawi led to the establishment of the Kamuzu College of Nursing (KCN) in 1979 as part of the University of Malawi. The college has one main campus in Lilongwe and a satellite campus in Blantyre. The first programme, introduced in 1979, was a three year diploma with an additional one year certificate in Midwifery leading, at completion, to qualification as a registered nurse-midwife. The discontinuation of the Diploma programme led to the inception of the BSN programme.

The four year Bachelor of Science in Nursing (BSN) degree programme was introduced in 1996 with the first nursing graduates completing their training in the year 2000. The first group had a prolonged duration due to financial constraints that resulted from poor government funding to the university institutions. The majority of these nursing graduates are deployed in a variety of settings throughout Malawi. The two categories of nurses are deployed in central and district hospitals to provide patient care. In the practice environment RNs take on leadership roles in the management of patients/clients while enrolled nurses have subordinate roles and work under the supervision of RNs. The MNMC prescribes professional outcomes that include clinical reasoning, clinical judgment, and confidence in

reason, creativity, reflection, and inquisitiveness (see appendix T). According to Alfaro-LeFevre, (2009) these are critical thinking traits core to professional role.

The goal of traditional nurse education in Malawi is to teach specific knowledge, skills and appropriate attitudes in order for student nurses to attain certain behaviors, attitudes and work as defined by the University of Malawi Educational Act of 1974 amended in 1998 and the Nurses and Midwives Act no. 16 of 1995 as amended in 2008. The BSN degree is a four year programme that starts with foundation courses at first year and the core nursing courses start in the second year and continue through to fourth year. The teaching is done in blocks of between four to six weeks, the theoretical teaching accounts for one third of the total curriculum time and clinical time accounts for two thirds of the total programme time. Students rotate in several clinical placements during training to fulfill the stipulated Council minimum hours.

2.1.2.2 Professional regulation in Malawi

Professional regulation for practicing nurses is operational in Malawi to protect the citizens from malpractice and negligent acts in practice. The Malawi Nurses and Midwives Council has the mandate to regulate the profession of nursing under the jurisdiction of the Nurses and Midwives Council Act No 16 of 1995 as amended in 2008. The Council oversees all the educational preparatory requirements of RNs and enrolled nurses. In this regard several essential services are operational within the Council secretariat nursing training and these include;

- Indexing all prospective candidates coming to nursing colleges and schools to ensure that the applicants have the minimum requirements permissible to train as nurses. The requirements comprise the secondary school certificates with passes in biology, physical science, mathematics, English, any two other subjects and personal good health.
- Prescribing syllabi with core nursing content specify times as minimum hours for the required standard for completing the programme and professional outcomes.
- Evaluating and monitors the implementation of the curricula through monitoring visits to the training institutions and has the mandate to close all training institutions that do not

meet the prescribed minimum requirements. All training hospitals also have minimum standards that have to be fulfilled before nursing students can have clinical placements.

- Administers council final examinations to all indexed nursing students at the end of each training duration. Only those nurses who meet the minimum stipulated requirements and pass the Council examinations are licensed to practice at the end of their training.
- All qualified nurses are entitled to an annual registration every year and this is mandatory to all practicing nursing in Malawi for nurses to practice legally.
- All the curricula professional outcomes from the training colleges are to be in line with the MNMC professional outcomes (Appendix T).

2.2 THEORETICAL PERSPECTIVES

The theoretical underpinnings that have guided the descriptions of teaching and learning processes of the graduate nurses are from the UNESCO's four pillars of learning to learn in line with the constructivist epistemology. Bargh and Chartrand's (1999) writings reflect that the learning to learn concept was in existence in the education sector since the late 1970's and early 1980's. The learning to learn concept is defined by the European Commission Council (2006) as the ability to pursue and persist in learning, organize one's own learning, through effective management of time and information, both individually and in groups. The concept was adopted universally following the challenges and demands in the education context and work places in light of the guiding principle of learning throughout life. In view of the four pillars of learning to learn it was argued that if education was to succeed, the curriculum had to be restructured and re-built on the four pillars of learning to know, learning to do, learning to live together and learning to be.

Constructivist epistemology is the basis for understanding the impediments learners confront in learning new knowledge (Hyslop-Margison & Strobel, 2008b). Essentially, the constructivist approach is the process to learning that focuses basically on language and problem solving which learners need in order to attain the expected learning outcomes. Ironside (2003a) contends that when learners apply knowledge in practice situations, it is assumed they provide evidence of their thinking and that the outcome of thinking is of central importance in learning for practice. The constructivist approach is therefore believed

to create a context within which learners may explore new learning ideas and experiences for thinking while learning for practice.

Student empowerment is at the centre of the constructivist teaching philosophy, and empowerment enhances students to engage in learning and have control over their own thinking (Ironside, 2003b; Piaget, 1977). Student engagement as a process results in the development of critical thinking, clinical reasoning, decision making, problem solving and self awareness as attributes of learning for practice. The new possibilities for teaching thinking in nursing classrooms are in the writings of Andrews, Ironside, Nosek, Sims, Swenson, Yeomans & Diekelmann (2001); Dahlberg, Ekeberg, & Ironside, (2003); Diekelmann,(2001); Swenson and Sims, (2000) and Ironside, (1999a, 1999b) they signify the importance of problem solving and decision making in nursing practice.

2.2.1 The Conceptual Framework

The conceptual framework for learning for practice is a nursing curriculum graphically represented by a house built on the four pillars: *learning to know, learning to do, learning to live together and learning to be* (Lawale & Bory-Adams, 2010). A curriculum is critical in affecting educational quality and learner achievements because the efforts in translating educational goals into learning materials, activities and observable changes emanate from the curriculum (Keating, 2006). The concepts reasoning, critical thinking, decision making and problem solving are treasures within the curriculum house of learning for practice, emanating from deep learning because they are believed to a promote high level performance among graduate nurses in practice (see Figure 2.1).

The four pillars represent the four main goals that should be attained in the educational processes of graduate nurses. Thus graduate nurses need to *learn to know* nursing as a caring profession, *learn to do* all the nursing tasks, *learn to live together* as they work in teams and in collaboration, and *learn to be* professionals as they provide ethical care while performing at the expected high levels in practice settings. Therefore using the four pillars of learning as principles and broad themes is an approach for setting goals, learning

outcomes, selecting key curriculum concepts and competences, integrating relevant knowledge, skills and values across the learning domains.

ll

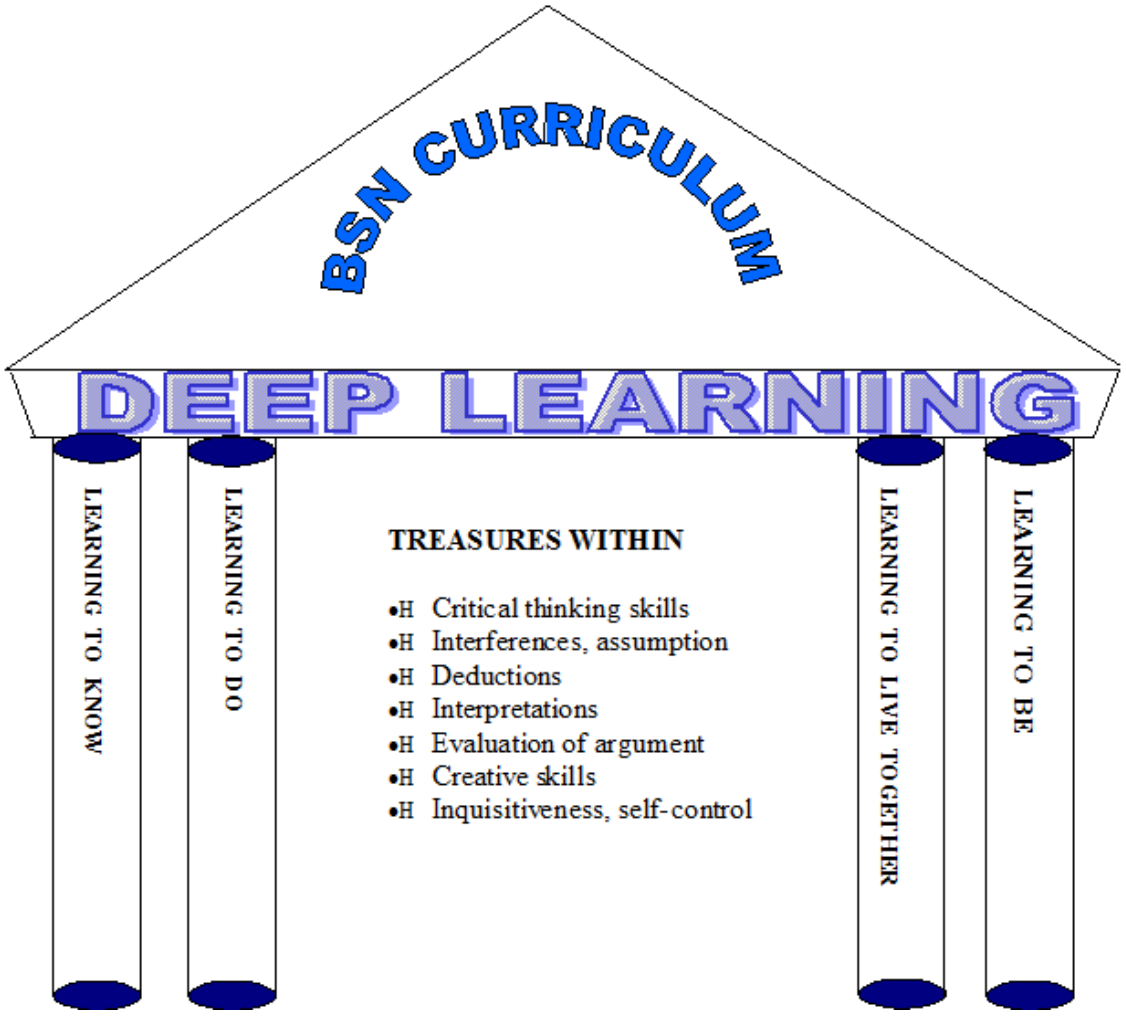


Figure 2.1 A conceptual framework for learning for practice adopted from UNESCO 2004.

2.2.1.1 Learning to know

The *learning to know* pillar according to Lawale and Bory- Adams (2010) enhances thinking by stimulating an individual's memory, reasoning ability to think in critical ways, with the aim of finding solutions to problems and complex situations. In a learning for practice

curriculum, the *learning to know* pillar is a means and an end in itself for facilitating the education of graduate nurses. As a means the *learning to know* pillar serves to enable learners' understanding of subject content. This can be attained through sound teaching and learning styles and approaches that learners are exposed to during the learning process. Teaching and learning styles and approaches are crucial in leading to mastery of subject content and insight to practice in dynamic settings. Mastery and insight in the *learning to know* process results from memory development, which is enhanced when there is learning engagement. Learning engagement facilitates abilities to reason and think in a coherent and critical way from the instruments of knowledge bases. The success of this process depends on sequencing the subject content in a curriculum, teaching and learning styles. Problem solving abilities and imagination arising in learners is evidence of knowledge construction and use of knowledge in context, reflecting knowing and understanding of the meaning of the content.

As an end the *learning to know pillar* allows the learner to experience the process of learning the subject content for understanding and discovery through personal learning transformation ideal in learning for practice. The *learning to know pillar* facilitates and endorses the acquisition of a knowledge base; in the form of conceptual knowledge, procedural knowledge, personal knowledge and professional knowledge. This knowledge base helps learners' with the mastery of knowledge throughout life while not promoting the acquisition of structured knowledge that can lead to memorization of subject content through rote learning (Hoskins & Crick, 2008). The knowledge base is readily available to be applied in practice settings because the learning content and methods which are reorganized in an integrated approach help learners to develop the range of capacities (Gardner, 1999).

The *learning to know* pillar creates support for the constructivist epistemology because individual learners have to know the subject content in order for them to construct meaning. The construction of new learning ideas develops in learners' minds through a series of related supportive teaching and learning activities. The constructed meaning enables the learners to take risks and generate hypotheses from the learning context. The process enhances remembrance, imagination, interpretation, problem solving and ability to think in a

critical and coherent way. This is because the learner engages in the learning dialogue with the power to concentrate, memory and thought of knowing the subject content (Nanzhao, 2000). Integrating the *learning to know* pillar and the constructivist epistemology views in a nursing curriculum may enhance learning for practice among learners.

However, the acquisition of knowledge is not a simple matter among the graduate nurses. The educators' role is to support the learning context in the implementation of a sound BSN curriculum that is founded on the four pillars of learning to learn. Learner empowerment is a pre-requisite in learning for practice because Vygotsky (1978) seminal work postulates that individuals acquire knowledge through two kinds of activities: interpsychological and intrapsychological. The two kinds of activities have implications for learning in that teachers should design activities that promote interpersonal and intrapersonal dialogue on concepts and ideas introduced in a learning situation. Educators need to be familiar with the curriculum subject content, teaching and learning approaches/styles that empower learners' to enhance the development of personal transformation in learners. Learning internalization is core to learning for practice as the application of knowledge is pre-requisite to the development of reasoning, critical thinking and creativity. Reasoning, critical thinking and creativity are constructs for learning for practice embedded in the first pillar of learning to know.

2.2.1.2 Learning to do

The *learning to do* pillar entails the ability of learners to communicate effectively with others not just professionally but also with personal competence in problem -solving, decision- making, innovation and risk–taking (Nanzhao, 2000). The nurse-client relationship depends on effective communication which is core to a therapeutic relationship. Communication is core to any human relationship and interaction; graduate nurses interact with clients and communities. The successes of these interactions depend on the decision making process, problem solving and innovative abilities that can result from mastery and insight derived from knowledge. Communities expect graduate nurses to apply what they have learnt to practice settings reflecting safety and competency. Therefore, the teaching and

learning approaches that graduate nurses utilize in learning must enhance the construction of knowledge base that may facilitate effective communication for practice.

The *learning to do* pillar fits well in learning for practice as a goal of the nursing curriculum is the delivery of quality care dependent on good communication and competence. The *learning to do* pillar as a guiding principle dictates competence in effective communication, competence in collecting, selecting, processing and managing information. The ability to communicate effectively in nursing is core to the professional role because clients expect nurses to give them hope despite the prognosis of ailments they suffer. Nurses also work in teams, with colleagues, deal with risks and uncertainty, requiring sound interpersonal relationships with well developed critical thinking. Collaboration with colleagues and the use of values clarification to communicate effectively demand sound decision making, problem solving and innovations. This implies competency in transforming a subject knowledge base into innovations and job related responsibilities among graduates in practice.

Despite the claims that knowledge is constructed by the learners, true teacher-student and student–student interactions enhance a dialogue that is important in knowledge construction. This is because knowledge construction depends on cognitive level performance and has to be supported by prior knowledge through innovative teaching and learning approaches. The construction of knowledge has complex epistemological perceptions which have implications for classroom teaching and learning. Educators must be mindful of the multifaceted epistemological views in the teaching and learning of graduate nurses in the BSN programme in an effort to promote learning for practice.

In this study, the complex epistemological views for the learning to do pillar are deep learning through self-directed learning, self-regulation, reflective learning, and metacognition. If learners' are expected to *learn to do* they need to be self-directed so that they can engage in learning. Engagement in the context of teaching and learning implies active learner participation. The early writings of Phillips (1995) argue that constructivism is the active participation of learners that predisposes learners to classroom participation. In

active participation there is subject matter engagement, which results in self-regulated learning. Despite the fact that constructivism has a tendency to favor epistemological relativism with the unfortunate elimination of substantial expectation for rational justification of student beliefs. It is believed that learning empowerment may occur in any classroom setting where students make claims of facts, or offer opinions that teachers fail to question or when no evidence is required on the part of the learner to support their positions (Hyslop-Margison & Strobel, 2008b).

Dewey (1929) in his seminal work expressed the views that thinking is the intentional endeavor to discover specific connections between something which we do with the consequences that result as the two become continuous. Further, thinking is equivalent to an explicit rendering of the intelligent element in our learning experience that makes it possible to act with an end in view thus *learning to do.* The aim of the learning engagement is to enhance thinking as an intentional outcome in the education process of the graduate nurses to learning to do as a requirement for learning for practice.

2.2.1.3 Learning to live together

Learning to live together, advocates for a curriculum in graduate education that promotes the development of knowledge and understanding of self; appreciation of diversity and awareness of similarities, cooperative social behavior in caring and sharing. Knowledge and understanding in the self is core because the discovery of self increases individuals self-awareness which is the source of emotional intelligence in practice settings. Emotional intelligence promotes reasoning, empathy and respect for other people.

In this pillar the principles that are fundamental are values clarification due to the ethical comportment which is necessary for application in practice settings. Systems thinking development in the pillar enhances problem solving, innovations and decision making in practice. Respect for diversity and differences again are crucial in learning for practice as graduate nurses must appreciate personal territories of individual clients. This therefore could be viewed from a pragmatic viewpoint of curriculum design The BSN curriculum must be seen as process and product comprising all learning and other experiences the BSN

graduate programme would plan for its graduates. Ethical care is what most clients appreciate and is a professional requirement in the 21st century (Benner et al., 2010).

Ethical comportment in nursing practice is fundamental to caring attributes among graduate nurses. However, dialogue, participatory and situated learning are the attributes in learning for practice to facilitate reasoning, thinking and innovations necessary for collaboration, which is central to the professional role of any graduate nurse. Self-directed learning, self-regulation learning and reflective learning world views would help to prepare graduate nurses with a sound work ethic to manage complex client needs and problems. The *learning to live together* pillar in a curriculum therefore, speaks to the mandate that the teaching and learning approaches/styles offer opportunity and responsibility to learners to extend curriculum and the pedagogy to classroom and practice reality.

The three principles in *learning to live together* pillar are core to professional practice role of graduate nurses and the pillar is important in modeling sound ethical practice. Values clarification and respect for diversity and differences concern ethical practice and is an important curriculum and professional outcome. To have a clear vision of a graduate nurse education in Malawi is crucial this time especially in terms of what high quality nursing education is and what can be done to meet set standards despite the exigency. Therefore, in learning for practice the teaching and learning approaches and styles used must reinforce the issues of *learning to living together* among graduate nurses.

Graduate nurses' interactions within communities must leave an impact on their minds if health promotion is to forge ahead amidst the high disease burdens in Malawi. The *learning to live together* pillar must lie at the center of any graduate nurse curriculum in an effort to promote positive and effective habits of mind among graduate nurses. Critical thinking skills and abilities are fundamental to the *learning to live together* pillar; because human beings are adaptive and social beings.

2.2.1.4 Learning to be

The *learning to be pillar* may be interpreted as learning to be human through the acquisition of knowledge, skills and values conducive to personality development. The pillar was first conceptualized in the 1971 UNESCO report with the aim of out living the fear that the world would be dehumanized due to technical change (Nanzhao, 2000). Graduate nurses' educational processes socialize them to develop a professional personality that is in line with caring. Therefore, all dimensions of intellectual, moral, cultural and physical dimensions must be considered when designing a BSN curriculum to promote the acquisition of appropriate professional identity among the graduate nurses. The learning content, desired teaching and learning approaches and styles might possibly be reorganized and integrated in teaching in such a way that the learners develop a range of capacities. Benner et al (2010), and Sullivan and Rosin (2008) call for radical changes in nursing education that offer understanding to a curriculum, pedagogy and pathways to licensure.

The emphasis of the *learning to be* pillar is on freedom of thought, judgment, feeling and imagination to develop talents and keep control of life (Nanzhao, 2000). Even in learning for practice learners have freedom of thought to act rationally, are able to make judgments in quality of care offered to clients; develop feelings for caring and imagination of what sound care looks like to prevent unprofessional conduct. All this requires that the curriculum cultivate qualities that are creative and imaginative among the graduate nurses through teaching and learning approaches.

Sound teaching and learning would result in the development of reasoning, critical thinking, decision making, problem solving, aesthetic reasonableness, dedication, responsibility and personal integrity of graduates. Graduate nurses' professional integrity is of value to the professional image of nursing hence teaching and learning must promote the learning to be pillar in all its aspects. Educators and graduate nurses must therefore articulate their understanding in graduate education with the same voices and identify the impediments of the profession with zeal (Sullivan and Rosin, 2008).

2.2.2 Treasures within the pillars of learning to learn

The four pillars of *learning to learn* support and are interlinked with one another as basic principles with cross cutting themes and competences for integration in the BSN curriculum. The four pillars of the *learning to learn* form the basis for the analysis of the educational processes of the graduate nurses. The treasures within the pillars of learning for practice curriculum are abilities in making inference, assumptions, deductions, interpretations and evaluating arguments. These abilities promote the development of reasoning skills, critical thinking skills, decision making skills, problem solving skills, self-confidence, creativity skills, personal integrity, responsibility, aesthetic reasonableness, risk taking, inquisitiveness and dedication. The treasures and pillars of the *learning to learn* would enhance the preparation of graduate nurses with a professional identity and ethical comportment ready to take their professional roles due the developed abilities.

This is because the four pillars and the treasures within have relevance to the education and professional outcomes of graduate nurses. The literature by Hoskins and Crick (2008); Lawale and Bory- Adams (2010); Hautamaki, Arinen, Eronen et al (2002); Zhou (2001) emphasize the importance of curriculum change due to the consolidated trends that have occurred in education over the years. The reported trends include changes in occupational profiles, social inequalities, diversity between individuals and communities, education to satisfy needs, advances in biotechnology and impact of technology on the environment.

The stakeholder concerns and observations at KCN require graduate nurses to develop the abilities to act and think rationally. There is a need to strengthen teaching and learning approaches/styles in line with nursing values. The philosophical base of the BSN curriculum therefore includes self-directed learning, self-regulation learning and reflective learning to facilitate the active construction of meanings among graduate nurses.

As nursing education progresses in Malawi, graduate nurse education has to promote learning within the treasures of the learning to learn pillars in an effort to promote learning for practice. Jones de Saram (2005) states that the ability to learn on one's own has become a prerequisite for living in a dynamic world of rapid change. Learning within the treasures of

learning for practice would enhance the performance levels of graduate nurses through personal learning transformation. The abilities in reasoning, critical thinking, decision making and problem solving follows the self-diagnosis, self observation and self-evaluation processes of self-regulated learning and self-directed learning. Asp and Fagerberg, (2002) cite World Health Organization's directive number three that supports education that enables learners to be aware of the mission of the nursing profession in any context. Awareness and visibility of the nursing profession's mission is a mandate in any nursing professional education process to culminate the desired learning outcomes. The curriculum should therefore, create an organizational culture and environments that consider teaching and learning as emotional and intellectual connections between the teacher and the learner (Johnson & Onwuegbuzie, 2004) and needs to be given priority.

Consequently, teaching for learning in practice in order to access the treasures of learning requires progressive organization of teaching and learning approaches. Important to note is that the teachers' styles of thinking influence the teaching approaches adopted (Zhang & Lambert, 2008). The promotion of learning to access the treasures within depends on the identification of the right approaches to teaching and learning with effective styles.

2.3 LEARNING FOR PRACTICE

Learning for practice as a process that comprises deep learning, individual transformation and attainment of concrete experiences enable learners to enter into an inner dialogue with the subject content for application in practice. The process is similar to the process of learning to learn when the synergy of the four pillars forms the foundation of a curriculum for learners to learn for understanding and meaning. The resulting effect is the personal transformation among individual learners. This effect is due to the transformative world view that enables learners to expand their consciousness through thinking and reasoning. Therefore, learning for practice among the graduate nurses demands teaching and learning innovations that promote the development of reasoning, decision making, critical thinking and problem solving skills as professional outcomes. Curriculum design and implementation play a crucial role in learning for practice due to the fact that teaching and learning tasks are

significant predictors of achievements in learning. The learning for practice conceptualized relationships is shown in Figure 2. 2.

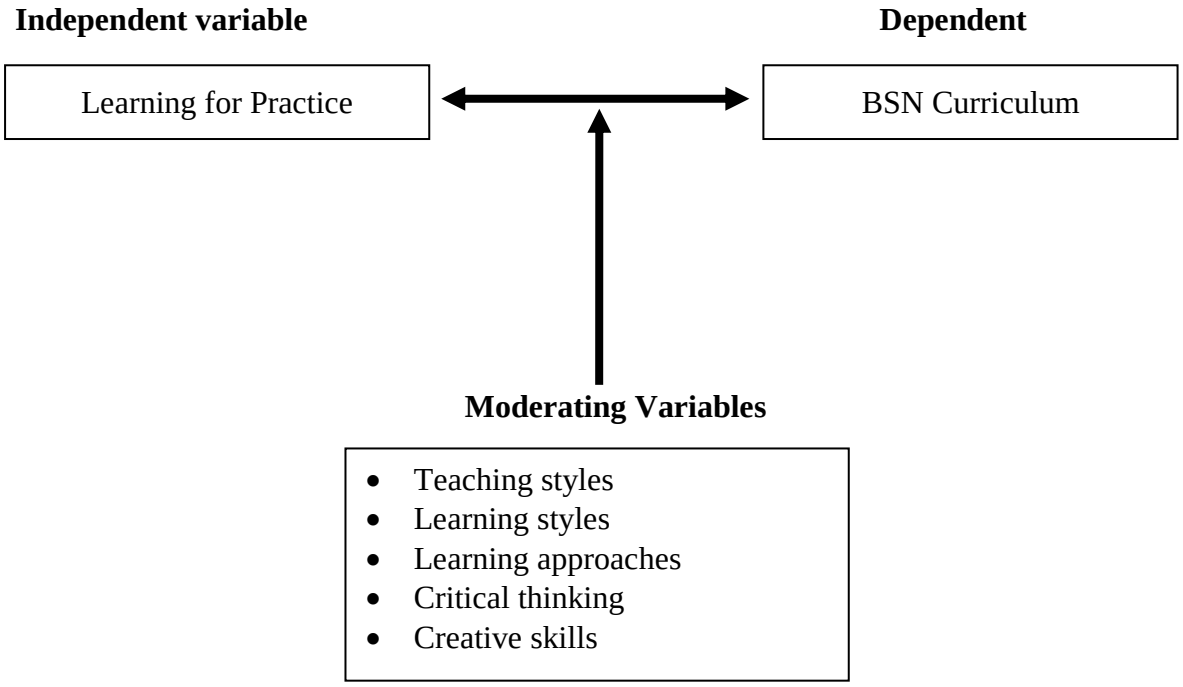


Figure 2.2 Learning for Practice: Conceptualized Relationships among Variables

Teaching and learning have a significant impact on the acquisition of knowledge and professional outcomes and competencies attained during any nursing educational process. To this effect Grasha (2002a) brought awareness to educators on the distinguished styles of teaching and learning to help educators realize the diversity of the learning processes. This was in an effort to promote intellectual rigor, courage and scientific knowledge acquisition among graduate nurses (D'Antonio, 2004). The process results in the acquisition of instruments of knowledge tools that are tenets of learning to learn four pillars (Lawale & Bory-Adams, 2010). Therefore, the teaching and learning styles and approaches that resonate with learning for practice are crucial in nursing education programmes to reinforce understanding of subject content. Attainment of quality, safety and competence as essential educational outcomes are a result of deep learning and must take priority when designing nursing education programmes. Therefore, learning for practice calls for profound changes

in the education of nurses. Every learning experience that is enacted and undergone by the learners in the nursing education process is to modify the learner who acts and experiences.

Teaching and learning innovations that promote deep learning through personal transformation should be prevalent in higher education curricula (Edelen & Bell, 2011; Vaughn & Baker, 2001). This is due to the fact that the ultimate goal of any educational encounter in higher education is to promote teaching and learning innovations that facilitate personal transformation among the individual learners. Consistent with this notion, transformation is associated with a caring pedagogy and emancipatory teaching endeavours (Diekelmann, 1992), and is ideal for the education of graduate nurses in higher education. Early writings of Sternberg (1997) point to mistakes in higher education institutions in failing to recognize the different learning and thinking styles of learners, which resulted in learning activities that did not match with the learners' needs. Learning styles have significant influence on academic achievements among individual learners as such the development of a repertoire of learning styles is recommended with the aim of instilling an awareness of preferences and abilities among learners to advance the learning processes (Uzuntiryaki, 2007). To foster high quality teaching and learning to promote learning, Grasha (2000) suggests that the teaching should match with the learners learning styles. This is in an effort to overcome unproductive delivery methods, which may impact on learning achievements resulting in low performance by the undergraduate nurses (Amir, Jelas and Rahman, 2011). Despite studies indicating that no effects were observed on matching teaching styles and learning styles on students' chemistry assessment (Uzuntiryaki, 2007); other research studies indicate that higher achievements were observed when learning styles and teaching styles were matched (She, 2005).

2.3.1. Learning in higher education

Learning in higher education can be traced to the educational philosophy of John Dewey, 1929, who proposed that there was an intimate relationship between the actual learning experiences and the education processes (Garrison, 1999). Learning in higher education was described as a global shift by Ramsden (2003) due to the new methods of creating and utilizing knowledge that emerged in learning. University education in Malawi is ideal for

adopting the learning to learn concept of UNESCO with the aim of promoting learning for practice, as the four pillars of learning would enhance the realignment and transformation of nursing education context.

Garrison, (1999) argued that not all experiences are genuinely or equally educative, but rather that some are mis-educative. Therefore, the fact that graduate nurses at KCN underwent the BSN programme in higher education their learning encounters may not have necessarily entailed that they had learnt from practice. Early writings of Shield (1995) suggest that the mere fact of having an experience in learning situations does not guarantee that learning has taken place. Learning in higher education is dependent on the quality of learning experiences for the educational endeavors.

In nursing education particularly in the BSN programmes, teaching and learning experiences that are prevalent among graduate nurses must be educative encounters for learning for practice. This is because improved student academic performance and learning in the context of higher education is a major concern in our societies (S. Barr & Clark, 2011). In an address to the University of Malawi, congregation Chimphamba (1997), the vice chancellor of the University of Malawi, pointed to the fact that higher education in Malawi was accused of producing graduates who were not ready to take up their professional roles. This remark mostly pointed to the issues surrounding the curriculum and the expected learning outcomes for each of the University of Malawi programmes.

However, Maher (2004) indicates that higher education learning outcomes are considered as benchmarks of assuring quality and efficiency in learning. Mostly due to the fact that there is a change in the organizational culture of higher education that requires a paradigm shift from one conception of a content –based curriculum to a more student-centered approach to teaching and learning (Robertson, 2001). Barr and Tagg (1995) state that there is a need for a new paradigm for undergraduate education to move from a traditional instruction paradigm that focuses on teaching and instruction, to a learning paradigm that could enable learners to discover and construct their own knowledge. Discovery in a learning context and construction of new knowledge results in meaningful learning.

Learning for practice will be enhanced amongst graduate nurses in higher education if the teaching and learning approaches will promote discovery learning. Maher (2004) is of the view that the adoption of a learning paradigm that promotes discovery learning in higher education is an added advantage because the learner is put at the centre of the educational processes to reason and think through the learning content. Discovery learning is possible only when the teaching styles, learning styles and the learner's approach to learning focuses on deep learning because of the learning engagement that results in mastery and insight of subject content.

The critical factors in any learning paradigm that influence learning for practice in higher education include the quality of teaching and teaching styles, learning styles/approaches, educators' efforts, efficacy, agency and the pursuit of excellence in teaching (Nohl, 2008). This is because education is not only concerned with learning facts or acquiring skills and becoming socialized in roles but the acquisition of instruments of knowledge tools (Lawale & Bory-Adams, 2010). Biggs, Kember and Leung (2001) propose that teachers evaluate their teaching and the learning approaches of their students to appraise the effectiveness of teaching, and this can be achieved through the use of the revised two factor study process questionnaire. Appraisal of the effectiveness of teaching is core to the teaching role to ensure that there is diversity in the learning styles of the learners to promote learning.

Biggs et al (2001) are of the view that the heart of teaching and learning is at the processing levels as learning–related activities produce, or do not produce, the preferred learning outcomes. The processing levels enhance the personal transformation of individual learners because they are the knowledge engines for the inner self-dialogue and self- discovery. In support of this notion Semetsky(2009) indicates that the world must generate ignorance and inquiry in learning, thus doubt and assumptions, assessment and temporal conclusions for the promotion of active learning in an effort to enhance mastery and insight in learning. Mastery and insight are the results of an inner self dialogue and self-discovery in the subject matter.

Learning in higher education in Malawi must be a rational activity where learners make decisions based on evidence of teaching, learning, thinking and the need for reasoning. BSN

educational programmes that are within higher education should not only be concerned with the learning of facts and the acquiring of skills but learners should be able to transform through inner self- dialogue and self discovery to learn for practice. Prosser (2004) suggests that designed courses with programmes of study in higher education are to relate to quality of students learning experiences in order to influence how learners experience and value the subject content to attain the preferred positive learning outcomes. Grasha (2002) indicates that despite university professors having preferred methods of teaching, learners have similar preferences on how they wish to learn. The wish to learn in a preferred way concurs with the form of consciousness that emerges within learners when they enter into the inner self dialogue and self discovery in learning for practice. Educators should be aware of the preferred teaching and learning styles with the aim of promoting learning among the learners.

A study in higher education conducted by Crick and Wilson (2005), on students' learning had shown that students adopted qualitative approaches to their studies based upon their experiences of studying. Educators have the obligation to understand how their students' approaches to learning facilitate the conceptualization of teaching and learning activities. Further, Grasha (2002a) is of the view that variations in cognitive, social factors, motives, emotional and problem solving abilities, remembrance and information processing form capacities to recognize and sort styles of learning. Learning outcomes should be able to explicitly describe what learners will be able to do resulting from any learning encounter. However, good teaching in higher education is that which encourages learners to adopt deep learning approaches and discourages the use of a surface learning approach (Biggs, 2001). Deep approaches to learning enable the learners to discover the essence of learning in the teaching context.

A dynamic curriculum that enhances good teaching in higher education is pertinent to the needs of society. Therefore, educators particularly in Malawi are to be conscious of the national and global trends in terms of skills and competences for graduate nurses to be successful in practice environments. Semetsky's (2009) writings support the view that education should help all learners to challenge and subsequently change the unchallenged

psychological and cultural assumptions that constitute every meaning perspective in teaching and learning encounters.

2.3.2 BSN curriculum and learning for practice

The literature indicates that massive changes in nursing curricula were made in the USA when to incorporate desired professional outcomes of graduate nurses (Benner et al., 2009). Also research studies by nurse educators to evaluate the effectiveness of changes in nursing curricula programmes for enhancing the development of critical thinking skills in learners has brought deliberate changes to nursing curricula (Beckie, Lowry, & Barnett, 2001). A curriculum is a formal plan of study that provides philosophical underpinnings, goals and guidelines for the liberation of specific educational programmes (Keating, 2006). Stakeholder expectations of graduate nurses' upon completion of their education programme always describe designs of educational programmes that allow learners to acquire the described knowledge, skills, competences and values for practice. The goal of any education curriculum in higher education is to foster epistemological developments that mirror extensive intellectual development in learning. As a formal plan of study the KCN BSN curriculum is to be revisited for its abilities to promote learning for practice in terms of teaching strategies, learning strategies, and creative skills.

The KCN BSN curriculum is supported by the humanities and sciences; however the perceived low levels of clinical performance raises questions about the strength of the content base, teaching and learning styles and approaches deployed. The BSN curriculum with humanities and sciences as foundation courses is believed to instill analytical and critical minds among graduate nurses (American Association of Colleges of Nursing, 2010). The subjects from humanities and sciences in the BSN curriculum are for strengthening skills in communication, assessment, cultural sensitivity, resourcefulness, ability to apply knowledge and scientific reasoning in practice. These skills are necessary in the provision of quality, safe and competent care and form foundations to the formulation of professional outcomes of nursing. To this end educators' appropriate support in learning endeavors can allow learners to function at the cutting edge of individual development. The learners' can also function within their own learning personal zone of proximal development. Therefore,

the analysis of teaching and learning styles or approaches is in tandem with the graduate nurses' educational processes and professional outcomes from the BSN curriculum.

Stakeholders' expectations of a nursing curriculum dictate the choice of professional outcomes to be included as benchmarks within the curriculum. However, core competences are integrated within the benchmarks to reflect desired expectations. To this end Benner et al (2010); American Association of Colleges of Nursing, (2010) suggest the following skills which are in-line with the four learning pillars of UNESCO:

- Demonstrating intellectual ability by recognizing the need to know and know how to find out, interpret and use nursing knowledge. This skill is similar to *learning to know pillar* and an ability to interpret as an attribute of critical thinking. Ross et al (2006) suggest that task demands in learning influence learners' thinking and behaviour for the studying process. Professional outcomes that require intellectual abilities will reflect a curriculum that advocates for deep learning to acquire the instruments of knowledge tools.
- Learns actively and independently while identifying own learning styles. This is to promote the development of a form of consciousness within the individual for lifelong learning. Emphasis is on a learner- centered approach with the aim of promoting application of information thus *learning to do.*
- Demonstrates self-management skills by setting targets, arranging priorities and work to deadlines. This is related to the *learning to be pillar* the total development of the learners' potential and prevent procrastination.
- Proficient in a range of transferable skills like assessment skills, problem solving skills, decision making skills, communication skills and team work, in line with *learning to know, learning to live together and learning to do pillar.*
- Possess experience of working with other people, possess self confidence, understands the nature of working relationships and strategies with personal career decisions. Similar to *learning to live together pillar.*
- Demonstrates understanding and communicates personal abilities and achievements related to *learning to be pillar and learning to live together.*

The stakeholders' expectations therefore, put responsibilities on faculty in curricula design, development and implementation in higher education. To consider learning paradigms based on theoretical and philosophical beliefs to advance meaningful learning for practice. There are five learning paradigms that have prevailed in most nursing curricula with different approaches to curricular content (Leonard, 2002) that may influence learning for practice. These learning paradigms may be integrated to skillfully blend curricula to foster learning for practice. The learning paradigms comprise the following:

- Behaviorism learning paradigm has beliefs that entail that instruction is achieved by observable, measurable and controllable objectives. Educators who use the approach in curricula design favor a teacher-centered approach, structure learning from simple to complex and achievement of learning is a set of behavioral outcomes (Keating, 2006). The paradigm does not reinforce creativity or autonomy among learners and despite this limitation was widely used previously in nursing education.

- Cognitivism focuses on learning inputs and outputs which are processed by the human mind for accurate knowledge transmission from the educators' worldview to the learners' reality (Keating, 2006). This paradigm would affect the quality of educational outcomes due to its teacher-centered learning focus and may fail to initiate the development of the knowledge engines with deep learning. The humanism learning paradigm has the belief that human thinking and learning are not determined by processing information, theory or conditional responses from various stimuli nor enhanced schemas in the creation of new knowledge.

- Constructivism has beliefs that prior knowledge and experience form the basis to test hypotheses, build sets of content to solve problems posed by the educators. The learning paradigm is learner centered. No single learning paradigm would be ideal in the context of a curriculum that might reinforce learning for practice because of the dynamic nature of the learning processes. Central to the choices that might be made explicitly on the philosophical underpinnings of any learning paradigm are the learner experiences and a thorough understanding of educational ideologies on which the curriculum is based (Uys

& Gwele, 2005). Vital to the requirements of nursing education and professional practice is that critical thinking strategies and outcomes must appear to prevail in most criteria for programme curricula approval and accreditation.

2.3.3 Deep learning and the process of learning for practice

In deep learning context there is intellectual excitement on individual learners with interpersonal concern for learning. This is due to the fact that the learner goes through an inner self-dialogue, self-discovery and personal transformation resulting from the instruments of knowledge that are constructed for meaning (Grasha & Yangarber-Hicks, 2000). Teaching and learning that enhance deep learning promote the development of a form of consciousness through reasoning, critical thinking, decision making and problem solving skills. These cognitive capacities emerge because of the analytical and critical capacities that develop from the learning context. There is growing evidence that prevails when high level and quality academic performance is attained through learning when specific learning outcomes are displayed in any learning process (Vermetten, Lodewijks, & Vermunt, 1999). Deep learning is a student centered approach pre-requisite to learning for practice; Figure 2.3 depicts the researcher's interpretation of deep learning process.

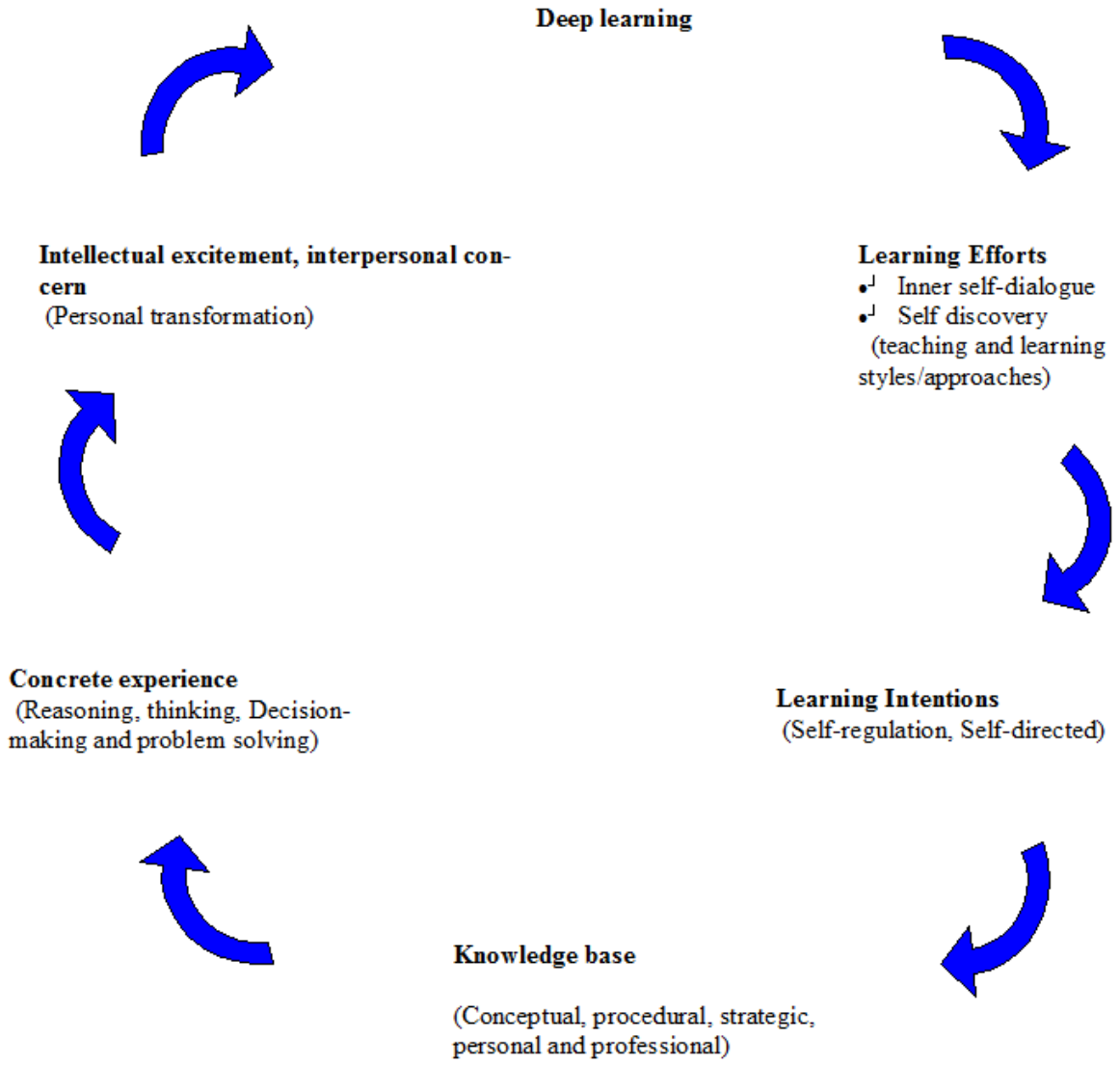


Figure 2.3 Deep Learning Processes

Deep learning process emanates from the learning intentions of self-directed and self-regulated learning. These are important attributes in fostering learning for practice among graduate nurses as Miflin, Campbell and Price (2000) contend that self-directed and life-long learning enhance the development of graduates' reasoning and thinking skills. Self-regulated learning is a process in pursuit of deep learning that requires learners to be proactively involved in personal learning transformation in learning behaviour, learning motivation and in cognitive learning endeavours in an effort to attain important academic goals. Through

this process there is an establishment of learning consciousness and knowledge that can be applied to dynamic learning contexts. Thus, the concrete experience in association with a personal transformation of the learner demonstrates intellectual ability, reasoning and thinking skills. Kuiper and Pesut (2004) are of the view that cognitive thinking processes are regulated by the executive control processes of metacognition of self-monitoring, self-evaluation, and self reinforcement in pursuit of learning goals. These attributes are similar to the process of learning for practice where inner self-dialogue and self-discovery enhance students' level of understanding.

It is important to note that the Royal College of Physicians and Surgeons of Canada (2004) and the World Federation for Medical Education (2004) have described life-long and self-directed learning that lead to deep learning as professional characteristics that should be evaluated in the training of physicians (American Board of Medical Specialties, 2004; The Royal College of Physicians and Surgeons of Canada, 2004; World Federation for Medical Education, 2004). Grasha (2002b) suggested that if educators are to help students learn, the teaching is to match with the students learning styles. Further, individual learners possess a variety of learning styles with varying degrees that educators are to be aware of. Amir et al (2011) are of the view that high-quality teaching contributes to high-quality learning. Therefore the teaching styles have a bearing on the depth of learning that individual learners may acquire from the BSN curriculum.

2.3.3.1 Teaching styles and deep learning process

Teaching efforts are patterns of behaviours the educators display in the learning context to determine the learning approach. In fulfilling the desired demands of teaching there are patterns of needs, beliefs and behaviours that educators display in classrooms which are multidimensional. These also affect how the presented information may interact with students, how the learners' manage classroom tasks, and how they are socialized (Grasha, 2002b). The teaching efforts produce diverse and rich sources of materials about how and why people teach in particular ways through varying teaching styles. However, Grasha (2002b) pointed out that teaching styles are like scholarship based on a conceptual base of a teaching philosophy. The conceptual base is important as a foundation in teaching since it

presents like a roadmap that guides thought, behaviour, and selection of strategies and the general personality of the teacher.

The teaching styles are core to the teaching role of any educator to facilitate the learners maximize the principles of learning. This is because the subject content in any curriculum has an intellectual history that needs to be unpacked by the teacher and displayed for all to see. Therefore, Grasha (2002b) asserts that an educator who does not have an explicit philosophy of teaching, their teaching styles are likely to be academically void. The advantages of an implicit conceptual base in whatever teaching style someone adopts according to Grasha(2002b) include:

- There is an opportunity to consciously identify and select principles of teaching and learning to guide the selection of teaching processes.
- Teaching style based on a clear conceptual base allows the educator to go beyond the subject content when designing the course. The educator is aware of the diversity of learning styles to make learning more exciting.
- The conscious identification and selection of the conceptual issues that surround teaching styles enhances to overcome mindless ways of teaching, which is teaching processing information without attention, routine and predictable manner.

There is growing research on the significance of teaching and learning styles and on how they match and relate to learner performance (Clark & Latshaw, 2012; Coffield, Moseley, Hall & Ecclestone, 2004; Dembo & Howard, 2007; Keri, 2002; Riener & Willingham, 2010). To accommodate differences in the styles is an important skill in teaching to diversity. To this end Johnson and Romanello (2005) indicate that the general diversity of nursing students presents an important consideration in teaching and learning arenas to promote the rich learning experiences required for mastery and insight in learning. Felder and Spurlin (2005) point to the fact that learners learn how to cope with teaching styles and learning materials that do not match with their preferred learning styles, to acquire more educational experience. A discrepancy between teaching styles and learning styles are a source of conflict, tension and misunderstanding. Therefore, adopting a teaching style that captures the extraversion and sensing aspects of learner's styles is an important element in

the design of classroom teaching. Furthermore, Brown (2003) is of the view that if teaching styles integrate all learning styles the learners can develop adeptness necessary to handle a range of different learning requirements for deep learning.

Research on teaching styles is not standardized and labeled uniformly and as such different terminologies are used to describe the teaching styles. Rich (2006) states that educators believe learners' efforts are key determinants of performance of their teaching. To this end the Grasha (1996) teaching styles inventory version 3 was used to investigated the teaching styles of the educators in the BSN programme. There are five basic teaching styles based on a single dimension of teacher verses student oriented that are pervasive in classroom teaching to promote learning according to Grasha(1994) and these are:

- Expert teaching style

  The expert teaching style is signified with the teachers' possession of knowledge and expertise that students need in any learning situation. The teacher strives to maintain status as an expert among learners in giving detailed information while challenging learners to enhance their competencies (Grasha & Yangarber-Hicks, 2000). Deep learning in this teaching style is minimal, and depends on the learning approach that the learners adopt because the teacher displays detailed knowledge on subject matter, and challenges students to improve their competencies on their own.

  If this style dominates all teaching sessions in a course it may affect learners to adopt deep learning. This is because the learners may not always get through the underlying thought processes (Grasha,(2002a) as all information is already processed by the teacher. Hence, there is limited opportunity for the development of reasoning and thinking abilities. Reasoning and thinking abilities are a result of learners initiating inner-self dialogue and self-discovery of the essence of the subject content while diagnosing learning needs and problems. The process motivates individual learners to work on learning obstacles through reasoning. This is because homeostatic-cybernetic, self-regulation mechanism exists when there is discrepancy between expected and observed conditions in the learning situation (Kuiper & Pesut, 2004). The strategies that are used

most enhance the transmission of knowledge by ensuring that the learners are well prepared and are in the form of lecture discussions, class presentations, teacher-centered questioning and discussions. If the teaching strategy is overused the display of knowledge can be intimidating to less experienced learners.

- Formal Authority teaching style

  The Formal Authority teaching style accords a status to the teacher among the student body due to the amount of knowledge base that educators possess on the subject matter, and dictates how learners approach the learning situation. Educators provide positive and negative feedback to learners, establish learner goals, expectations and rules of conduct for learning. Learners in this teaching style concentrate on correct, acceptable and standard methods of teaching with clear focus on expectations and acceptable methods. The method provides a learner-centered focus and if mostly used in the teaching of a course would promote the attainment of a knowledge base through deep learning that can be used in dynamic settings. Therefore, if the teaching facilitates deep-level cognitive processing and links explicitly the teaching with practice learners would be encouraged to use deep learning.

- Personal Model teaching style

  Personal Model teaching style teaches learners by giving examples on subject content while establishing a framework of thinking and behaving in a learning arena. The teacher has a special task of overseeing learners, guiding and directing them on how to do things. The learners emulate from educators the approach to learning. The teaching style would stimulate deep learning among learners; if the learners decide to use the appropriate learning styles that may foster learning engagement resulting in engaging in the inner self-dialogue reasoning, self- discovery and critical thinking. The teaching style may be ideal in teaching for deep leaning because there could be enhanced cognitive level abilities. Enhanced cognitive abilities are a result of good teaching as ineffective teaching leads to poor guidance that imparts on learning and the level of understanding and meaning construction. This is because content is abstract to the learner and does not bring meaning to the existing schemata thus the prior knowledge. Learners may also be

mislead when educators' approaches to teaching may seem to reflected as if they are the best where learners may feel inadequate and failing to cope with such type of expectations and standards. The common methods in this teaching style are role play, demonstration, coaching and sharing of personal views.

- Facilitator teaching style

  The Facilitator teaching style is based on personal nature of teacher-student interactions when the teacher guides, and directs learners by encouraging cooperative and independent learning activities. The goal in facilitator teaching style is to develop learners who foster critical thinking; independent actions, make initiatives and become responsible. The Facilitator teaching style fosters empowerment as learners engage in the learning context with the subject matter. The method is learner-centered and may result in deep learning depending on the learning styles being deployed by the learners. Benner et al (2009) advocate for teaching methods that keep students focused on the patient's experience and providing opportunities for learners to learn how to teach students to reflect on practice. Facilitation helps learners to engage with what is being learnt leading to personal and meaningful understanding (Trigwell, Prosner & Ginns 2005). Learners explore options and alternative courses of action for practice. Common methods of teaching are small group discussions and projects where learners become self-directed with minimal support from the educators.

- Delegator teaching style

  Delegator teaching style enhances the development of students' capacities into autonomous learning styles. Delegator teaching style reinforces learner responsibility and meaningful learning. The teacher is perceived as a consultant and resource person. Learners' develop a knowledge base, creative and thinking skills resulting from the enhanced capacity that is associated with appropriate learning styles. The teaching strategy is believed to contribute to the development of professional maturity and confidence. However, if the method is not well used the learners may not have the capacity to function in an autonomous manner, leading to anxiety. Strategies used

include self-directed learning through individualized modules, small group discussion and projects.

Grasha (1994) is of the view that despite the existence of the five teaching styles, every teacher possesses attributes of each of the five styles in varying degrees. Styles of teaching may contradict one another; however, personal teaching styles would not provide an intuitive learner with enough chance to explore and discover (Provitera & Esendal, 2008). The educational curricula must be designed in order to achieve goal congruity in which the teaching needs of learners are met while covering the overall objectives of the course in order for students to learn.

The teaching styles form clusters according to Grasha (2002a) which are characterized as follows:

- Cluster 1: Expert /Formal Authority teaching styles:
  The cluster works best when dealing with learners who are less capable with subject content. Mostly the educators are willing to personally control classroom tasks and the teacher does not build relationships with the learners. This cluster is used in large classes, with new students and when there is time pressure to cover content; and preparing learners for standard examinations.

- Cluster 2: Personal Model/Expert/ Formal Authority
  This cluster is utilized by educators who rely on personal modeling and coaching. For effectiveness of the teaching styles learners are to be more capable in independent learning with developed full potential of learning. What is crucial is learner empowerment so that they can take initiative to apply information learnt. This process is attained through sound teacher-student relationships.

- Cluster 3: Facilitator/Personal Model/Expert
  The teaching opportunities in this cluster accord the educator the role of designing learning opportunities that stress collaboration and self –directed learning experiences.

The advantage to the styles in this cluster is that there is need to supervise learners in projects and learning activities. However, students must be willing to take responsibility and accept responsibility.

- Cluster 4: Delegator/ Facilitator/ Expert
  In this cluster if used by the educators they should be willing to take risks in the teaching tasks. Collaborative and active learning strategies are used to enhance deep learning. The method works best if learners are able to work independently

Teaching in a nursing curriculum that promotes diverse teaching styles and learning styles advances the generation of a knowledge base for practice. This knowledge base is a foundation to the functioning of graduate nurses' in practice settings because of the perceived concrete experiences that enhance reasoning, thinking, decision making and problem solving. Nursing education requires programmes that reinforce deep learning processes through diverse teaching styles to train graduate nurses to learn for practice because knowledge is continuously rapidly changing and a wide range of clients' needs/problems are unvarying. Some empirical research studies suggest learners learn best if taught in ways that match with their way of learning (Lovelace, 2005; Mahlios, 2001; Ogden, 2003; Rinaldi & Gurung, 2008). Therefore, Huxland and Land (2000) propose that educators must know their learners' learning styles to develop styles, approaches, methods and sequencing of content that can make learning more active and engaging for students. The uses of teaching style clusters are significant in the BSN educational processes because of the need for diversity in the teaching and learning styles to enhance deep learning.

2.3.3.2 Learning styles and deep learning

Research studies by Rubin and Hebert (1998) indicate that the design of active learning assignments promote diverse use of learning styles that enhance learning, student satisfaction and retention of information. Benner et al (2009) point to the fact that support is needed among educators to learn to scaffold courses around client care; so that learners are provided with opportunities to rehearse appropriate care for clients and families. Learning styles are acquired characteristics that are shaped by learners' past experiences (Grasha,

(2002b). Therefore it is most important to note that students possess an array of learning styles with each style varying in degree of strength. The difference comes about because of genetic make up, life and educational experiences with some styles better developed and preferred (Grasha & Yangarber- Hicks, (2000).

To understand and analyse the learning process of the graduate nurse, the Grasha-Reichmann student learning styles questionnaire was used to generate data. Grasha-Reichmann student learning styles stipulate attitudes and feelings that individual learners have towards learning and as such Grasha (2002a) views that learning styles are learner blends of attitudes that are used in learning arena. The matching of learning styles with teaching presentation strategies enhances learning among learners. In fostering learning for practice educators are to be cognizant with the preferred learning styles in any classroom setting to promote deep learning. This is because learning styles shape encounters learners have with educators since both parties attempt to change each other into a reciprocally valuable form of relating in order to learn.

The acquisition of reasoning skills, critical thinking and decision making skills can be regulated by the learner in deep learning through inner self-dialogues self-discovery and reflection on the learning goals as a treasure within the learning arena. Further, O'Shea (2003) recommends that nurse educators assess the learning styles and preferences of their students in order to determine the appropriateness of self-directed learning and self-regulation in pursuit of deep learning. Self-directed learning and self-regulation are educational intentions and have many benefits, these include choice in action, confidence, autonomy, motivation, evaluation and the development of skills for life-long learning among the learners (Hewitt-Taylor, 2001; Lunyk-Child et al., 2001).

Educators should reinforce learning styles that will promote self-directedness and self-regulation among the learners. These attributes may enhance the development of reasoning, critical thinking, problem solving, creativity and reflection as elements prerequisite to the attainment of the learning treasures in the four learning pillars necessary for learning in practice. Amir et al (2011) are of the view that students become independent and attentive in

lectures that are conducted in an organized manner with blended learning tasks that stimulate reasoning and thinking. Learning styles are known to affect students learning process; educators are required to observe the diversity of the learning style among the learners to promote learning. Grasha (1996) postulates if educators are to help learners learn the teaching should be in a way that matches with the students learning styles. The six learning styles that are identified according to Grasha (2002b) are:

- Independent learning style

  Learners' are independent when they think on their own and develop confidence in their learning abilities. Such type of learners prefers to learn important content and do not prefer working in groups. Independent learning style advances student centered approach and learners who adopt the independent learning style have self-directed learning abilities and self-confidence. Independent learning style promotes cognitive engagement with the subject content hence the learning tasks stimulate critical and creative skills. To promote deep learning in a BSN programme educators' need to consider the teaching styles that will make learners learn independently.

- Avoidant learning style

  Avoidant learning style advocates for learners who are not enthusiastic about learning content or attending class. These learners are overwhelmed by class activities and they perceive learning as teacher centered, therefore they do not participate with other learners and teachers. The learners would prefer no tests while favoring pass/fail grading system and also do not like enthusiastic teachers. This type of learning style may not favor learning for practice because the learners are not motivated to engage with the subject content to develop reasoning and thinking through deep learning. Though no single style is the best there is need to ensure that the curriculum content structure and design does not create an atmosphere where the style will dominate the other learning styles. The educators' teaching styles philosophy is to override this learning style in learning contexts by providing a conceptual rationale of using team projects, small group discussions and independent study options to establish independent and collaborative learning styles among the learners (Grasha, 2002a).

- Collaborative learning style

  Collaborative learners learn by sharing ideas and talents and mostly cooperate with teachers and other students in the learning environment. Despite the cooperation that the learners develop they depend too much on others and cannot work alone as they have skills for working in groups and teams. The general classroom preferences for these learners are small seminars, group projects and lectures with small groups. The preference of learners to work in groups helps them develop responsibility for their own learning. The style if used in combination with other styles would promote learning for practice.

- Dependent learning style

  The learner who uses the dependent learning style is teacher-centered, as there is little intellectual curiosity for learners who use the dependent learning style because the learner mostly learn what is required. Peers and teachers are viewed as sources of structure and support while the learner is looking for an authority figure to give directions. Despite that the learners manage their own anxiety levels in the Dependent learning style there is evidence that learners have difficulties to develop autonomy and self-directed learning skills for resolving uncertainties in the learning settings. Classroom preferences for learners who have dependent learning styles are availability of course outlines, notes on board and instructions on assignments. If the learning style is not used with other styles, it may lead to rote learning and hence less cognitive development for reasoning abilities necessary for learning for practice.

- Competitive learning style

  Competitive learning style, learners are motivated and set goals for their learning achievements. The learners learn subject content to perform better than others in a class/ group and believe to compete with others for rewards to be offered at the end. The learners prefer to receive recognition for the class accomplishments. Learners are teacher-centered and lack collaboration skills. There is minimal cognitive development if the educators mainly promote the use of the teaching style that makes learners to use the competitive style. Learning for practice may not fully be influenced by the use this style.

- Participant learning style.

  Learners who use the participant learning style enjoy classes and take part in as much of the course activities as possible. Learners perform all learning activities and are eager to do all the required course and optional course. Learning in this style is student- centered as learners prefer lectures with discussions and preference is given to teachers who can analyse and synthesize information well. The student-centeredness facilitates cognitive development as active learning promotes use of diverse learning styles that enhances learning through retention of memory and student satisfaction (Rinaldi & Gurung, 2008).

Grasha (2002b) is of the view that a reliance on any one of the six styles or rigid application of any one can influence learning outcomes positively or negatively. In support of this notion, Rinaldi and Gurung, (2008) point that students master learning information in an easy way despite wrong learning preferences adopted by them. However, learning is more effective and rapid when learners use their own learning preference. The learning styles as profiles that reside within every student are to match with the teaching approaches/styles and as such there are primary blends of learning styles that match and are compatible with the four clusters of teaching styles depicted in Table 2.1. The four clusters serve as guidelines and a framework for structuring classroom teaching for promoting deep learning. This is because the learning styles are not rigid or inflexible as they can be changed and modified depending upon the classroom environment. While learners prefer specific styles, the preferences do change depending on how the teacher structures the class. Therefore, learning style clusters are tentative connections that point to the important blends of the teaching styles that promote learning. The clusters also influence sensitivity on the design of teaching activities. Ross, Green, Glennon and Tollefson (2006) are of the view that learners who expect deep-level teaching report expending more effort on deep level strategies and less on surface–level strategies.

Table 2.1 Blends of teaching styles and learning styles (Grasha, 2002b)

Cluster 1 Primary teaching style: Expert/ Formal Authority Primary learning style: Dependent/ Participant/ Competitive
Cluster 2 Primary teaching style: Personal Model/ Expert/ Formal Authority Primary learning style: Participant/ Dependent/ Collaborative
Cluster 3 Primary teaching style: Facilitator/Personal Model/ Expert Primary learning style: Collaborative/ Participant/ Independent
Cluster 4 Primary teaching style: Delegator/ Facilitator/ Expert Primary learning style: Independence/ Collaborative/participant

Recognizing the diversity of the learning styles among learners is the best stance any educator can take to ensure that the instructional processes are also dynamic in promoting learning for practice. This is because learners are different and as such instructional processes need to take into account the diversity in the choice of strategies. The learning styles that students display when they become student-centered are competitive style, collaborative style, participant style and independent style. These learning styles in didactic situations foster deep approaches to learning of the subject content and learner engagement.

The stakeholder concerns and observations at KCN mandates teaching and learning styles that foster deep approaches to learning among the graduate nurses in an effort to develop abilities to act and think rationally. There is need therefore to teach for relevant where learners make connections between acquiring and using nursing knowledge in an effort to develop intellectual capacities; according to Benner at al (2010), this is by strengthening teaching and learning in line with nursing values, critical thinking, and reasoning for learning for practice.

2.3.3.3 Critical thinking and deep learning

The development of critical thinking as a higher order skill is an educational priority in a learning for practice curriculum. This higher order skill enhances the ability of the learner to analyze information and critique while acquiring complex competences through learning engagement, deep learning, and disburse more efforts into the learning situation (Phan, 2010). Critical thinking results in high level performance observed after graduate nurses

engage in deep learning processes. This is because in deep learning there is internalization of the subject content to gain insight and mastery of the subject matter. The internalized subject content may enable learners to reason through practice issues in tandem with the deep learning.

Learning for practice is a process of leading learners to personal transformation in the classroom setting to construct a knowledge base necessary for critical thinking. Learners construct a knowledge base for practice through reasoning and thinking in an attempt to access the curriculum treasures, within the four pillars of learning to learn. Chung, Wong and Cheung (2008) are of the view that work place realities require nurses to be capable in performing nursing activities through the operationalisation of the mind thresholds and providing a forum for reality-based learning to nurture students into becoming professional registered nurses (RNs).

Forneris (2004) argues that many teaching methods used in nursing education enhance technically rational approaches. Further, these methods fail to prepare students to learn in practice and operationalise critical thinking to manage complexities that actually exist in practice settings. If nurses are to be effective in practice with the complex changes, high demands and greater accountability they need skills in higher level thinking and reasoning abilities. Early writings of Schank (1990) suggest that it is essential for nurses to master the skills of thinking and reasoning for them to critique the value of any situation before the application of new knowledge. The nursing curriculum is therefore to be evaluated in terms of its structure thus cohesion and depth, with emphasis on quality of content, how it is organized and how learners will be able to process and evaluate the learning information.

Ironside (2003b) contends that content knowledge forms the foundation for thinking and as such educators have a role in helping learners increase their knowledge base through effective teaching styles and methods. A knowledge base is a pre-requisite to learning how to think since the application of a knowledge base in practice is evidence of thinking abilities. The outcome of students thinking is central to learning because Facione (2006) indicates that critical thinking can be taught and learnt. The teacher–centered environments

are accused of producing shallow thinkers who rely on rote memory as lecturing only provides basic knowledge that does not enhance active deep learning (Jeffries, 2005; Kaddoura, 2011; Royse, 2007).

Watson-Glaser (2006) conceptualizes critical thinking as a combination of knowledge, skills and attitudes necessary for decision making and problem solving in practice. Decision making and problem solving abilities are professional outcomes that emanate in individuals with critical thinking. Furthermore, knowledge in making inferences, recognition of assumptions, deductions, interpretation and evaluation of arguments in nursing is core to the role of graduate nurses. As such the Watson- Glaser (2006) Critical Thinking Appraisal Form S was used to analyse the graduate nurses' critical thinking levels in this study. Critical thinking is significant in learning for practice because the skills and abilities in critical thinking enable the learners in identifying and challenging assumptions in practice. The process can be achieved by the educators knowing the preferred learning styles of their students and using the knowledge in the selection and utilization of teaching, learning and assessment strategies while enhancing the development of students beyond the learning style comfort zone (Fleming, McKee, & Moore, 2010).

The development of critical thinking and knowledge of learning styles are important in the design of a curriculum, and to adopt methods that promote learning is a vital part in ensuring positive student engagement for developing deep learning. With regard to this Meehan-Andrews (2009) points out that academics are challenged to reflect the diversity of teaching strategies that meet the needs of student populations; the goal being safe, competent and ready to work practitioners. Stakeholders' observations in Malawi should be considered as the basis for analyzing the graduate nurses critical thinking abilities in terms of making inferences, recognizing assumptions, making deductions, interpretations and evaluation of arguments in practice. Mahmoud (2012) indicates that nurse educators must be cognizant of the importance of teaching critical thinking skills to learners and become aware that the skills may be developed by devising teaching methods that stimulate higher order thinking. Furthermore, critical thinking is enhanced in active learning approaches; therefore student learning styles are to be considered in planning teaching tasks. These exceptional learning

outcomes are a result of learning engagement of the individual learners that result from deep understanding of the subject content. Therefore, critical thinking is a process of effective teaching strategies and to this end the Royal College of Nursing Australia (1997), pronounces that quality in nursing practice is dependent upon the educational preparation of nurses to ensure capacity of nurses to significantly evaluate and adapt interventions.

The early writings of Garrison (1999) reflect that meaning and value emerges in the process of learning inquiry, and that understanding and knowledge in any learning situation are products of ways of thinking. This is why critical thinking and clinical reasoning are key outcomes to learning for practice. Reasoning unfolds new possibilities in teaching and learning situations; where new actual or potential consequences and meanings surface.

To this end Mahmoud (2012) points that educators and researchers must gain interest in understanding and integrating learning styles of the learners to promoting learning efforts with more satisfying learning experiences. Significantly Neuman, Pardue, Grady, Gray, Hobbins, Edelstein and Herman (2009) support the notion of innovations in nursing education approaches for exceptional learning outcomes in nursing practice. Knowledge is more than the acquisition of facts and the rules, there must be an active process of deliberation and interpretation of subject content until cognitive and affective structures are attained by the learner. This therefore, requires the educators to have an obligation of abandoning teaching methods that make students passive receipts of information and adopt the ones that transform the learners into active participants in their intellectual growth of deep approaches to learning.

2.3.4 Approaches to learning

An approach to learning signifies the relationship between the learner, the context and the learning task. The learning approaches are ways in which students go about their academic tasks thereby affecting the nature of the learning outcome. Research studies on students learning approaches emerged in the 1970s' by Marton and Saljo (1976b) where surface and deep approaches to learning were explored. The learner's perception of a reading task and how the reading activities are structured for learning is termed as an approach to learning

(Biggs, 1993, 2001; Marton & Saljo, 1976b, 1976a). Therefore, the teaching style, learning style and learning approach are crucial to deep learning in an effort to enhance learning for practice.

There are several studies that have investigated students' approaches to learning and how learning was promoted (Biggs et al., 2001; Biggs, 1987; Case, 2007; Case, 2005; Haggis, 2003a). These studies found that surface approaches to learning are associated with non-selective reading of subject content leading to failure to assimilate subject content. Learners who deploy a surface approach to learning basically rely on rote learning and memorization. There is also an avoidance of personal understanding when the surface approach is used and the learners are unreflective about the learning experiences and outcomes (Tiwari, Chan, Wong, Wong, Chai, Wong & Patil, 2006). Therefore, a surface approach to learning is not appropriate for learning for practice because of the unreflective issues and memorization of subject content that does not enhance learner's ability to assimilate subject content.

Student approaches to learning are helpful tools for analyzing and considering ways to improve teaching and learning (Biggs & Tang, 2007). Various methods of teaching may help students expand their ability to use diverse learning approaches. This is because the matching gives all learners an equal chance in the classroom and builds student self awareness. Learners approach to learning depends on the interactions between the learners' perceptions and the quality of teaching. Good teaching encourages learners to espouse a deep approach to learning and discourages the use of a surface approach. Biggs, Kember and Leung (2001) indicate that the mean of the approaches of learners in a class entails an index of the quality of teaching. Educators must be aware of the learning styles that promote the use of a deep approach in learning.

Billings and Halstead, (2009) indicate that development of critical thinking requires the active participation of the learner. It is imperative then, that teaching and learning approaches be explored to identify those teaching and learning approaches that may facilitate and foster graduate nurses to learn for practice in Malawi. Background knowledge is important in the assimilation of subject content as the extensive background knowledge

facilitates the understanding of the new information and its relevance for practice. There are many processes that are critical to the construction of understanding associated with background knowledge and these are learning approaches and deep learning. Furthermore, self-directed learning as an essential element in deep learning depends on an approach to learning that will enhance cognitive development. Cognitive development is relevant to knowledge acquisition and structuring as mostly the process helps learners to have confidence, diligence, self-awareness, be proactive and accepting responsibility as outcomes in the learning process (Dawson, 2008).

These attributes are ideal in learning for practice as graduate nurses need to internalize knowledge and skills if they are to learn for practice to help them develop accountability and autonomy through reasoning and critical thinking. Self- directed learning is a mandate in learning for practice in order to promote issues of commitment, control and concern on the part of the learners. The construction of knowledge is an individual affair hence the learning approaches are to focus on self-directed learning. Therefore, the extent to which deep learning is implemented as part of the nursing curriculum may vary to facilitate learning in practice. Tiwale et al (2006) point to the fact that a deep approach to learning is related to self-directed traits. The teaching context at KCN can be modified to encourage learners to adopt self-directed learning. The Grasha (2002a) teaching styles clusters guide in identifying the teaching methods associated with students' learning perspectives for enhancing personal transformation in individual leaners. Self directed learning is important for student nurses because this approach empowers them in readiness to the adoption of the changes in hospital settings that necessitate innovations and change in the methodologies used.

2.3.4.1 Deep approach to learning

A deep approach to learning contributes to the understanding and conceptualization of subject matter. Learners derive enjoyment from the learning task while applying the acquired knowledge to practice settings (Biggs and Tang, 2007a). Deep learning therefore may yield knowledge bases for accessing treasures of learning for practice under the auspices of the four learning pillars of learning to learn. The "learning for practice" concept demands deeper involvement of the learner in the learning situation in order to access the

treasures of learning to learn. Self- generated thoughts, feelings and actions planned to attain learning goals must dictate how learners' personal learning outcomes will be achieved. Therefore, if graduate nurses are to learn for practice they need to be transformed into deep learners, by learning through self-directed learning and self-regulation.

A study in higher education conducted by Crick and Wilson (2005) on students learning approaches has shown that students adopted qualitative approaches to their studies depending upon their experiences of studying. Educators have the obligation to understand their students' approaches to learning for conceptualizing teaching and learning activities. In order to learn for practice, teaching approaches must enhance change among learner perspectives to adopt a deep approach to learning. The learners must take responsibility for their own learning as they become self reliant resulting in deeper understanding of the subject content. An important implication of this notion is that student nurses must be prepared for each new phase in the learning process as a step to learning for practice.

However, a deep approach to learning has two perspectives that may influence learning and these are the educator and the learner. The factors that may influence deep learning from the perspective of the teacher and learner according to Biggs and Tang (2007a) are:

- The learners intention to engage in the learning task meaningfully
- Appropriate learner background
- Learners' ability to focus at high conceptual level
- Explicit teaching that brings learning structure
- Teaching by questioning, presenting problems and building on
- Assessing for structure rather than for independent facts

Therefore, the need to use diverse teaching and learning styles is emphasized to reinforce deep approaches to learning among learners in the BSN programme to promote learning for practice.

2.3.4.2 Surface approach to learning.

A surface approach to learning also referred to as surface learning is when the learning activities are structured at a low level to achieve the intended learning outcomes (Biggs & Tang, 2007a; Snelgrove, 2004). The use of a surface approach to learning among the learners results in leaners who are not concerned with attaching personal or other well ingrained meaning to their learning tasks. The learners mostly rely on memorization and are only concerned with basic level aspects (Hanna, 2011), thus memorization or rote learning. Despite the fact that surface learning has significance in teaching some concepts learners who do not attach meaning to the learning task cannot be safe and competent because of lack of mastery and internalization of subject content. Educational research found that optimal learning must involve a degree of tension and disequilibrium; where learners are required to stretch to learn for insight (Grasha, 2002b; Vaughn & Baker, 2001a). The teaching that does not use a variety of teaching styles fails to create learning disequilibrium and hence, there can be no learning engagement to lead to deep learning. In the surface approach there is minimal learning due to the lack of disequilibrium. It is cognizant then that the teaching styles and learning styles are diversified in the learning of graduate nurses to avoid the surface approaches. However, educators must be aware that if teaching styles are always matched with learner styles learners become bored with the learning environment and end in adopting a surface approach (Vaughn & Baker, 2001a). Beishuizen, Stoutjesdijk and Van-Putten's (1994) study on the relationship between cognitive levels of task accomplishment, deep and surface approaches of learning showed that learners who processed information at surface level tended to benefit from cognitive support.

Learners who use a surface approach might have problems with learning due to cognitive dissonance that may hinder the reasoning capacity. This is because the learner directs attention to disconnected pieces of information by using strategies that are consistent with an intention to reproduce facts. As such the way learners approach an educational encounter has an important impact to reduce reproduction of facts. Therefore, considerable attention is to be given to the BSN curriculum to the subject content, organization of teaching, conduct of assessment and examinations as this impact on how learners learn.

Learners who have predominantly used surface approach to their learning have learnt superficially with an emphasis on rote learning (Snelgrove, 2004). The surface approaches in learning encourages skepticism, and emphasizes coverage of content rather than depth with low expectations for success (Biggs and Tang, 2007b). However, Haggis (2003b) states of the evidence that a surface approach was found to be a successful strategy in higher education as compared with the deep approach. Therefore, considering the influence of the approaches to learning on learning outcomes, it is important for the educator to be knowledgeable about the diverse teaching and learning styles to promote deep learning.

2.4 CONCLUSION

In conclusion, learning for practice in relation to relevant existing literature was reviewed and discussed in this chapter. International and national perspectives were discussed with the aim of exploring nursing education trends. Learning in higher education emphasizes the attainment of key competencies through the four learning pillars. Deep learning is core to learning for practice and is influenced by the teaching styles/methods/, learning styles and approaches. In the next chapter, the research design and methods that were used are discussed.

CHAPTER THREE
RESEARCH DESIGN AND METHODS

3.0 INTRODUCTION

The aim of this chapter is to describe the research design and the strategies and methods that were used to meet the objectives of the study. Research design refers to the overall research plan for collecting data in order to answer the research questions (Fraenkel & Wallen, 2008). The study was conducted in two phases and the research methods used in each of the phases are described separately. Ethical considerations, issues of validity and reliability, and trustworthiness are also discussed. The data analysis approach is summarized for each data set obtained.

3.1 RESEARCH DESIGN

The study combined quantitative and qualitative approaches in a sequential explanatory mixed methods design (Creswell, Crark, Gutmann, & Hanson, 2003; Creswell, 2007). The sequential explanatory mixed method design was attained by using quantitative research methods first, followed by the qualitative methods in order to enhance the quantitative findings. Figure 3.1 depicts the sequence of activities in the research design. The rationale for using this type of a design was that neither quantitative nor qualitative methods would have been sufficient in themselves to capture the trends, detail and richness of the education process and the experiences of the participants. Further, when used in combination, quantitative and qualitative methods complement each other for a more complete analysis of the phenomenon (Creswell, 2007). In this instance, the analysis of the quantitative data complemented qualitative data collection. The literature Creswell, (2008) reports increasing use of a range of research approaches in nursing inquiry that have promoted and strengthened mixed approaches.

The quantitative approach is underpinned by positivism philosophy and is an approach where knowledge development is built on the three principles of skepticism, determinism and empiricism (Houser, 2008). On the contrary, a qualitative approach is guided by interpretive philosophy that helps in the identification of research issues from the

perspective of the study participants while attempting to make sense of or interpret the phenomenon from the meanings that participants bring to the study. The sequential explanatory design in this study is depicted in Figure 3.1.

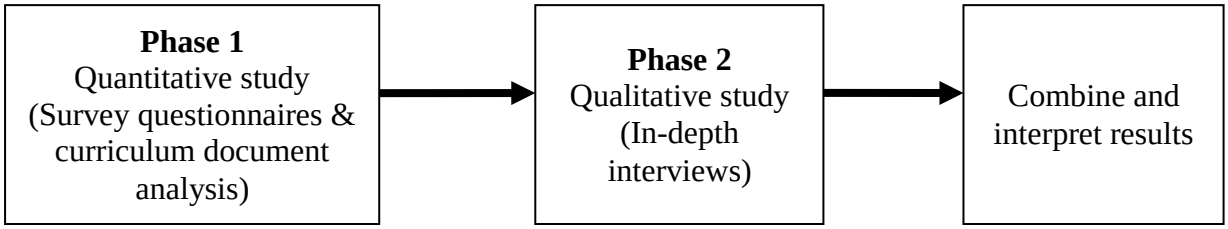


Figure 3.1 Sequential Explanatory Design

The implementation of the design occurred in two phases as follows:

Phase 1:

Quantitative data were collected and analyzed using four sets of questionnaires in answering the following research questions:

- What are the predominant teaching styles that are used by nurse educators in the BSN programme?
- What are the predominant learning styles that BSN graduates had used during their period of study at KCN as nursing students?
- How did BSN graduates/nursing students approach their learning with reference to motive and strategy?
- What is the level of critical thinking (CT) abilities among the graduate nurse who graduated from KCN?
- What is the quality of the nursing curriculum with reference to MNMC professional outcomes?

Phase 2:

Qualitative data were collected and analyzed using two sets of interview schedules in answering the following research questions:

- How do university nurse educators perceive the learning experiences of the graduate nurses for practice?
- How do the graduate nurses' perceive their own preparedness for clinical practice as a result of their BSN education programme?

The study was guided by constructivist epistemological assumptions and pragmatic philosophical perspectives. Any research plan has to reflect the justifications of all the technical decisions that are made. It is important to note that epistemologies, theoretical perspectives, methodologies and methods are basic elements of the research process.

3.1.1 Epistemology

Epistemology forms the framework for decisions regarding the types of research knowledge to be generated and influences the methodology that guides the choice of design and research instrument to be used (Bryman, 2004; Sarantakos, 2005a). It is important to note that different epistemological assumptions portray different ways of understanding the social world and reality. Constructivism views all knowledge and meaningful reality as constructed through interaction between human beings and their life worlds (Sarantakos, 2005a). In this case the educators' teaching experiences and graduate nurses' learning experiences and interactions are perceived as true and meaningful as experienced during their educational processes.

Nurse educators' and graduate nurses' meaning of social reality emerged from interactions in the teaching and learning experiences they had encountered during the education processes. Meanings were constructed as they had consciously engaged with the social realities in the education encounters. Furthermore, truth or meaning of social reality in the teaching and learning process may not be discovered but were developed when consciousness or intellectual minds engaged with the realities in their world. Objectivism is based on positivism and positivists believe that there is a real world out there independent of experience (Bryman, 2004), while constructivism is viewed from internal mediated reality of the phenomenon (Cronje, 2006). Therefore the constructivism epistemology is ideal to guide the conduct of this study; the emic perspectives through interviews will be used to collect

data from participants who will construct their own meaning of the educational processes. In objectivism meaning is viewed to exist objectively and independent of the human mind and external to the knower and is part of this study design.

This study addresses issues of social inquiry in terms of teaching and learning experiences; hence the need for constructive epistemological assumptions. The study aims at understanding the educational processes of graduate nurses in relation to learning for practice from the perspectives of educators and graduate nurses.

3.1.2 Meta-theoretical assumptions

Meta-theoretical assumptions are the philosophical assumptions that guide thinking in a research study. The assumption of this study is based on the pragmatic philosophical perspective; pragmatism is derived from the Greek word pragma meaning action (Pansiri, 2005). Pragmatic philosophical assumptions guided the thinking in this study because in mixed methods research, researchers build knowledge on pragmatic grounds (Creswell, 2003; Maxcy, 2003). Pragmatism emphasizes that knowledge and social reality are based on beliefs and habits that are socially constructed by the processes of socialization, legitimation or institutionalization (Amaratunga, Baldry, Sarshar & Newton, 2002; Pansiri, 2005; Yefimov, 2003). In this study, it is assumed that educators' and graduate nurses' knowledge and social reality are constructed and acquired through the education process as a socialization process.

Pragmatism refutes the idea that truth can be determined, and that knowledge claims can be totally abstracted from contingent beliefs, interests and projections. The researcher is of the view that the educators' and graduate nurses' true teaching and learning experiences arose out of their actions, situations and consequences of the teaching/learning interactions they had in the university. It would be impossible to understand the teaching/learning experiences of the graduate nurses without the historical processes in which teaching and learning took place. Therefore, pragmatism as an approach, as well as the variables and units of analysis are the most appropriate for finding answers to this study's research questions.

A major tenet of pragmatism is that quantitative and qualitative methods, although mixed, are compatible. During the design of this mixed methods study, three points were considered and these were *priority, implementation and integration* (Creswell, 2003).

- *Priority* refers to the method, either quantitative or qualitative, which is given emphasis in the study. In this study priority in design was given to the quantitative method, because the quantitative research component represented the major aspect of data collection and analysis in the study. Four survey questionnaires were used to collect data: The Grasha Teaching Style Inventory Version 3.0, the Grasha-Reichmann Learning Styles scales, the Biggs Two Factor Revised Study Process Questionnaire and the Watson-Glaser Critical Thinking Appraisal Form S Questionnaire. A curriculum rubric was used for content analysis of the BSN curriculum. The meanings that were deduced from the educators, graduate nurses' and the curriculum document on teaching and learning experiences revealed that educational experiences were constructed from the experiences and that the participants were aware of the social world (Jarvis, 2006).

- *Implementation* refers to whether quantitative and qualitative data collection and analysis takes place in sequence or in chronological stages, one following another, or in parallel or concurrently. In phase 1, quantitative, numeric data were collected first using survey questionnaires on the teaching styles of educators, learning styles and approaches of graduate nurses, the critical thinking levels among the graduate nurses and finally on analysis of the curriculum.

The sequential approach was chosen and started with administration of the Biggs Revised Study Process Questionnaire, the Grasha-Reichmann Learning Style Questionnaire, and the Watson-Glaser Critical Thinking Appraisal Form S to the graduate nurses and the Grasha Teaching Styles Inventory administered to educators. These were followed by in-depth interviews of graduate nurses and of educators. The rationale for this approach was that the quantitative data would provide baseline information to form a general picture of teaching and learning experiences in the process of education that guided the formulation of the

interview guides. In phase 2, main and significant findings from the quantitative surveys helped formulate questions for educators and graduate nurses' interviews.

- *Integration* refers to the part in the research process where there is combination and interpretation from both quantitative and qualitative methods and results. Creswell (2003) states that integration of data sets in mixed methods occur at several stages and can be at data collection, data analysis, interpretation or some combination of the two. In this study, the analyzed quantitative data and qualitative data were integrated in answering the research questions in an integrated discussion and interpretation of the results (Chapter 6).

This is in line with the purpose of sequential explanatory design when qualitative results assist in explaining and interpreting the quantitative data findings. This notion is supported by Johnson, Onwuegbuzie and Turner (2007) that pragmatism provides epistemological justification in research and logic for mixing methods and approaches. Mostly, pragmatism uses a combination of methods and ideas to help in best framing, addressing and providing tentative answers to research questions.

3.2 RESEARCH METHODS

Research methods refer to the research decisions that are taken within the framework of specific determinants unique to the study. Research strategies include the different techniques used to meet the aim of the study. It includes the research setting, the study population, the sampling technique and sample size, sample selection, pilot study, means of gaining access to study sites, data collection, data analysis, design validity, reliability and trustworthiness and ethical considerations (Patton, 2002).

3.2.1 Study population

The population encompasses the overall aggregate of cases that meet a designated set of criteria (Polit & Beck, 2010). In this study, there were two target and accessible population sets. The first population set comprised nurse educators (N= 50) from the two campuses of the University of Malawi, Kamuzu College of Nursing (KCN) who were all invited to

participate in the study. The second population set comprised all graduate nurses (N=384) who graduated from KCN between 2005 and 2009. All graduates were invited to participate in the study.

3.2.1.1 Inclusion criteria

For graduate nurses to be included in the study they must have had between one to five years of clinical experience after graduation and must be in clinical practice at the time of the study. The inclusion criteria for nurse educators required them to have two or more years of teaching experience in the BSN programme and to occupy a teaching post at KCN at the time of the study.

3.2.1.2 Exclusion criteria

Nurse educators who hold management positions were excluded. Graduate nurses with more than five years of clinical experience were not invited to participate in the study.

3.2.2 Sample selection and sample size

3.2.2.1 Phase 1

All prospective nurse educators (N=50) were invited to participate in the study by completing the Grasha Teaching Styles Inventory Version 3. Graduate nurses (N=235) were also invited to participate by completing the, Grasha-Reichmann Learning Styles Scales, Biggs Two Factor Revised Study Process Questionnaires and Watson and Glaser Critical Thinking Appraisal Form S. A statistically acceptable sample size for graduate nurses was calculated using the formula:

$$n = \frac{n_1}{1 + (n_1 - 1)/N}$$

Where

n = is the sample size

N = total number of graduates from the BSN programme since inception

Therefore $n = \frac{n_1}{1 + (n_1 - 1)/N}$

$= \frac{384}{1 + (384 - 1)/ 600}$

n = 235 graduate nurses representing 61% of total BSN graduates.

Therefore a sample size of 235 graduate nurses (n=235) was needed to achieve a 95% confidence interval. This gives over 80% power to detect significant differences among the variables of Competitive Learning Style, Collaborative Learning Style, Independent Learning Style, Avoidant Learning Style, Participant Learning Style and Dependent Learning Style, deep motive, deep strategy, surface motive, surface strategy, inferences, deductions, assumptions, interpretations and evaluation of arguments among the graduate nurses. The variables are from the four questionnaires that were used in the study.

The nursing curricula for each of the four years of the BSN degree in the subject general nursing (n=21), were purposively selected for curriculum evaluation.

3.2.2.2 Phase 2

Purposive sample utilizing an intensity sampling strategy was deployed to identify nurse educators and graduate nurses for in-depth interviews; the logic and power in intensity sampling lie in seeking information–rich cases for study (Patton, 2002). Intensity sampling is defined as the selection of information- rich cases that manifest the research phenomenon of interest intensely while seeking excellent or rich examples (Patton, 2002). Thus the researcher sought a sample of sufficient intensity to elucidate the learning for practice phenomenon by identifying the participants' years of experience. This guided sample selection and was used to ensure that the sample covered a represented range of targeted years of experiences in each category and a variety of work settings for both nurse educators and graduate nurses.

However, Patton (2002) is of the view that intensity sampling involves some prior information about the phenomenon and considerable judgement on the part of the researcher.

The researcher identified the numbers of graduate nurses and educators after observing the settings where the participants were working. Those settings which had high patient numbers were identified as ideal to participate in the study. It was thought that graduate nurses from these settings would be able to better articulate issues in relation to their roles. An equal number of participants from each of the four categories (years after graduation) were recruited from two years, three years, four years and five years. Graduate nurses' years of experience ranged from two to five years and the educators' ranged from two years to ten years.

The number of interviews conducted was determined according to the principle of data saturation hence the sample size was reached when saturation had been achieved. The graduate nurses sample size was twenty (n=20) and the nurse educators ten (n=10). The sample size is justifiable for the qualitative data because the aim was to discover meaning and uncover multiple realities; as such generalization was not a guiding criterion (Burns & Grove, 2011).

3.2.3 Research sites

There were several research sites used in this study. Firstly, the Kamuzu College of Nursing, Lilongwe and Blantyre campuses where the educators worked; this academic setting was ideal to complete the survey questionnaires to solicit their ideas on their teaching experience in relation to learning for practice.

Secondly government (public) and private (mission) hospital settings where graduate nurses practiced after graduating were used for the graduate nurses' interviews and survey questionnaire completion. A total of fifteen (15) hospitals formed part of the study settings as follows in the Southern region: Queen Elizabeth Central Hospital; Zomba Central Hospital, Thyolo District Hospital, Mulanje District Hospital and Chiradzulu District Hospital. In the central region Kamuzu Central Hospital, Dedza District Hospital, Ntcheu District Hospital, Mchinji District Hospital, Likuni Mission Hospital, Dae Yang Mission Hospital, Nkhoma Mission Hospital and Salima District Hospital. Lastly, Mzuzu Central

Hospital and Mzimba District Hospital in the northern region. These settings were identified due to the high placement numbers of the graduate nurses.

3.3 PILOT STUDY

A pilot study to test the research instruments was conducted with five educators at Kamuzu College of Nursing who did not meet the criteria to participate in the main study and 10 graduate nurses who had one year of clinical experience at Mitundu rural hospital. The pilot study was conducted firstly to assess whether participants understood and could answer the questions/statements asked in questionnaires and interview guides, and whether the interviews would elicit true differences in the perceptions and expectations of the educators and graduate nurses towards the learning for practice concept.

Secondly, to assess the performance of the participants' in real interview situations this is recommended so that participants are considered throughout the process of choosing the questionnaires and designing interview protocol as the participants supply relevant answers to questions (Burns & Grove, 2011) .

The participants found the language easy to understand in the questionnaires and interview guides during the pilot study. The pilot study also provided the researcher with additional experience in interviewing and gave an indication of the time that was needed for each interview. The researcher made informed changes in the numbering and sequencing of some questions in the interview guides before data collection. The research instruments were not tested on statistics as these were tested by the tool designers.

3.4 DATA COLLECTION: PHASE 1- QUANTITATIVE DATA

3.4.1 The instruments

The four survey questionnaires were administered to the two groups of participants, namely the educators and graduate nurses. The Grasha Teaching Style Inventory Version 3.0 was administered to the educators; for the graduate nurses the Grasha- Reichmann Learning Style Scales, Biggs Revised Two Factor Study Process Questionnaire and Watson- Glaser Critical

Thinking Appraisal Form S questionnaire were administered. A curriculum rubric was also used to evaluate the BSN curriculum.

3.4.1.1 Grasha teaching styles inventory: version 3.0 for educators

In order to determine the teaching approaches employed by the nurse educators in the BSN programme, the Grasha teaching styles inventory version 3.0 (Appendix A) was used. The questionnaire comprises 40 items that assesses teacher attitudes and behaviours associated with the five designated teaching styles of Expert, Formal Authority, Personal Model, Facilitator and Delegator. The five teaching styles are the dominant qualities that are present in any classroom setting. Of the 40 items, a total of eight items are related to the attitudes and behaviour of each style. This is a validated tool with a rating scale of 1 to 5. The scores are classified as: 1 = strongly disagree, 2 = moderately disagree, 3 = undecided, 4 = moderately agree and 5 = strongly agree. The range of low, moderate and high scores for each style is based on the test norms as depicted in Table 3.1.

Table 3.1 Grasha teaching style scores (Grasha, 2002)

	Low score	**Moderate score**	**High score**
Expert	1.0 – 3.2	3.3 – 4.8	4.9 – 7.0
Formal Authority	1.0 – 4.0	4.1 – 5.4	5.5 – 7.0
Personal Mode	1.0 – 4.3	4.4 – 5.7	5.8 – 7.0
Facilitator	1.0 – 3.7	3.8 – 5.3	5.4 – 7.0
Delegator	1.0 – 2.6	2.7 – 4.2	4.3 – 7.0

The profiles of the five teaching styles for all educators who participated were scored and rated. Grasha (2002) states that all the five teaching styles are possessed in varying degrees by all those who teach. A higher rating on each style was perceived as an important part of the style that the educators preferred during the course of the education process of the graduate nurses.

3.4.1.2 Grasha-Reichmann Learning Style Scales Questionnaire for Graduate nurses

To determine graduate nurses' learning styles the Grasha-Reichmann Learning Style Scales (Appendix B) was utilized to collect the data. The Grasha-Reichmann Learning Style Scales is a validated tool developed in the early 1970s by Grasha and Reichmann in an effort to identify preferences learners had for interacting with peers and teachers in the classroom setting. The preferences that the learners had were termed learning styles. The learning styles were defined as characteristics that were thought to reside within every learner and that some learners were thought to have more of one style than the other. Learning styles may be the conceptual bases for teaching because the learning styles are students' personal dispositions that influence their learning ability to acquire information and interact in any learning experience.

The identified learning styles on the learning style scales included Competitive, Collaborative, Avoidant, Participant, Dependent and Independent. No one individual learning style is favored in any classroom setting, what is important is whether the learning outcomes are positive or negative and that each teaching approach considers the diversity of the learning styles among learners. Included in the learning styles according to Grasha (2002) are motives, perceptual skills and modes of processing information, variety of preferences for sensory stimulation, gathering information, social relationships and qualities of the physical environment.

The questionnaire has 60 items that describe the personal dispositions of the learners and every ten items describe the attitudes and the behaviours of the learners in a classroom in a particular learning style. A rating scale of 1 to 5 is used to rate the scale scores where 1= strongly disagree, 2 = moderately disagree, 3 = undecided, 4 = moderately agree and 5 = strongly agree. The range of low, moderate and high scores for each style is based on the test norms as depicted in Table 3.2.

Table 3.2 Grasha-Reichmann Learning Style Scales scores (Grasha, 2002).

	Low score	Moderate score	High score
Independent	1.0 – 2.7	2.8 –3.8	3.9 – 5.0
Avoidant	1.0 – 1.8	1.9 – 3.1	3.2 – 5.0
Collaborative	1.0 – 2.0	2.8 – 3.4	3.5 – 5.0
Dependent	1.0 – 2.9	3.0 – 4.0	4.1 – 5.0
Competitive	1.0 – 1.7	1.8 – 2.8	2.9 – 5.0
Participant	1.0 – 3.0	3.1 – 4.1	4.2 – 5.0

3.4.1.3 Biggs Revised Two Factor Study Process Questionnaire: R-SPQ-2F

The learning approaches that were used by the graduate nurses were retrospectively determined through the use of Biggs Revised Two Factor Study Process Questionnaire (Appendix C). The Biggs Revised Two Factor Study Process Questionnaire (R-SPQ-2F) is a validated tool developed by Biggs, Kember and Leung (2001) for use by teachers to evaluate the teaching and learning approaches that students use in a particular learning context. Although the tool is used for evaluating learning approaches in a classroom, literature (Biggs, Kember, & Leung, 2001) indicate that the tool can also be used for diagnostic purposes in learning. Furthermore, the intention of this study was to determine the learning perspectives of those graduates already in practice.

An approach to learning describes how a learner perceives the learning task and how the learner goes about it to accomplish. Therefore, it was envisaged that the graduate nurses' accounts of their learning encounters during training would reflect their genuine learning experiences. This process involves three factors: the student, the teaching context and the learning outcomes (Biggs et al 2001). The SPQ responses signify both individual characteristics and teaching context. The tool has 20 item statements related to the four approaches to learning. The four approaches to learning are: Deep motive, Deep strategy, Surface motive and Surface strategy. Within these 20 items there were 10 items related to strategy and 10 items related to motive with subscales consisting of five items for each strategy and motive.

The scoring was done using a rating scale of 1 to 5. 1= strongly disagree, 2 = moderately disagree, 3 = undecided, 4= moderately agree and 5= strongly agree. The scoring is done in an order where item 1,5,9,13 and 17 were Deep motive statements and item 2,6,10,and 18 were deep strategy statements were added up to give a deep approach and significantly the other items were scored in a cyclic order for the surface motive scores and all the surface strategy scores are added up to give a surface approach score.

3.4.1.4 The Watson- Glaser Critical Thinking Appraisal form S

The critical thinking levels of the graduate nurses were determined through the use of the Watson - Glaser Critical thinking appraisal form S questionnaire (Appendix D). The Watson -Glaser Critical Thinking Appraisal Form S is a validated instrument designed to measure important abilities in critical thinking by the Pearson Group in the United States of America (Watson & Glaser, 2006). The development of the Watson-Glaser critical thinking appraisal form S was driven by the conceptualization of critical thinking as a combination of attitudes, knowledge and skills. The conceptualization of critical thinking in the questionnaire includes:

- The ability to recognize the existence of problems and an acceptance of the general need for evidence in support of what is asserted to be true
- Knowledge of valid inferences, abstractions and generalizations in which the weight or accuracy of different kinds of evidence are logically determined
- Skills in employing and applying the above attitudes and knowledge

With the aforementioned, conceptualization of thinking in the Watson –Glaser Critical Thinking Appraisal Form S comprises sets of five tests. Each set of the designed test is to check different aspects of critical thinking abilities and these are: inferences, recognition of assumptions, deductions, interpretations and evaluation of arguments. High level of competency in critical thinking which is measured by Watson-Glaser is operationally defined as the ability to correctly perform a domain of tasks represented by the five tests on inferences, recognition of assumptions, deductions, interpretation and evaluation of arguments.

The instrument has 40 questions in total with seven questions testing for inferences, eight questions testing the recognition of assumptions, nine questions testing the ability to make deductions, seven questions testing for the ability to interpret and nine questions testing for the evaluation of arguments. An answer sheet accompanied the critical thinking short form test book for the participants to score the corresponding responses in a multiple choice format. The correct answers were provided to the researcher to grade the performance of the participants. Percentile scores were also available in the manual for expression of the obtained test scores in terms of their positions within a group of 100 scores.

3.4.1.5 Curriculum rubric

The data for the BSN curriculum evaluation were collected using a curriculum evaluation rubric (Appendix E). An evaluation rubric promotes authentic strategies that facilitate the opportunity for capturing standard qualitative aspects of curriculum evaluation and in this case meaningful learning experiences for the graduate nurses (Halonen, Bosack, Clay & McCarthy, 2003). The quality components were evaluated on a rating scale 1 to 3. 1 = does not meets standard, 2 = partially meets standard and 3= meet standard.

The components of quality evaluation that guided the analysis and evaluation of the curriculum included seven main items as follows:

- Process and tools to assess student's interest, learning styles and self-directedness
- Process and tools for assessing student's prior knowledge
- Standard –based content outline
- Articulated learning outcomes
- Suggested teaching strategies/approaches
- Suggested assessment strategies
- Suggested teaching – learning resources.

The main items had thirty-five sub-items to specify the core curriculum elements to be evaluated. These sub-items can be seen in the rubric in appendix E.

All the research tools can be found in the Appendix A, B, C, D, and E.

3.4.2 Data collection procedure

Data collection is the precise, systematic gathering of information relevant to the research purpose (Burns & Grove, 2011). Prior to administering the questionnaires and conducting in-depth interviews, participants were contacted and adequate explanations were given about the research project. This was done because time spent with participants and subsequent relationships built between the researcher and the participants are crucial for genuine understanding during interview interactions. This contributes to empowerment of participants, enhanced communication and clarification of roles among the partners involved in the study project (Patton, 2002; Sarantakos, 2005).

The objective in a mixed methods study such as this one is to use different data collection methods to add to the understandings gleaned from the research problem in a sequential manner.

3.4.2.1 Nurse educators

The Grasha Teaching styles Inventory was distributed to fifty (50) educators from both campuses of KCN who were invited to participate by completing the teaching styles inventory. Completion of the questionnaire was considered willingness and consent to participate in the study. The participants were informed (Appendix F) that the questionnaires were to be sent back to the researcher through post within two weeks of receiving them through the self- addressed envelopes that were provided. Forty-four (n=44) were returned amounting to a response rate of 88%.

3.4.2.2 Graduate nurses

The Biggs Revised Two factor study Process Questionnaire: 2R-SPQ-2F; the Grasha-Reichmann Learning Style Scales and the Watson-Glaser Critical Thinking Appraisal Form S question books with the answer sheets were distributed to 235 graduate nurses who were invited (Appendix G) to participate from the various study sites as depicted in Table 3.3.
Completion of questionnaires was considered willingness and consent to participate in the study. Two hundred (n=200) graduates responded amounting to a response rate of 85.1%.

One focal person was identified in each setting to collect and post the questionnaires to the researcher after two weeks of distribution.

Table 3.3 Clinical sites and number of respondents

Clinical Sites	**Accessible Population Invited**	**Responded N**	%
Dedza District Hospital	20	18	
Dae yang Mission Hospital	10	8	
Chiradzulu District Hospital	15	13	
Likuni Mission Hospital	10	8	
Mchinji District Hospital	20	17	
Kamuzu Central Hospital	25	22	
Mulanje District Hospital	15	13	
Mzimba District Hospital	15	13	
Mzuzu Central Hospital	13	10	
Zomba Central Hospital	25	23	
Queen Elizabeth Central Hospital	25	23	
Thyolo District Hospital	10	8	
Salima District Hospital	10	8	
Ntcheu District Hospital	12	10	
Nkhoma Mission Hospital	10	7	
Grand total	**235**	**200**	**85.1%**

3.4.2.3 Data Collection: Curriculum Evaluation

Data to evaluate the BSN curriculum were collected from eight of the ten experts who were invited to participate in the curriculum evaluation. The experts were purposively sampled based on their experience and knowledge of the BSN curriculum. The experts were required to be conversant with the education processes of the graduate nurses as they were to judge the BSN curriculum content in relation to learning for practice. The selection of the experts was based on subject expertise, knowledge of regulation skills and practice. The experts' professional opinions on the curriculum component were elicited i.e. How well the concepts or items represented the curriculum content to train the graduate nurses to learning for practice (Burns & Grove, 2011a).

To ensure the collection of quality data with the curriculum rubric (Annexure E) important information on the learning for practice concept was provided to the experts with some clear instructions on how the curriculum rubric was to be evaluated (Bruce, Langley, & Tjale, 2008). In total two hundred and ten (210) curriculum rubrics were distributed to 10 experts (21 for each expert). A total of 21 subjects that had nursing content were purposively selected from 35 subjects of the BSN curriculum. The selected subjects are depicted in Table 3.4. The curriculum evaluation rubric with a Likert scale of 1 to 3 guided the evaluation for quality.

Table 3.4 Selected BSN subjects containing nursing content (n=21)

Year	Subject No. In Curriculum	Number of Nursing Subjects Selected
Year 1	10	4
Year 2	10	6
Year 3	10	7
Year 4	5	4
Total	35	21

3.5 DATA COLLECTION: PHASE 2-QUALITATIVE DATA

3.5.1 Interview with nurse educators

Phase 2 interviews followed two months after the administration of the Grasha Teaching Styles Inventory. The participants were invited to participate in the interviews during the phase one contact as the researcher had wanted to understand their world views and experiences on teaching and learning processes (Kvale, 2006). In-depth interviews comprised semi-structured, open-ended questions. Semi-structured questions were used because they allow participants to present their experiences not only in their own expressions but also in their own styles (Holloway, 2005). The questions from the interview guide (Appendix H) were formulated from the quantitative data analysis results that had some relevancy to learning for practice among the educators. Additional items for the interview guides were generated from statistically significant results from phase 1 data analysis and these included the most preferred teaching methods.

All interviews were conducted in private rooms which were organized prior to interviews and the interviews lasted for about forty-five minutes to 1 hour. The use of a private room by the researcher was necessary to protect the anonymity of the participants and to maintain confidentiality of data collected. In-depth interviews were conducted to solicit participants' perceptions and meanings of learning for practice. All participants were asked to narrate their teaching experiences using the interview guide, and probing questions were also asked depending on the emerging issues which required further clarification.

In-depth interviews are reported to yield rich insights into the participants' experiences, opinions, attitudes and feelings which are sometimes difficult to elicit in group discussions (Patton, 2002). The participants' responses reflected their experiences in the educational processes of the graduate nurses. All interviews were audio taped to provide a permanent full record of questions and probes used.

In-depth interviews also provided the opportunity to evaluate the validity of the answers by observing the non-verbal cues of the participants while exploring in greater depth the meaning of learning for practice among educators (Burns & Grove, 2011b).

A purposive intensity sample of ten (n=10) was reached with the saturation of the data. Saturation was reached when the responses were repeatedly given in the same questions. Transcription was done verbatim (Appendix I) at the end of each day, Flemming, McKee and Moore (2010) state that transcription turns the interview material into a text which the researcher dialogues with. Lapadat and Lindsay (1999) recommend that decisions about transcribing should be made during the development of the proposal. Some of the decisions on the transcriptions included what should constitute basic units in the transcript, how to organize the data, what paralinguistic and nonverbal information to include and what conventions should be used to symbolize the learning for practice concept. Data collection and analysis were done concurrently to promote awareness of emerging themes and identify areas which still needed to be explored.

3.5.2 Interviews with graduate nurses

Phase 2 interviews followed two months after the administration of the learning styles and learning approaches questionnaires and the Critical Thinking Appraisal questionnaire. Graduate nurses were purposively selected to participate in the interviews during the phase 1 survey as the researcher had wanted to understand their world views and experiences on teaching and learning processes (Kvale, 2006). Semi-structured questions were derived from key findings from the quantitative data analysis and made up the interview guide (Appendix J). Semi-structured questions were used because they allow participants to present their experiences not only in their own words but also in their own styles (Holloway, 2005). The interview guide was formulated from significant results from the quantitative data analysis.

Purposive intensity sampling strategy (Patton, 2002) was used to identify participants among graduate nurses for the interviews in different health care settings. The choice was based on the participants' number of years of clinical experience, which had ranged from two to five years. The type of health care setting was also considered in intensity sampling to enrich the data and this had comprised the hospital departments of medical wards, surgical wards, children's ward, outpatient department, theatre, maternity, and community health centers. The various departments were used to solicit diverse experiences of the graduate nurses.

All interviews were conducted in private rooms to promote confidentiality of the information that participants may give. The procedure was similar with the nurse educators' interviews. A purposive intensity sample of twenty (n=20) graduate nurses was reached before saturation of the data for the qualitative data phase had been reached.

3.6 DATA MANAGEMENT

3.6.1 Phase 1

Preceding data collection, variable names were created for each question for all the four sets of survey questionnaires with codes for each category. A database was created using SPSS version 16.0 for each of the four questionnaires. The database included a column for identification number for each participant, label of the question, values of responses, a

column for missing values and a type of measure or scale for each response. An identification number is important because it is a way of preventing duplication of cases.

Missing values were assigned 9 to distinguish from data entry omissions. Each row represented one participant and each column represented one variable. All four questionnaires were checked for completeness to determine that all responses had been marked. No omissions were observed on all the four sets of questionnaires. Data entry proceeded after verifying for mistakes on the questionnaires. After data entry the database was inspected to see if there were any visible errors, which could have resulted from faulty data entry, faulty measurements and faulty responses. In addition, descriptive statistics such as frequencies, range, means, median and mode were run while checking for missing values and distributions. There were no missing values which could have been of major concern because they would have affected the power of study and subsequently affect interpretation of the findings.

3.6.2 Phase 2

The interview tapes were transcribed verbatim and typed every day after data collection in preparation for data analysis. The transcripts were then saved in Microsoft word text format for further analysis. Qualitative data compilation and analysis involves imagination, rational discipline, reasoned rigor and a great deal of hard work on the part of the researcher (Patton, 2002). This is because the use of content analysis in qualitative data requires data reduction and sense-making efforts while taking volumes of qualitative material for interpretation.

All attempts were made to identify meanings and important consistencies in the learning for practice concept among the graduate nurses and educators' transcripts (Patton, 2002). Importantly qualitative analysis is inductive in the early stages so the transcribed scripts facilitated the recognition of patterns in the data, codes, labeling of themes and the sub-themes.

3.7 DATA ANALYSIS

3.7.1 Phase 1

In phase 1, data were analyzed using statistical packages SPSS (version16.0). Before the analysis of the quantitative surveys, screening of data was conducted on univariate and multivariate levels (Burns & Grove, 2011). Data screening was done including descriptive statistics for all the research variables, information about missing data, normality, multicolinearity and singularity. Descriptive statistics for the surveys were summarized in the text, reported in graphs and tables, in subsequent chapters.

3.7.1.1 Teaching style inventory data

Quantification of the number of teaching styles was done using the MS Excel programme to identify the most favored teaching styles among the educators by adding together the eight items that belonged to each category of the styles. Then the quantified teaching inventory scores were entered on the SPSS version 16.0 programme using codes of Expert, Formal Authority, Personal Model, Facilitator and Delegator. Distributive statistics were run and frequency tables created, means and standard deviations were obtained for each style.

3.7.1.2 Grasha- Reichmann Learning Styles data

Grasha-Reichmann learning styles data were entered on an MS Excel programme to quantify the participants' responses after summing up the ratings of each column that had ten items each according to the type of learning styles. Distributive statistics were run and frequency tables created with means and standard deviations.

3.7.1.3 Study Process data

The Biggs Revised Two Factor Study Process data were entered in the MS Excel programme to quantify deep motive, deep strategy, surface motive and surface strategy. Items of each category were assigned 5 marks with a total of 25 marks per category and the total scores for the deep approach were the total scores from deep motive and deep strategy which totaled 50 marks, while the surface approach score was derived from the total scores of surface motive and surface strategy. The coded questionnaires were entered in SPSS version 16.0 using specific item codes of deep motive, deep strategy, surface motive and

surface strategy. Distributive statistics were run with frequency tables created, means and standard deviations; level of significance was set at 0.05.

3.7.1.4 Critical thinking data

The Watson-Glaser Critical Thinking data answer sheets were marked using the marking guide that was provided by the Pearson Group. Using the MS Excel programme all the scored grades were quantified according to the critical thinking variables of Inferences, Assumptions, Deductions, Interpretation and Evaluation of Arguments. The marked grades were added together to obtain a total grade of 40. These were matched with the percentile grades in the Watson-Glaser Manual to rank the obtained grades by the participants with the expression of an obtained test score in terms of their position within a group of 100 scores. The total grades and percentile scores on the variables of Inferences, Assumptions, Deductions, Interpretations and Evaluation of arguments were then entered in SPSS version 16.0 where distributive statistics were performed; frequency tables, graphs, means and standard deviations were created.

3.7.2 Phase 2

Content analysis approach was used to analyse the learning for practice phenomenon in the educational processes of the graduate nurses (Hsieh & Shannon, 2005). Content analysis is defined by Hsieh and Shannon (2005) as a research method for the interpretation of the text data through a systematic classification process of coding and identifying themes and patterns. Interpretation included developing descriptions of the analyzed data on teaching and learning experiences of the educators and graduate nurses, and generating themes. The approach was appropriate because learning for practice literature is limited and as such the use of preconceived categories was avoided and only categories and names of categories had come from the study data. Furthermore, qualitative researchers use intricate reasoning in data analysis which is multifaceted (Creswell, 2003a) therefore, inductive and deductive processes were used in the study to come out with meanings of learning for practice while analyzing the educational processes of the graduate nurses. This was done particularly to check what ideas would emerge from the texts from the participants' perspectives. This was followed by coding of the main ideas to bring meaning to the information, by taking text

data into categories and labeling the categories into themes (Sarantakos, 2005). Figure 3.2 depicts the qualitative data analysis approach that was used.

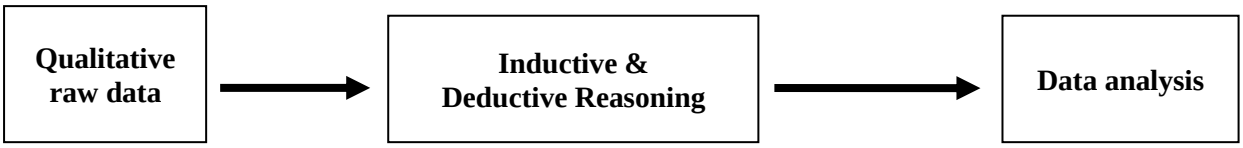


Figure 3.2 Qualitative data analysis approach

3.7.2.1 Analysis of interview data with educators and graduate nurses

Using content analysis (Elo & Kyngas, 2008; Hsieh & Shannon, 2005) the recorded interviews were transcribed verbatim. The transcription of the study mainly included the communicative interactions that were involved and that at times laughter was the only paralinguistic symbol, which was reflected in some transcripts like mmm, Aaa!

The process of inductive reasoning was then used to help the researcher grasp essential meanings in the raw data to identify categories and themes. The text data from the educators' and graduate nurses' in-depth interviews were interpreted and analyzed with the goal of providing knowledge and meaning of learning for practice in the context of graduate nurses' education processes. Therefore reading through of all the transcripts was done to have a general sense of the information while reflecting on the overall categories, themes, sub-themes and meanings of learning for practice. This was done to have an immersion in the data and to obtain an overview of the whole data.

Some margin notes were written in the transcripts to enhance immersion in the data. Immersion in data to comprehend its meaning in its entirety was important as a first step in the analysis without losing connections between the concepts of learning for practice and the educational processes. The margin notes were essential to the analysis at this time as the observations and experiences were rigorously recorded at the time of interview and had subsequently formed part of the data. Hence the margin notes that were made enhanced the data analysis process. Attached in Appendix I.

However, important to note was that the understanding of the interview context had brought depth to data immersion during data analysis due to the purposive intensity sampling. This enabled subsequent interpretations of data to fully account for the research context beyond the interview transcripts. The transcripts were read word by word while highlighting some key words that had captured key thoughts and concepts to formulate codes on learning for practice. Writing of reflective passages in the notes was the initial sorting analysis process. In this process the researcher had begun to incubate ideas about the possibilities of analysis as drafting of summaries of the interpretations of the text data was done (Green, Wills, Hughes, Small, Welnch & Daly, 2007).

As the process continued code labels emerged, the researcher then had to look at words that were used in the context of learning for practice from the participants. This was the process of reducing data that followed creating displays of information on learning for practice, learning readiness and teaching approaches and critical thinking. There was also review of the study objectives to relate the emerging data and the thinking in terms of theoretical understanding in learning for practice. Codes were written through the process that involved examining and organizing information that was contained in each interview transcript and the whole data set. Bradley, Curry and Devers (2007) indicate that regardless of an approach, a well crafted, clear and comprehensive code structure promotes quality of subsequent analysis. Table 3.5 and Table 3.6 display the codes that had emerged from the data from graduate nurses and educators.

Table 3.5 Constitutive Codes for Graduate Nurses data

Code	**Meaning**
RPR	Readiness to professional role
OWS	Overwhelmed and scared
DA	Depended on authoritative figure
DA	Deciding abilities
IPR	Interest for professional role
ENK	Equipped with necessary knowledge
SPR	Support to professional role
TT	Teaching thinking

Code	Meaning
SFR	Struggled for resources
CGB	Could not go beyond the teacher
TEO	Teaching was examination oriented
IL	Involving learners
CCS	Course content structure
OLE	Outstanding learning encounters
LA	Learner involvement
TP	Teaching passion
EIT	Examples in teaching
RSC	Restructuring courses
SCE	Suggested classroom experiences
EIT	Encourage interactive learning

Table 3.6. Constitutive Codes for Educators data

Code	Meaning
CT	Critical thinking
MT	Method of teaching
SD	Self-directed learning
EMP	Empowerment
LE	Learning
TC	Teacher centred
LLE	Learner lack empowerment
PTM	Preferred teaching method
TA	Teaching approach
PBL	Problem-based learning
SA	Student attitude
GD	Group discussions
PK	Prior knowledge
SIM	Simulation
TT	Teaching thinking
SC	Sequencing of content
AN	Analytical skills

At the heart of qualitative analysis lies the identifications of themes and sub-themes (Ryan & Bernard, 2003). The approaches of identifying the themes and sub themes in this study

included an inductive approach, the researchers' prior theoretical understanding of learning for practice with a careful search of the texts and word based techniques such as word repetitions. To this end Ryan and Bernard (2003) postulate that words that are repeated are often seen as being relevant in the minds of participants. For example expressions like, "depending on authoritative figure", "feeling overwhelmed and scared", "lack of confidence" and "challenging student learning encounters" were commonly mentioned among the educators and this is how I identified it as one of the themes. Pawing (Ryan and Bernard, 2003) was also used where quotes reflecting meanings were marked with a different font colour. While comparing and contrasting the data texts I was able to identify commonalities among the participants and these constituted the shared learning experiences. Emerging themes were pieced together to form a comprehensive picture of the collective experience for the participants and it is through this process that the researcher was able to understand the educational experiences of the graduate nurses through the transcribed texts. The identified constitutive themes and sub-themes were composed purely on the basis of what the participants had narrated. Themes and sub themes formed the base for interpreting and describing the analysis of the education process of the graduate nurses.

3.7.3 Evaluation of the curriculum rubric

Data for the evaluation of the curriculum was from the curriculum rubric that was completed by the eight (n=8) nursing experts. The rubric was coded to maintain anonymity of the participants from E01 to E08. All the responses were then entered in SPSS version16.0. Data cleaning was done to check for missing variables and there were no missing variables.

3.8 DESIGN VALIDITY, RELIABILITY AND TRUSTWORTHINESS

3.8.1 Phase 1 quantitative design

In quantitative research reliability and validity of the research tools are very important for reducing errors that might have been raised from measurement problems in the research study. Validity and reliability are related constructs as validity predicts reliability of the instrument (Bryman, 2004).

3.8.1.1 Reliability

Reliability denotes the consistency of measures obtained in the use of an instrument and indicates the extent of random error measurement method (Burns & Grove, 2011a). However, reliability of a measurement is an indicator of the confidence placed on the research results (Watson & Glaser, (2006), three factors mostly are considered in reliability and these are stability, internal reliability and inter-observer consistency.

The Grasha Teaching Styles Inventory questionnaire and the Grasha-Reichmann Learning Style scales are adopted instruments from Anthony Grasha with the stability or test, retest reliability obtained through pilot testing of the survey instruments by Grasha. The results of the pilot testing were compared with the actual survey results where they were correlated and expressed by the Pearson r Coefficient of 0.80. Burns and Grove, (2011a) indicate that a reliable coefficient of 0.80 is considered the lowest acceptable value as the instrument has 20% random error.

The Biggs Revised Two Factor Process Questionnaire was an adopted research instrument from John Biggs. The instrument was tested by Biggs et al (2001) using reliability procedures and confirmatory factor analysis. The instrument had accepted Cronbach's alpha values of 0.73 for deep approach to 0.64 for surface approach for scale reliability. Confirmatory factor analysis indicated a good fit to the two factor structure as there were deep and surface approach scales identified. In the pilot study, the researcher checked if the participants would respond and understand the question items clearly. The participants had answered the question items with ease.

Watson-Glaser Critical thinking Appraisal Form S an adopted questionnaire from the Pearson and Talent Lens, has reliability that was calculated using the Cronbach's alpha and standard error measurements with the aim of examining evidence for reliability. All the three components of stability, internal reliability and inter-observer consistency were tested and ranged from 0.76 to 0.85. Important to note is that the test-retest reliability of Watson-Glaser has a small difference index of 0.17 indicating that the magnitude of the difference in

mean scores between first testing and retesting is small. Participants had answered all the questions with ease and understood the language of the tools during the pilot study.

3.8.1.2 Validity

Validity refers to the extent to which a study precisely reflects or assesses the specific concept the researcher is attempting to determine (Burns & Grove, 2011a). The validity of the instruments in this study determined how well the research instruments reflected the constructs which were being examined in the study. Burns and Grove (2011b) indicate that validity of research instruments vary from one sample to another and one situation to another; hence, all the research instruments were pilot tested to evaluate their validity in the context of learning for practice.

- Grasha Teaching Styles Inventory Version 3.0 and Grasha- Reichmann Learning Style scales questionnaire validity tests were measured by Grasha (2002) through content-related validity as these are adopted research tools in this study. Validity of the two instruments in the study was shown by the extent to which the survey items and the scores from the questions were representative of all the possible questions about teaching and learning for practice experiences. The readability levels of the participants focused on their abilities to read and comprehend content of the research instruments with ease (Burns and Grove, 2011a).

- Biggs Revised Study Process Questionnaire as an adopted questionnaire has evidence of construct validity. Construct validity examines the degree to which an intervention can be a good representation of any construct theorized as having potential cause to beneficial outcomes (Polit & Beck, 2006). The revised study process questionnaire dimensions have four components that were examined by confirmatory factor analysis that comprised congruent motive and strategy components. Watson and Glaser (2006) state that evidence of content validity exists when a test includes a representative sample of knowledge, skills and abilities. When the instrument was pilot tested the participants' responses in the pilot study reflected motive and strategy components of deep and surface approaches which were indicators pertinent to the intended learning for practice

constructs accuracy. Therefore, the evidence of validity for the revised study process questionnaire is high as Cronbach (1970) was of the view that validity of any instrument is presumed to be high if the test gives information the decision maker needs.

- Watson-Glaser's critical thinking appraisal form S as an adopted tool and its validity was measured by criterion- related scores and other study related scores. Content related validity examined the extent to which any measurement included major elements that are relevant to the construct to be examined (Burns & Grove, 2011 b). The criterion related validity evidence mostly indicates some statistical relationship that exists between scores of a test and one or more criteria. The various studies that had provided strong criterion related evidence in the Watson – Glaser critical thinking appraisal form instrument are the Bauwens and Gerhard (1987) study of nursing students; Watson- Glaser correlated .50 with the National Council Licensure Exam scores and .38 with the state licensing examination scores (Gross, Takazawa, & Rose, 1987). These studies therefore provide evidence of the validity of the Watson-Glaser critical thinking form S for academic success criteria.

- The content validity of the curriculum rubric was determined by sending the curriculum rubric to ten experts who were purposively identified. Ten experts is a recommended size (Burns and Grove, 2011a) as more experts allow greater variations in level of agreement and that 75%-80% is the lowest acceptable level of agreement. The experts were required to give their professional opinion on the desired curriculum concepts as to how well the concepts or items represented the curriculum construct (Gomm, Needam, & Bullman, 2000; Burns & Grove, 2011a). Despite experts' judgments having potential to bias and subjectivity, there is acknowledged value and education inferences from their participation (Bruce et al, 2008). The experts were also used in an effort to improve on the quality of the ideas in the checklist.

The data were analyzed using the content validity index for scales (Lynn, 1986; Martuza, 1977). Content validity index is a method of measuring validity for multi-item scales based on expert ratings of relevancy in the construct domain (Polit, Beck, & Owen, 2007) and in

this case the BSN curriculum. This method was used because from the numerous methods of quantifying experts' degree of agreement on relevancy of proposed curriculum rubric instrument, the content validity index for scales was considered to be a standard index that utilizes two types of content validity index on a 4-point ordinal rating scale. The two types of the content validity index included were one that involved content validity of individual items the I-CVI and the other one that involved the content validity of overall scale the S-CVI. Despite the I-CVI and S-CVI being standards for considering interpreter agreements that simply express the proportion of agreements (Polit & Beck, 2006) there are times when the agreements become inflated by chance. There is also a possibility that disagreement may be inflated due to these factors as well. Lynn (1986) designed a criterion for item acceptability that incorporated standard error proportion where the I-CVI of 1.00 is fit for five or fewer judges and no lower than .78 with six or more judges.

In this study the S-CVI formula that was used averaged the I-CVI value because of the focus on average item quality rather than on average performance of the experts (Polit and Beck, (2008) 0.90 was considered as a normal value. The approaches were used because literature by Polit, Beck and Owen (2007); and Polit and Beck (2006) recommend that for a scale to be judged to have excellent content validity it should be composed of items with I-CVIs of .78 or higher and an S-CVI/Ave of .90 or higher. Table 3.6 depicts the results of the validation exercise. Six experts' judgmental data were quantified through an MS Excel spread sheet for analysis with the procedures of quantifying judgmental data sets of calculating the Content Validity Index (Polit & Beck, (2007).

The judgment of quantifications involved determining the proportion of experts who agreed content validity was established with scores of 3 and 4 on their rating scales. The calculation of the CVI (Bruce et al 2008) and the S-CVI as a proportion of items was to be given a rating of quite or very relevant by both raters (Polit & Beck, 2006). The actual CVI of the items on the curriculum rubric was the proportion of the items that had received a rating of 3 and 4 by the experts. Polit and Beck (2006) are of the view that a scale that can be judged to have excellent content validity is to be composed of items that have Lynn (1986) criteria of I-CVI of 1.0 with 3 to 5 experts and a minimum of I-CVI of 0 .78 for 6 to 10 experts and an

SCVI/ Ave of 0.90 or higher. SCVI is the scale level CVI that some researchers have indicated an S-CVI of 0.80 or higher is acceptable (Polit& Beck, 2004). Table 3.7 depicts the CVI and S-CVI ratings on the BSN curriculum, please note that an x in each box reflects an expert rating of 3or 4 and – indicates a rating below 3. The mean was calculated by averaging the I-CVI summing them up and dividing by 37, therefore the mean I-CVI is 0.78 and S-CVI was calculated by dividing 29 items that were considered right by all experts by thirty-seven items and is 0.96. From these values the curriculum rubric would be considered to have a scale that has high content validity.

Table 3.7 Expert ratings on scoring of curriculum rubric

Item	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	NO. agree	Item CVI
1	x	x	x	x	x	x	6	1.00
2	x	-	x	x	x	x	5	0.83
3	-	x	x	x	x	x	5	0.83
4	x	x	x	x	x	x	6	1.00
5	x	x	x	x	x	x	6	1.00
6	x	x	x	x	x	x	6	1.00
7	x	x	x	x	x	x	6	1.00
8	x	x	x	x	x	x	6	1.00
9	x	x	x	x	x	x	6	1.00
10	x	x	x	x	x	x	6	1.00
11	x	x	x	-	x	x	5	.083
12	x	x	x	x	x	x	6	1.00
13	x	x	x	x	x	x	6	1.00
14	x	x	x	x	x	x	6	1.00
15	x	x	x	x	x	x	6	1.00
16	x	x	x	x	x	x	6	1.00
17	x	x	x	x	x	x	6	1.00
18	x	x	-	x	x	x	5	0.83
19	x	x	x	x	x	x	6	1.00
20	-	x	x	x	x	x	6	1.00
21	x	x	x	x	x	x	6	1.00
22	x	x	x	x	x	x	6	1.00
23	x	x	x	x	x	x	6	1.00
24	x	x	x	x	x	x	6	1.00
25	x	x	x	x	x	-	5	0.83
26	x	x	x	x	x	x	6	1.00
27	x	x	x	x	x	x	6	1.00

Item	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	NO. agree	Item CVI
28	x	x	x	x	-	x	5	0.83
29	x	-	x	x	x	x	5	0.83
30	x	x	x	x	x	x	6	1.00
31	x	x	x	x	x	x	6	1.00
32	x	x	x	x	x	x	6	1.00
33	x	x	x	x	x	x	6	1.00
34	x	x	x	x	x	x	6	1.00
35	x	x	x	x	x	x	6	1.00
36	x	x	x	x	x	-	5	0.83
37	x	x	x	x	x	x	6	1.00

3.8.2 Phase 2

Trustworthiness guided the quest for quality in the qualitative data phase. Lincoln and Guba (1985) state that, "truth value" or trustworthiness is established when findings reflect the meanings represented by the participants' constructions of the phenomena under investigation. Credibility, transferability, dependability and conformability are considered to be the foundation components of trustworthiness in this study (Bryman, 2004). The application of these components in the study is described below.

3.8.2.1 Credibility

Credibility involves establishing that the results of the research can be believed from the participants' and the researcher's perspective. Lincoln and Guba (1985) proposed some strategies that can enhance credibility of study findings and in this study the following were used; prolonged involvement, persistent observation, and peer debriefing and member checking (Bryman, 2004).

There was prolonged involvement with the research participants during data collection in the field. Networking with prominent nurse leaders and during debriefing in the various clinical settings; plus the interviews had enhanced the credibility of the results. The researcher had been to all the sites to deliver the research instruments. Persistent observations were maintained throughout the interviewing process so that the salient factors would be noted in the field notes in relation to the graduate nurses' learning for practice (Lincoln & Guba,

1985). This was possible because data collection and analysis was done concurrently; hence, the salient factors identified were explored further during subsequent interviews.

Peer debriefing is a process of having debriefing sessions with a disinterested peer for the purpose of exploring aspects of the inquiry that might otherwise remain implicit within the researcher's mind (Lincoln & Guba, 1985). According to Lincoln and Guba (1985) the peer debriefer role is to sensitize the researcher of her position as the researcher and the research processes. The researcher involved an expert from Kamuzu College of Nursing who is knowledgeable in qualitative research to read through the transcripts and the analyzed data to check the descriptions whether they reflected the experiences of the educators and graduate registered nurses.

Lincoln and Guba (1985) recommended that the peer debriefer should be someone who in every sense is the researcher's peer and someone who knows a great deal about both the substantive area of inquiry and methodologies. The peer debriefer has a doctoral degree with more than twenty years of teaching experience. Member check was also used where the researcher gave some transcripts to the participants to give an account of the findings of the study with the aim of giving them some feedback on what had transpired from the interview data (Bryman, 2004).

3.8.2.2 Transferability

Transferability was ensured through explicit descriptions of the setting and the type of participants and also by providing descriptions of data sets for other researchers and consumers to evaluate the applicability of the data to other contexts (Polit & Tatano-Beck, 2004). The researcher has data sets from graduate nurses and educators that provide descriptions that are rich enough for other researchers to make judgments on learning for practice transferability to different settings.

3.8.2.3 Dependability

The dependability of the research study is identified by the coherence of the internal processes, this entails keeping complete records in all the phases. The researcher has kept all

documents of the study for example, the original protocol, field notes that were written, all the transcribed interview scripts and data analysis decisions. All these documents and information are accessible at any time to peers who would act as auditors. Auditing is therefore the approach that could enhance the dependability of this study.

3.8.2.4 Confirmability

Confirmability audit is the main technique for establishing confirmability in research inquiry (Lincoln & Guba, 1985). The main concern is to ascertain whether the research findings are grounded in the data (Lincoln & Guba,1985). This helps in auditing the events, influences and actions of the researcher and their impact on the research findings. The reflective diary is quite useful in enabling such an audit to be conducted because it contains a record of all decisions that are made during the research process.

No personal values or theoretical perspectives had influenced the conduct of this study (Bryman, 2004). In this study a confirmability audit was not carried out because it was not practically feasible. However, all records of the research exercise were kept. Lincoln and Guba (1985) suggest that records of the following should be kept; raw data including electronically recorded materials such as audiotapes and field notes; data reduction and analysis; data reconstruction and synthesis including themes and interpretations; process notes which include procedures, decisions and rationales. This demonstrated the carefulness with which the researcher conducted the study and steps towards ensuring trustworthiness of the study. In this study all the recorded materials, field notes, audiotapes, data reconstruction and themes were kept in envelopes and locked cabinets for privacy and can be accessed at any time.

3.9 ETHICAL CONSIDERATIONS

Ethical review is important in ascertaining safety of research participants and for protecting their rights. To this end the proposal was submitted to several research committees: the Human Research Ethics committee (Medical) of the University of the Witwatersrand and ethical clearance was granted (Appendix K). The Research and Postgraduate Studies

Committee of the University of the Witwatersrand gave approval for the study to proceed (Appendix L).

The proposal was also reviewed at College of Medicine Research and Ethics Committee in Malawi, which has the mandate to approve health related research. Approval to conduct research in Malawi was also granted (Appendix M). Seeking permission to conduct a study from responsible authorities at the place where the study took place was also imperative. To this end permission to conduct study was granted from the Principal of Kamuzu College of Nursing and the Permanent Secretary of the Ministry of Health (Appendices N and O). Data collection took place in Malawi during the months of September to December, 2011.

3.9.1 Means of gaining access in qualitative data

Access is a process that refers to acquisition of consent to go where the researcher wants, to observe what is required, talk to whomever one wants to obtain information from and read the documents that are required. Social contacts and connections are essential for gaining access in any setting and establishing trust (Sarantakos, 2005). The researcher had gained access to the institutions by using personal references in requesting permission to conduct the study (Appendix N, O and P). Networking was made with prominent academic colleagues and Hospital managers specifically disclosing the research project so that everyone was aware of the research project. Being an educator in the nursing college, the networking process with colleagues on the purpose of the study facilitated understanding of the study.

Once access to the institutions was granted initial contacts were made to make appointments with the participants at convenient times. This was done to promote willingness to participate. Researcher-participant relationship was important in strengthening an interactive relationship and also the researcher had to obtain experience in interacting with participants.

3.9.2 Ethical principles

Informed consent is a necessary prerequisite to safeguard participants and protect their integrity and rights to self–determination and this was obtained through an invitation letter

prior to the study (Appendices F and G). Informed consent implies that participants have adequate information about the research, and understood the information which had enabled them to make an informed decision to participate or decline to participate. The invitation letter had informed the participants about the following; purpose of the study, educational experiences of graduates nurses and educators, critical thinking and learning for practice and contact information.

- **Respect**

Respect for human dignity is one of the primary ethical principles on which standards of ethical conduct in research are based and this includes the right to self- determination (Polit & Beck, 2008). The right to self- determination implies that humans should be treated as autonomous beings capable of controlling their own activities. This therefore implied that participants had the right to decide voluntarily to participate in the study without any coercion through the invitation letter that was given to all the expected population (Polit & Beck, 2008). A reflexive stance was maintained by the researcher in remaining objective during data collection, data collected were only provided by the participants and no preconceived ideas had influenced any decisions or recordings (O'Leary, 2004). Participants were free and were respected to withdraw from the study at any stage of participation and those who felt not comfortable to answer some questions were respected to do so. All participants were interviewed in private to give them a chance to narrate their perceptions on their educational experiences. Participants' willingness was respected in that only after reading the information sheet (Appendices F and G) had they to express their interest in completing the questionnaire and then to submit it after completion, and after they were interviewed.

- **Beneficence**

Beneficence is one of the fundamental ethical principles in research which imposes an obligation on researchers to minimize harm and get the most out of benefits (Polit and Beck, 2006). Participants were informed that the study was associated with minimal risks which could be psychological in nature and that if any risk occurred would be handled through appropriate counseling. The participants were also informed that the study was beneficial

because the results would inform the teaching and learning processes that educators and graduate nurses would utilize to promote learning for practice. Participants were informed that there were no benefits attached to answering the survey questionnaires.

- **Non-Maleficence**

Harm to research participants' entails various facets like emotional harm, physical harm, harm to development, loss of self esteem and stress. Researchers have an obligation to guard the research participants from any harm. Sinding and Aronson (2003) contend that interviewee vulnerability is an ethical concern associated with interviews as they suggest that vulnerability occurs because interviewers are deeply occupied with making meaning that reside within respondents.

Furthermore, it is worth mentioning that the power differences are more evident in teacher/student interview relationships as was the case in this study. Kvale, (2006) cites that within education, dialogue is regarded as humanistic as opposed to monologues of authoritarian teachers. The dialogical and conversational interviews played a significant role in creating an egalitarian partnership between the researcher as an interviewer, and the educators and the graduate nurses. No identifications were used such a demographic data, names on the recorded cassettes and interview scripts. For easy identification of participants only codes were used for documenting.

- **Justice**

Being an educator at this college, all measures were used not to make the researcher's presence influence participation by participants. All protocols were observed when interviewing participants where appointments were made and appointment times were adhered to not to violate the participants duty schedules. Since I have no influential superior position all participants were invited to participate in the study without considering their positions in the institutions. Similar research instruments were used on all invited participants. Arguably, the use of questionnaires and a semi- structured interview guide served to reduce dominance by the researcher. This implies that the interviews were guided by what the participants had determined to answer.

- **Confidentiality**

Polit and Beck (2008) indicate that all research with human beings involves intrusion into their personal territories and that participants have the right to expect that the data they provide to be kept in strictest confidence. All data were collected in private and all questionnaires, audio tapes and notes taken during interviews were kept in locked filing cabinets. Anonymity is the most secure means of protecting confidentiality and this was demonstrated by the use of code numbers on the questionnaires, recorded tapes and interview notes. The researcher has not linked a particular participant to any information given throughout the research process and only the researcher and the research supervisor had access to the stored data.

3.10 CONCLUSION

In conclusion, this chapter provided a discussion on the research design that has guided the conduct of this study. A mixed method, sequential explanatory design was used to unfold the learning experiences of graduate nurses with the aim of analyzing the educational processes. The methods used were questionnaires and interviews as learning for practice is believed to be a social reality. However, pragmatic philosophical views guided the thinking in the research study to help understand the research problem as researchers build knowledge on pragmatic grounds. In the next chapter the results of phase I will be presented.

CHAPTER FOUR
RESULTS: PHASE 1

4.0 INTRODUCTION

The chapter presents the results of phase 1 of the study. As outlined in chapter one and chapter three, the research study had identified seven objectives to answer the research questions. Both quantitative and qualitative data were integrated in the analysis to address the research objectives. Four sets of structured questionnaires, the Grasha Teaching Styles Inventory Version 3.0; the Grasha-Reichmann Student Learning Style Scales Questionnaires, the Biggs Two Factor Study Process Revised Questionnaire and the Watson-Glaser Critical Thinking Appraisal Forms were administered. A Curriculum Rubric guided the BSN curriculum evaluation and the results are presented by descriptive statistics in the form of frequency tables, means, standard deviations, graphs and tables.

4.1 RESULTS: NURSE EDUCATORS' TEACHING STYLES

The Grasha Teaching Styles Inventory Version 3.0 has five styles of teaching that characterize the attitudes and behaviours in approaching teaching that might influence students' approaches to learning. The five styles are Expert, Formal Authority, Personal Model, Facilitator and Delegator. Despite the five teaching categories Grasha(1994) is of the view that every teacher possesses each of the five teaching styles in varying degrees. The five teaching categories contribute to four teaching style clusters prevalent among teachers. These clusters include specific attributes, in cluster 1, expert/formal authority style; cluster 2, personal model/expert/formal authorities: cluster 3, facilitator/personal models/expert style and cluster 4, delegator/facilitator/expert style. Of importance with the teaching style clusters is the fact that the blend of clusters depicts what type of a teacher one is and the mood or emotional climate that may prevail in any classroom setting (Grasha, 2002b; Razak, Ahmad, & Shah, 2007).

The teaching styles inventory has 40 statements that reflect issues of the five teaching styles. The statements are rated on a Likert scale of 1 to 5 where 1= strongly disagree, 2 = moderately disagree, 3 = undecided, 4 = moderately agree and 5 = strongly agree. Each of the

five teaching styles has eight statements that were summed up according to the designed item column; each column score calculated was divided by eight to obtain the average numerical rating scored for each participant for each teaching style. The higher the rating on each style, the more it is perceived as an important part of a teaching style preferred by the teacher; a low score indicates that participants are less likely to assume the teaching style in their teaching endeavours (Grasha, 2002). Fifty (n=50) educators were invited to participate in this study and forty-four (n=44) responded, reflecting a response rate of 88%. A total sample (n=44) completed the inventory.

4.1.1 Expert Teaching Style

The Expert Teaching Style is signified by the possession of knowledge and expertise within the teacher that students need in any learning situation. The teacher basically strives to maintain his/her status as an expert among the learners in giving detailed knowledge while challenging students to enhance their competence (Grasha & Yangarber-Hicks, 2000). The Expert Teaching Style scoring scale ranges are as follows:

- Low = 1.0-3.2
- Moderate = 3.3-4.8
- High = 4.9-7.0

High scoring indicates that the teaching style is preferred mostly in the teaching encounters and is dominant among the teacher activities while low scoring reflects minimal use of the teaching style as there is no preference given to the method. The eight statements that the educators responded to reflected the behaviours and attitudes that experts display in their teaching. The educators displayed attributes and behaviors of the Expert Teaching Style with some differences as reflected in their means ($\bar{x}$) and standard deviation (SD) of each statement in Table 4.1. From the eight statements the participants scored highly on the attributes and behaviour that focused on "students' acquiring a broader perspective of the topic" ($\bar{x}$ = 4.7 and SD= 0.57); attaining knowledge in facts, concepts and principles with ($\bar{x}$ = 4.57 and SD 0.58). Low scoring was obtained on the statement that indicated "lecturing as a significant part of class teaching" ($\bar{x}$ = 2.68 and SD 1.39). The scores however, have a high dispersion around the mean as indicated by the SD.

Of the 44 participants 70.5% (n= 31) had moderate scores in the range of 3.3-4.8 indicating moderate use of the teaching style. This means that the educators' use of the Expert Teaching Style was preferred in their teaching endeavours; 22.73% (n=10) had scored low between 1.0-3.2 indicating that the teaching style is not preferred in their teaching tasks and is used minimally; while 6.8% (n= 3) had high scores between 4.9 and 7.0 reflecting that the Expert Teaching Style is highly preferred as a teaching style by a small minority. The overall mean was 4.02 reflecting that the teaching style was moderately preferred in the teaching tasks of the educators with a standard deviation 1.06.

Table 4.1 Distribution of educators' Expert Teaching Style (n=44)

SR.	Statements	n	Mean	SD
1	Facts, concepts, and principles are the most important things that students should acquire	44	4.57	0.58
6	Sharing my knowledge and expertise with students is very important to me	44	4.52	0.76
11	What I have to say about a topic is important for students to acquire a broader perspective on the issues in that area.	44	4.7	0.57
16	I want students to leave this course well prepared for further work in this area.	44	4.48	1.02
21	Lecturing is a significant part of how I teach each of the class sessions	44	2.68	1.39
26	My expertise is typically to resolve disagreements about content issues	44	4.18	1.42
31	Students might describe me as a "storehouse" of knowledge" who dispenses the fact, principles, and concepts they need	44	3.25	1.73
36	There is more material in this course than I have time available to cover it.	44	3.82	1.06
	Mean and Standard Deviation for Expert Teaching Style	44	4.02	1.06

4.1.2 Formal Authority Teaching Style

The Formal Authority teaching style accords a status to the educator among the student body due to the amount of knowledge the educator possesses on the subject matter and dictates how learners approach the learning situation. The educator provides positive and negative feedback to the learners, establishes learner goals, expectations and rules of conduct for learning. There are eight statements for the Formal Authority attributes and behaviours,

which are displayed in Table 4.2. The scoring uses the predetermined scores from Grasha (2002) which are categorized as follows:

- Low = 1.0-4.0
- Moderate = 4.1-5.4
- High = 5.5-7.0

The statement on "My standards and expectations help students develop the discipline they need to learn" had a high scoring meaning that the participants were mostly in agreement with the statement ($\bar{x}$ = 4.57 and SD 0.66). Low scoring was observed on "Students would describe my standards and expectations as somewhat strict and rigid" ($\bar{x}$ =3.06 and SD 1.29) reflecting participants were not in agreement with the statement. However, there were no high scores that ranged from 5.8-7.0 on Formal Authority teaching styles. This result indicates that the Formal Authority teaching style was not a dominant teaching style, and was not preferred by the participants; 56.8% (n= 25) of the participants had low scores that ranged 1.0-4.0 indicating minimal use and less preference for the classroom teaching. The overall mean was 4.66 with a standard deviation of 1.11, indicating moderate preference for the teaching style. There is also a high dispersion around the mean reflected by the SD 1.11

Table 4.2 Distribution of educators' Formal Authority Teaching Style (n=44)

SR.	Statement	n	Mean	SD
2	I set high standards for students in this class	44	4.39	1.29
7	I give students negative feedback when their performance is unsatisfactory	44	3.86	1.36
12	Students would describe my standards and expectations as somewhat strict and rigid	44	3.06	1.29
17	It is my responsibility to define what students must learn and how they should learn it.	44	3.45	1.13
22	I provide clear guidelines for how I want tasks completed in this course	44	4.41	1.46
27	The course has very specific goals and objectives that I want to accomplish.	44	4.34	1.01
32	My expectations for what I want students to do in this class are clearly defined in the syllabus.	44	4.18	0.99
37	My standards and expectations help students develop the discipline they need to learn	44	4.57	0.66
	Mean and Standard Deviation for Formal Authority Teaching Style	44	4.00	1.11

4.1.3 Personal Model teaching style

The Personal Model Teaching Style, when used in any learning context teaches learners by giving personal examples on subject content while establishing a framework of thinking and behaving in the learning arena. The teacher has a special task of overseeing learners, guiding and directing them on how to do things. The learners emulate the educators' approach to learning. Statements that reflect the attributes and behaviors in this teaching style are displayed in Table 4.3. The scoring is determined as follows:

- Low = 1.0-4.3
- Moderate = 4.4- 5.7
- High = 5.8-7.0

The statement on "students describing educators as coaches" has a high mean ($\bar{x}$ = 4.64; SD=1.17. The least scored mean was on statements that described what "educators say models appropriate ways on how students to think", ($\bar{x}$ = 3.02 and SD= 1.36); and the "encouragement of student emulating on provided examples" had a mean of 3.02 and SD 1.32.

The educators' scores on Personal Model Teaching Style are low 1.0-4.3 scored by 77.3% (n=34) indicating less preference on the usage of the teaching style for students' learning and 3.8-5.3 by 22.7 % (n=10) reflecting the moderate use of the style in the teaching. There is low preference for the usage of this teaching style by the participants posing to the question as to what are the factors that lead to the use of specific teaching methods among the educators. The overall mean score was 3.6 and standard deviation 1.17; indicating this teaching style is less preferred among the participants. The scores have a high dispersion around the mean indicated by SD 1.17.

Table 4.3 Distribution of Personal Model Teaching Style (n=44)

SR	Question	N	Mean	SD
3	What I say and do models appropriate ways for students to think about issues in the content	44	3.02	1.36
8	Students are encouraged to emulate the example I provide	44	3.02	1.32
13	I typically show students how and what to do in order to master course content.	44	3.25	1.52
18	Examples from my personal experiences often are used to illustrate points about the material.	44	4.05	1.1
23	I often show students how they can use various principles and concepts	44	4.02	1.11
28	Students receive frequent verbal and/or written comments on their performance	44	4.32	0.81
33	Eventually, many students begin to think like me about course content.	44	4.18	0.99
38	Students might describe me as a "coach" who works closely with someone to correct	44	4.64	0.66
	Mean and Standard Deviation for Personal Model Style	44	3.6	1.17

4.1.4 Facilitator Teaching Style

The Facilitator Teaching Style is based on the personal nature of teacher–student interactions when the teacher guides and directs learners by encouraging cooperative and independent learning activities. The goal in the Facilitator Teaching Style is to develop learners who foster critical thinking, independent action, and take initiative and become responsible. The Facilitator Teaching Style fosters empowerment as learners engage with the subject matter. The determination of the scoring ranges is as follows:

- Low = 1.0- 3.7
- Moderate = 3.8- 5.4
- High = 5.4-7.0

There are variations in the mean scores and standard deviations on the eight statements as depicted in Table 4.4. High scores observed on "use of small group discussions to enhance ability to think critically" ($\bar{x}$ = 4.07 and SD1.35); while low scoring is observed on statement "the course activities encourage students to take initiative and learning responsibility" ($\bar{x}$ = 2.91 and SD 1.44). More than a third on the Facilitator Teaching Styles was low 1.0-2.6 (34%; SD 15) participants. No high scores were recorded for the Facilitator Teaching Style

indicating this is not a dominant teaching style among the educators. There is low preference for the teaching style and the educators are less facilitative in their teaching tasks. The overall mean was 3.27 and the standard deviation was 1.43.

Table 4.4 Distribution of educators' Facilitator Teaching Style (n=44)

SR.	Statement	N	Mean	SD
4	My teaching goals and methods address a variety of student learning styles.	44	3.48	1.45
9	I spend time consulting with students on how to improve their work on individual and/or group projects.	44	3.09	1.57
14	Small group discussions are employed to help students develop their ability to think critically.	44	4.07	1.35
19	I guide students' work on course projects by asking questions, exploring options, and suggesting alternative ways to do things.	44	3.77	1.31
24	Course activities encourage students to take initiative and responsibility for their learning	44	2.91	1.44
29	I solicit student advice about how and what to teach in this course.	44	2.41	1.44
34	Students can make choices among activities in order to complete course requirements.	44	3.05	1.49
39	I give students a lot of personal support and encouragement to do well in the course	44	3.41	1.4
	Mean and Standard Deviation for Facilitator Teaching Style	44	3.27	1.43

4.1.5 Delegator Teaching Style

The Delegator Teaching Style enhances students' capacity development into autonomous learning fashions. When this style is deployed the interest is to have students become self-directed and self-initiating learners. The Delegator Teaching Style reinforces learner responsibility and meaningful learning. The teacher is perceived as a consultant and resource person. Scoring ranges is determined by the following:

- Low = 1.0-2.6
- Moderate = 2.7-4.2
- High = 4.3-7.0

The statement that had a low mean score was "I assume the role of a resource person who is available to students whenever they need help" ($\bar{x}$ =2.4, SD 1.40); and high scoring on

"students design one or more self-directed experiences" ($\bar{x}$ = 4.25 and SD1.04). Educators' scores varied greatly as only 4.55% (n=2) had low scores ranging between 1.0-2.6 reflecting less preference for the teaching style, and 9.1 %(n=4) had high scores of 4.3-7.0. The educators utilize minimal delegation skills in their teaching tasks. The overall mean was 3.4 and SD = 0.93.

Table 4.5 Distribution of educators' Delegator Teaching Style (n=44)

SR.	Question	N	Mean	SD
5	Students typically work on course projects alone with little supervision from me.	44	3.98	0.93
10	Activities in this class encourage students to develop their own ideas about content issues	44	3.84	1.1
15	Students design one or more self-directed learning experiences	44	4.2	1.04
20	Developing the ability of students to think and work independently is an important goal.	44	3.2	1.49
25	Students take responsibility for teaching part of the class sessions	44	2.68	1.23
30	Students set their own pace for completing independent and/or group projects	44	3.6	1.17
35	My approach to teaching is similar to a manager of a work group who delegates tasks and responsibilities to subordinates.	44	3.95	1.2
40	I assume the role of a resource person who is available to students whenever they need help	44	2.4	1.40
	Mean and Standard Deviation for Delegator Teaching Style	44	3.4	0.93

The results on the teaching styles show that there is variation in preferences of teaching styles by educators. Scoring in most teaching styles is moderate and low. The results bring an essential component that needs to be explored further as to why some of the styles are preferred and others are not, i.e. what makes educators use a particular teaching style? What are the educational challenges that influence the teaching behaviours among the educators? And what are graduate nurses' perceptions of their BSN educational preparation in relation to teaching and learning for practice?

Table 4.6 depicts a summary of mean scores and standard deviations on preferred teaching styles. The preferred teaching style by most educators is the Expert Teaching Style (mean = 4.02, SD = 1.06) and least preferred is Facilitator Teaching Style (mean= 3.27, SD= 1.43) based on the mean scores and standard deviations as displayed in the Table 4.6. The two dominant teaching styles are a combination of Expert Teaching Style and Formal Authority teaching Style.

Table 4.6 Teaching styles mean scores and standard deviation (n=44)

Teaching style	Norm	N	Mean	SD
Expert	Moderate	44	4.02	1.06
Formal authority	Moderate	44	4.00	1.11
Personal model	Low	44	3.6	1.17
Facilitator	Low	44	3.27	1.43
Delegator	Moderate	44	3.4	0.93

4.2 RESULTS: GRADUATE NURSES' LEARNING STYLES

The learning styles mostly describe the blend of attributes that all students use in any learning endeavor. The Grasha–Reichmann student learning style scales questionnaire has six learning styles that characterize attitudes and feelings that individual learners have towards learning. The six styles are Independent, Avoidant, Collaborative, Dependent, Competitive and Participant. Grasha, (2002b) is of the view that a reliance on any one of the six styles or rigid application of any one can impart on learning outcomes positively or negatively. A Likert scale of 1 to 5 points was used to score the statements on the learning scale where 1 = strongly disagree, 2 = moderately disagree, 3 = Disagree, 4 = moderately agree and 5 = strongly agree.

All ten statement scores for each subgroup of learning styles are added up, and then divided by ten to determine the participants' scores for each learning style. A high score signifies that the student uses the style frequently and probably is the most preferred learning style than those with low scores or moderate scores. The low scores reflect that, that particular learning style's attributes is least preferred by the learners and mostly not frequently used by the learners. A sample of 235 graduate nurses was invited to participate in the study and 200

participants' responded reflecting a response rate of 85.1%. Therefore, the total sample (n=200) completed the learning styles scales.

4.2.1 Independent Learning Style

Learners are independent when they think on their own and develop confidence in their learning abilities. Such types of learners prefer to learn important content and do not prefer working in groups. The Independent Learning Style promotes a student centered approach and also facilitates critical thinking among the learners. Learners who adopt the Independent Learning Style have self-confidence and are self–directed in the learning encounters. The scores were determined in ranges as follows:

- Low = 1.0- 2.7
- Moderate = 2.8- 3.8
- High = 3.9- 5.0

The responses had variations on how the participants had learnt during their educational programme with differences in mean scores and standard deviations. A high mean score was observed on the statement "I like classes where I can work at my own pace;" ($\bar{x}$ =4.35 and SD = 0.56). The lowest score was from the statement" My ideas about content often are good as those in the text book" ($\bar{x}$ =2.41 and SD =0.35). On aggregate 64.12% (n=109) had scores that ranged from 2.8-3.8 indicating moderate preference for the learning style attributes, and 11.76% (n=20) had low scores in the ranges of 1.0-2.7. The low scores indicate less inclination of the learners to become independent in their learning. The overall mean score was 2.84 and the standard deviation 0.80. Table 4.7 depicts the distribution of the independent learning styles.

Table 4.7 Distribution of the graduate nurses' Independent Learning Style (n=200)

SR.	Statement	n	Mean	SD
1	I prefer to work by myself on assignments in my courses	200	3.95	0.54
7	My ideas about the content often are good as those in the textbook	200	2.41	0.35
13	I study what is important to me and not always what the instructor says is important	200	2.81	0.56
19	I learn a lot of the content in my classes on my own	200	2.66	0.54
25	I feel very confident about my ability to learn on my own	200	3.05	0.58
32	I like to develop my own ideas about course content	200	4.02	1.11
39	I have my own ideas about how classes should be run	200	3.6	1.17
49	I like classes where I can work at my own pace	200	4.35	0.56
51	I like to teach big numbers of classes	200	2.98	1.52
57	When I don't understand something, I first try to figure it out for myself	200	4.05	1.1
	Total mean scores and Standard deviation for Independent Learning Style	200	2.84	0.80

4.2.2 Avoidant Learning Style

Learners who follow the avoidant learning style are not enthusiastic about learning content or attending class. These learners are overwhelmed by class activities and they perceive learning as teacher-centered, therefore do not participate with other students and teachers in the classroom. The scores are from the predetermined scale as follows:

- Low = 1.0-1.8
- Moderate = 1.9-3.1
- High = 3.2-5.0

There are variations on scoring on the statements in Table 4.8. The statement on "I often daydream during class"; has a high $\bar{x}$ = 4.45 and SD=1.03. Low scoring is on "I have given up trying to learn anything from going to class" with $\bar{x}$ = 2.97 and SD= 1.31. Participants scoring in this learning style varied; 77.06% (n=131) had reported moderate attributes and feeling for usage of the learning style with scores ranging between 1.9-3.1 and only 17.65% (n=30) had reported high attributes for the usage of the learning style with score ranges of 3.2-5.0. The overall mean is 3.56 and standard deviation 0.68 reflecting high preference towards the learning style.

Table 4.8 Graduate nurses distribution of the Avoidant Learning Style (n=200)

SR.	Statement	N	Mean	SD
2	I often daydream during class	200	4.45	1.03
8	Classroom activities are usually boring	200	3.86	1.30
14	I very seldom am excited about material covered in a course	200	4.04	1.09
20	I don't want to attend most of my classes	200	3.90	1.44
26	Paying attention during class sessions is difficult for me to do	200	4.34	1.51
32	I have given up trying to learn anything from going to class	200	2.97	1.31
38	I study just hard enough to get by	200	3.47	1.45
44	I typically cram for exams	200	3.64	1.17
50	I would prefer that teachers ignore me in class	200	4.25	0.81
56	During class sessions, I tend to socialize with people sitting next to me	200	3.93	0.95
	Total mean score and standard deviation for Avoidant teaching style		3.88	0.68

.

4.2.3 Collaborative Learning Style

Collaborative learners learn by sharing ideas and talents, mostly cooperate with teachers and other students in the learning environment. Despite the cooperation that students develop they depend too much on others and cannot work alone as they have skills for working in groups and teams. The scores for the Collaborative Learning Style are predetermined according to Grasha (2002b) as follows:

- Low = 1.0-2.0
- Moderate = 2.8-3.4
- High = 3.5-5.0

The statements on "I enjoy discussing my ideas about the content with other students" had a high mean score ($\bar{x}$ = 4.55 and SD = 0.56). "Learning the material was a cooperative effort between students and teachers" has the lowest mean score indicated the participants are not in agreement of the attributes of the statement ($\bar{x}$ = 2.49 and SD= 0.36). Scoring differed as follows; 86.47% (n=147) of participants scored highly within the ranges of 3.5- 5.0 reflecting a strong preference for the style; and 10.59% (n=18) scoring moderately within the ranges of 2.8-3.4. The majority of the participants have attributes for collaboration in learning and only a few do not like to share ideas and talents in learning. The overall mean score is 4.06

and standard deviation of 0.52. There is low dispersion around the mean indicated by the SD 0.36.

Table 4.9 Graduate nurses' distribution of Collaborative Learning Style (n=200)

SR.	Question	n	Mean	SD
3	Working with other students on class activities is something I enjoy doing	200	3.23	0.59
9	I enjoy discussing my ideas about the content with other students	200	4.55	0.56
15	I enjoy hearing what other students think about issues raised in class	200	3.55	0.61
21	Students should be encouraged to share more of their ideas with each other	200	2.81	0.35
27	I like to study for tests with other students	200	2.55	0.58
33	Class sessions make me feel like part of a team where people help each other learn	200	2.84	0.55
39	An important part of taking courses is learning to get along with other people	200	2.90	0.42
45	Learning the material was a cooperative effort between students and teachers	200	2.49	0.36
51	I am willing to help other students out when they do not understand something	200	2.89	0.37
57	I enjoy participating in small group activities during class	200	2.55	0.56
	Total mean and standard deviation for collaborative learning style		3.03	0.52

.

4.2.4 Dependent Learning Style

The learner who uses the Dependent Learning Style is teacher- centered; as such there is little intellectual curiosity from learners because they mostly learn only what is required. Classroom preferences for learners who have Dependent Learning Styles include availability of course outlines, notes, and instructions on assignments. The scores are already predetermined in three categories as follows:

- Low = 1.0-2.9
- Moderate = 3.0-4.0
- High = 4.1-5.0

The statement on "Students should be more closely supervised by teachers on course projects" ($\bar{x}$ =4.64 and SD = 0.27). "I complete assignments exactly the way my teacher tell me to do them"; scored low ($\bar{x}$ = 2.40 and SD = 0.55). Participants' scores reflect there are attributes of dependence among the learners as 35.29% (n=60) had high scores within the ranges of 4.1-5.0 reflecting a high preference for the style; 61.76% (n=105) had moderate scores ranging between 3.0-4.0 still preference for this style. Table 4.10 depicts the results of the graduate nurses' distribution of dependent learning style. Mean is 3.74 and standard deviation 0.68.

Table 4.10 Graduate nurses' distribution of the Dependent Learning Style (n=200)

SR.	Statement	n	Mean	SD
4	I like it whenever teachers clearly state what is required and expected	200	4.30	0.69
10	I rely on my teachers to tell me what is important for me to learn	200	3.64	0.42
16	I only do what I am absolutely required to do in my course	200	3.23	1.32
22	I complete assignments exactly the way my teacher tell me to do them	200	2.40	0.55
28	I do not like making choices about what to study or how to do assignments	200	3.66	0.54
34	Students should be more closely supervised by teachers on course projects	200	4.64	0.27
40	My notes contain almost everything the teacher said in class	200	4.32	0.81
46	I prefer that class sessions that are highly organized	200	3.46	1.17
52	Students should be told exactly what material is to be covered on exams	200	3.55	0.58
58	I like it when teachers are well organized for a session	200	4.30	0.55
	Total mean and standard deviation for Dependent learning style	200	3.74	0.68

4.2.5 Competitive Learning Style

Learners who use the Competitive Learning Style are motivated and set goals for their learning achievements. Students learn subject content to perform better than others in a class/ group and believe to compete with others for rewards to be offered as an end. Learners are teacher-centered since they prefer to receive recognition for their learning accomplishment; there is a predetermined scoring scale as follows:

- Low = 1.0-1.7
- Moderate = 1.8-2.8
- High = 2.9-5.0

Graduates' scores varied indicating competing attributes among the participants with varying mean scores and standard deviations. The statements with high and low mean scores are; "I want my teachers to give me more recognition for the good work I do " ($\bar{x}$ = 4.3 and SD = 0.81); "It is necessary to compete with other students to get a good grade" ($\bar{x}$ = 2.40 and SD = 0.27); 73.53% (n=125) of the participants scored high within the ranges of 2.9-5.0 reflecting that the graduate nurses had preferred the learning style and that they have competing attributes; 23.53% (n=40) moderately scoring in the ranges of 1.8-2.8. The reasoning for acquiring competing behaviours and attributes needs to be explored among the participants. The overall mean is 3.93 and standard deviation 0.52. The results are displayed in Table 4.11.

Table 4.11 Graduate nurses' distribution of Competitive Learning Style(n=200)

SR	Statement	n	Mean	SD
5	To do well, it is necessary to compete with other students for the teacher's attention	200	2.41	0.35
11	It is necessary to compete with other students to get a good grade	200	2.40	0.27
17	In class, I must compete with other student to get my ideas across	200	3.05	0.58
23	Students have to be aggressive to do well in courses	200	2.64	0.42
29	I like to solve problems or answer questions before anybody else can	200	4.22	0.54
35	To get ahead in class, it is necessary to step on the toes of others students.	200	3.95	0.61
41	Being one of the best students in my classes is very important to me	200	4.23	0.59
47	To stand out in my classes, I complete assignments better than other students	200	3.95	0.61
53	I like to know how well other students are doing on exams and course assignments	200	4.22	0.54
59	I want my teachers to give me more recognition for the good work I do	200	4.32	0.81
	Total mean and standard deviation for Competitive Learning Style	200	3.93	0.54

4.3.6 Participant Learning Style

Learners who use the Participant Learning Style enjoy classes and take part in as much of the course activities as possible. Learners perform all learning activities and are eager to do all of the required courses and optional courses. Learning in this style is student- centered as learners prefer lectures with discussions and preference is given to teachers who can analyze and syntheses information well. The scoring ranges from low to high as follows:

- Low = 1.0-3.0
- Moderate = 3.1-4.1
- High = 4.2-5.0

Graduates scored moderately on the statement "Classroom activities are interesting" ($\bar{x}$ =3.25; SD= 1.48) and low scoring is on the statement "In my classes, I often sit toward the front of the room" ($\bar{x}$ = 2.3; SD =1.7). The participants' scores on Participant Teaching Style varied as follows; 49.41 %(n=84) had high scores ranging 4.2-5.0; 46.7% (n=79) had moderate scores; only 4.12% (n=7) had no preference in Participant Learning Style with scores ranging between 1.0-1.7. The overall mean was 3.76 and standard deviation 0.94. The results are depicted in Table 4.12.

Table 4. 12 Graduate nurses' distribution of Participant Learning Style (n=200)

SR	Statement	n	Mean	SD
6	I do whatever is asked of me to learn the content in my class	200	2.84	0.55
12	Class sessions typically are worth attending	200	2.81	0.56
18	I get more out of going to class than staying at home	200	3.02	1.36
24	It is my responsibility to get as much as I can out of a course	200	2.98	1.52
30	Classroom activities are interesting	200	3.25	1.48
36	I try to participate as much as I can in all aspects of a course	200	2.64	0.42
42	I do all course assignments well whether or not I think they are interesting	200	2.41	0.35
48	I typically complete course assignments better than other students	200	2.4	0.27
54	I complete required assignments as well as those that are optional	200	3.02	1.36
60	In my classes, I often sit toward the front of the room	200	2.3	1.7
	Total mean and standard deviation for Participant Learning Style	200	3.76	0.94

.

The results reflect that the most preferred learning styles of the graduate nurses was the Competitive Learning Style ($\bar{x}$ = 3.93; SD= 0.54); least preferred were the Independent Learning Styles ($\bar{x}$ =2.84 and SD= 0.80). These results form a base for exploring further among the graduate nurses as to "how did the graduates perceive their educational preparation in relation to learning or practice?" For the educators' perspectives, "what are their perceptions on the nature of learning among the graduate nurses? Table 4.13 depicts the overall means and standard deviations of the participants' learning styles.

Table 4.13 Means and standard deviation of Graduate nurses' learning styles (n=200)

Learning style	Norm	Mean	Standard deviation
Participant learning style	moderate	3.76	0.94
Competitive learning style	high	3.93	0.54
Dependent learning style	moderate	3.74	0.95
Collaborative learning style	moderate	3.03	0.52
Avoidant learning style	high	3.88	0.68
Independent learning style	moderate	2.84	0.80

4.3 RESULTS: GRADUATE NURSES' LEARNING APPROACHES

The Biggs' Revised Two Factor Study Process questionnaire scores are a function of both individual learner characteristics and the teaching context. The questionnaire has twenty item statements that form two categories of motive and strategy. These categories are further subdivided into the four subcategories, thus deep motive, deep strategy, surface motive and surface strategy. The responses on the questionnaire are rated on a Likert scale of 1 to 5 where 1= never or rarely true of me, 2 = sometimes true of me, 3 = true of me about half of the time, 4= frequently true of me, 5= always or almost always true of me. The key values for determining the rating of the obtained scores are as follows:

- 1= never true and 2= sometimes true the two grades represent low scores.
- 3=true of me half of the time gives value of moderate scores
- 4=frequently true of me, and 5= always true of me denotes values of high scores.

The total scores for each subcategory amounts to 25 marks and the whole questionnaire yields 100 marks. The participants' approaches to learning in this study were determined by adding together the deep motive and deep strategy scores to determine deep approach to learning. Further, the surface motive and surface strategy determines the surface approach a learner may deploy in learning. Therefore, the deep approach scores are obtained by adding together the deep motive and deep strategy scores which amounts to 50 marks while the surface approach is the final grade after adding surface motive and surface strategy scores also amounting to 50 marks. The ratings scores are as follows:

- Very low = 1-10
- Low = 1-20
- Moderate = 21-40
- High = 31-40
- Very high = 41-50

The quality of scores in the four subscales reflects the level of interests and intentions learners may have for each approach. A sample size of 235 graduate nurses was invited to participate. Only 200 participants' responded reflecting a response rate of 85.1%. Therefore, the total sample (n=200) completed the learning approaches questionnaire.

4.3.1 Deep motive

Deep motive scores for the graduate nurses varied reflecting the degree of learning intentions that learners had attached to their learning encounters. A high score in deep motive indicates a high level of commitment, intentions and efforts by learners; moderate scores reflect average commitment, intentions and effort preferences and low scores reflect less commitment, intentions and efforts in learning intentions and preferences in managing the learning task. Statements to determine the students' depth of motive can be seen in Table 4.14.

Table 4.14 Item statements for Deep Motive

SR.	Statements
1	I find that at times studying gives me a feeling of deep personal satisfaction
5	I feel that virtually any topic can be highly interesting once I get into it
9	I find that studying academic topics can at times be as exciting as a good novel or movies
13	I work hard at my studies because I find the material interesting
17	I come to most classes with questions in mind that I want answering

Graduates scored as follows: 24% (n=48) scored high in the ranges of 21-25; and 16% (n=32) had low scores ranging between 11-15 and 3.5% (n=7) had very low scores in the ranges of 6-10 as depicted in Table 4.15. The overall $\bar{x}$ = 4.01 and SD= 0.73.

Table 4.145 Frequency table for Deep motive scores n=200

Variable	Frequency	Percentage
Deep motive		
6 - 10	7	3.50
11 – 15	32	16.00
16 – 20	113	56.50
21 – 25	48	24.00

4.3.2 Deep strategy

A strategy in learning refers to how the student perceives his/her approach to the learning task. Deep strategy scores reflect how the graduate nurses perceived they would have approached the learning task during their education. A high score indicates efforts and value were put in by learners, and low scores signify low effort. The participants responded to the statements depicted in Table 4.16.

Table 4.156 Item statements for Deep Strategy (n=200)

SR.	Statements
2	I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied
6	.I find most new topics interesting and often spend extra time trying to obtain more information about them
10	I test myself on important topics until I understand them completely
14	I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes
18	I make a point of looking at most of the suggested readings that go with the lectures

There were some differences in the scores obtained for the deep strategy; 30% (n= 50) scored very high (21-25) indicating that efforts and value were given priority in the learning encounters; 18.5 % (n=37) scored low (11-15) and 3.5 %(n=7) had very low, scored (1-10) with ($\bar{x}$ = 4.04; SD 0.79). Table 4.17 displays the results.

Table 4.167 Frequency table for Deep Strategy Scores (n=200)

Variable	Frequency	Percentage
Deep strategy		
6 - 10	7	3.50
11 – 15	37	18.50
16 – 20	96	48.0
21 – 25	50	30.00

4.3.3 Deep approach to learning

Deep motive and deep strategy scores are indicative of a deep approach to leaning. The deep approach scores were summed from deep motive scores and deep strategy scores. However, the effective alignment of teaching and assessment methods also may reinforce a deep approach to learning among learners. The scores were as follows: 25% (n= 50) scored very high (41-50) indicating high level intentions, efforts and motivation towards the learning tasks; 52% (n=104) had moderate scores 31-40; 19% (n=38) scored 21-30 and only 4% (n= 8) scored very low (11-20) with low motivation to learning task. Majority of the participants

77% (n-154) deployed a deep approach in their learning efforts. The overall mean is 3.98 and standard deviation 0.77. Table 4.18 displays the deep approach scores.

Table 4.178 Frequency table for Deep approach to learning scores (n=200)

Variable	Frequency	Percentage
11 – 20	8	4.00
21 – 30	38	19.00
31 – 40	104	52.00
41 – 50	50	25.00

4.3.4 Surface motive

Surface motive refers to students being effortless and is the lowest level of cognitive learning that mostly results when the teaching and assessments are not aligned to the aims of teaching subject matter. High scores in surface motive reflect the low level, effortless intentions by learners' learning resulting in surface approach to content. The low scores mean that fewer efforts and low intentions influenced the learning encounters. In determining the surface approach to content the participants responded to the statements that appear in Table 4.19:

Table 4.189 Item statements for Surface Motive

SR	Statements
3	My aim is to pass the course while doing as little work as possible
7	I do not find my course very interesting so I keep my work to the minimum
11	I find I can get by in most assessments by memorizing key sections rather than trying to understand them
15	I find it is not helpful to study topics in depth. It confuses and wastes time, when all you need is a passing acquaintance with topics
19	I see no point in learning material which is not likely to be in the examination

The results depicted in Table 4.20 indicate that graduates' efforts and intentions in the learning encounters were as follows; 16.5% (n=33) had high scores in the ranges of 21- 25. These scores reflect minimal usage of the surface motive; while 7.5% (n= 15) scored as low as 1-5 reflecting no preference, efforts and intentions were used in most of the graduates learning encounters. Only 44% (n=89) of the participants had high scores indicating some

usage of the surface approach in their learning. Overall mean = 3.24 and SD=1.0. The results indicate that the surface motive to learning is not most prevalent among the graduate nurses.

Table 4.20 Frequency table for Surface Motive scores (n=200)

Variable	Frequency	Percentage
Surface motive		
1 - 5	15	7.50
6 - 10	61	30.50
11 – 15	35	17.50
16 – 20	56	28.00
21 – 25	33	16.50

4.3.5 Surface strategy

Lower cognitive level activities result in the use of a surface strategy to learning. A high score is seen as use of minimum efforts by the learner to reproduce the learning material without analysis or integration leading to low quality learning outcomes. The low scores reflect more learning efforts and better intentions to learn the subject material. Participants responded to the following statements in Table 4.21.

Table 4.191 Item statements for Surface Strategy

SR	Statement
4	I only study seriously what's given out in class or in the course outlines
8	I learn some things by rote, going over and over them until I know them by heart even if I do not understand
12	I generally restrict my study to what is specifically set as I think it is unnecessary to do anything extra
16	I believe that lecturers shouldn't expect students to spend significant amounts of time studying material everyone knows won't be examined
20	I find the best way to pass examinations is to try to remember answers to likely questions

Graduates scores were as follows: 13 % (n=26) scored very high from 21-25; indicating the use of minimal learning efforts in their learning were deployed; 38.5% (n=77) had moderate scores with values of 16-20 average usage of the strategy; 28% (n=56) scored low 11-15 reflecting minimal usage of the strategy; 19.5 %(n=39) scored 6-10; and 1% (n=2) scored

very low 1-5. More than half (51%; n=103) used superficial learning strategies. The overall mean was 3.43 and standard deviation 0.97. Table 4.22 depicts the scores for surface strategy scores.

Table 4.202 Frequency table for Surface Strategy scores (n=200)

Variable	Frequency	Percentage
Surface strategy		
1 – 5	2	1
6 – 10	39	19.50
11 – 15	56	28.00
16 – 20	77	38.50
21 – 25	26	13.00

4.3.6 Surface approach to learning

Surface approach scores were aggregated from the scores of surface motive and surface strategy. High scores indicate the learner's preference for a lower cognitive level learning and low scores indicates less preference to use the strategy. The participants' scores were as follows: 10.5% (n=21) scored very high between 41 and 50 indicating preference to lower level cognitive learning attributes and 33% (n=66) had scored high between 31 and 40. Theses scores also signify use of low level cognitive learning; 28% (n= 50) scored low (11-20) indicating minimal usage of low level cognitive learning. The majority of the participants (56%; n=113) do not have a surface approach to learning. The overall mean was 3.24 and standard deviation 1.00. Table 4.23 depicts surface approach scores of the participants.

Table 4.213 Frequency table for Surface approach to learning (n=200)

Variable	Frequency	Percentage
Surface approach		
1 – 1-	2	1.00
11 – 20	56	28.00
21 – 30	55	27.50
31 – 40	66	33.00
41 – 50	21	10.50

The results reflect the high level motivation and intentions that was among participants while pursuing their learning tasks during their BSN programme.

Graduates adopted mostly deep motive and strategy during their education processes as table 4.24 displays. Deep level learning requires a deep motive and deep strategy for the development of thinking. From the scores it would be interesting to further explore from the educators; on how the teaching had influenced the development of thinking among the graduate nurse; with the question "how did you promote thinking among the learners in your teaching?"

Table 4.224 Learning approaches means scores and standard deviations (n=200)

Learning approach	Mean	Standard deviation
Deep motive	4.01	0.73
Deep strategy	4.04	0.79
Deep approach	3.98	0.77
Surface motive	3.15	1.23
Surface strategy	3.43	0.97
Surface approach	3.24	1.00

The non- parametric correlation was made at significance level of 0.05 to indicate the true relationships as observed where deep motive and deep strategy is at 0.000; deep motive with surface strategy at 0.0000. There is a strong relationship between deep approach and deep strategy at 0.67; surface strategy and surface motive at 0.66; surface strategy and surface motive at 0.83; surface strategy and surface strategy at 0.76. Table 4.25 depicts the correlation.

Key: rho

Sig. level $p < 0.05$

Table 4.235 Spearman's correlation of the learning approaches

	Deep motive	Deep strategy	Surface motive	Surface strategy	Deep approach	Surface approach
Deep motive	1.0000					
Deep strategy	0.4190 0.000	1.0000				
Surface motive	0.1135 1.0000	0.2959 0.0003	1.0000			
Surface strategy	0.0624 1.0000	0.2406 0.0090	0.6657 0.0000	1.0000		
Deep approach	0.5841 0.000	0.6766 0.0000	0.1849 0.1315	0.1189 1.0000	1.0000	
Surface strategy	0.0812 1.0000	0.2383 0.0102	0.8300 0.0000	0.7674 0.0000	0.1643 0.3008	1.0000

4.4 CRITICAL THINKING ABILITIES

The Watson-Glaser Critical Thinking Appraisal short form questionnaire test comprises five sets of tests that are designed to measure the ability to correctly perform the domain tasks of inference, recognition of assumptions, deductions, interpretations and evaluation of arguments. The total raw data score is 40 marks (100%) with the designed marks allotted as follows: inferences 7 marks; recognition of assumptions 8 marks; deductions 9 marks; interpretations 7 marks, and evaluation of arguments 9 marks.

The scores on the questionnaire were calculated by adding the total number of correct responses on each test set to a score of a test component and was converted to a percentage. It is important to note that the raw data may be used to rank graduates in order of performance but little is inferred on critical thinking abilities from the raw scores alone.

Norms in the Watson-Glaser Percentile ranks were used to convert participants' raw scores to more useful comparative scores of critical thinking abilities. Norm tables were used to interpret the participants' critical thinking scores in comparison with the percentile ranks for health care. Watson-Glaser (2006) defines the percentile rank as the expression of an obtained score in terms of its position within a group of one hundred scores. In this study the percentile rank of any score is the percentage of scores equal or lower than the given score in

the reference group of health care professionals. The percentile scores of the normative group in health care table A4 is attached in Appendix R. The key to percentile ratings is as follows:

- 0-20% = very low
- 21-40% = low
- 41-60% = average
- 61-80% = above average
- 81-100% = high

The sample total of 235 graduate nurses was invited in the survey and only (n=200) responded and completed the appraisal forms, reflecting a response rate of 85.1%.

4.4.1 Making inferences

Conclusions drawn from observed or supposed facts indicate an ability to make an inference. Inferences have significance in nursing graduates when dealing with issues of clients' care because there is need to discriminate in practice settings among degrees of truth or falsity from given client data. A high score reflects the participants' high level ability to infer from situations in practice and a low score reflects low ability to make inferences. Participants' performances in making inferences were scored and converted into a percentage from the total score of 100%. A low proportion of participants (3%; n=6) scored between 81-100%; 31.5% (n=63) scored low with scores of between 0-20. Majority of the participants 50.5% (n=101) are rated low and very low on making inferences and only 40% (n=80) are average. There is need to investigate further in the qualitative phase from the participants perspectives as to why the majority have below average scoring on inference abilities. The overall $\bar{x} = 2.3$ and SD 1.07; Table 4.26 depicts the graduate nurses' scores in making inferences.

Table 4.246 Frequency table on making Inference scores (n=200)

Variable	Frequency	Percentage
Inferences (n=200)		
1.0 – 20	62	31.00
21 – 40	38	19.50
41 – 60	80	40.50
61 – 80	14	6.00
81 – 100	6	3

4.4.2 Recognition of assumptions

Recognition of assumptions defines the ability of an individual to recognize unstated assumptions or presuppositions in given statements or assertions. Recognition of assumption is a core skill in professional nursing since critical thinking fosters congruent decision making. High scoring on the recognition of assumption test items reflects the enhanced ability of the participant to recognize the presuppositions or unstated assumptions in assertions or given statements as a skill in critical thinking. Low scoring on recognition of assumption is the reduced ability in an individual to recognize the assumptions while thinking. Only 31% (n=62) scored high in the ranges of 81-100, indicating a high ability to make assumptions in practice regarding client care; 35.5% (n=71) had low scores (21-40); and 6 %(n= 12) scored very low 0-20 reflecting minimal abilities to make assumptions. Most of the participants 38.5% (n= 77) have average abilities in making inferences ($\bar{x}$ =3.06 and SD =1.06). Table 4.26 depicts the scores.

Table 4.25 Graduate nurses' scores in Recognition of assumption (n=200)

Variable	Frequency	Percentage
Inferences (n=200)		
0 – 20	12	6.00
21 – 40	71	35.5
41 – 60	55	27.50
61 – 80	62	31.00
81 – 100	15	7.50

4.4.3 Making deductions

Making deductions is the process of using information in critical thinking in order to understand a situation or to find an answer to a problem. Making deductions as a component of critical thinking abilities is a professional mandate for all graduate nurses necessary for identifying cues on patients' condition or utilizing the nursing process. The participants' scores on their ability to make deductions does not reflect the critical thinking level, the low scoring reflects reduced ability to deduce in the thinking process. The participants scoring differed greatly only 5% (n=10) scored very high (81-100) indicating high abilities to deduce in the thinking process; 22.5% (n=45) scored low (21-40) and 1% (n=2) scored very low 0-20. Most participants (45%; n=90) have average ability to deduce as depicted in Table 4.27 ($\bar{x}$ = 3.12 and SD=0.84).

Table 4.26 Graduate nurses' score in making Deductions (n=200)

Variable	Frequency	Percentage
1.0 – 20	2	1.00
21 – 40	45	22.50
41 – 60	90	45.00
61 – 80	53	26.50
81 – 100	10	5.00

4.4.4 Making interpretations

Interpretation as part of critical thinking skills entails the weighing of evidence and deciding if generalizations or conclusions based on the given data could be warranted. The ability to make interpretations is essential as an attribute of critical thinking because prudency in judgment in the nursing profession is a professional outcome. High scores in making interpretations reflect the participants' capacity to process and interpret evidence, decide on generations or draw conclusions, while a low score reflects the decreased ability or inability to interpret the evidence from information presented. The participants' scores were as follows only 7% (n=14) had very high scores (81-100) indicating high abilities to interpret in thinking; 46% (n= 92) scored average and varied from 41-60; 5% (n=10) had very low scores of 0-20 depicted in Table 4.28. Most participants 46% (n=92) have average abilities to make interpretations ($\bar{x}$ =2.85 and SD= 0.93).

Table 4.27 Graduate nurses scoring on making Interpretations (n=200)

Variable	Frequency	Percentage
Inferences (n=200)		
0 – 20	10	5.00
21 – 40	61	30.50
41 – 60	92	46.00
61 – 80	23	11.50
81 – 100	14	7.00

4.4.5 Evaluating arguments

Evaluation of arguments among professional nurses is an important skill, since clinical work demands that graduate nurses make decisions, based on facts by distinguishing between arguments that are strong and relevant and those that are weak or irrelevant to a particular patient scenario. The participants' scores in the evaluation of arguments are only indicators of the ability to argue as an aspect in the critical thinking and do not reflect the level of critical thinking. Graduates' scores indicate that only 7.5% (n=15) had high scores of 81-100 reflecting possession of high potential in evaluating arguments; 42% (n=84) scored high 61-80; 35% (n=70) and 1.5% (n=3) scored very low 0-20. Most participants 42% (n=84) had average abilities to evaluate arguments ($\bar{x}$ =3.4 and SD=0.87). Table 4.29 depicts the scores.

Table 4.28 Graduate nurses' scoring on ability in Evaluating Arguments (n=200)

Variable	Frequency	Percentage
.0 – 20	3	1.50
21 – 40	28	14.00
41 – 60	70	35.00
61 – 80	84	42.00
81 – 100	15	7.50

The graduate nurses' abilities in critical thinking skills were diverse as displayed in Table 4.30. The majority of the participants had average abilities in all the critical thinking attributes posing a query on the educational processes of the graduate nurses. The need to explore further from the participants perspectives was to determine if the teaching and learning processes of the graduate nurses had enhanced their thinking abilities. Thus how is

thinking taught in the BSN programme? This is a guiding question in the qualitative phase. From Table 4.30 it can be deduced that most participants' had the ability in evaluating arguments. However, as each subscale does not contain the same number of items; the subscale scores are less consistent than the overall scores and it is the overall score that yields a consistent measure of critical thinking ability (Watson- Glaser, 2006). The overall mean and standard deviation of the critical thinking for the graduate nurses is ($\bar{x}$ =2.94 and SD=0.95).

Table 4.29 Critical thinking mean scores and standard deviation of sample (n=200)

Critical thinking skill	Mean	Standard deviation
Inference	2.3	1.07
Recognition of assumption	3.06	1.06
Deductions	3.12	0.84
Interpretations	2.85	0.93
Evaluation of arguments	3.4	0.87

4.4.6 Percentile scores

Converting raw scores of the graduate nurses to percentile ranks involved the comparison of the scores of the Watson-Glaser Short Form scores with the Health care norms in the manual (Appendix S) which were already pre-determined, for example a percentile rank corresponding to a raw score of a graduate nurse participant of 20 is equivalent to 12 in Health care norm manual. This percentile rank therefore, means that 12% of the participants in the norm group of health care professionals scored lower than or equal to a score of 20 on the Watson- Glaser Short Form and about 82% scored higher than a score of 20 on the Watson-Glaser Short Form with an already pre-determined mean score of 28.3 and a standard deviation of 6.5.

This is a normal norm score according to Watson-Glaser (2006), a norm score of 8.7% for a health care professional is a normal minimum score for an individual's critical thinking ability in health care. The participants' scoring in critical thinking percentile scores reflects a normal distribution with most participants in the below average scoring despite the graph curve being in the L shape.

The performance of the participants in comparison with the study results is depicted in Figure 4.1.

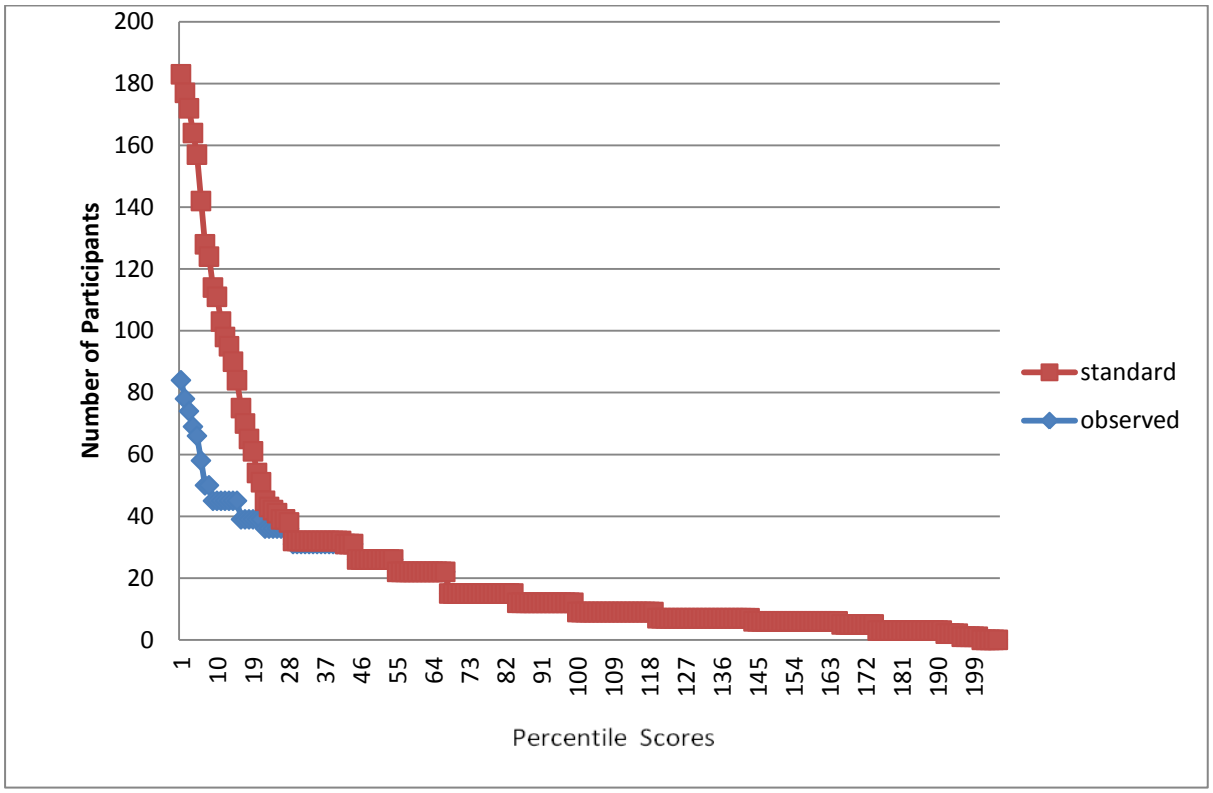


Figure 4.1 Graduate nurses' percentile scores on critical thinking (n=200)

4.5 EVALUATION OF QUALITY ON BSN CURRICULUM

The curriculum components evaluated comprised seven essential elements of the curriculum with categories of statements to guide the analysis. The curriculum rubric was sent to 10 experts; 8 responded and completed the curriculum rubric giving a response rate of 80%. A Likert scale of 1 to 3 guided the analysis of curriculum content, where 1 = does not meets standard, 2= partially meets standard, 3= meets standard. Data were collected from a sample of twenty-one subjects (n=21) of the BSN curriculum from year one to year four as depicted in Table 3.3. The data were analyzed using SPSS version16.0 where the data were converted into frequencies, graphs and percentages.

4.5.1 Assessing students' interest, learning styles and self-directedness

The BSN curriculum document guides the implementation of graduate education through processes and tools for assessing students learning as benchmarks. The evaluated benchmarks were as follows:

Provision for student self-assessment

The responses from the participants (n=8) indicated different views based on their perceptions and observations of the BSN curriculum; 62.5% (n=5) indicated the curriculum partially provide for students' self assessment; while 25% (n=2) were of the opinion that the curriculum does not provide for students' self assessment throughout the four years. The reason provided was that the only modes of assessments stipulated in the documents were teacher-centered, which were in the form of continuous assessments and end of year assessments. The result reflects that the assessment process in the BSN curriculum is teacher-centered ($\bar{x}$ =2.37 and SD 0.64). Figure 4.2 depicts the participants' responses.

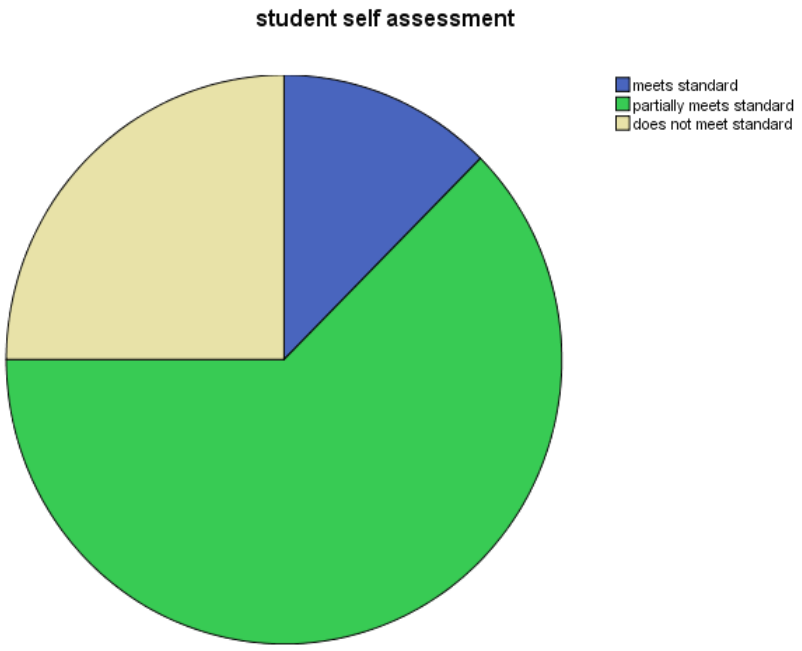


Figure 4.2 Participants scoring on students self assessment (n=8)

Strategies for students to take responsibility for learning

A curriculum document generally proposes strategies for learning. Learning responsibility in the form of self-directedness from the BSN curriculum activities were evaluated through the designed teaching strategies. The assessment identified whether the teaching strategies promoted the advancement of responsibilities and self-directedness among learners; 75% of the participants (n=6) indicated the criteria partially meet the standard while 25% (n=2) stated the BSN curriculum does not meet this standard. The results imply that there were no designed tools reinforcing students responsibilities for their own learning ($\bar{x}$ =2.25 and SD = 0.46).

Students part of the selection/admission process

The admission process was controversial among the participants as half of the participants 50% (n= 4) indicated the BSN curriculum does not meet the standard of involving students in the admission process, while 37.5% indicated the standard is partially meet despite the fact that there was no indication in the document whether students are part of the selection /admission process. Only 12.5% (n=1) indicated in the BSN curriculum the students were part of the admission process as a set standard for the BSN curriculum. From these results it is revealed that the BSN curriculum does not involve learners in admission procedures ($\bar{x}$ =2.37 and SD 0.53).

- **Inform teaching and learning**

Participants had differences in their perceptions of whether the BSN curriculum was seen as a process and tool for informing teaching and learning; 50% (n=4) of the participants indicated that the BSN curriculum partially meet the standard while 50% (n=4) cited that the BSN curriculum does not meet the standard criteria to inform teaching and learning among learners. The overall mean was 2.56 and standard deviation 0.53.

In summary, the curriculum standard on process and tools for assessing interest, learning styles and self-directedness does not influence learning.

4.5.2 Assessing students' prior knowledge in curriculum

Nursing education as adult education must take into account students' prior knowledge. The rubric assessed prior knowledge as followings:

Curriculum assessed students' prior knowledge

The majority of participants, 87.5% (n=7), were of the view that in the BSN curriculum document there are partially defined requisite knowledge and skills specifically related to the clinical courses with some assessments included. Table 4.33 displays participants' responses on requisite knowledge and inclusion of assessments in the BSN curriculum.

Table 4.30 Responses on inclusion of requisite knowledge and assessments in BSN curriculum (n=8)

Variable	Frequency	Percentage
Partially meets standard	7	87.5
Meets standard	1	12.5

4.5.3 A standard-based content outline

The quality of content of the curriculum was evaluated based on content outline on the sub-items of transparency, core content, addressing future or national content standards and the standards of MNMC. The standard based curriculum was evaluated as follows:

- **Transparency in curriculum document**

Participants 50% (n=4) indicated there was partial transparency on the BSN curriculum content outline and was available to learners throughout the four years through the course outlines; 37.5% (n=3) of participants were of the view that the BSN curriculum was not transparent while 12.5 (n=1) indicated that the BSN curriculum is transparent and available for the learning process of graduate nurses ($\bar{x}$ = 2.25 and SD= 0.70). Therefore, the results reflect that the BSN curriculum does not meet this standard.

Essential core content in curriculum and national standards addressed

Essential content reflects quality of educational outcomes; 62.5 % (n=5) were of the opinion that the BSN curriculum partially addresses essential content for the BSN programme. However, 25% (n=2) indicated that the BSN curriculum meets the standard for addressing essential content in the curriculum. The curriculum content addresses essential nursing and midwifery content that takes future and /or relevant national content standards. This was indicated by 62.5% (n=5) participants while 25% indicated that the standard was partially addressed in the curriculum. The BSN curriculum takes into account the standards of the MNMC as 87.5% had indicated ($\bar{x}$ = 1.75 and SD=0.46).

Table 4.31 Responses on curriculum addresses future or relevant national content standards (n=8)

Variable	Frequency	Percentage
Meets standard	2	25
Partially meets standard	5	62.5
Does not meet standard	1	12.5

4.5.4 Articulated learning outcomes

Curriculum documents stipulate intended learning outcomes to predict the professional behaviours necessary for professional roles. The following statements guided the evaluation:

- Takes into account standards of the MNMC
- Includes appropriate levels of cognitive domain (Bloom's taxonomy)
- States how & under what conditions learning will be demonstrated
- Are linked to appropriate assessment strategies

Takes account of standards of the MNMC

The learning outcomes in the BSN curriculum document are based on the MNMC professional outcomes as 75% (n=6) had indicated, and only 25% (n=2) indicated the curriculum document did not meet the set standard as the outcomes were implied in the stated learning objectives ($\bar{x}$ =1.87 and SD = 0.35); 37.5% (n=3) indicated there are appropriate levels of cognitive domain outcomes throughout the four years; 50% (n=4)

indicated the standard was partially met and however, 87.5 % stated that conditions under how learning would be demonstrated were partially stated in the curriculum document ($\bar{x}$ =1.75 and SD =0.70).

Outcomes linked to assessment strategies

Assessments are part of the teaching process and as such the outcomes must be linked to the assessment strategies. All 100% (n=8) of the participants stated the outcomes were linked to the assessment strategies throughout the curriculum document.

The results indicate that the BSN curriculum takes into account the MNMC outcomes with appropriate level of cognitive domains. Figure 4.3 displays the responses on inclusion of appropriate level of cognitive domains.

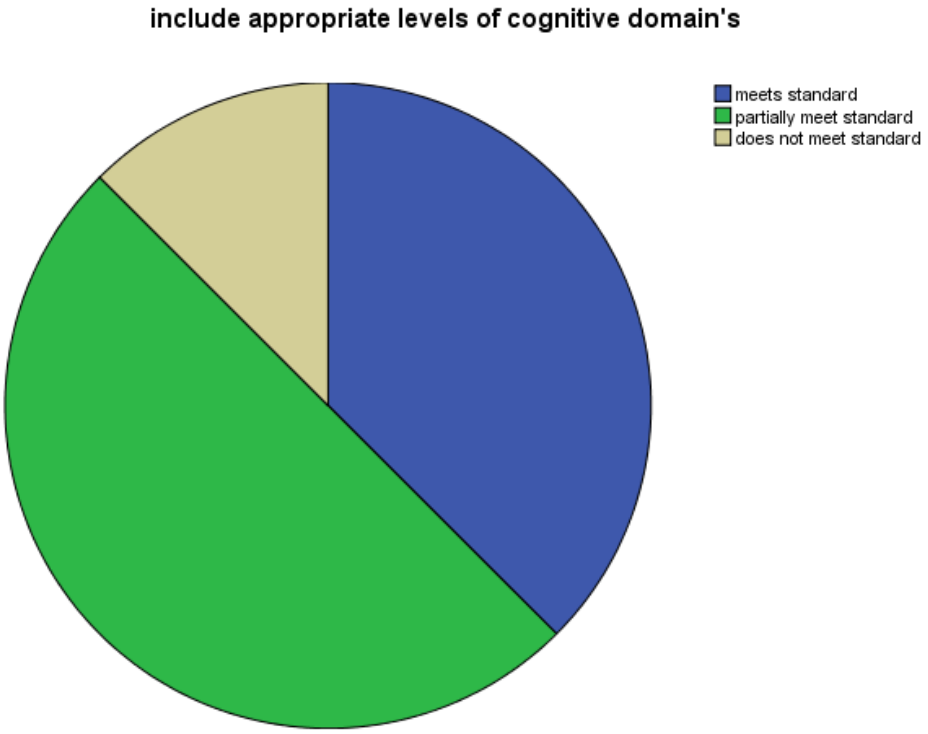


Figure 4.3 Participants' responses on inclusion of appropriate levels of cognitive domains (n=8)

4.5.5 Suggested teaching strategies/approaches

A curriculum document must suggest teaching strategies to promote uniformity in teaching and also to reinforce student- centered learning. The rubric assessed the curriculum for teaching approaches and strategies, as follows:

4.5.5.1 Learner prior knowledge and meaning construction

Good teaching considers learners' prior knowledge and meaning construction as a bench mark. This curriculum standard must be promoted through curriculum design. The majority of the participants 62.5 %(n=5) indicated that the BSN curriculum had partially met the standard on the teaching strategies; that they were not explicitly stated in the curriculum document throughout the four years; and were neither learner centered nor had expressed learner goals. The document organization gives provision for the promotion of learner prior knowledge and meaning construction from subject content, as the design of the subject content is from simple to complex. Table 4.33 displays the participants' answers on learner centeredness of the teaching strategies. The question on "what makes you choose a particular teaching style" emanated from this observation to solicit the qualitative data.

Table 4.32 Participants responses on teaching strategies inclusion in curriculum (n=8)

Variable	Frequency	Percentage
Meets standard	2	25
Partially meets standard	5	62.5
Does not meet standard	1	12.5

The participants 75% (n=6) stated teaching strategies /approaches assists with the application of knowledge and skills for meaningful use in practice. However, the teaching strategies/approaches were perceived not to be explicitly stated and as such it was not clear whether these could address levels of learning appropriately. This is an important fact worth exploring as to how the educators assess different levels of learning.

4.5.5.2 Multisensory teaching strategies

The teaching strategies were perceived not to be multisensory and did not include issues of learning reflection and feedback to the learners as was expressed by 100% (n=8) of the participants. Also all the participants indicated that the BSN curriculum document did not show evidence of having teaching strategies that include the combination of individual, small and large groups methods of teaching. The participants further, indicated that nowhere in the document can one actually identify that there is use of communication or information technology in the teaching strategies in the BSN programme. This finding formed the base for exploring in phase two among the educator participants as to what resource challenges they are faced with.

4.5.6 Suggested assessment strategies

Assessment promotes learning and as such the BSN curriculum was evaluated in terms of the essential statements on assessment as follows:

4.5.6.1 Transparency in assessment, formative and summative assessments

Transparency in assessments influences learners' approaches to learning. Majority (75% n=6) of the participants indicated the assessment strategies are not transparent in the curriculum document as only broad terms are used to show how assessments are done that is continuously and at the end of the year. The assessments that are documented in the curriculum are formative and summative throughout the four years stated by all the participants (100%; n=8), and continuous assessment is part of the assessment methods; all participants indicated that it is very difficult to identify a variety of methods and context of assessments in the BSN curriculum document and that there are no opportunities in the BSN curriculum for self-assessments by the learners. Participants' perceptions of whether the BSN curriculum assessment strategies inform teaching and learning were mixed as 50% (n=4) stated the standard was partially met and the other half indicated this standard was not meet in the curriculum. Table 4.34 displays the participants' responses.

Table 4.33 Participants responses on curriculum informing teaching and learning (n=8)

Variable	Frequency	Percentage
Partially meet standard	4	50
Does not meet standard	4	50

In the BSN curriculum document there was no evidence to reflect the monitoring of the BSN programme throughout the four years or any certification of learner achievements, all (100%, n=8) of the participants indicated. This is an important finding on quality learning.

4.5.7 Suggested teaching and learning resources.

The BSN curriculum was evaluated on how teaching and learning resources were suggested:

4.5.7.1 Compulsory resource list, relevance and validity

The majority (62.5%; n=5) indicated that the BSN curriculum document met the standard on minimum/ compulsory resource list that had not been renewed annually for relevance and validity; 37.5% (n=3) of the participants were of the view that the BSN curriculum did not have the relevant resources according to the learning levels of the students, some of the references were more than ten years old. However, the suggested teaching-learning resources are not sufficiently varied and derived from multiple sources therefore they may not appeal to multiple senses. Table 4.35 depicts the findings.

Table 4.34 BSN curriculum inclusion of minimum/compulsory resource list (n=8)

Variable	Frequency	Percentage
Partially meet standard	3	62.5
Does not meet standard	3	37.5

The analysis on the BSN curriculum reflects both strengths and weaknesses of the document from participants' perspectives. Some of the strengths that may impact on learning for practice include MNMC standards integration, the presence of formative and summative evaluation despite the absence of documented self-assessment strategies and lack of opportunity for self-assessment. The defined requisite knowledge and skills in the

curriculum, transparency in the document, articulated learning outcomes with appropriate levels of cognitive domains are also some of the strengths. The weaknesses in the BSN curriculum document included lack of students' involvement in admission processes, teaching strategies are not stated explicitly, limited outdated teaching resources, no learner goals and no transparent assessment strategies. A question was designed to check the participants perspectives as "how do you perceive the BSN curriculum in relation to the preparation of your professional role?

4.6 CONCLUSION

In conclusion, the chapter presented the results obtained from the teaching styles of educators and graduate nurses' learning styles, learning approaches, and critical thinking skills. Correlations on teaching and learning styles were examined. Quality evaluation on the BSN curriculum was quantified in order to determine whether the curriculum document promotes learning for practice among the graduate nurses. In the next chapter, the qualitative research findings will be presented.

CHAPTER FIVE
RESULTS: PHASE 2

5.0 INTRODUCTION

This chapter describes the qualitative findings from the in-depth interviews that were conducted with educators and graduate nurses' to determine their perceptions of the BSN educational processes. The interview questions were formulated from the key findings of the quantitative data as summarized in chapter four and interview guides are attached in Appendixes H and J. The reason why the sequential mixed method design was adopted was to guide the formulation of interview questions from the quantitative data. This approach is in line with pragmatic epistemological justifications as logic for mixed methods (Johnson et al, 2007). The narratives generated formed a rich source of information about the participants' perceptions of and attitudes towards teaching and learning experiences, their learning approaches and preferences. The interviews were transcribed verbatim and produced ten (10) educator transcripts and twenty (20) graduate nurse transcripts. The educators' results are first presented, followed by those of the graduate nurses.

5.1 EDUCATORS' PERCEPTIONS OF THE BSN PROGRAMME

The participants were purposively selected during phase one based on their ability to provide rich descriptions of their teaching experiences. The educators had to have at least two years clinical experience and be able to articulate the educational processes of graduate nurses with adequate exposure to the phenomena. Keenness to share information is significant for successful data collection and in view of this, the participants were recruited. A sample size of 10 educators (n=10) was reached following the principle of saturation. Saturation was reached when the participants' repeatedly gave similar comments on the phenomena. The sample size is justifiable because the aim is to discover meaning perspectives in learning for practice and to uncover multiple realities; generalization is therefore not a guiding principle.

Content analysis guided the interpretation of text data from the transcriptions of the narratives of the interviews while highlighting the key words. Inductive and deductive reasoning enhanced data reduction; code labeling was established in an effort to enhance

meaning to the interpretation process. The code labels were explained in chapter 3 and depicted in Table 3.5. Constitutive themes and sub- themes emerged utilizing the process described by Ryan and Bernard (2003). This is where repeated words in text data were grouped together, e.g. words like student dependence, lecture sequence and preferred methods of teaching. The themes were identified purely on the basis of what participants had identified as their meaning perspectives on the phenomena. Diekelmann (1992) asserts that themes have relationships and share some commonality. The educators' perceptions are presented under the five constitutive themes of perceptions of own teaching, teaching thinking, resources for teaching, and nature of graduate learning and improving classroom learning. These are depicted in Table 5.1.

Table 5.1 Educator themes and sub themes

Themes	**Sub-Themes**
1.Perceptions of own teaching	– Lectures are preferred – Creating student dependence – Teaching guided by learner characteristics
2.Teaching thinking	– Learner understanding – Learner involvement
3.Resources for teaching	– Information access and connectivity – Physical resources
4. Nature of graduate learning	– Learning and lecture sequence – High student numbers
5. Improving classroom learning	– Participatory learning – Maintaining educational quality – Promoting learner feed back

5.1.1 Theme 1: Perceptions of own Teaching

The educators' perceptions of their own teaching were in response to the question "What are your perceptions on your classroom teaching experiences as an educator at this college? This theme describes the educators' individual classroom teaching/learning experiences in relation to the BSN programme.

"Perception of own teaching" emerged as a theme following the observations on the educator narratives that reflected some variations on the preferences of their teaching styles. The

participants indicated that their classroom teaching experiences were good but not perfect and had varied responses based on several factors. There was need to explore further to seek meaning perspectives from the participants; this was the reason why the qualitative data was used to complement the quantitative data. The sub-themes that emerged from the teaching experiences were based on students' interest, readiness to learning, student learning empowerment, student learning attitudes, availability of resources and the perceived challenges in teaching experiences. The sub-themes that describe the participants' perceptions of their own teaching are as follows:

5.1.1.1 Sub-theme 1: Lectures are preferred

The sub- theme "lectures are preferred" as a method of teaching emerged when nurse educators articulated the teaching encounters they have had during the BSN programme. The participants indicated that students' learning during classroom teaching in the BSN programme was perceived as being equivalent to the educators' responsibility to teach the subject content. Despite participants indicating that there were preferred ways of teaching used in their classroom teaching experiences, most participants indicated that lecturing was the most common and preferred teaching method that they use in the education process of the graduate nurses as some participants stated:

"The most commonly used teaching method that I have used, and I have seen people using or putting across is the lecture method" (NE06, NE08).

"*Most of the methods that I have seen people using are lecture methods" (NE09).*

"Generally I like the lecture method because you combine methods based on the large student numbers" (NE05).

"It is mostly lecture discussions the most common method that I use because the discussions open up the minds of students. Most of the times I prefer to have a two way approach whereby I have to highlight to them what they have learnt because they have to take part in searching for information"(NE07).

"Depends on the content that I am to teach, but basically I like lecture approach whereby there is a time that I need to give the students information that I feel is quite new to them" (NE08).

"I have used a variety of teaching methods but mostly the lecture discussion method" (NE05).

"So I teach using a method that is going to assist the student to get more information, I teach using lecture discussions, brainstorming to help them take part and responsibility in their own learning" (NE02).

However, despite the lecture method dominating as the preferred teaching method the participants also had identified interactive methods as some of the methods that had been preferred in their teaching experiences as stated:

"*I prefer interactive methods, a method in which a student will be able to take part in discussions, and role play where I give a situation and they should be able to interpret the picture of that scenario" (NE02).*

"I like group discussions, group presentations because they bring out a lot of things from the students at least it helps you to think whether they are not thinking or not" (NE03).

Educators indicated that their teaching methods are guided by the type of content to be taught, number of students in a class and the allotted time for teaching which mostly is not enough as participants were quoted;

"*The content and number of students determine the type of teaching method that one would use, sometimes you would want to give students more time but then you have limited time and a lot of students to teach"(NE04,NE06,NE09).*

"Mmm problem- based learning, it is time consuming but I feel it stimulates students thinking" (NE01).

"The problem is the set up sometimes you have a class of two hours if you involve them too much into group discussions you have less time for giving feedback" (NE05).

Despite the lecture method being preferred the educators indicated that the lecturers' choice of methods is determined largely by the availability of information about the topic. Some educators stated that if information was readily available or accessible, they would prefer methods that promote students' active involvement. In support some participants stated:

"Involving students makes them to be part of it and when they discover the things themselves, they become active and also internalize the information better than giving them information. Giving them information is like undermining them that they do not have any other information, but when you involve them you expose them and may know even better than the teacher" (NE02).

"*I encourage student involvement and most of the students I have seen they have also that desire that they want to learn on their own by reading books and searching on the internet"(NE07).*

However, regardless of preference of teaching methods educators indicated that there was a need to do something to the preferred teaching methods so that interest, learning responsibility and readiness to learning could be improved among the graduate nurses to facilitate learning for practice as participants stated:

"*Midwifery is a difficulty area and we anticipate that these students they can bring a lot from general nursing but you see that when you teach you teach them as if they are just starting, you start all over again, so our teaching approaches are not good, the lecturing method, we are supposed to abandon this old teaching method and try and employ new mechanism so that they should critically think"(NE06).*

" I think there is something that we need to do to promote responsibility among students, so that they take ownership of their learning, otherwise most of them are not serious with their learning they want somebody to push them. And I think because mostly lecturing is the commonly used approach to teaching content at this institution" (NE04).

The participants were of the views that their teaching did not empower the graduates, as evidenced by graduate nurses' inability to challenge decisions from lecturers and registered nurses. The following excerpt illustrates the point:

"They should also be given chances of reflecting what they are doing there whether it's according to what information they have and theoretically or probably some of the information which they have read in some of their books. So in that context I feel that our students they are not really empowered and they cannot even challenge the teacher even the nurses who are already qualified in the clinical area because they still do much of the routine things" (NE06).

In summary, educators' responses provided evidence of how they perceive their own teaching. Lecturing is the preferred teaching method among the educators at KCN and was commonly deployed during the education processes of graduate nurses. They plan their teaching tasks based on the number of students', amount of information available, time allocated and availability of teaching resources. Interactive methods were used by a few educators only who indicated that student involvement was core to the promotion of learner responsibility.

5.1.1.2 Sub-theme 2: Creating student dependence

This sub-theme emerged from the perceptions of educators' regarding their classroom teaching experiences. The participants indicated that during the graduate nurses' educational processes they perceived that learners' depend a lot on lecture notes. According to the educators the reasons for the dependence could be attributed to the traditional teaching methods that predominate. Most of the time the students' rely on educators to give them information as the following participants stated:

"*Of course there are other students who want to rely solely on the lecturer's notes, when they are given an assignment they do not want to go and read, what they want is that you give them all the information, but I discourage such type of learning I want to have students who are ready to learn"(NE07).*

"Most of the times students want to be given ready made notes and they always want a lecturer to be with them" (NE09).

Some educators were skeptical about learners' reliance on lecture notes, saying that this practice results in poor learning empowerment. Educators stated that graduate nurses lacked learning empowerment during their education process due to giving out of all the learning information. They stated;

"*I do not think we are good at student learning empowerment, not that we cannot do it, but my thinking is the time limit, we do not have enough time to make them be involved in the thinking in class. We just give them information and notes, they regurgitate it and then we send them to the clinical area" (NE03).*

"No I do not think that we are empowering our students because most of the times we teach them and they do not find information for themselves. The students sometimes complain that we do not have adequate books and cannot find information in the library" (NE04).

"Sometimes students want to be given ready made notes and they always want a lecturer to be with them. When you give them work to do on their own, most of the times they are not happy and they feel that you are not teaching, all they want is for you to give them notes and give them answers when teaching" (NE08).

In summary the educators' citations reflect that their chosen classroom teaching processes in the BSN programme created dependence among students as evidenced by their requests for lecture notes and unchallenging behaviours in class.

5.1.1.3 Sub-theme 3: Teaching guided by learner characteristics

Educators perceived learner characteristics as part of teaching experiences and that they influence how they teach in the classroom. Educators' pointed to several learner classroom characteristics that could influence the preference of teaching methods during the education process. The educators' mentioned that the students' attitudes and characteristics have a major impact on their learning responsibilities as follows.

"*Teaching mostly these days has been seen to be difficult because of the attitudes these students have. I have observed that students do not want to be given work to do on their own like assignments that they should go and look for information. All what students want is for you to give them notes and give them the answers already searched information."(NE08).*

"*When you give them work to do on their own , to do some research or to go and find some information in the hospital, most of the times they are not happy, they are reluctant and they feel you are not teaching" (NE07).*

"*There is a group of students you may have to push; those that need to be encouraged because students are different" (NE02).*

"But some students think thing are impossible because they have fear of unknown, but when you support them you see them moving from dependent to independent" (NE03).

"Most of the times the students come to complain that we do not have adequate books and cannot find information in the library. So I think there is something we need to do to promote responsibility among our students" (NE04).

Educators are of the view that overall learner characteristics had an effect on learning among the graduate nurses. The learners were perceived to have no critical mind as most of the time information was given to them and assignments were not preferred as it involved active participation.

5.1.2 Theme 2: Teaching Thinking

Teaching thinking is core in the teaching of nursing because the nursing work demands understanding, meaning construction, reasoning and decision making (Facione & Facione, 1996). Learning for practice comprises deep learning that leads to the development of thinking. Educators should be aware of deep and surface approaches in learning and how the approaches enhance thinking. The question, "how do you promote thinking in your teaching?," arose from the results of the Grasha-Reichmann Learning styles scores, Biggs Two Factor Study Process Questionnaire and Watson–Glaser Critical thinking Form S scores that showed diverse differences among graduates. The sub- themes that emerged are learner understanding and learner involvement.

5.1.2.1 Sub-theme 1: Learner understanding

Educators were of the view that the teaching methods also had a bearing on the development of thinking that facilitates the understanding of the subject content. Learning for practice requires an understanding of the subject content that can be applied to learning situations through deep learning. Lecturers were of the view that critical thinking is dependent on the way subject content is taught as quoted:

"*Critical thinking depends with the way we made the theory because if we do not impact those critical thinking skills so you see that the students are remote controlled"(NE06).*

Some educators were of the opinion that learners generally have a surface approach to learning; they appear not to have an understanding of content due to the memorization, which was very common during their education. They stated that:

"*The students are able to learn certain aspects at times but I look at them as they like to memorise issues and the analytical aspect that promotes thinking is lacking. They memorise issues and lack understanding of concepts and applying those concepts to practical situation" (NE08).*

"*If we don't impact those thinking skills in the teaching for learner understanding, student are remote controlled, they want to be pushed every now and then and they want to be followed affecting their understanding levels"(NE07, NE05).*

Educators also indicated that critical thinking was observed to be lacking in some of the graduate nurses reflecting the fault in the teaching processes that might affect their understanding and the reasons provided include;

"*I would say that the critical thinking issue mostly lacks in some of these students because they are unable at certain times to analyse and understand situations, for example they are unable to relate theory that they have had to some practical situation, may be in the ward or any other area, so I really feel the critical thinking aspect is mostly lacking in the teaching and learning experiences" (NE08).*

"I have seen them, the ones that have qualified are in-charge of the labour wards, sometimes when you see them in the clinical settings you actually say did we prepare the students adequately enough to understand their professional responsibilities, it's all our fault in the teaching"(NE03).

However, some educators indicated that learner understanding and thinking was promoted in their teaching tasks of the graduate nurses, as supported by the following quotes:

"When I am teaching most of the times I do give them scenarios, that are common, I give them case studies, case scenarios so that they can find out how best the client would have been managed to promote thinking"(NE02).

"I make sure content is presented in an individualized way requiring the students to think to say o.k. she is an antenatal patient, yes what are the main issues concerning client care. Should be able to identify the problems, look at them and reflect to say how I can help them in the absence of Fansidar for malaria prophylaxis" (NE03).

According to the educators', teaching methods had a bearing on the development of thinking. Memorization was identified as an aspect that would have prevented the understanding level in the learning processes. However, a few educators were of the view that thinking was promoted in some of their teaching endeavours.

5.1.2.2 Sub-theme 2: Learner involvement

Learner involvement was perceived as a vital component in teaching graduates how to think. This concurs with the process of deep learning where inner self-dialogue and self- discovery within the individual results when the learner gets involved in the learning process. Educators were of the perception that learner involvement during their BSN education processes does in fact stimulate the student's own thinking. In this regard they said the following:

"*Involving students in my teaching made them to be part of the learning, and when they discover the things themselves, they become active and internalize the information to think better" (NE02).*

"I like using different ways of teaching just to make sure that the learners also participate and think through issues as teaching is not one way" (NE03).

"I encourage students involvement when teaching, I encourage asking questions to promote thinking" (NE04, 06).

Others indicated that learner involvement emanated from the teaching methods that were designed to promote thinking as they stated:

"*Discussions open up minds of students unlike lecturing where most of the times it will be giving out information, in discussions learners are involved and engage in the learning context through thinking" (NE07).*

"When teaching you asks a lot of questions that promote thinking if you ask learners questions to elaborate" (NEO5).

Educators pointed to the fact that the teaching of thinking during the education of graduate nurses should start at the first year and there is need for consistency in the teaching methods as they indicated:

"*I think we need to empower them at first year at college. We should tell them what they should expect at the college, and there should be consistency in the way we teach because everybody comes and they do and use different methods of teaching. Now may be students will love lecturing because they do not have to put a lot of efforts in the way they are to learn. The teacher has already given them everything including the notes" (NE06).*

In summary, the educators' citations indicate that there are efforts to teach understanding and thinking in the education process of the graduate nurses. However, memorizing of the learning content among the graduate nurses was also observed. Learner involvement is reported to have been reinforced through interactive teaching methods.

5.1.3 Theme 3: Resources for teaching

The theme "resources for teaching" emanated from the educators' responses regarding the impact resources have on their preference for specific teaching methods. The question in particular was "what makes you choose a particular method of teaching in your teaching tasks?" Subject content and student numbers had a bearing on the learning resources during the learning experiences of the graduate nurse. The participants stated:

"*sometimes you would want to give students more time but then you have limited resources, time and a lot of students, sometimes I prefer to do group discussions so that I facilitate the group discussions, but with the big numbers of students it's not easy to supervise the big numbers of students"(NE06, 09).*

Teaching resources are part of curriculum standards and benchmarks in any programme. These teaching resources have impact on the quality of learning and they influence the type of teaching methods the participants had advocated in their teaching. Sub- themes emerged following the repetition of the word "challenges" they encounter with regard to teaching

resources. These were mostly about physical resources within the classroom and resources for students to access and use information technology.

5.1.3.1 Sub-theme 1: Information access and connectivity

Educators' indicated that there were challenges in the education processes of graduate nurses in the form of teaching resources to promote learning for practice. They also stated that the choice of any teaching method reflected the availability of teaching resources; as such, some educators expressed the following:

"Sometimes you find that the topic is very good and you would have loved students to enjoy it if they went and found information by themselves, but because of lack of resources like computers, slow internet connectivity it frustrates me because in the end I find myself delivering the information and it takes a long time teaching the topic which would have taken 30 minutes, lasting 2 hours" (NE02).

"*My teaching methods mostly had depended on the availability of teaching resources, you want your students to think by sending them to the library and there is no electricity and internet" (NE03).*

"The set up is a bit difficult because sometimes there is no electricity and the internet is not there so it's not easy, so sometimes you give the information to them because it is faster"(NE010).

5.1.3.2 Physical resources

The sub-theme "physical resources" emerged due to the increased student numbers that affected the quality of teaching due to the limited physical resources as stated by some educators:

"*No I do not think that we are empowering our students because most of the times we teach them and they do not find information for themselves, most of the time they come to complain that we do not have adequate books, and cannot find information in the library, so I think*

there is something that we need to do to promote that responsibility among our students, so that they take ownership of their learning otherwise most of them are not serious with their learning. They want somebody to push them" (NE06).

"*Mmm, lack of resources in terms of visual aids sometimes the large numbers you cannot pass through to students when you are teaching" (NE01).*

"The last time I had a class where I did not have even space, the desks in the room were packed when I wanted a group discussion in the room I could not even ask student to be in groups because there was no space" (NE03).

"The content and number of students determines the type of teaching method you want to use, sometimes you plan to use power point in your teaching somebody has taken whatever so no projectors, it is difficulty teaching if you did not book in advance" (NE04).

In summary, the teaching resources were inadequate in terms of materials and space compared to student numbers and also information technology with regard to the internet and connectivity.

5.1.4 Theme 4: Nature of graduate learning

The theme "nature of graduate learning" follows questions from the observations on the BSN curriculum evaluation; Grasha-Reichmann Learning styles scores and Watson-Glaser Critical thinking scores. Some of the important elements in the BSN curriculum met the set criteria partially and it was important to further investigate how educators perceived the curriculum by asking "how does the BSN curriculum enhance learning among graduate nurses?

Educators perceived the nature of classroom learning amongst graduate nurses to be in line with the BSN curriculum outcomes. They continued by saying that the subject content was at the right level to promote learning that would enhance the attainment of professional outcomes among graduate nurses. However, there was need to reflect on the teaching, the sequence and probably change from traditional teaching to more interactive teaching

methods to help learners integrate theory to practice in an effort to attain educational outcomes of learning for practice. "Lecture sequencing" had emerged as a sub- theme as it repeatedly appeared in the participants' citations and the "students' big numbers".

5.1.4.1 Sub-theme 1: Learning and lecture sequence

Some educators were of the opinion that the sequencing of classroom activities and timetabling had an influence on the attainment of the professional outcomes in the BSN curriculum. Educators further indicated that there was need to help the students think than to let them regurgitate information by good sequencing of the subject content. They perceived the lack of concentration observed amongst learners in most classrooms to be due to poor sequencing of courses and long time schedules.

The long time schedules in time-tabling of courses might have affected the attainment of professional outcomes as the participants stated:

"There was lack of concentration among some students due to long hours of studies. If learners had been in the classroom for too long, learning was affected. Classes start from 7.30am to 5pm, students' sit for *so long and you would not expect their concentration to be high at 3pm. The students' lose concentration to learn meaningfully in the end (NE05, 07).*

Poor sequencing and time tabling issues in some courses reinforced internalization of structured knowledge learning. Educators mentioned courses where many lecturers had taught by sharing topics, which makes learning less meaningful, impacting on the attainment of the learning outcomes. The following excerpts illustrate the point:

"Another challenge is in some classes we teach; different lecturers teach separate topics in one course and use different strategies so building on especially when it comes to skills it becomes a problem because everyone has their own teaching methods and styles, assignments" (NE06).

"Every year we use the same time without analyzing that it is working, like for Anatomy and Physiology, what could be the ideal time for students to learn? If students have not done well, do we also evaluate the teaching time?" (NE03).

However, some teachers stated there is a need to check if the there was enough time allotted for teaching by asking students for feedback. Two participants expressed:

"*Do we have enough time for teaching? Ask students where we can improve, they know also where to change they have the right answers to some of the learning issues" (NE 06, 08).*

Educators were of the view that the perceived nature of classroom learning would promote learning positively only if the teaching would be re-evaluated based on the curriculum approaches as participants established:

"*Anatomy and Physiology is abstract but we have not looked at that why a lot of students fail. Do we have enough time for teaching?" (NE06).*

"*We still teach the same way without even thinking that the people teaching are not good in the course or the approach that which using is wrong, or what is it that surrounds the student learning" (NE03).*

"If we want our students to pass we need to see where our teaching is going and how we can improve and I think students can help us to know where we are going wrong"(NE09).

"I think the best way to do it is to ask students on how to do it, ask students how they want to be taught. There should be consistency in the way we teach because everybody comes and use different methods of teaching" (NE04).

"Students should be given scenarios to make decisions and exercise thinking, if they are given too much content it does not help them develop on the part of classroom teaching. There is need for improvement on classroom resources to facilitate learning" (NE05).

Lecture sequencing in the BSN curriculum is core to the acquisition of professional competences. Time-tabling and feedback had also influenced learning among the graduate nurses.

5.1.4.2 Sub-theme 2: High student numbers

The perceived nature of classroom learning by educators was also influenced by the high student numbers. The high student numbers is in turn also affects their choice of teaching methods. Lecturers stated that:

"*The numbers of students had increased gradually, that to me was a challenge to curriculum implementation because sometimes you would want to give individual assignment but to check each individual student was a challenge" (NE05).*

"Giving them the big student numbers assignments that you would want immediate feedback for learning is not practical I started giving group assignments. This did not go well with weak students"(NE01).

"The challenges are most of the time you know we have big numbers, whereby you are saying you are practicing student centered learning because of the big numbers the students do not concentrate in learning" (NE06).

"The big numbers demand an expansion on the clinical sites and teaching resources for the student to learn better" (EN05).

In summary the perceived nature of learning among graduates from the BSN curriculum is influenced by the time schedules, sequencing of lectures, high student numbers and allotted number of lecturers teaching each course.

5.1.5 Theme 5: Improving Classroom Learning

Educators had to give opinions on how learning can be improved based on their teaching experiences. The responses to the question **"**What suggestions do you have on the BSN curriculum?" yielded the results, that led to the emergence of the theme, "improving classroom learning". Participants indicated there were improvements needed in the learning tasks in order for graduate nurses to learn for practice. The quality of learning needs to be checked regularly so that it matched with the quality of learning. Participation in the learning process and maintaining the quality of education were the two emergent sub-themes.

5.1.5.1 Sub-theme 1: Participatory learning

Participatory learning as a sub-theme followed educators' suggestions on the improvements needed to change classroom learning. This followed the observations from participants that most students depended on authoritive figures in their learning encounters. Some of the educators were of the view that involving learners in the learning encounters would facilitate independence in learning as the participants pointed that:

"*We need to move away from the traditional type of approaches, we need to involve the students in learning to be more interactive so that the students should enjoy the learning and also be able to develop a critical thinking type of mind" (NE08).*

"*Encourage participatory methods of teaching because this is where students become active and they own their learning" (NE02).*

"A very big group is difficult to reach; resources need to be considered for varying teaching methods into interactive methods and it is not only theory but resources" (NE09).

"Students should be given scenarios where they should be allowed to make decisions in an interactive way" (NE05).

Ways of improving the educational processes of graduate nurses has to reflect on the teaching methods because of its influence on learning. However, student feedback was an issue that the participants also indicated would improve learning.

5.1.5.2 Maintaining educational quality

Educators perceived that the quality of educational processes of the BSN programme has an influence on graduate nurses' learning. The participants compared nursing programmes that had run since the inception of the college and ordered a revisit to the curriculum implementation. This observation is in line with the international perspective where some studies were done to determine how nurses are prepared (Hill, 2002; Sullivan & Chumbley, 2010). The participants stated as follows:

"Mmm about quality it is not what I expected because I went through the Diploma program and how it is now, the degree program which is to be at a higher level even the quality itself is not supposed to be compromised but it is the opposite and I can tell you that those in the CHAM institutions even surpass us. They are more skill oriented than our graduates because some of our graduates they do not have those analytical skills and sometimes the performance of their duties leaves a lot to be desired" (NE 06).

The educational quality was described in relation to skills acquisition and analytical skills. These observations match with the stakeholder observations. While other observations were related to the teaching tasks as the participants had this to explain:

"*I feel we should relate more on what is currently being practiced; the teachers should prepare the students that this is what the books are saying, but in practice this is what we do" (NE02).*

"I think we need to help our students to think critically in their learning. My observations are that with the way we ask questions, examination questions we expect the students to regurgitate the information" (NE03).

The quality was also related to the attributes of the educators as pointed out in this excerpt:

"*So I have seen the quality of teachers also need to be checked in terms of experience and expertise. The quality is not matching with the education offered at this place. We need people with lots of experience and who can teach the right things" (NE05, 06).*

Educational resources impact on quality as expressed by the participants:

"The classroom accessories make learning to be difficult, because each time you go in classroom you need to bring a laptop, LCD to use but we need those facilities in-built, so that learning is simplified" (NE05).

The consistency in teaching would bring quality to learning as participants continued to indicate that:

"If there is something that can be done is to reinforce consistency in the teaching and this could be the best thing to do" (NE04).

In summary, the quality of learning in the BSN programme was perceived by the educators to influence learning among the graduate nurses in terms of the analytical skills, skills acquisition, educator attributes and the high student intake rates.

5.1.5.3 Promoting learner feedback

Learner feedback would also solicit information that might improve learning among the graduate nurse as participants had anticipated in their inputs to the interviews:

"*Encourage participatory methods of teaching. This is where students become active and own their learning; give feedback that encourages that they can do better rather than looking down upon them" (NE05).*

"We need to a few facilitators to a large group during classroom teaching, we need to create time for students to explore, search information and get feedback to re-arrange the content so that we focus on important content only" (NE07).

"If we want our students to pass, we need to see where our teaching is going wrong and how we can improve and I think students can help us know where we are going wrong"(NE03).

"We should also improve on giving immediate feedback after assessment" (NE02).

In summary, the suggested improvements on teaching and learning methods focus on the curriculum structure and implementation.

5.1.6 Conclusions from nurse educator interviews

- Nurse educators prefer the lecture method and would use more interactive methods guided by the availability of resources, student characteristics and class size.

- Learning resources in terms of teaching materials, space and information technology are major challenges and influence the quality of learning including the teaching of thinking, evidenced by dependence and memorization. Educators' efforts in teaching understanding and thinking are in the form of learner involvement.

- Lecture sequencing in terms of long hours of time-tabling lead to low concentration levels among learners; more lectures teaching in one course and high student numbers are perceived to influence understanding and thinking among the graduate nurses.

- Some suggestions on classroom teaching include improvements on quality in the form of providing learner feedback and deploying participatory teaching and learning approaches.

5.2 GRADUATE NURSES' PERCEPTIONS OF THE BSN PROGRAMME

The participants were identified during phase 1 of the study. A sample of twenty graduate nurses was identified through purposive intensity sampling; the focus specifically was on the number of years in a post, type of hospital and clinical department. The aim was to have a diverse population that could enrich the quality of perceptions of the participants. Data were collected from twenty participants; repetition of responses indicated participants had similar views meaning there was saturation of data hence the principle of saturation was observed. This was done to explore further and complement the key findings of the quantitative data in relation to the learning for practice phenomena. This concurs with epistemology of pragmatism that supports the notion of qualitative data complementing quantitative data (Johnson et al, 2007). Twenty (20) graduate nurses' transcripts were transcribed verbatim and analyzed.

Content analysis guided the data analysis process (Elo & Kungas, 2008; Hseih & Shannon, 2005). Themes and sub-themes were identified from the repetition of text data that showed relationships (Ryan & Bernard, 2003, Diekelmann, 1992). The data from the graduate nurses' comprised six constitutive themes, these are preferred learning methods, learning to think, assessing learning, readiness for professional role and outstanding learning encounters. Table 5.2 depicts the themes and sub- themes that emerged from the data.

Table 5.2 Graduate nurse themes and sub-themes

THEMES	SUB-THEMES
1. Perceptions of own learning	– Self involvement – Equipped with knowledge – Relatedness in curriculum
2. Preferred learning methods	– Lecturing helps learning – Interactive methods – Leaner activity – Teaching with examples
3. Learning to think	– Not going beyond the teacher – Resource struggle – Making sense of learning
4. Nature of assessments	– Learning for assessment – Memorization required – Time and timing
5. Readiness for professional role	– Dependence on authority figures – Feeling overwhelmed

5.2.1 Theme 1: Perceptions of own Learning

The theme "perceptions of own learning" resulted from the curriculum evaluation results; and the survey results on learning styles, learning approaches and critical thinking scores. There was need to investigate further how the graduate nurses perceive their education processes by asking; "How did you perceive your educational preparation in relation to your professional role?"

The classroom encounters during the BSN programme provided adequate teaching and learning experiences for graduate nurses. These had been expressed and thematically analyzed using the principles of Ryan and Bernard (2003) and Diekelmann (1992). The emerging sub-themes comprised self-involvement, equipped with knowledge and relatedness in curriculum.

5.2.1.1 Sub-theme 1: Self-involvement

Deep learning is a pre-requisite in learning for practice and advocates for inner self-dialogue and self- discovery among the learners. The participants were aware of the importance of their own involvement, and stated that their involvement in classroom teaching was vital to

their understanding of the subject content. Despite them perceiving their own involvement as beneficial, minimal learner involvement was observed during their educational processes as some of the participants expressed:

"*I feel that students must be given much time to learn on their own and also many assignments should be given so that they have much time on decision making in practice " (GN02).*

"Aaa, I feel sometimes we were given assignments, but the lecturer would give information through lecturing and we were not given a chance to discuss as a group."(GN03)

"*I felt if lecturing was done by one third of the teaching and student had done two third of the work it could have helped because students were going to learn more" (GN017).*

Others felt there was some degree of involvement although there was minimal learner involvement through the teaching methods that were used. This is illustrated in the following excerpts:

"When the lecturer is there and they give you group work, when we discuss we share experiences, people would read widely in other books and share the information, this helped a lot because we had wide knowledge and when we come to class we come with more information"(GN016).

"In nursing courses there was some involvement unlike in the foundation courses there was nothing related to practice , a lot of involvement was seen in practice" (GN010).

The reasons why graduate nurses indicated involvement had facilitated their learning included:

"Those that involve students a lot in teaching promote learning because I have seen that when I do some work after teaching I have more information to share than the teacher just

giving through a lecture. May be the scenarios and case studies would be ideal especially in medical- surgical nursing, involve students give them assignments and projects" (GN08, 09).

"If you give students an assignment to work on they work more to understand and so they work extra hard to understand the subject content and it is useful in practice" (GN12).

Most graduates asserted that involvement in their learning was an opportune time for meaningful learning because they were putting in more effort, as evidenced by the following:

"*We were given topics to read in group and present in class, this was something to me. I was very prepared for that presentation and I presented well. I still remember that moment" (GN02).*

"The group presentations I liked them they are interactive, for me it was ok because you learn a lot of things from different people than in classroom lecturing. For me it was memorable because I was involved in the learning than just sitting down" (GN05).

"I like the classroom session that had used a lot of discussions on a topic and small groups because one would actually see the differences in students reasoning abilities. This was used a yard stick to check on myself whether I knew my content" (GN08).

In summary, graduates viewed their involvement in the classroom as minimal and pointed to the fact that self involvement would enhance their learning.

.

5.2.1.2 Equipped With Knowledge

Effective educational processes enhance the acquisition of knowledge among learners. Learners appreciate the acquisition of knowledge in learning encounters because they become aware of the requirements of the practice arenas. The application of knowledge is only possible after mastering the subject content. The participants in the study indicated that the educational processes in the BSN programme enhanced their learning as can be seen in the following excerpts:

"After training I thought I had the knowledge and skills because I felt confident enough with the role that I was about to take" (GN03).

"I did not have problems because I was equipped with the necessary knowledge, skills and expertise because we were placed at a district hospital at the end of the programme" (GN04).

"Because we started going to the clinical areas from first year, we actually practice in hospital settings for a period of 4 years we get actually familiarized with our professional roles as to what is expected with the necessary *knowledge" (GN14).*

"As a newly qualified nurse in the clinical area I feel I had some of the issues that I was supposed to have knowledge and skills that I could have used in practice but the only challenge is that I was working alone without support" (GN16).

However, despite being equipped with knowledge during the BSN programme some graduates indicated that they lack confidence in some areas, expressed as follows:

"*I was confident but not confident enough because I lacked other skills, but I was also doing other work alone, but sometimes I could refer to the DHO" (GN17).*

"After graduation I thought I was ready but then after I had come it was not as easy as I thought, the application of knowledge was not easy I released I had lacked some confidence" (GN07).

"As for me I started in a paediatric ward, I was not really self-confident because during theory in school we did not do much, there was less time so I had some fear. I said to myself, what about putting up drips will I manage" (GN06).

"When you are a student you manage clients under the charge nurse, so it was not easy to work, I needed support, there were a lot of challenges in decision making" (GN05).

In summary, the graduates felt that they had acquired the necessary knowledge during their educational programme that enabled them to have some confidence to work despite others having some feelings of insufficiency to work independently.

5.2.1.3 Sub-theme 2: Relatedness in curriculum

The curriculum structure influences the relatedness between curriculum elements and the quality of teaching and learning. The preparation of graduates who may possess the attributes associated with the learning to learn pillars, demands a curriculum structure that promotes learner- centered approaches in their BSN education processes. Mostly, the content was perceived to be excessive in the first two years and became manageable in the last two years which actually influenced the quality of learning at different levels. The participants had the following to say:

"I would say at times for example the time I was learning conditions in second year I felt the content was just too much. You would learn malaria, then a lot of new things again not related to malaria, so you would not know what you have learnt and you would end up memorizing things and not mastering them. So I think what I would say is that the way we were learning medical-surgical nursing subject content was just clustered together it was not empowering to me, it was not"(GN09).

"To me in first year, I do not think I would say was I empowered in learning, in the second year I was much lost. In third year and fourth year that is when I would relate content to practice because of the methods of teaching that were deployed. Lecturing most of the time left us with a lot of information that was not making meaning in class and in practice" (GN07, 09).

Graduate nurses indicated that curriculum structure was an issue in the BSN programme, mostly, because they do not see relationships among the course elements and to clinical practice as illustrated below:

"*I did not see the relationship in the foundation courses with the nursing courses because when you learn psychology in class and yet you do not see psychology in practice, it was not applied to the practical part but still today I see psychology to have a greater influence in practice"(GN09).*

"It was difficult to relate some of the courses to practice, I wish the curriculum could be designed in such a way that courses are taught in relation to practice" (GN06).

However, the graduates also commented on some learning resources which were accessible only at senior levels particularly, the internet. This was seen as an obstacle to meaningful learning as the participants indicated:

"*Only at fourth year we were given opportunity to access the internet because of research but this was wrong" (GN12).*

In summary the elements that make up the curriculum structure were observed to bear poor relatedness to each other and to practice. This in turn had an influence on the teaching of courses and on how the graduate nurses had learnt. Specifically the relationship to other courses and to practice was not evident to graduates.

5.2.2 Theme 2: Preferred Learning Methods

Teaching styles influence learning styles and quality of learning since educators have an obligation to use the most effective approaches to subject content in order to provide learners with knowledge, experience and practice. The variations in the results on learning styles scores, learning approaches scores and critical thinking scores shaped the question on "how did you perceive your own learning in the BSN programme?" Teaching influences learning and as such, the graduates had views on their preferred learning methods.

5.2.2.1 Sub-theme 1: Lecturing helps learning

Graduate nurses were of the view that teaching methods had a bearing on their learning and contributed to their understanding of the subject content. The lecture method was the most favored method as an aid to learning among graduate nurses as they stated that:

"Most of the times it was the lecture method that was used in the teaching and classes would ended up there" (GN03).

"I think there is no better way than what we were taught like after lecturing you gave us where we can get the readings and enrich our knowledge thereafter we can go to the clinical area, the critical area was to go see what you have learnt"(GN011).

"For me lecturing was good because I am able to take small notes to understand and enrich my knowledge "(GN012).

"I liked the lecture method, presentations but I feel we did not have much of laboratory sessions during our training to promote thinking" (GN019).

Although the lecture method was considered to be the best, the participants alluded to the fact that lecturing was only good for the first years, senior students would benefit from more interactive methods. The lecture method was also dominant in the curriculum document, increasing the chance for the educators to prefer the method.

"*The lecture method is relevant to first years, but for higher classes the interactive methods are interesting, relevant and empowering" (GN04).*

"Sometimes it was like downloading the information to student, most of the times lecturing was used for learning" (GN18).

"I liked the lecture method, but we did not have laboratory sessions during our training" (GN16).

"Lecturing method is good for new students , discussions are excellent because students' engage in the learning and interact with each other, however if there is more time give more assignments for students to learn on their own but the assignments should be structured to guide the students. In some courses you could get a topic to write an assignment and not knowing how deep to go about it" (GN06).

Graduate nurses indicated that the lecturing was good because the lecturers seemed to have prepared for the lessons quite well and would give assignments to students to read as explained:

"*When a lecturer comes he/she in can use lecturing, lecturing is good as the lecturer is prepared" (GN06).*

In summary, the lecture method was preferred by the graduates and valued particularly for first year students; more interactive methods enhanced their level of understanding.

5.2.2.2 Sub-theme 2: Interactive methods

Interactive methods were favored among the graduate nurses during their education because they believed the methods enhanced memory and knowledge retention, as learners exchange ideas and promote the development of reasoning and thinking skills. This preference and reasons why interactive methods were favored were expressed in the graduates' quotes as follows:

"*Those that involve students, promote their understanding because I have seen that when I do some work on my own I have more information to share" (GN08)*

"*The interactive methods when we could discuss in small groups you would not like your friends to show that they know more than you so one worked hard not to be seen to be ignorant , we even had consulted a lot of books to update ourselves"(GN05).*

" I found the interactive method of teaching very interesting, relevant and empowering, but if they can be done at higher classes after doing the basic skills so the lecture method is relevant may be to first year, but students can be empowered with the interactive mode of teaching as they go into higher levels"(GN07).

In summary, the interactive methods are believed to influence knowledge retention and development of reasoning skills among the learners.

5.2.2.3 Sub theme 3: Learner activity

Learner involvement was preferred among the graduate nurses because the participants stated they felt they had owned their learning and had a responsibility to promote it. The participants' reasons included:

"*I liked the classroom sessions that had used a lot of learner activities through discussions on a topic and small groups because one would actually see the differences in students reasoning abilities. This was used as a yard stick to check on myself whether I knew my content" (GN08).*

"The group presentations, I liked them they are interactive for me it was okay because you learn a lot of things from different people through learning activities than in classroom lecturing" (GN05).

"I had a problem with second year there was a lot of teaching and a few assignment; to me I thought you go to second year where you learn a lot of conditions that you are going to meet. Then you have a lot of information at one time, I feel the content should be spread evenly because when we are in third year we are lighter" (GN09).

Graduates indicated that interactions in learning contexts have a positive learning impact and promote learning as the learners exchange ideas through discussions. The participants indicated that even the weak students wanted to show their potential during discussions as they stated:

"Aaa! More learning activities in methods of teaching stimulate the students to think and take part of their learning because they have got their own share. It empowers instead of just going into the classroom and expecting the lecturers to come and do the teaching, the group discussion are very empowering because students have their own part to perform and in a way they learn a lot and sometimes come up with ideas that the lecturer also did not know and learn from learners because of wider concentration"(GN04).

"I feel more assignments given to students help them make more group discussions so that they can be empowered" (GN03).

"The interactive method through learner activities are good, group discussions and assignments for students to learn more because if students are given more assignments they will be forced to read on their own thereby promoting their learning, do lecturing a bit and give more of assignments"(GN05).

Despite that teacher interactions promote students' learning the graduate nurses felt that learners have a crucial role in their own learning as they cited that:

"I think much as the teacher can lecture I feel group activity and discussions help more because we go broad than a lecture delivered by a single teacher. In group discussions there are so many heads to analyze information and this integration makes me learn better because we find a lot of information than leaving the teacher to find the information alone"(GN07).

"I remember well if I discuss with my friends in small groups I wish the college would use more of these small groups. You know other students are lazy they do not read so it is important not to give them all the information but let them identify the information" (GN08).

In summary, learning involvement was exceptional to graduates in the BSN programme due to the responsibilities that were given to them. The learners' activities enhanced learning and learner motivation. The participants are of the view that their learning would be promoted if the curriculum would be restructured to promote learner activities. Learners have

a crucial role to play in their own learning. Learning activity portrays learner responsibility, the graduate nurses felt they owned their own learning in the planned learning activities and had opportunities to share ideas with friends. Weak learners are reported to have benefited from the designed learning activities. More opportunities are to be provided for students to learn on their own.

5.2.2.4 Sub-theme 4: Teaching with examples

The participants viewed teaching with examples as the effective way of presenting content through the process of teaching. Most participants alluded to the fact that increased retention of subject content was promoted in those cases where the teaching was done through examples. Some of the rationales provided by the participants included:

"*When I was in first year we saw a movie about triage, so I was able to see how to sort out patients and it was in my memory that when patients are queuing up I should be able to triage and it also included CPR it was an experience that I cannot forget and I was excited and I feel that if content can be presented like that it can help you to learn more"(GN07).*

"If content could be presented in a visionary mode like you want to put up a drip you would send students to check how the hospital practice is and then you would teach through lecturing after students have some knowledge on the procedure and it is easier for them to understand. And another thing is like catherization let them come to the clinical area and see the equipment, the tubings and some catheters that have already been inserted then go and lecture on the procedure, students would benefit more on this method to learn for practice"(GN05).

In summary, teaching with examples enhances memory and the development of thinking as the participants have alluded to. This is because the learner uses prior knowledge when examples are used. Teaching with passion was perceived as the method that brought objectified examples in the learning scenario; that provided enjoyable learning opportunities. The graduate nurses indicated that learner activity meant learner responsibility due to the opportunities that exist for sharing.

5.2.3 Theme 3: Learning to Think

The theme learning to think emanates from the question "how did the teaching in the BSN programme promote your thinking in relation to practice?" The basis of this question were the results of the Watson-Glaser Critical Thinking scores and the Grasha-Reichmann learning styles scores of the graduate nurses in phase 1. Teaching that promotes thinking encourages a deep approach to learning for a high level understanding. The researcher wanted to investigate further how the teaching impacted on the thinking abilities of the graduates.

Graduates' perceptions on teaching in the BSN programme that enhanced thinking among graduates yielded three sub-themes. The sub-themes were guided by the factors that participants perceived facilitated their understanding in the learning processes. Three sub-themes emerged as follows: could not go beyond the teacher, struggle for learning resources and making sense of learning content.

5.2.3.1 Sub-theme 1: Not going beyond the teacher

Graduates' perceptions on the theme "learning to think" varied. The variations were based on how some courses were taught; participants indicated that some courses were not associated to the practice of nursing. While in others a number of educators were involved in the teaching one course which brought different ways of structuring teaching and had an impact on the learning. Teaching how to think is related to teaching for meaning structure and is linked to the learning to know and learning to do pillars (provided in chapter 2) that advocate for understanding of issues in learning context.

Most graduates indicated that their learning encounters in the classroom did not stimulate thinking as can be seen in the following excerpts:

"May be because we were just learners we could not go beyond the teaching, let's say we should think like this on this content and this beyond the teacher to me was lacking but the teachers would teach the subject content every time"(GN01).

"*Sometimes it was like downloading the information to students'; one "could not go beyond "the explanations, most of the times the knowledge was gained through learning in lecturing method" (GN03).*

"The teaching was good though at times a student had to read extra hard to learn better in some courses, the teaching was done mostly by the lecturers I did not like that because I wanted to" go beyond the teacher", to understand the teachers. Sometimes you had one course with a lot of lecturers more than four especially in med-surgical courses. This made the course not interesting because all the lecturers had different teaching styles and others used simple methods to give information" (GN08).

"I would not say all content was taught because it is not everything that you have you can be taught, some things you learn on your own, so I would say some content was not well presented to promote thinking and other content was presented well depending on who was teaching"(GN05.09).

Graduate nurses alluded to the fact that the presentation of the courses also had an impact on the development of thinking during their learning process. Since most of the time they observed that more information than anticipated per course topic was presented to students. These were teacher-centered styles that promote dependent learning among learners which negatively influence the development of thinking (Uzuntiryaki, 2007). The participants' reasons included:

"*When you are just starting in the BSN programme you get more information, you learn a lot of things say the first few years may be in those years what you are learning may not help you to think , it may just go within the learning box"(GN02).*

"I think that most of the things that were learnt at the college were on diseases and how to manage them but there are other issues that need thinking and are not talked about, so those issues should be incorporated into the teaching. The teaching should be broad so that when we qualify we should not be surprised" (GN05).

In summary, graduate nurses indicated that teacher-centered approaches affected the development of thinking; evidenced by a lot of courses taught which were not related to practice and teaching methods that could not reinforce self-directed learning and self-regulation.

5.2.3.2 Sub-theme 2: Resource struggle

Graduates associated the availability of learning resources with them learning how to think. Learning resources give quality to teaching and promotes student-centered learning approaches as can be seen in the following excerpt:

"*There were no adequate resources we could struggle for books that time, if there is a book on the reserve shelf say may be only two for a number of students to circulate, it was a struggle I remember in third year when we were doing research there were only five computers. We were working overnight and it was a bad experience" (GN01).*

"There were not enough resources even books, the recommended books in the course outline were not enough for the students" (GN02).

In summary, the participants indicate there was struggle to access learning resources that had an influence on student centered learning in an effort to promote thinking.

5.2.3.3 Sub-theme 3: Making sense of learning

Making sense of learning is what the participants described as constructing meaning from the learning context to aid thinking. The participants indicated that as much as the content was presented in class, the students had to go to the library to search for more information. This process enhanced the development of thinking and reasoning; in an effort to make sense of the learning as evidenced by the following:

"*Only a few courses had used the interactive approach in their teaching, I wish all courses would give information through this approach where students learn on their own through this. I was able to integrate theoretical knowledge into practice" (GN07, 09).*

"When we were at college most of the times we were given the content, there were some lecturers who could teach content and when it came to examinations if you answer something outside their content they could mark you wrong, they only want you to answer what they taught and to me that was a challenge because when you are learning you need to explore more, so that you can have more understanding" (GN016).

Graduates pointed to the fact that the method of teaching also hastened the process of making sense of learning due to the direct involvement of the learners. The participants were of the view that examples stimulate thinking in learners in any learning context as quoted:

"Examples should really involve the thinking of the learner not just feeding them with information because when you go in the real world as a nurse who qualifies with a degree, there are high expectations if you go in the ward"(GN012).

"*The group assignments I liked very much and presentations because one could be in front confident enough to present, and also we were preparing enough to understand the learning content"(GN017).*

*"I can think after certain courses you could actually tell like profes*sionalism *you could get ethical issues ,ethical dilemmas, this could stimulate you more to think and also to know how to act if you get them in practice. The research course that we do at year four also stimulated our thinking" (GN018).*

The participants had reasons that the specific methods of teaching had contributed to the making sense in learning and one participant had this to say about the group assignments:

"Because I was given the opportunity on my own to read about the topic, to read it widely and understand it and as a group we did not have problems in class to understand it. We used to discuss in class after getting familiar with the topic and this made me to understand the subject content with more insight and this brought a deep understanding than having a lecture with all information presented" (GN019, 022).

In summary, graduate nurses are of the view that their teaching and learning was based on assessment and not on the development of thinking skills. Despite some graduates liking the lecture method and presentations in the pretext of teaching, they felt that some curricula elements were disconnected and not associated with practice.

5.2.4 Theme 4: Nature of Assessments

The theme "Nature of assessment" follows the question "how did you perceive assessments in the BSN programme?" An assessment is one of the strategies that might establish what and how learners learn subject content (Lewis, Berghoff, & Pheeney, 1999; Ross, Green, Salisbury-Glennon & Tellefson,2006). The learning approaches scores, learning styles scores and results of the curriculum evaluation formed the basis for further understanding of how the graduate nurses perceived their education processes.

There was need to explore how learning was assessed and perceived by graduate nurses because the participants' perceptions of their education processes reflect their understanding of learning issues. Learning to learn, advocates for education that results in deep learning for mastery of instruments of knowledge. The notion is supported by Ross et al (2006) who assert that if teaching is done in a way to facilitate deep level cognitive processing and explicitly links teaching with assessments to enhance deep level processes, the learners mostly use a deep approach to studying and learning.

However, the participants perceived the assessments differently with regards to their learning. Memorization, time and timing were sub-themes that followed the conceptualization of the concepts that repeatedly appeared in the responses.

5.2.4.1 Sub-theme 1: Learning for Assessment

Graduates' perceptions of learning how to think in nursing in relation to learning for practice reflects that mostly, the teaching and learning practices were associated with passing of the examinations i.e. learning was driven by assessment. Graduates expressed the following thoughts:

"*I think we miss the point: maybe I can say during lecturing you should emphasize that we develop critical thinking because it is what is important in practice, most of the times we are examination oriented even the teachers would say this can come in the examinations"(GN01).*

"The learning was good as I have already said that most of the students we were examinations oriented we want to pass so we focus on what we think the teacher may be asking on, we tend to focus on what the teacher will ask in the examinations and going beyond that could be a limiting thing because you have examinations in quotes" (GN02,04).

"Most of the times you could be out of a lesson or class may be without understanding, but because of the library one could and read in preparation for examinations"(GN01.017).

Learning is dynamic and brings different meanings at different levels of assessments. Some graduates stated that some teaching was good to stimulate thinking. Despite the dynamic nature of teaching and learning graduate nurses indicated 'simple and straight forward examinations' cannot promote reasoning in learning as participants stated:

"The examinations were very broad sometimes in a topic some things you did not learn in class but were examinable, so the assessments basically did not only test on the things we learnt in class" (GN07).

"Some content was not even associated to what is in practice to be examined, it was abstract, some courses had a lot of lecturers sharing topics and everyone had their teaching style. What I would remember is that some content was not challenging in terms of consulting more literature to read, very simple and straight forward even in the examinations. Sometimes one would reflect and sometimes not; the reason as I have already said if all information is given to you as a learner there is nothing that you need to worry about especially in first year" (GN05).

In summary, learning was associated with passing of the examinations despite that some assessments were simple and straight forward to encourage a surface approach to learning.

5.2.4.2 Sub-theme 2: Memorization required

Assessing learning is part of the teaching and learning process, and the process influences the approach to learning among learners. Entwistle and Entwistle (2003) are of the view that learners adapt their studying based on the perception of what the educators anticipated to observe in the examinations. In the BSN programme assessments were perceived differently by the graduate nurses, who did not perceive the assessments as worthwhile in enhancing their learning. This is because the techniques of assessments determine the simplicity of the answers; the participants mostly indicated that they had perceived the assessments during their BSN educational processes to have required direct answers as the participants had cited:

"Writing essays that solicited direct answers we memorise the notes of the teacher and write what the teacher gave us, in his/her notes" (GN07).

"Other courses were tough like microbiology and statistics I was forced to memorise them because I could not understand the jargon but get surprised at the end of the day that you have passed the examinations. It was difficult to relate some of the courses to practice. I wish if they could be taught in relation to practice" (GN06).

"Some lecturers were examining in relation to the subject content what they taught; while others were looking for something you could provide an explanation for"
(GN016).

In summary, graduate nurses' narratives indicate that assessment strategies required mainly memorization of subject content through surface learning approaches.

5.2.4 3 Sub-theme 3: Time and timing

Graduates were of the opinion that the assessments that were conducted during their BSN programme required more time for planning from both the educators and graduate nurses' perspectives. This was because the participants felt that the examinations were tough most of the time, pointing out that:

"Mostly I liked classroom assessments that followed clinical placements as this had helped me to understand issues and pass tests. I prefer to learn, do and see the situation and now get examined" (GN017).

"The only problem that I would cite is probably that at the time we were not given enough time, one would just see the examinations coming without proper preparations. Students need to know a head of time of any examinations" (GN09).

In summary, graduate nurses viewed assessments in the BSN programme to be constrained by time resulting in them not having a chance for learning and completing assessments required direct answers through memorization that did not promote thinking.

5.2.5 Theme 5: Readiness for Professional Role

The graduates' critical thinking scores from the Watson-Glaser Form S and the results of curriculum evaluation provided the basis for the question; "how did you perceive your educational preparation in relation to your professional role?" The graduate nurses' perceptions on the BSN programme are based on their preparedness to the attainment of professional role and their educational experiences. Attainment of confidence, professional interest, support and abilities in making judgments and decisions guided the thematic analysis of this theme. In total four sub-themes were identified, these include dependence on authority figures, support to professional role, interest for professional role and feeling overwhelmed.

5.2.5.1 Sub-theme 1: Dependence on authority figures

Professional support was sought by participants to cement their professional role from colleagues in the clinical settings. The treasures of learning to learn pillars support collaboration and team working. The educators' essential support for the graduate nurses' roles is to ensure that they help learners make connections between acquiring and using knowledge (Benner et al., 2010). Therefore, curriculum design efforts must promote the connections of acquiring and using knowing through effective teaching strategies in an effort to facilitate the development of confidence among learners.

Confidence is key to the professional role of graduate nurses because it helps them to face the challenges in practice settings. BSN graduates cited that mostly support was sought to cement their new professional roles; this also enhanced their professional confidence as some participants indicated:

"At first I was consulting the matron before I could make decisions because I was not used to the setting and lacked self-confidence despite the knowledge and skills I had"(GN08).

"The first two months I was consulting because I felt I needed experience than what I had at school. I would go to the ward pediatric ward I was still consulting because I felt I did not have the experience to deal with issues as we had less time at school so I needed at least three months to be on my own and make decisions"(GN09).

"I was confident but not very confident enough because I lacked other skills but I was also doing other work alone making decisions but sometimes I could refer to the DHO asking for assistance"(GN12).

Participants also indicated that they had sought support in making decisions to promote professional integrity. Professional integrity is an outcome of any BSN programme resulting from ethical comportment, which is core to nursing care. The participants indicated they had observed patients safety for all decisions made in their professional roles. Graduates stated that:

"*Decisions were made after consulting supervisors, mmm… myself I would say I was confident because I was able to take charge of the ward and subordinates and clinical staff, support was sought to verify on decisions basically to ensure patients safety"(GN05).*

"Most of the times I was involved in making decisions, when it comes to staff allocation, to ensure adequate coverage of staff on duty for that I sought support "(GN011).

"I decided to be a unique nurse to influence care of clients, this helped me to learn what my subordinates were doing correctly, then if wrongly done I would sit down with them and say this was supposed to be done differently and because of this I gained their confidence and support"(GN013).

The classroom realities facilitate the development of interest in the professional role; most graduates indicated that they felt ready and had interest in their professional role which they had been looking forward to. However, other participants cited that they had no interest in their professional role and this had influenced their readiness to take on their role. Graduates stated:

"*In the first place I was not ready because nursing was not my choice during entrance examinations so when I started my training until graduation I had no interest but when time went by I had developed interest"(GN03).*

Most graduate nurses indicated that they were excited to get into their professional roles following their educational programme, as evidenced by the following excerpts:

"I was excited to work in the clinical area because this is what I wanted to be, a nurse despite that there were a lot of challenges when we started" (GN08).

"I was excited to work in the female ward, I was ready to work and bring change because I saw that some of the procedures were not done properly. I was consulting the matron, the first two months before I could make decisions" (GN9).

In summary, graduate nurses lacked self-confidence and sought support to cement their professional roles in an effort to gain confidence and maintain professional integrity. Particularly in decision making graduate nurses depended on authoritative figures. There was evidence of high interest levels in graduates' professional roles that was extrapolated from most participants' narratives.

5.2.5.2 Sub-theme 2: Feeling overwhelmed

Graduates' readiness to take on the professional role was described with mixed emotions. Some found the experiences exciting while most indicated that they felt overwhelmed and scared. Those who were excited attributed their emotions to the acquisition of expertise resulting from passing their examinations. Graduate nurses who indicated that they felt overwhelmed to take on the professional role expressed overwhelming reactions due to lack of confidence and professional support. Some of the participants cited the following:

"The first week I worked with registered nurses in ICU they helped me quite a lot and the second week I was put on night duty alone I was overwhelmed and scared , I did not even doze because I felt the machines would stop and everybody would die so I was quite alert I was quite alert I cannot forget this day on night duty. Anyway I learnt quite a lot and cherish the experience. What I feel is that I lacked confidence in the first place when they said you cannot manage and work in ICU" (GN01).

"Sometimes I could have problems in the integration of theory to practice, despite that we were integrating theory to practice during training. It was not as easy as I thought, I was not really confident because during theory in school we did not do much in pediatrics so I had some fears" (GN04,06).

"As a newly qualified graduate nurse in the clinical area I had learning issues on my professional role; that I was supposed to have knowledge and skills so that I could use in practice; but the only challenge when I went to the clinical settings I was working alone and the support was minimal"(GN018).

"I did not have problems because I was equipped with the necessary knowledge, skills and more especially because at the end of the programme we were placed at a district hospital where we were functioning as district nurses. With this we found it easy to integrate our knowledge" (GN04).

Despite a few being knowledgeable some graduates were not, as expressed below:

"At first I had lacked courage and confidence thinking that they were not going to accept me as a newly qualified nurse, I felt it was normal and this was the mentality that pushed me to move forward in the profession" (GN012).

"The experience I got from ICU is that if people are saying that you cannot do this, you need to have self-confidence before you can try" (GN01).

Nursing is collaborative work; graduate nurses were asked whether the BSN programme had equipped them with the necessary knowledge to work with teams in their professional roles thus "learning to live together" as espoused in the four pillars of learning to learn. Most participants indicated that when they were allocated, they were put in-charge of wards in most settings and as such had worked well with teams, as evidenced by the following:

"*I was supported much because they were giving me the opportunity to display the skills and expertise by giving me some responsibilities, may be to run a programme. I felt that was support because I was given the forum to display my abilities and the subordinates also supported me a lot in my team" (GN04).*

"Yes I got support from the matron, the staff on the wards they were able to teach me how to do some procedures that I did not know and where I was not competent I was asking and they were teaching me" (GN07).

In summary, the participants indicated they were able to collaborate and work in teams. The graduate nurses' perceptions of the professional roles was reported to be overwhelming at times, evidenced by lack of self-confidence and lack of support.

5.2.6 Concluding statements from graduate nurse interviews

- Graduate nurses perceived there was minimal learner involvement in classroom learning and recognized that increased self-involvement would enhance their learning. The graduate nurse indicated that learner activities were observed as opportune time for learning.

- Graduate nurses' indicated that the BSN programme had equipped them with knowledge despite feelings of insufficiency to work independently. There is evidence of curriculum structure bearing poor relatedness to each of the courses and to practice; this influenced how learning was implemented in terms of relationship to other courses and to practice.

- The most preferred and valued learning method for the learners was the lecture method. Interactive methods were least used but favored by graduates as a way to enhance learning. Teaching with examples is reported to have enhanced the development of memory and thinking among the learners.

- Teacher-centeredness detracts from graduates learning to think; some courses were not related to practice and had a number of lecturers teaching one course with different teaching styles, hence the teaching did not stimulate thinking.

- Curriculum structure affected the development of learning and thinking abilities in such a way that more information was presented than anticipated and the use of teacher-centered approaches affected the development of reasoning and thinking abilities. The curriculum elements were observed to bear poor relatedness to each other and not connected to practice.

- Teaching and learning were perceived to be based on assessment and that the emphasis was on passing of examinations. Some assessments were perceived as simple and straight forward pointing to issues of surface approach to learning with little chance for developing thinking skills. There is evidence of difficulty in accessing learning resources that affected student-centered learning.

- Readiness for their professional role reflects two main issues surrounding the graduate nurses' role that is feelings of being overwhelmed and dependence on authority figures. Feelings of being overwhelmed is the result of the reported mixed emotions that lead to a lack of confidence while the dependence was an effort to seek support for maintaining professional identity.

5.3 CONCLUSION

The chapter described the results of qualitative data obtained from interviews with educators and graduate nurses. Educators' perceptions of the BSN educational experiences reflect that they have preferred teaching methods. The teaching of thinking is affected by teaching resources, methods and the curriculum structure. Graduate nurses' perceptions are not different in terms of meaningful learning where the participants indicated that they had preferred teaching methods that enhanced their learning. There was congruency in the way thinking is perceived to be taught among the educators and graduate nurses. In the next chapter discussion of the integrated results are presented.

CHAPTER SIX
INTEGRATED DISCUSSION OF RESULTS

6.0 INTRODUCTION

This chapter synthesizes discussions of the study results presented in chapter four and chapter five. This is an integrated discussion because pragmatism epistemology guided the mixed method design in this study, which supports the integration of the results at this level (Johnson et al, 2007). The results from the quantitative data, qualitative data and curriculum evaluation specifically focusing on the teaching process are discussed first, then the learning processes, the BSN curriculum evaluation, perceptions of educators and graduate nurses. The discussions are integrated in this manner because these are the three components of the educational process in the BSN programme. However, the learning for practice process is discussed in line with the four pillars of learning to learn as the conceptual framework. I am mindful of the fact that the findings reflect only the participants' perspectives of the educational processes in Malawi. The consistence with which these results have featured during the surveys and interviews lend validity to what the participants reported as they gave accounts of their educational experiences.

6.1 DISCUSSIONS OF THE RESULTS

The integrated discussions unfold in the following sequence, firstly the teaching processes and experiences, learning processes and experiences, curriculum processes and tools while critical thinking and the qualitative perspectives cut across all the three sub-headings.

6.1.1 The teaching process

In this study the processes of teaching were analyzed in relation to teaching styles and methods used. The five teaching styles of Grasha (1994) formed the foundation for evaluating the attitudes and behaviors in approaching teaching. No one teaching style is better than the other according to Grasha (2002), but variation in the use of the five styles enhances deep learning.

The study results reveal that there is a lack of diversity in the use of teaching styles among the educators and that the most preferred and dominant teaching style (70.5%) is the Expert Teaching Style ($\bar{x}$ =4.02; SD =1.06). Formal Authority Teaching Style followed second with a mean of 4.00 and standard deviation 1.11; the least preferred teaching style is the Facilitator Teaching Style ($\bar{x}$ = 3.27; SD = 1.43). The Expert Teaching Style implies the educator possesses knowledge and expertise and directs learners in what to learn and emphasizes factual information. The Formal Authority Teaching Style has status among learners because of authority, position and knowledge. These two teaching styles are teacher-centered and form the basis for the teaching styles in cluster 1 according to Grasha, (2002b) and are concluded as the dominant teaching cluster at KCN. The study results lend support to the assertions that teachers focus more on processes of teaching in terms of methods and testing than on the process of learning (Schaefer and Zygmont, 2003). This is because the teaching methods in teaching cluster 1 are teacher-centered, which has an influence on deep learning. The Expert Teaching Style is teacher centered, and mostly uses the lecture method and does not foster independence among the learners. Grasha (2002a) has proposed the four clusters of teaching styles to balance the attributes and behaviors that could meaningfully contribute to learning if used. Hyslop-Margison and Strobel, (2008a) suggest that a variety of teaching strategies/approaches enhance deep learning for knowledge acquisition and is important in teaching to challenge individual learner preconceptions and pre-perceptions that assist in the evolution of thinking.

Graduate nurses' perceptions of the teaching processes indicated that the teaching was examination oriented and failed to enhance the development of the thinking abilities. The lack of diversity in the use of teaching styles entails that the teaching efforts among the educators did not promote the learners' to maximize their potential to approach learning deeply.

The use of a variety of teaching styles facilitates the development of adeptness which is essential for diverse settings. The lack of diversity in the teaching styles employed by educators is attributed to the surface approach to learning among the graduate nurses. Deep learning is desirable and results only from a balance of the five Teaching Styles of Grasha

(2002b); this is because the learners' initiate an inner-self dialogue with the content that ends in self-discovery of the learning situation; insight and mastery of knowledge. In a study by Vaughn and Baker (2008) conducted a research project to examine the effects of different combinations of teaching and learning styles in preceptor resident dyads, the results revealed that teaching styles and learning styles were to be considered when pairing residents and preceptors because diversity in learning styles takes into account the diverse needs of learners to promote mastery and insight .The Expert/ Formal Authority teaching cluster focuses on teacher centered methods The results of this study concurs with Benner et al (2009) views that present nursing students were educated in ways that did not help them to develop inquiring skills. This is because of their observed low critical thinking abilities.

The study results are consistent with a study that was conducted in Malaysia by Razak, Ahmad and Shah (2007), which investigated how Polytechnic students perceived and preferred teaching styles (methods) of English language for specific purposes. In their study the Expert Teaching Style was the most preferred and dominant teaching style ($\bar{x}$ =4.29 and SD=0.53). The educators teaching preference were not in line with the students' preference in teaching even though some of the students indicated their preference was the Facilitator Teaching Style. This teaching style in that study was less preferred by the educators as a teaching style, reflecting a mismatch in teaching styles.

Graduate nurses in the BSN programme indicated that they preferred learning in small groups and yet the methods are least preferred among the educators. The situation reflects a mismatch of teaching styles with learning styles. The moderate scores on the Personal Model Teaching Styles and Delegator Teaching Style indicate that these teaching styles were not preferred and did not dominate in the teaching tasks to promote deep learning among the learners. Qualitative results indicate that graduate nurses preferred teaching that used examples and where there was learner involvement; yet these teaching styles for such type of teaching are less preferred. There is thus, a mismatch between what the educators use in the teaching styles/methods and how students learn to influence deep learning. Balance of the five teaching styles could enhance learning engagement that might lead to deep learning as a pre-requisite to learning for practice.

Based on the results of the Watson- Glaser Critical thinking scores there are low levels of critical thinking abilities among the graduate nurses; this could be related to the teaching styles cluster and methods used that are preferred among the educators and the lack of diversity in the teaching styles/ methods to stimulate deep learning. Thinking can be taught depending on the approach to teaching styles and learning styles (Ironside, 2003b). Teaching thinking is one of the critical goals in higher education. A research study in Taiwan by Chen, Liang, Lee and Liao (2011) on the effects of concept map teaching on students' critical thinking and approach to learning and studying, found that there were increased scores of critical thinking and inferences in the experimental group; meaning that cognitive thinking skills could be taught in discipline-specific courses. Teaching methods that are associated with the cluster 1 teaching styles are didactic in nature and teacher-centered. Further, it is the educators' choice of teaching methods depending on availability of information on the subject content, learning resources and student numbers. Therefore, fail to instill independence among learners. The results showed that the educators and graduate nurses preferred the lecture method as a method of teaching in the BSN programme. This is consistent with the teaching styles cluster that was prevalent in the BSN programme. It is important to note that teaching styles are neither good nor bad because an imperative outcome is that the teaching styles must yield positive learning outcomes such as reasoning and critical thinking (Brown, (2003). However, the result of the curriculum evaluation suggests that the BSN curriculum had partially met the standard for including teaching strategies/approaches by 62.5% of the experts. The curriculum document did not explicitly state the teaching strategies/approaches; a few that were included in the document were neither learner-centered nor could it express learner goals, reducing the possibility of reinforcing learner responsibility. Lack of variation in teaching styles reflects the curriculum benchmark that could not give directions on how the teaching was to be deployed in an effort to promote learning for practice in the BSN. The BSN curriculum, also profiles the lecture method as the main strategy for teaching throughout the four years of study. The lecture method is less efficacious in learners with lower levels of prior knowledge in the learning situation. This result reaffirms the issues of dependence from the qualitative findings that graduates' nurses developed dependence in their learning endeavors both in the classrooms

and in their professional roles. The curriculum also lacked a benchmark on use of prior knowledge as a process and tool for the BSN programme(Ironside, 2003a; Maher, (2004).

Graduate nurses described the teaching in the BSN programme as one that could not promote their thinking in relation to practice. This could mean the quality of teaching in terms of supporting the surface approaches to learning that did not foster self-directedness and self-regulation. The graduate nurses' narratives reflect that surface approaches had influenced their learning and that their learning was influenced by assessments.

Making explicit the philosophical underpinnings of any learning paradigm that should be understood as an educational ideology guiding curriculum implementation is a mandate in nursing education (Uys and Gwele, 2005). A further finding in this study was that the educational ideology of the BSN curriculum at KCN was not explicitly stated; teaching strategies used were guided by course content, number of students in a class and the information available on courses. These sentiments also confirm that the teaching in the BSN curriculum is teacher-centered and cannot influence deep learning. Learning for practice is a result of holistic approaches to teaching and learning tasks, despite the lack of diversity in the teaching styles among the educators; the majority (77%) of graduates adopted deep approaches to learning. In a study by Mansouri, Soltan, Rahemi, Nasab, Ayatollah and Nekooeian (2006) investigating nursing and midwifery students' approaches to learning, it was found that students' interest in the field of study had an impact on the adoption of a deep approach to learning. Graduate nurses indicated had an interest to learn in the BSN programme and their narratives pointed to the fact that learner involvement was preferred in their learning. This finding confirms the high scores in deep approaches that were reported among graduate nurses.

Despite graduate nurses noting that examples in teaching activities could stimulate thinking in the classroom, the Personal Model Teaching Styles which embodies precepts and examples was not a preferred teaching style by nurse educators in this study. Hammerness (2006) points to studies of learning that supported coherence by suggesting that learning may be enhanced when learners encounter constituent ideas across the learning experiences.

Graduate nurses indicated that the teaching that had incorporated examples had enhanced their memories and development of thinking abilities.

Graduate nurses found small group discussions to be the best methods for learning than the lecture because of learner involvement which is vital in promoting diverse learning styles. Small group discussions have positive effects on cognitive processes resulting in deep level learning processing. The qualitative results indicate the preferences for small group teaching methods while the curriculum does not specify this as an essential strategy. There is then incongruence between the processes that the BSN curriculum specifies and that which are preferred by graduates. Socratic strategies are essential elements to be considered for a BSN curriculum standard for the millennial generation of nursing learners who are said to gravitate towards group activities in their learning (Bruce et al., 2010). Deep learning results also from group learning due to the explanations which stimulate elaboration thereby increasing retention of information on subject matter (Van Blankenstein, Dolmans, Van der Vleuten, & Schmidt, 2011; Webb, 1989). The learner dependence from the qualitative results would also be attributed to the inadequate use of Socratic methods in the teaching experiences.

Small group teaching methods are not part of the curriculum benchmark even though some educators report to have used them. Small group teaching methods are believed to increase retention of information because there is a relationship between listening and explanation in the learning context (O'Donnell, 2006). Elaboration that occurs in small group discussions is a higher order thinking ability and is significant in learning for practice. This high order thinking ability is probably what graduate nurses develop in the small group discussions during their educational processes. This is because new ideas are generated by connecting new information present in memory with prior knowledge leading to deep level information processing (O'Donnell, 2006; van Blankenstein et al., 2011). A research study by van Blankenstein, Dolmans, van der Vleuten & Schmidt (2011) to investigate cognitive processes that supported learning during small-group discussions revealed that the provision of active explanations during discussions positively affects long term memory in learning. The *Learning to know pillar* reflects the type of learning that mandates mastery of instruments of

knowledge that can be acquired in a never ending process, and is enriched with dynamic life experiences (Zhou N.d.) This type of learning requires diversity in teaching styles and teaching methods that promote power of concentration, memory and thought both as a means and an end in learning. Small group learning is then ideal for learning for practice.

Understanding in learning emerges from the use of study strategies which are directed towards meaning construction from the study concepts (Prosser & Trigwell, 1999). The study results reflect evidence of learner dependence and lack of confidence which had manifested in feelings of being "overwhelmed and scared" early in their professional roles. Reasoning, creativity, and critical thinking form foundations for professional confidence where one can deal with complex situations in practice. Despite that the use of the deep approach to learning among the graduate nurses (77%) was reported. The results do not relate to the quality of deep learning achieved and is consistent with that of a study by (Minbashian, Huon, & Bird, 2004) who found that the evidence for associating the use of the deep approach and academic grades were reported ambivalent.

Lack of diversity in teaching styles and low levels of critical thinking abilities are likely to contribute to the lack of confidence among the graduate nurses in the BSN programme. The L*earning to know pillar* values include critical thinking, learning for change, dealing with complexity, problem solving and systems thinking; these are resonant in the underlying principles of this pillar and may be desired learning outcomes associated with diverse teaching styles. Learning in professional nursing must be considered not only as an intellectual process with the acquisition of structured knowledge, but as one that involves all areas of life including the individual's role in the community, workplace performance, personal development and physical development (European Lifelong Learning Indicators, 2008; Lawale & Bory-Adams, 2010).

Benner et al (2009) contend that the ways of teaching in nursing must change if students are to develop a sense of salient. Meaning that the teaching is to enable learners to discern what is essential in the learning situation; by teaching them to consider information that might be missing through learning engagement. The use of a variety of teaching methods is therefore,

capable to unfold into deep learning. Deep learning process equips learners to face the future with confidence, creativity, curiosity and intelligence as core professional outcomes (Hanna ,2011). However, the qualitative results reflected that the graduate nurses could not challenge educators or qualified nurses in the clinical settings; this could be associated with lack of diversity in the teaching methods that failed to promote critical minds among them. Pragmatic viewpoints indicate that both the process and product in any curriculum is important for teaching (Zhaou, n.d.).

6.1.2 Learning processes and experiences

The learning processes and experiences in the BSN programme reflect the perspectives of educators and graduate nurses. The results of Grasha-Reichmann Learning Styles Inventory indicate that most of the graduate nurses showed preference towards the Competitive Learning Style 73.5% ($\bar{x}$ = 3.98; SD= 0.52); followed by the Avoidant Learning Style ($\bar{x}$ =3.88; SD= 0.68). However, the least preferred learning style was the Independent Learning Style ($\bar{x}$ = 2.84; SD=0.80). These findings match with the educator teaching styles results, namely the Expert/Formal Authority Teaching Style cluster and the lower scoring in the Independent Learning Style reaffirms the creation of dependence that was reported in the graduates' qualitative narratives.

Learning styles are crucial to the approach taken in learning. Vaughn and Baker (2001b) suggest that effective learners are able to adapt to the style that the learning context requires. Empirical studies on learning suggest students learn best when taught in ways that match their way of learning (Lovelace, 2005; Mahlios, 2001; Ogden, 2003; Rinaldi & Gurung, 2008). The Competitive Learning Style was prevalent among the graduate nurses because the learners had preferred to remain in their individual comfort zones. In a research study that sought to explore whether teaching and learning styles should match, it was found that instructors need not match teaching and learning styles but must enhance learning by using diverse styles. The results also supported the designing of active learning assignments to promote use of diverse learning styles (Rinaldi & Gurung, 2008). The lack of diversity in the learning styles among graduate nurses is a factor within the BSN programme that did not necessarily promote learner-centered styles and the development of autonomy.

The learning styles of graduate nurses were further shaped by the type of assessments as evidenced in the qualitative narratives of the graduate nurses (Provitera & Esendal, 2008). Their perceptions were that teaching is examination oriented, resulting in superficial learning. Grasha (2002) suggests that learners who use Competitive and Avoidant learning styles develop learning dependence because they fail to develop autonomy. Graduate nurses reported that they depend on authority figures for decision making and problem solving in the clinical areas.

The BSN curriculum evaluation results indicate that the BSN curriculum partially met the standard for learning responsibility and self- directedness among learners as stated by 75% of the experts. Learning responsibility and self-directedness is core to the development of motivation levels among learners and has a bearing on how the learning endeavor may be pursued. Interestingly, the educator perceived graduate nurses to be dependent in their learning encounters. This could be attributed to the lack of responsibility that emerged from the teaching methods that failed to instill self- directedness and responsibility among the learners. The observed learner attitudes were also considered as a contributing factor to the lack of self-directedness and responsibility by the educators. Could this dependence be due to the partial curriculum standards that the learners had not been guided to develop independence or it could be due to the teaching styles/methods and learning styles? Clark and Latshaw (2012) proposes alternative approaches to teaching in an effort to meet learners' needs for competence, autonomy and self- determination.

Learning styles are blends that reside within every learner, a reliance on any one of the six styles or rigid application of any one of them leads to learning problems. It is important that educators' know more about the learning styles in an effort to have good learning that supports acquisition of new knowledge (Clark and Latshaw, 2012). Biggs and Tang (2007) state that deep learning approaches among learners are influenced by factors like the learners' ability to focus at a high conceptual level and the learners' intention to engage in the learning task meaningfully. Therefore, despite learners' preference for certain learning styles, how the teacher structures the class, can be changed and modified depending on the class teaching methods. In this respect educators have an obligation to extensively use

teaching methods that are compatible with certain learning styles (Grasha, 2002b). The study results show that there is no diversity in the learning styles that graduate nurses deployed during their BSN education; to this end the learning experiences in the BSN programme reflect issues surrounding the curriculum benchmarks, teaching styles/methods, learning styles/approaches. Educators therefore, must be mindful of any learning situation where learners use only habitual methods of learning and are not self-regulated (Du Bois & Staley, 1997).

Qualitative results from the educators' perspectives indicate that there was less responsibility in learning observed among graduate nurses and that there was minimal involvement in their learning processes. However, the graduate nurses alluded to the fact that group work was not always available and that they would have benefited from this teaching method; even the weak student would want to show potential in learning through group discussions if they were involved in their learning. A research study (Amir et al, 2011) that investigated learning styles of university students and its implications on teaching and learning found that Collaborative and Competitive Learning Styles were dominant among the students; educators are to plan learning activities that set high expectations for students' performance. This is because learning tasks that are conducted in an organized manner and blended with learning tasks are believed to stimulate critical and creative thinking. Further, the BSN curriculum evaluation results found by 87.5% of experts, that the benchmark for defined requisite knowledge and skills in the curriculum was partially defined. The partial standard confirms the lack of depth in the teaching processes that were deployed during the educational processes. The reason for supporting responsibility through the use of prior knowledge is confirmed by Benner at al (2009) who indicated that internalization of knowledge is a process of scaffolding between students; and as such the process involves mutual adjustment and appropriation of ideas when learners solve challenges.

However, Ross et al (2006) indicate that if learning is the way that facilitates deep-level processing and is explicitly linked with the examinations that require deep-level processing, learners then would use a deep approach to studying and learning. The results of the learning approaches suggest there were differences to the approaches that were deployed, 80.50%

scored high for deep motive, 78 % deep strategy; surface motive 44% and surface strategy 51.50%. Most graduate nurses (77%) had utilized a deep approach in their learning processes probably this could have been due to the Competitive Learning Style that was preferred among the graduate nurses. Deep learning approach entails looking for patterns and principles of knowledge in subject content, identifying evidence and relating to conclusions; and examining logic of argument critically (Chen, et al 2011).

Of importance to note is that despite having teaching and learning approaches that aim at promoting academic success, some students in Canada were challenged in demonstrating safe and competent nursing care appropriate to their level of learning (Killam, Luhanga & Baker, 2011). The participants had to reflect if their educational processes had reinforced the development of thinking. From the educators' perceptions under the theme "Teaching thinking", the participants concurred with Dewey's assertions that the teaching methods had a bearing on the development of thinking; graduate nurses' stated "Not going beyond the teacher"; meaning there was no expansion on the information that was presented. The qualitative results that reflect a surface learning approach was used in the learning encounters. A research study by Uzuntiryaki (2007) that investigated the effects of learning styles on chemistry achievements revealed that students with learning styles of independent/collaborative/ participant had higher achievement scores than the other groups. Significantly, research indicates learners' approaches to learning may differ according to the learning environment (Trigwell, Prosser, & Lyons, 1999). Similarly, a research study by Minbashian et al (2004) in Australia on approaches to studying and academic performance in short essay examinations, revealed that the use of the deep approach was no more effective in facilitating high examination marks for questions that emphasized understanding of the study materials, than for questions that emphasized reproduction of the information. Implying that learner understanding is core to learning; learners who used high levels of deep approach failed to consistently achieve higher examination grades to reproduce the information because of deficiencies in the quantity of responses.

Significantly, the Watson-Glaser Critical thinking scores differ greatly, reflecting diverse abilities in critical thinking among the graduate nurses. Making inferences only 3% (n=6)

had high scores between 81%-100%. This is an ability to draw conclusions for discrimination in the clinical area; with this skill being deficient among graduates means that their professional outcomes are not being met. This result contrasts with deep learning approaches that graduates reported during their studies. The findings concur with Chen et al, (2011); Shell, (2001) that suggest that although nurse educators had endeavored to teach learners to think critically, some studies identified critical thinking ability was lacking in the new nurses.

In this study, though educator teaching styles and aspects of the curriculum do not promote critical thinking and autonomy in learning. Scores on other aspects were as follows; recognition of assumptions only: 7.5 %; making deductions: 5 %; making interpretations: 7% and evaluating arguments: 7.5%. Most participants had moderate to low scores. The results are in line with qualitative findings where the graduate nurses stated they "could not go beyond the teacher"; despite that the BSN curriculum had a standard on articulated learning outcomes which are in line with the NMCM professional outcomes. The quality of teaching and learning had not reinforced the abilities in thinking. Teaching styles, learning styles and learning approaches impact on the development of thinking, as Kuiper and Pesut, (2004) contend that discomfort in an experience in any learning encounter adds to the repertoire of thinking and reasoning on the part of the learner.

The dissonance in the thinking skills could have probably affected the readiness of graduates for their professional roles as the theme "Felt overwhelmed and sacred" point to issues surrounding their thinking processes that did not give them confidence. The lack of confidence can be attributed to an inability to reason and think on the part of the professional. Benner et al (2010) advocate teaching for a sense of salience as a pathway to striving for deeper and effective integration of teaching and learning. To this end the development of a sense of salience in teaching requires the linking of individual perceptions and discernments, with the ability to use a rich knowledge base acquired from meaningful learning.

Chin and Brown (2000) suggest that active learning techniques enhance students to engage more deeply in the process of learning subject content by encouraging reasoning, creativity, critical thinking and the development of self-directed learning. Graduate nurses indicate that

in active learning arenas they learnt a lot as they were required to use prior knowledge. This affirms the need to have a benchmark on requisite knowledge in the BSN curriculum as an essential curriculum tool to promote deep learning. Furthermore, the BSN curriculum evaluation results and the theme "perceived nature of classroom learning" had reflected some observed influences on the quality of learning.

Graduates' perceptions on learning how to think was related to assessments, the narratives indicate that the assessment strategies required memorization. From these results, the learning experiences suggest observations on the quality of learning. Assessing learning is part of teaching as the theoretical models of learning suggest that learning task demands influence learners' thinking and behaviour to learning (Pintrich, 2000). The study results show that only teacher-centered modes of assessment were stipulated in the curriculum document comprising continuous assessment and end of year assessment stated by 100 % of the experts. Assessments must be part of a curriculum standards because Mentowski et al (2000) state that assessments must promote competence in students; also assessing improves educational practices by providing benchmarks against which teachers measure students learning. Despite the documentation, 75% of the experts stated the strategies were not transparent in the curriculum as only broad terms were used that did not signify how the assessments were to be conducted. This finding portrays an issue surrounding students' learning because assessments are avenues through which educators might influence what and how learning methods should be deployed (Ross et al, 2006). Shepard (2000) asserts that learners, who have a strong sense of self-efficacy and who are motivationally disposed to plan, monitor and evaluate their learning need assessment information that is transparent to evaluate their work in the same way the teacher would. The results reflect that participants had perceived the assessments of their learning differently probably because of the lack of transparency as they stated in their citations. The participants pointed that the assessments "never gave chance for learning" as they were broad and "a lot of students were failing", the "examination questions required direct answers and more time". These indeed are characteristics of teacher-centered assessments that promote a surface approach to learning.

Despite that the results reflect only 28% of the participants had used the surface approach to learning, the assessments in the BSN programme did not promote deep learning as most of students were failing in the assessments contrary to the specified deep approaches. Failing of most learners in the examinations is an indication that there was surface learning. Learner efforts are key determinants of learning performance (Rich, 2006), in terms of surface approaches or deep approaches. The results indicate that the graduate nurses' learning efforts during their educational processes were related more to the deep approaches to learning as only 28% (n=50) indicated that they had used the surface approach in their learning. The finding supports the notion that task demands in learning influence learner thinking and behaviour regarding teaching (Ross et al, 2006).

Despite that teacher-centered styles/ methods of teaching were preferred the deep approaches were mostly used because the participants had perceived that passing of examinations were important as cited in the qualitative results. The participants' perceived the assessments had never given them the chance to learn as the participants indicated the examination scopes were broad requiring memorization and a lot of people were failing. These perceptions brought the sentiments among the learners that the examinations had not helped them to internalize the subject content. Learning for practice requires internalization of subject matter for the emergence of the concrete experiences reflected through reasoning, thinking, decision making and problem solving. These concrete experiences are professional outcomes and treasures of learning for practice because the graduate nurses must be able to work in complex settings. Entwistle and Entwistle (2003) point to the fact that learners adapt their studying approaches based on perceptions of what is expected in the examinations. If learners indicate the assessments never allowed them to internalize the subject content then it would be interesting to note how deep learning approach was promoted due to the high scores for this approach.

The BSN curriculum stipulates only continuous and end of year assessments with no information on the methods. There is also no provision for self- assessments or peer assessments in the curriculum as a benchmark that might be used by the learners for feedback. Graduate nurses assert that memorization was used to pass the examinations during

their educational processes. Memorization of subject content is associated with surface approach to learning according to Chin and Brown (2000) and Limei (2002) learners aim at reproducing content for assessments. This process leads to low retention of knowledge as there is no internalization of the subject content and learners easily forget the information soon after the examinations. Application and use of knowledge in practice is thus not facilitated.

The sub-theme "time and timing" point to the issues of adjusting strategies in-line with examination demands. Graduates affirmed that assessments that followed clinical placements had enhanced their learning while others indicated that more time for preparation was required because it was perceived that the examinations were tough. This result concurs with that of Ross et al (2006) who claim that learners who expect deep-level items will report expending more effort on deep-level learning strategies and less on surface –level strategies. The results reflect the shortfalls in the assessments with regards to promoting deep learning for achievement of the learning goals in the BSN programme.

6.1.3 Curriculum processes and tools

The BSN curriculum at KCN is a traditional nursing curriculum that is based on learning outcomes that determine types of knowledge taught, assessed and has specified teaching methods that are accompanied in the curriculum document. The major findings during curriculum evaluation indicate variations on several aspects that could have influenced quality of teaching and learning. These variations, firstly, are related to the processes and tools to assess students' interest, learning styles and self-directedness through teaching tasks. Self- directedness as a benchmark was met partially in the BSN curriculum indicated by 62.5% of the experts. The educators perceived this shortfall differently by attributing the lack of self-directedness to the learners' attitudes and characteristics and not to the curriculum design.

The processes and tools to assess students' interest, learning styles, and self-directedness within a curriculum document are guidelines for quality educational processes to promote understanding. Central to the BSN curriculum is the need to ensure that these processes and

tools are student-centered. This is because student-centered processes and tools foster independence that results in interest in learning and self-directedness where learners adopt effective learning styles to challenge the learning situation. Student- centered learning focuses on needs of learners rather than knowledge transmission and there is a collaborative relationship that exists between the educator and the learners as they both actively engage in the learning process (McEwen & Brown, 2002). The BSN curriculum needs to have benchmarks that dictate how the teaching must to be done for the facilitation of learning for practice. Benner et al (2010) asserts to hallmarks of preparing graduate nurses' to have critical thinking skills, strong communication skills, assessment skills while demonstrating intelligence, confidence, understanding and compassion. These hallmarks must be related to the NMCM professional outcomes and the *learning to learn* four pillars tenets. The BSN curriculum design must create a learning disequilibrium among the learners through a variety of teaching styles/methods and learning styles to promote transformation among graduates. Such methods of teaching combine didacticism and facilitation approaches with significance for learning. Varying degrees of learning engagement create learning disequilibrium that is fundamental to the development of reasoning and critical thinking as professional outcomes. Also the disequilibrium is essential for learners to obtain and understand information, integrate multiple sources of data, solve problems, and make logical rationales for decision-making processes in practice (Kaddoura, 2011). The disequilibrium process matches well with the *learning to know* pillar as an indicator of learning. This is where in the learning process the faculties of memory, reasoning, ability to think in a critical way endorses and promotes the acquisition of tools for mastering knowledge structures (Lawale & Bory-Adams, 2010).

Hence, the need to have a BSN curriculum with benchmarks that direct the processes and tools for teaching strategies, assessing student interest, learning styles, self-directedness, assessing prior learning and assessment strategies. From the qualitative results the graduate nurses indicated that the elements that make up the BSN curriculum structure bear poor relatedness to each other and practice. And there was an influence on how teaching of courses was done; specifically the relationship to other courses and practice was not evident to graduate nurses. Relatedness of curriculum content among the graduates' had an influence

on the quality of learning processes. Graduates indicated that the curriculum had too much subject content for the first year and second year with less in the last two years. The first two years of study had a bearing on their learning processes as the graduates explained that memorization was used in most of their learning. Memorization of content affects quality of learning due to poor retention of subject content. The BSN curriculum will only promote learning for practice if the subject content reflects the interdisciplinary relationship of nursing knowledge in relation to the learning pillars.

Ironside (2003b) contends content knowledge is necessary for practice and diligent teachers spend a great deal of effort in designing learning activities that encourage and assess students' learning. Educators in the BSN programme must reinforce student-centered styles and self-directedness to promote development of insight from content knowledge. There are some studies that state the demands for re-evaluation of conventional models used in theoretical nursing education and the establishment of innovative approaches to learning to cultivate nursing practice competences and skills among graduates (American Association of Colleges of Nursing, 2008 and Benner et al, 2010). Furthermore, educators have the obligation to promote learning among learners by encouraging the constant search for new information, encouraging students to think critically, guiding them to do self-evaluation and develop problem-solving skills following learning. These elements of learning demand resources for the promotion of self-directedness and self-regulation. Study results show there are partial curriculum standards on teaching resources to influence student-centered styles in the BSN programme.

To this end Benner et al (2010) and Sullivan and Rosin (2008) call for essential changes in nursing education that may offer understanding of curriculum pedagogy and pathways to licensure. The changes are crucial for the construction of knowledge instruments that can give complex epistemological foundations in the BSN curriculum for the development of critical reflection, values clarification, systems thinking, innovation and dialogue (Lawale, et al (2010). Empirical research lends support to the assertions that learners learn in diverse ways and that they learn best if the teaching is matched with their ways of learning

(Lovelace, 2005; Mahlios, 2001; Ogden, 2003; Rinaldi & Gurung, 2008; Stanberry & Azria, 2001).

Foundation courses such as the sciences and humanities are embedded in professional education for enhancing analytical and creative capacities, stronger skills in communication, assessment, cultural sensitivity, resourcefulness, ability to apply knowledge and scientific reasoning (American Association of Colleges of Nursing, 2008). The lack of involvement in teaching would have affected students' interest, learning styles and approaches, and self-directedness to pursue a deeper approach to learning the subject content. Prosser (2004) pointed to the fact that it was not the way how courses were designed; and the programmes of higher education that had related to the quality of students learning; but how students experienced and understood the content. However, the experts (62.5%) indicated that the BSN curriculum had essential content for the attainment of nursing knowledge that met the national standards. The curriculum's partial standards have implications on the quality of learning.

Fundamental pillars of learning to learn promote the integration of sets of knowledge, skills and values to foster thinking among learners in the BSN programme. Thinking would assist learners in the development of problem-solving abilities, critical thinking, values clarification, collaboration and dialogue, and out of the box thinking to induce innovations in practice (Zhou, n.d). Also this entails not only the acquisition of professional knowledge but that thinking and reasoning are key cornerstones for *learning to do,* implying the need for a shift from skills to competences in practice.

The BSN curriculum has a partial standard on multisensory teaching strategies, indicated by 62.5% of the experts. Multisensory teaching strategies enhance learner engagement with the subject content. Educators must be mindful that the way the teaching and learning context of students is structured has substantial impact on what and how students learn. Graduates' narratives indicated that their learning was promoted by activities which were minimally prescribed in their learning encounters due to partial curriculum standards. Cooke, Irby, Sullivan and Ludmere (2006) indicate the need for an integrative teaching function that

supersedes emphasis on scientific knowledge and biological understanding, to promote clinical reasoning, practical skills and the development of character, compassion and integrity as educational outcomes. The teaching must aim at reinforcing the acquisition of all core values of caring (Zhou, n.d). A research study in Egypt by Mahmoud (2012) investigating critical thinking dispositions and learning styles of baccalaureate nursing students and its relations to their achievement, revealed that there was a significant relationship between nursing students critical thinking dispositions and nursing students' active learning styles. Conclusions made were that critical thinking is enhanced when active learning approaches and most preferred learning styles are enhanced. The teaching strategies in the BSN programme must emphasize the impetus for diversity in the learning styles. This type of teaching is the one described by Benner and Sutphen (2007) that integrates the intellectual capacities, skill- based clinical practice and ethical dimensions of caring. The four pillars as foundations underpinning the BSN curriculum would dictate the integrative teaching and learning functions to promote the acquisition of instruments of knowledge that can enhance internalization and mastery of knowledge (Lawale & Bory-Adams 2010).

However, if the educators' in the BSN programme would aim at teaching for learning for practice then they need to reinforce the integrative teaching functions, for the attainment of learning indicators of the twenty-first century which are knowing, doing, living together and being (European Life Learning Indicators, 2008). KCN BSN curriculum paradigm must be founded on UNESCO's four pillars of learning to learn to influence the development of full potential among learners. Learning interactions within the BSN programme must go beyond traditional studying skills. This is because the competences inherent in the four pillars of learning include collaboration skills; attitudes towards work; communication; reflection; problem solving and thinking skills; and subject–specific and interdisciplinary conceptual understanding of subject content.

6.2 CONCLUSION

The educational processes of graduate nurses were influenced by a lack of diversity in the teaching and learning styles and curriculum standards that are partially designed to guide curriculum implementation. These factors could have resulted in learner dependence among the graduate nurses. The graduate nurses are individuals with unique potential, knowledge of their diverse learning styles and approaches are the best ways to organise the subject content to promote meaningful learning. In chapter 7, main research results shall be presented.

CHAPTER SEVEN
MAIN FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

7.0 INTRODUCTION

In this chapter I have summarized the study results and discussed recommendations on how the BSN educational programme may be improved in an effort to enhance learning for practice. The results relate to issues of teaching styles and methods, learning styles, learning approaches, critical thinking abilities, the BSN quality of the curriculum, and the perceptions of educators and graduate nurses regarding the BSN programme. Edelen and Bell (2011) are of the view that there is an existing need among educators to understand the processes of educational interventions to promote development of cognitive abilities among individual learners. Although this was not an intervention study, the main findings are discussed in relation to innovative pedagogies that are needed in the BSN programme (Benner et al, 2010).

7.1 SUMMARY OF MAIN FINDINGS

7.1.1 Teaching styles and methods

- The teaching styles survey revealed that the Expert Teaching Style was the most preferred teaching style among the educators, followed by the Formal Authority Teaching Style. It is concluded that the Expert/ Formal Authority Teaching Styles cluster 1 is the common cluster of teaching styles among the educators in the BSN programme. These teaching styles promoted teacher-centered learning approaches among KCN graduates.

- The least preferred teaching style was the Facilitator Teaching Style. The results provide evidence that the educators used less facilitative skills in their teaching encounters. The lack of diversity of teaching styles lead to habitual learning styles among the graduate nurses.

- The most preferred and dominant teaching method was the lecture method by nurse educators, which corresponds with their preferred teaching style. The lecture method

also was the only dominant teaching strategy referred to throughout the four years in the BSN curriculum document.

- There were no small group methods embedded in the BSN curriculum to reinforce active learning. Graduate nurses indicated that small group learning methods and interactive teaching methods enhanced their learning. Learner involvement and the use of examples during lectures were minimal regardless of what teaching method was being used.

- Teaching tasks are planned by educators based on the number of students, amount of information available, time allocated and availability of teaching resources and not according to course outcomes.

- Participatory teaching approaches were perceived to be important for active learning and were suggested by both educators and graduate nurses.

- There were perceived challenges with the teaching resources in the form of information access, interconnectivity and physical resources, which were not supportive of educators' and graduates' teaching and learning needs respectively.

7.1.2 Learning styles and learning approaches

- The findings in the study showed that the most dominant preferred learning style among the graduate nurses' is the Competitive Learning Style, followed by the Avoidant Learning Style. There is lack of diversity in the use of learning styles among learners resulting in dependence in learning and minimal learner involvement despite graduate nurses' preference for interactive learning methods. The least preferred learning style among the graduate nurses' is the Independent Learning Style.

- Deep learning approach was reported in 79% of the graduate nurses indicating that they had put more effort into in their learning endeavours regardless of the teaching mismatches. Graduate nurses' perceptions of learning to think reflect issues of teacher-centered approaches that affected their thinking development. Low levels of critical

thinking abilities observed from the Watson- Glaser critical thinking scores did not match with the deep approaches they reportedly adopt.

- Despite scoring high for deep approaches, surface learning approaches were prevalent among the graduates.

- The teaching method most preferred and valued by graduates was the lecture method. Teaching and learning were perceived to be based on assessments and that the emphasis during lecturing and during learning was on passing examinations.

- Curriculum structure affected the development of learning and thinking abilities evidenced by curriculum elements bearing poor relatedness to each other and to clinical practice.

- The BSN curriculum standards did not suggest any group learning strategies in the curriculum document to enhance diversity of learning styles. Graduate nurses indicated that the BSN curriculum had equipped them with knowledge.

7.1.3 Critical thinking

- The majority of the graduate nurses (79%) had low scores in critical thinking abilities. There was some effort made to teach thinking during the BSN educational processes despite the perceived challenges related to teaching resources.

- The BSN curriculum reflected that there was no standard on the development of critical thinking that could have directed educators' teaching styles towards reinforcing thinking. Even the benchmark for the teaching strategies in the BSN curriculum document did not specify strategies to promote deep learning for enhancing critical thinking.

- Shortage of teaching resources influenced the type of teaching which in turn, affected the development of thinking abilities among graduates. This is because the participants had

alluded to the availability of teaching resources, class sizes and classroom space as the determining factors for choosing a particular teaching and learning style.

7.1.4 BSN curriculum

- The BSN curriculum results reflect that standards were partially met on all components throughout the curriculum document on most benchmarks. Within the curriculum document the standards: processes and tools to assess students' interest, learning styles and self-directedness during learning were not fully stipulated for easy interpretation among the educators and learners.

- Partial standards on articulated outcomes in the BSN curriculum portray a weakness in the education system because despite the freedom in curriculum implementation and choice of instruction, educators cannot change goals and objectives of any programme. The articulated outcomes as a standard within the BSN curriculum must be explicitly stated as hallmarks. It is vital for nursing education that outcomes appear to prevail in all programmes.

- The standard: suggested teaching strategies/ approaches for facilitating learning were partially met. It is concluded that the curriculum promoted a teacher-centered approach in the BSN programme.

- Similarly standard: on assessments in the BSN curriculum were partially met. There is a weak monitoring mechanism for students' assessments.

7.1.5 Perceptions

7.1.5.1 Educators

- Educators prefer the lecture method and would use more interactive methods guided by the availability of resources, student characteristics and class size.

- Learning resources are major challenges and influence the quality of learning including the teaching of thinking as evidenced by learner dependence and memorization.

- Educators' efforts in teaching understanding and thinking are in the form of learner involvement.

- Lecture sequencing leads to low concentration and motivation levels among learners.

7.1.5.2 Graduate nurses

- Graduates experienced minimal involvement in the classroom; active learning and recognized self-involvement would enhance their learning.

- Use of teacher-centered approaches affected the development of their reasoning and thinking abilities.

- Teaching and learning were perceived to be based on assessments that put emphasis on passing examinations.

- Graduates perceived they were well equipped with knowledge despite feelings of insufficiency in practice.

- The most preferred and valued teaching method for the learners was the lecture method. Interactive methods were least used but favored by graduates as a way of enhancing learning.

- Teacher-centeredness detracts from graduates learning to think.

- Some courses were not related to practice and had a number of lecturers teaching one course with different teaching styles; hence teaching did not stimulate thinking.

- Curriculum structure affected the development of learning and thinking abilities in such a way that more information was presented than anticipated.

- Readiness for their professional role was perceived with feelings of being overwhelmed and dependence on authority figures.

7.2 RECOMMENDATIONS

Understanding how learners learn and develop is crucial in the BSN programme to promote quality learning. Effective learning is dependant on whether a student is active, highly motivated and possesses the right strategic knowledge for the construction of knowledge through deep learning but not necessarily transmitting a knowledge base. Recommendations are made for nursing education, and future research.

7.2.1 Nursing education

- **Transforming the BSN curriculum**

In pursuit of BSN curriculum transformation three fundamental learning shifts in the graduate nurses' education processes must be considered: from fact memorization to searching, analysis and synthesis of information; achieving core competences for practice and creative adaptation of educational models among the educators to meet learner needs. It is recommended that the BSN curriculum integrate the four pillars of learning with all the cross-cutting competencies to promote transformative learning and interdependence in education.

- **The promotion of deep learning**

Deep learning is essential for transforming the educational processes among graduate nurses in the BSN programme at KCN. The promotion of diversity in teaching styles and learning styles in teaching encounters would enhance deep learning because learners' initiate inner self-dialogue and self- discovery of the subject matter resulting in reasoning and thinking. It is recommended that the existing issues surrounding the teaching in the BSN programme be rectified through the fundamental teaching shifts and an integrative teaching function, in an effort to promote good teaching and deep learning. Good teaching includes diversity in

teaching styles and reduces the gap between above average students and average students through an integrative teaching function and a combination of Socratic and Facilitative teaching methods. Deep learning is advocated for in the BSN curriculum at KCN by designing benchmarks that integrate innovative teaching strategies.

- **Enhance quality learning**

Self-directedness benchmark in the BSN curriculum is an essential standard of quality learning to help learners develop thinking and reasoning skills. Educators should reinforce student-centered teaching styles and self-directedness to promote diverse use of learning styles among the learners to facilitate deep learning. It is recommended that the BSN curriculum integrate the learning to learn pillars as benchmarks for advocating for understanding and meaning construction in learning among individual learners. Throughout the BSN programme the impetus is for the educators and graduate nurses to articulate their understanding in graduate education and identify the impediments of the nursing profession with zeal. All curricula benchmarks must be strengthened to enhance quality learning, and teaching must emphasize the development of thinking and reasoning abilities.

- **Assess learning in line with core competencies**

Assessments must link all core professional competencies as benchmarks for educational standards in the BSN curriculum. The four learning pillars if they can be integrated in the BSN curriculum would form the basis for the design of the assessments. In this study the results revealed that the assessments achieved a partial rating to influence learning. Assessment must be transparent and must be reflected in all teaching encounters so that learners are aware of what is expected from them. The BSN curriculum benchmarks on assessments should be core to the choice of teaching styles and learning styles to reinforce deep learning. The assessments of learning must be done with varying strategies in line with the core competencies specified in the curriculum.

.

7.2.2 Areas for Further Research

There are several areas for further research.

- The quality of teaching and learning in the BSN programme could be another area to explore. This is because the teaching styles and methods were surveyed without analyzing the quality of learning that resulted from these encounters.

- The clinical learning aspects of the BSN curriculum must be investigated to gain a complete understanding of the education process. Some of the narratives from the interviews reflected that there was lack of confidence among graduate nurses who expressed feelings of being overwhelmed earlier in their professional roles. This is also another area of interest to investigate the reasons for poor development of confidence.

- Evaluation research is proposed for an in-depth analysis of the BSN curriculum. It is further recommended that the World Health Organization guidelines for the preparation of registered nurses and midwives be used for such analysis.

- There is need to change the way the teaching tasks are deployed at KCN, and how much the institution can afford to implement the integrative innovative teaching functions. To go through these reforms in the BSN programme the leaders have to be very clear on timing, needs and interest of each actor. Action research is proposed as educational reforms are planned, implemented and go through their complexities.

7.4 CONCLUSION

Nursing education in Malawi has opportunities for reform based on the tenets of professional education for the 21st century. There is sparse literature on nursing education in Malawi and the results of this study are anticipated to advance the transformation in graduate education. Education of graduate nurses is a shared responsibility and as such educators' teaching tasks must emphasize understanding and the acquisition of knowledge instruments for practice and not simply the acquisition of structured knowledge. The BSN curriculum's focus must change to student-centeredness guided by an integrative teaching function to

enhance graduate independence and deep learning for quality learning for practice. Integration of the learning pillars and the use of innovative teaching and learning strategies must be promoted to enhance the development of intellectual capacities among graduate nurses. The BSN curriculum benchmarks must reflect the four learning pillars to foster the development of reasoning, thinking, imagination, confidence and autonomy among graduate nurses as professional outcomes.

REFERENCES

Aiken, L. H., Clarke, S. P., Cheung, R. B., Sloane, D. M., & Silber, J. H. (2003). Education levels of hospital nurses and surgical patient mortality. *Journal of the American Medical Association, 290*(12), 1617–1623.

Aiken, L. H., Clarke, S. P., Lake, E. J., & Chwney, T. (2008). Effects of hospital care environment on patient mortality and nurse education outcomes. *Journal of Nursing Administration, 38*(5), 223–229.

Alfaro-LeFevre, R. (2009). *Critical Thinking and Clinical Judgment. A Practical Approach to Outcome-Focused Thinking.* (4th Edition.). St. Louis: Saunders Elsevier.

Amaratunga, D., Baldry, D., Sarshar, M., & Newton, R. (2002). Quantitative and qualitative research in the built environment: application of "mixed" research approach. *Work Study, 51*(1), 17–31.

American Association of Colleges of Nursing. (2008). *2006-2007 Enrollment and graduation in baccalaureate and graduate programs in nursing*. Washington, DC: Author.

American Association of Colleges of Nursing. (2010). *Fact Sheet: The impact of Education on nursing Practice*. Washington, DC: American Association of Colleges of Nursing.

American Board of Medical Specialties. (2004). *Maintenance of Certification*. Retrieved12thMay 2010 from http://www.abms.org/Downloads/Publications/1-What%20%20MOC.pdf

American Organization of Nurse Executives. (2005). *Practice and Education Partnership for the Future*. Washington, DC: American Organization of Nurse Executives.

Amir, R., Jelas, M. J., & Rahman, S. (2011). Learning Styles of University students: Implications for Teaching and Learning. *World Applied Sciences Journal, 14 (special issue of Innovation and Pedagogy for Diverse Learners),* 22–26.

Anderson, P. (2001). *The Impact of Professionalism on the assessment of clinical competence: 4th International Clinical Skills Conference*. Prato, Italy.

Andrews, C. A., Ironside, P. M., Nosek, C., Sims, S. L., Swenson, M. M., Yeomans, C., … Diekelmann, N. L. (2001). Enacting pedagogy: The lived experiences of students and teachers. *Nursing and Health care perspectives, 22,* 252–259.

Asp, M., & Fagerberg, I. (2002). The woven fabric-a metaphor of nursing care: the major subject in nursing education. *Nordic College of Caring Sciences, Scand J Caring Sci, 16,* 115–121.

August-Brady, M. M. (2005). The effects of a metacognitive intervention on approach to and self-regulation of learning in baccalaureate nursing students. *Journal of Nursing Education, 44*, 297–205.

Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. *American Psychologist, 54*, 462–479.

Barr, R. B., & Tagg, J. (1995). From teaching to learning. A new paradigm for undergraduate education. *Change: The Magazine of Higher Learning*, *27*(6), 201–225.

Barr, S., & Clark, M. C. (2011). In pursuit of excellence in teaching: An ESL educator's narrative. *Springerlink*. doi:10.1007/s10833-011-9168-8

Bauwens, E. E., & Gerlard, G. G. (1987). The use of Watson-Glaser Critical Thinking Appraisal to Predict Success in a baccalaureate nursing program. *Journal of nursing education, 26*, 278–281.

Beckie, T. M., Lowry, L. W., & Barnett, S. (2001). Assessing critical thinking in baccalaureate nursing students: A longitudinal study. *Holistic Nursing Practice, 15*(3), 18–26.

Beishuizen, J., Stoutjesdijk, E., & Van-Putten, T. (1994). Studying text books: Effects of Learning Styles, study tasks and instructions. *Learning and Instructions, 4*, 151–174.

Benner, P., & Sutphen, M. (2007). Learning across the professions: the clergy, a case in point. *Journal of Nursing Education*, *46*(3), 103–108.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2009). *Educating Nurse: A Call for Radical Transformation*. San Francisco: Jossey-Bass: Carnegie Foundation for the Advancement of Teach.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating Nurses: A Call for RAdical Transformation*. San Francisco, CA: Jossey-Bass.

Biggs, J. (1987). *Students Approach to Learning and Studying*. Melbourne: Australia Council for Educational Research.

Biggs, J. (2001). *Enhancing Learnig: A Matter of Style or Approach? In R. J. Sternberg and L. Zhang (Eds.), Perspectives on Thinking, Learning and Cognitive Styles*. Mahwah: Lawrence Erlbaum Associates.

Biggs, J. B. (1993). From theory to practice: A cognitive systems approach. *Higher Education Research and Development, 12*(1), 73–85.

Biggs, J., Kember, D., & Leung, D. Y. P. (2001). The revised two factor study process questionnaire: R-SPQ-2F. *British Journal of Educational Psychology, 71*, 133–149.

Biggs, J., & Tang, C. (2007a). *Teaching for Quality Learning at University* (3rd Edition.). Michigan: McGRAW-HILL Company.

Biggs, J., & Tang, C. (2007b). *Teaching for quality Learning at University: What the student does* (3rd Edition.). New York: Open University Press.

Billings, D., & Halstead, J. (2009). *Teaching in Nursing: A Guide for Faculty* (2nd Edition.). St. Louis, MO: Elsevier Saunders.

Bradley, E. H., Curry, L. A., & Devers, K. J. (2007). Qualitative Data Analysis for Health Services Research: Developing Taxonomy, Themes, and Theory. *Health Research and Education Trust*, 1758–1770. doi:10.1111/j.1475-6773.2006.00684.x

Braslavsky, C. (2000). The education systems of the nineteenth century: the direction, trends and tensions of curriculum reforms in the twenty-first century. In (IBE). A capacity-building curriculum specialists in east and south-east asia. *International Bureau of Education*, 6–10.

Brooks, J. G., & Brooks, M. G. (2001). *In Search of Understanding: The Case for Constructive Classrooms*. New Jersey: Prentice-Hall, Inc., Upper Saddle River.

Brown, B. L. (2003). Teaching style vs Learning style>. Center on Education andTraining for Employment.

Bruce, J. C., Langley, G. C., & Tjale, A. A. (2008). The use of experts and their judgments in nursing research: an overview. *Curationis*, *31*(4), 57–61.

Bruce, J., Klopper, H., & Mellish, M. (2010). *Teaching and Learning the Practice of Nursing* (5th edition.). Cape Town: Heinemann.

Bryman, A. (2004). *Social Research Methods* (2nd edition.). Oxford: Oxford University Press.

Burns, J. (2004). *On-the Job Training will Ease Healthcare Crisis*. Australia: The Newcastle Herald. 26 August.

Burns, N., & Grove, S. K. (2011a). *Understanding Nursing Research: Building an Evidence-Based Practice* (5th Edition.). Maryland Heights: Elsevier Saunders.

Burns, N., & Grove, S. K. (2011b). *The Practice of Nursing Research , Conduct, Critique and Utilization* (5th ed.). St. Louis: Elsevier Saunders.

Canadian Council on Learning. (2006). *Canadian post-secondary education: A positive record--an uncertain future (Summary Report on Learning in Canada* Retrieved10thOctober,2011fromhttp://www.cclcca.ca/CCL/Reports/PostSecondaryEducation/PSESummary1.htm?Language=EN

Carnegie foundation for theadvancement of teaching. (2006). *Undergraduate education: Preparation for the professionals (Clergy study, Engineering study, Law study, Medical education study, Nurse study, Teacher study)*. Retrieved from25thJune,2009http://www.carneiefoundation.org/programs/sub.asp?key=30&sub

Case, J. M. (2007). Alienation and engagement: Development of an alternative theoretical framework for understanding student learning. *Higher Education*, *55*, 321–332.

Case, R. (2005). Bringing critical thinking to the main stage. *Education Canada*, *45*(2), 45–46.

Cheek, J., & Jones, J. (2003). What nurses say they do and need: Implications for the educational preparation of nurses. *Nurse Education Today*, *23*(1), 40–50.

Chen, S., Liang, T., Lee, M., & Liao, I. (2011). Effects of Concept Map Teaching on Students' Critical Thinking and Approaches to Learning and studying. *Journal of Nursing Education*, *55*(5), 1–4.

Chimphamba, B. B. (1997). *Our Future. Address to the congregation held in Zomba on 26th July and 2nd August.* Zomba: Malawi: University of Malawi.

Chin, C., & Brown, D. E. (2000). Learning in science: A comparison of deep and surface approaches. *Journal of Research in Science Teaching*, *37*(2), 109–138.

Chung, F., Wong, K. Y., & Cheung, S. C. M. (2008). Fostering maturity for senior nursing students. A pre-graduation clinical placement. *Nurses Education Today*, *28*, 409–418.

Clark, S. D., & Latshaw, C. A. (2012). Effects of learning styles/ teaching styles and effort on performance in accounting and marketing courses. *World Journal of Management*, *4*(1), 67–81.

Coffield, F., Moseley, D., Hall, E., & Ecclestone, K. (2004). *Should we be using learning styles?* London: Learning and Skills Research Centre. Retrieved 10thOctober,2012from http://www.LSRC.ac.uk

Collins English Dictionary. (2000) (5th Edition.). HarperCollins Publishers.

Cooke, M., & Sullivan, D. L. (2006). American Medical Education 100 years after the Flexner report. *The New England Journal Of Medicine*, *35*, 1339–1344.

Cree, V., & Clapton, G. (2004). *Integration of Learning for Practice: literature review. In Learning for effective and ethical practice*. Scottish Institute for exellence in Education. Retrieved from http://www.iriss.org.uk/files/LEEP1LitRev.pdf

Creswell, J. W. (2003a). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (2nd Edition.). London: Sage Publications.

Creswell, J. W. (2003b). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Thousand Oaks, CA: Sage.

Creswell, J. W. (2007). *Qualitative Inquiry and Research-Choosing Among Five Traditions*. Thousand Oaks: Sage Publications.

Creswell, J. W. (2008). *Education research: Planning, conducting and evaluating quantiitative and qualitative research*. Upper Saddle River: NJ: Pearson Education.

Creswell, J. W., Crark, P., Gutmann, V., & Hanson, M. (2003). *Advances in Mixed method design. In Tashaldori, A Teddlie (Eds.) Handbook of mixed methods in the social and behaviour sciences, ThousandOaks, Ca: Sage*. Advances in mixed methods design.

Crick, R. D., & Wilson, K. (2005). Being a Learner: A Virtue for the 21st century. *British Journal of Educational Studies*, *53*(3), 359–374.

Cronbach, L. J. (1970). *Essentials of Psychological Testing* (3rd edition.). New York: Harper and Row.

Cronje, J. C. (2006). Pretoria to Khartoum-how we taught an internet-supported masters' programme across national, religious, cultural and linguistic barriers. *Education Technology and Society*, *9*(4), 185–193.

D'Antonio, P. (2004). Women, nursing and baccalaureate education in 20th century America. *Journal of Nursing Scholarship*, *36*(4), 379–384.

Dahlberg, K., Ekebergh, M., & Ironside, P. M. (2003). Converging conservations from phenomenological pedagogies: Toward a science of health profesionals education. In N. Diekelmann and P. Ironside (Eds.), Teaching Practitioners of care: New pedagogies for health professions. *Madison, University of Wisconsin Press*, *2*, 22–58.

Danielson, E., & Berntsson, L. (2007). Registered nurses' perception of educational preparation of professional work and development of their profession. *Nurses Education Today*, *27*, 900–908.

Dawson, T. L. (2008). Metacognition and learning in adulthood. *Developmental Testing Service, LLC*, 1–19.

Day, L. (2011). Using unfolding case studies in a subject-centered classroom. *Journal of Nursing Education*, *5*(5), 1–6.

Delors, J. (2001). *Learning: The Treasure Within* (pp. 1–48). UNESCO PUBLISHING.
Delors, J. E. A. (1996). *Learning: The Treasure Within-Report to UNESCO of the International Commission On Education for the Twenty-First Century*. Paris: UNESCO.

Dembo, M. H., & Howard, K. (2007). Advice about the use of learning styles: a major myth in education. *Journal of College Reading and Literature*, *37*(2), 101–109.

Derbyshire, J. A., & Machin, A. I. (2011). Learning to work collaboratively: nurses' views of their pre-registration interprofessional education and its impact on practice. *Nurses Education In Practice*, *11*(4), 239–244.

Dewey, J. (1929). *The Sources of a Science of Education*. New York: Horace Liveright.

Diekelmann, N. L. (1992). Learning-as-testing: A Heideggerian hermeneutical analysis of the lived experiences of students and teachers in nursing. *Advances in nursing Science*, *14*(3), 72–83.

Diekelmann, N. L. (2001). Narrative pedagogy: Herdeggerian hermeneutical analyses of lived experiences of students, teachers and clinicians. *Advances in nursing Science*, *23*(3), 53–71.

Diekelmann, N. L., Ironside, P., & Harlow, M. (2003). *Teaching the Practitioners of Care: New Pedagogies for the Health Professions*. New York: University of Wisconsin Press.

Du Bois, N. F., & Staley, R. K. (1997). A Self-Regulated Learning Approach to Teaching Education Psychology. *Educational Psychology Review*, *9*(2), 171–197.

Edelen, B. G., & Bell, A. A. (2011). The role of Analogy-Guided learning experiences in enhancing students' clinical decision-making skills. *Journal of Nursing Education*, *10*(10), 1–8.

Elo, S., & Kyngas, H. (2008). Thequalitative content analysis process. *Journal of Advanced Nursing*, *62*(1), 107–115.

Endacott, R., Scholes, J., Buykx, P., Cooper, S., Kinsman, L., & McConnell-Henry, T. (2010). Final-year nursing students' ability to assess, detect and act on clinical cues of deterioration in a simulated environment. *Journal of Advanced Nursing*, *66*(12), 2722–2731.

Entwistle, N., & Entwistle, D. (2003). Preparing for examinations: The interplay of memorizing and understanding, and the development of knowledgeobjects. *Higher Education Research and Development*, *22*, 19–41.

European Life Learning Indicators. (2008). *Devoloping a conceptual framework* (pp. 1–31).
European Lifelong Learning Indicators. (2008). *Developing a Conceptual Framework* (pp. 2–31). BertelsmannStiftung.

Facione, N. C., & Facione, P. A. (1996). Externalizing the critical thinking in knowledge development and clinical judgement. *Nursing Outlook, 44*, 129–136.

Facione, P. A., Facione, N. C., & Giancarlo, C. A. (2001). *California Critical Thinking Disposition Inventory: Inventory Manual*. Millbrae, CA: California Academic Press.

Felder, R., & Spurlin, J. (2005). Application, reliability and validity of the index of learning styles. *Int. J. Eng. Educ*, *21*, 103–112.

Fleming, S., Mckee, G., & Moore, S. (2010). Undergraduate nursing students' learning styles: A longitudinal study. *Nurse Education Today*. doi:10.1016/j.nedt.2010.08.005

Forneris, S. G. (2004). Exploring the attributes of critical thinking: A conceptual basis. *International Journal Of Nursing Education Scholarship*, *1*(1), 1–18.

Fraenkel, J. R., & Wallen, N. E. (2008). *How to Design and Evaluate Research in Education* (7th Edition.). New York: McGraw-Hill Company.

Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., & Serwadda, D. (2010). Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet Commissions*, *376*, 1923–1958.

Friese, C. R., Lake, E. T., Aiken, L. H., Silber, J. H., & Sochalski, J. (2008). Hospital nurse practice environments and outcomes for surgical oncology patients. *Health Service Research*, *43*(4), 1145–1163.

Gallanger, K. (2004). *Deeper Reading.* Porttard: ME: Stenhouse Publishers.

Gardner, H. (1999). *Disciplined Minds: What all Students Should Understand*. New York: Simon and Schuster.

Garrison, J. (1999). John Dewey's Theory of Practical Reasoning. *Educational Philosophy and Theory*, *31*(3), 291–312.

Gerrish, K. (2000). Still fumbling along? A comparative study of the newly qualified nurses' perception of the transition from student to qualified nurse. *Journal of Advanced Nursing*, *32*(2), 473–480.

Gomm,R, Neeham, G & Bullman, a. (2000). *Evaluating Research in Health and Social care*. London: Sage Publications.

Grasha, A. F. (1994). A matter of style: The teacher as expert , formal authority, personal model, facilitator, and delegator. *Taylor and Francis, Ltd*, *42*(4), 142–149.

Grasha, A. F. (2002a). The Dynamics of one on one teaching. *College Teaching*, *50*, 139–146.

Grasha, A. F. (2002b). *Teaching with style: A Practical Guide to Enhancing Learning by Understanding Teaching and Learning Styles*. CA: Alliance Publishers.

Grasha, A. F., & Yangarber-Hicks, N. (2000). Intergrating teaching styles and learning styles with instructional techology. *Taylor and Francis, Ltd*, *48*(1), 2–10.

Green, J., Wills, K., Hughes, E., Small, E., Welnch, N., & Daly, J. (2007). Generating best evidence from qualitative research? *Australian & New Zealand Journal of Public Health*, *31*, 545–550.

Gross, Y. T., Takazawa, E. S., & Rose, C. T. (1987). Critical Thinking and Nursing Education. *Journal of nursing education*, *26*, 317–323.

Haggis, T. (2003a). Construction images of ourselves? A critical investigation into "Aprroaches to learning" research in higher education. *British Education Research Journal*, *29*(1), 89–104.

Haggis, T. (2003b). Constructing images of ourselves? A critical investigation into "Approaches to learning" research in higher education. *British Education Research Journal*, *29*(1), 89–104.

Halonen, J. S., Bosack, T., Clay, S., & McCarthy, M. (2003). A Rubric for learning, Teaching, and Assessing Scientific Inquiry in Psychology, *30*(3), 196–208.

Hammerness, K. (2006). From coherence in theory to coherence in practice. *Teachers College Record*, *108*(7), 1241–1265.

Hanna, D. R. (2011). Teaching theoretical thinking for a sence of salience. *Journal of Nursing Education*, *10*(10), 1–4.

Hautamaki, J., Arinen, P., Eronen, S., Hautamaki, S., & Scheinin, P. (2002). Assesing learning-to-learn: A framework. *Centre for Education Assessment*, 1–62.

Hewitt-Taylor, J. (2001). Self-directed learning: views of teachers and students. *Journal of Advanced Nursing, 36,* 496–504.

Hill, T. V. (2002). The relationship between critical thinking and decision-making in respiratory care students. *Medical Teacher*, *47*(5), 571–577.

Hilton, P. A., & Pollard, C. L. (2005). Ehancing the effectiveness of the teaching and learning of core clinical skills. *Nurses Education In Practice*, *5*(5), 289–295.

Holloway, I. (2005). *Qualitative research fro Nurses* (ed.). Ontario: Blackwell Science.

Hornby, A. S. (2000). *Oxford Advanced Learner's Dictionary of Current English* (6th Edition.). Great Clarendon Street: Oxford University Press.

Hoskins, B., & Crick, R. D. (2008). *Learning to Learn and Civic Competences: different currencies or two sides of the same coin?* (pp. 1–20). Institute for the Protection and Security of the Citezen.

Houser, J. (2008). *Nursing Research: Reading, Using and Creating Evidence*. Boston: Jones and Bartlrtt Publishers.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*, 1277–1288.

Hsieh, H., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288.

Hyslop-Margison, E., & Strobel, J. (2008a). Consructivism and Education: Misunderstandinds and pedagogical implications. *The Teacher Educator*, *43*, 72–86.

Hyslop-Margison, & Strobel, J. (2008b). Construction and education: Misunderstandings and pedagogial implications. *The Teacher Educator*, *43*, 72–86.

Institute for Healthcare Improvement. (2010). *About IHI*. Retrieved3rdmay,2011 from http://www.ihi.org/ihi/about

Institute for Safe Medication Practices. (2010). *About ISMP*. Retrieved3rdMay, 2011 from Retrieved from http://www.ismp.org/about/default.asp

Institute of Medicine. (2010). *The Future of Nursing: Leading Change, Advancing Health*. Washington DC: The National Academies Press.

Ironside, P. M. (1999a). Thinking in nursing education. Part 1: A student's perspective. *Nursing and Health care perspectives*, *20*, 238–242.

Ironside, P. M. (1999b). Thinking in nursing education. Part 2: a teacher's perspective. *Nursing and Health care perspectives*, *20*, 243–247.

Ironside, P. M. (2003a). Trying something new: Implementing and evaluating narrative pedagogy using a multimethod approach. *Nursing Education Perspectives*, *24*, 122–128.

Ironside, P. M. (2003b). New pedagogies for teaching thinking: The lived experiences of students and teachers enacting narrative pedagogy. *Journal of nursing education*, *42*(11), 509–516.

Jarvis, M. (2006). *The psychology of effective learningnd teaching*. London: Nelson Thornes LTD.

Jeffries, P. R. (2005). A Framework for designing, implementing and evaluating simulations used as teaching strategies in nursing. *Nursing Education Perspectives*, *26*(2), 96–103.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, *33*(7), 14–26.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Towarda Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, *1*, 112–133.

Jones, J., & De Saram, D. (2005). Academic staff views of quality syatems for teaching and learning: A Hong Kong case study. *Quality in Higher Education*, *11*(1), 47–58.

Kaddoura, M. A. (2011). Critical thinking skills of nursing students in lecture-based teaching and case-based learning. *Internationa Journal for the Scholarship of Teaching and Learning*, *5*(2), 1–18.

Kamuzu College of Nursing. (2005). *Stakeholders Cirriculum Review Report*. Lilongwe.

Keating, S. B. (2006). *Curriculum Development andEvaluation in Nursing*. Philadelphia: Lippincoh, Williams and Wilkins.

Keri, J. (2002). *Degrees of Congruence between Instructor and Student' Styles Regarding Student Satisfaction.* Radical Pedagogy.

Killam, L. A., Luhanga, F., & Bakker, D. (2011). Characteristics of unsafe undergraduate nursing students in clinical practice: an integrative literature review. *Journal of Nursing Education*, *50*(8), 437–446.

Kuiper, R. A., & Pesut, D. J. (2004). Promoting cognitive and metacognitive reflective reasoning skills in nursing practice: self-regulated theory. *Journal of Advanced Nursing*, *45*(4), 381–391.

Kvale, S. (2006). Dominance through interviews and dialogues. *Qualitative inquiry*, *12*, 480–500.

Lapdat, J. C., & Lindsay, A. (1999). Transcription in research and practice: From standardization of technique to interpretive positioning. *Qualitative Inquiry*, *5*(1), 64–86.

Lauder, W., Watson, R., Topping, K., Holland, K., Johnson, M., Porter, M., … Behr, A. (2008). Issues in undergraduate education: an evaluation of fitness for practice curricula: self-efficacy, support and self-reported competence in preregistration student nurses and midwives. *Journal of Clinical Nursing*, *17*, 1858–1867.

Lawale, S., & Bory-Adams, A. (2010). The decade of education for sustainable Development: towards four pillars of learning. *Journal Development*, *53* (4), 547–550.

Leapfrog Group. (2010). *The Leapfrog Group: About us*. Retrieved from10thOctober, 2012 from http://www.leapfroggroup.org/about-us

Leonard, D. C. (2002). Using national league for nursing accrediting commission. *Nursing Education Perspectives*, *33*(5). Retrieved10thOctober, 2012 from http://www.questia.com/library/101312823/learning-theories

Levette-Jones, T. L. (2005). A review of graduate nurse transition programmes in Australia. *Australia Journal of Advanced Nursing*, *23*(2), 40–45.

Lewis, R., Berghoff, P., & Pheeney, P. (1999). Focusing students: Three approaches for learning through evaluation. *Innovative Higher Education*, *23*(3), 181–196.

Limei, F. (2002). Improving teaching and learning in university education. *The China Papers*, 42–45.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. London: Sage Publications.

Lovelace, M. K. (2005). Meta-analysis of experimental research based on the Dunn and Dunn model. *Journal of Education Research, 98*(3), 176–183.

Lunyk-Child, O. L., Crooks, S., Ellis, P. J., Ofosu, C., O'Mara, L., & Rideout, E. (2001). Self directed learning: faculty and students perceptions. *Journal of Nursing Education, 40,* 116–123.

Lynn, M. R. (1986). Determination and quantification of content validity. *Nursing Research, 34,* 382–385.

Maher, A. (2004). Learning outcomes in higher education: implications for curriculum design and student learning. *Journal of Hospital, Leisure, Sport and Tourism Education, 3*(2), 46–54.

Mahlios, M. C. (2001). *Matching Teaching Methods to Learning Styles. In B. H. Stanford & K. Yamamoto (Eds.), Children and stress: Understanding and helping*. Olney, MD, US: Association for Childhood Education International.

Mahmoud, H. G. (2012). Critical thinking dispositions and learning styles of baccalaureate nursing students and its relation to their achievement. *International Journal of Learning and Development, 2*(1), 398–415.

Malawi Government. University of Malawi Act. (1994). Zomba: Government Press.

Malawi Government. The Nurses and Midwives Council of Malawi, NO. 16 of 1995 Zomba: Government: Press.

Malawi Government. (2010). National Health Plan. Zomba: Government Press.

Mansouri, P., Soltani, F., Rahrmi, S., Nasab, M. M., Ayatollahi, A. L., & Nekooeian, A. A. (2006). Issues and Innovations in Nursing Education: Nursing and midwifery students' approaches to study and learning. *Journal of Advanced Nursing*, *543*(3), 351–358.

Marton, F., & Saljo, R. (1976b). On qualitative differences in learning: II Outcomes as a function of the learners conception of the task. *British Journal of Educational Psychology, 46,* 115–127.

Marton, F., & Saljo, R. (1976a). On qualitative differences in learning, outcome and process I. *British Journal of Educational Psychology, 46*, 4–11.

Martuza, V. R. (1977). *Applying Norm-Referenced and Criterion-Referenced Measurement in Education*. Boston: Allyn and Bacon.

Maxcy, S. J. (2003). *Pragmatic threads in mixed methods research for multiple modes of inquiry and the end of the philosophy of formalism, in: A. Tashakkori, and C. Teddle (Eds) Handbook of Mixed Methods in Social and Behavioural Research*. Thousand Oaks, CA: Sage.

McEwen, M., & Brown, S. C. (2002). Conceptual framework in undergraduate curricula: Report of a national survey. *Journal of Nursing Education, 4*(1), 5–13.

Meehan-Andrews, T. A. (2009). Teaching mode efficiency and learning preferences of first year nursing students. *Nurse Education Today, 29*, 24–32.

Mentkowski, M., & Associates. (2000). *Learning that lasts: Integrating Learning, Development and Performance in college and beyond*. San Francisco, CA: Jossey-Bass.

Miflin, B.M., Campbell, C.B. & Price, D.A (2000). A Conceptual Framework to Guide the Development of Self-Directed Learning, Lifelong Learning in Problem- based curriculum. *Medical Education, 34*, 299–306.

Minbashian, A., Huon, G. F., & Bird, K. D. (2004). Approaches to studying and academic performances in short-essay exams. *Higher Education, 47*, 161–176.

Nanzhao, Z. (2000). A reflection on "Learning to Learn": the four pillars of learning and their impications for curriculum reforms. In (IBE). A capacity-building curriculum specialists in east and south-east asia. *International Bureau of Education*, 11–14.

National League for Nursing. (2005). *The Scope of practice for academic nurse educators*. New York: NY: Author.

Neuman, L. H., Pardue, K. T., Grady, J. L., Gray, M. T., Hobbins, B., Edelstein, J., & Herrman, J. W. (2009). What does an innovation teaching assignment strategy: mean to nursing students? *Nursing Education Perspectives*, 1–3.

O'Donnell, A. M. (2006). *The role of peers and group learning. In P. H. E. A Winne and A. Patricia (Eds.), Handbook of education psychology, (pp. 781-802)*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

O'Leary, Z. (2004). *The Essentials Guide to Doing Research*. London: Sage Publications.

O'Shea, E. (2003). Self-directed learning in nurse education: a riview of the literature. *Journal of Advanced Nursing*, *43*(1), 62–70.

Ogden, W. R. (2003). Reaching all the students: The feedback lecture. *Journal of Instructional Psychology*, *30*(1), 22–27.

Ozturk, C., Muslu, G., & Dide, A. (2008). A comparison of problem based and traditional education on nursing students' critical thinking dispositions. *Nurses Education Today*, *28*, 627–632.

Pansiri, J. (2005). Pragmatism: A methodological approach to researching strategic alliances in tourism. *Tourism and Hospitality Planning and Development*, *2*(3), 191–206.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd Edition.). London: Sage Publications.

Pearcey, P., & Draper, P. (2008). Exploring clinical nursing experiences: listening to student nurses. *Nurse Education Today*, *28*(5), 595–601.

Phan, H. (2010). Critical thinking as a self-regulatory process component in teaching and learning. *Psicothema*, *22*(2), 284–292.

Phillips, D. S. (1995). The good, the bad and the ugly: The many faces of constructivism. *Educational Researcher*, *24*(7), 5–12.

Phillips, R., McNaught, C., & Kennedy, G. (2010). Towards a generalised conceptual framework for learning: the Learning environment, learning processes and learning outcomes. *In Proceedings of World Conference on Educational Multimedia, Hypermedia, and Telecommunications*, 2495–2504.

Piaget, J. (1977). *Equilibration of Cognitive Structures*. New York: Viking.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, *95*(4), 667–686.

Piscotty, R., Grobbel, C., & Tzeng, H. M. (2011). Integrating Quality and Safety Competencies into Undergraduate Nursing Using Student-Designed Simulation. *Journal of Nursing Education*, *20*(10), 1–8.

Polit, B., & Beck, C. (2008). *Essentials of Nursing Care: Methods, Appraisal and Utilization* (7th Edition.). Philadelphia: Lippincott Williams and Wilkins.

Polit, D. F., & Beck, C. T. (2006). The content validity index: are you sure you know what's being reported? Critique and Recommendations. *Research in nursing and health*, *29*, 489–497.

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and Recommendations. *Research in Nursing and Health*, *30*, 459–467.

Polit, D. F., & Tatano-Beck, C. (2004). *Nursing Reseach: Principles and Methods*. Philadelphia: Lippincoh, Williams and Wilkins.

Prosser, M. (2004). A student learning perspective on teaching and learning, with implications for problem-based learning. *European Journal of Dental Education*, *6*, 51–58.

Prosser, M., & Trigwell, K. (1996). Congruency between intention and strategy in science teachers approaches to teaching. *Higher Education*, *32*, 77–87.

Provitera, M. J., & Esendal, E. (2008). Learning and Teaching Styles in management education: Identifying, Analyzing, and Facilitating. *Journal of College Teaching and Learning*, *5*(1), 69–78.

Ralph, E., Walker, K., & Wimmer, R. (2007a). Positive and Negative Aspects of the Practicum: Post-interns views. *Journal of Cooperative Education and Internships, 41*(1), 129–142.

Ramsden, P. (2003). *Learning to teach in higher education* (2nd edition.). London: Routledge.

Razak, N. B., Ahmad, F., & Shah, P. M. (2007). Perceived and Preferred Teaching Styles of English for Specific Purposes Students. *Jurnal e-Bangi*, *2*(2), 1–20.

Rich, S. P. (2006). Student Performance: Does Effort Matter? *Journal of Finance*, 120–133.
Riener, C., & Willingham, D. (2010). The myth of learning styles. *Change*, 32–35.

Rinaldi, C., & Gurung, R. (2008). Should teaching and learning styles match? *Journal of the Scholarship of Teaching and Learning*, 1–8.

Robertson, P. (2001). Assesing, critical thinking in Baccalaureate nursing students. A longitudinal study. *Holistic Nursing Practice*, *15*(3), 18–26.

Ross, M. E., Green, S. B., Salisbury-Glennon, J. D., & Tollefson, N. (2006). College students' study strategies as a function of testing: An investigation into metacognitive self-regulation. *Innovative Higher Education*, *30*(5), 361–375.

Royal College of Nursing, (Foley E). (1997). *Position Statements: Quality in Nursing Practice*. Australia: Royal College of Nursing.

Royse, M. A. (2007). How gaming is used as an innovative strategy for nursing education. *Nursing Education Perspectives*, *28*(5), 263–267.

Rubin, L., & Herbert, C. (1998). Model for active learning: Collaborative peer teaching. *College Teaching*, *46*(1), 26–31.

Ryan, G. W., & Bernard, H. R. (2003). Field methods: techniques to identify themes. *Sage Publications*, *15*, 85–109.

Sarantakos, S. (2005a). *Social Research* (3rd Edition.). New York: Palgrave Macmillan.

Sarantakos, S. (2005b). *Social Research* (3rd Edition.). New York: Palgrave Macmillan.

Schaefer, K. M., & Zygmont, D. (2003). Analyzing the teaching style of of nursing faculty: Does it promote a student-centered or teacher centered learning environment? *Teaching Styles*, *24*(5), 239–245.

Schank, M. (1990). Wanted: nurse with critical thinking skills. *Journal of Continuing Education*, *21*(2), 86–89.

Schneider, W., & Lockl, K. (2002). *The Development of Metacognitive Knowledge in Children and Adolescents: In Perfect, T. and Schwarts, B. (Eds). Appliedd Metacognition*. Cambridge. UK: Cambridge University Press.

Schon, D. A. (1983). *The Reflective Practitioner*. New York: Basic Books.

Scott, C. (2010). The enduring appeal of learning style. *Australian Council for Educational Research*, *54*(1), 5–17.

Semetsky, I. (2009). Deleuze as a philosophy of education: Affective knowledge/ effective learning. *The European Legacy*, *14*(4), 443–456. doi:10.1080/1084877099534

She, H. (2005). Promotin students' learning of air pressure concepts: The interrelationship of teaching approaches and students learning characteristics. *Journal of Experimental Education*, *74*(1), 29–51.

Shell, R. (2001). Perceived barriers to teaching for critical thinking by BSN nursing faculty. *Nursing and Health Care Perspectives*, *22*, 286–291.

Shepard, L. (2000). The role of assessment in a learning culture. *Educational Researcher*, *29*(7), 4–14.

Shields, P. (1995). Reflection and learning in student nurses. *Nurse Education Today*, *15*, 452–458.

Sinding, C., & Aronson, J. (2003). Exposing failures, unsetting accommodations: Tensions in interview practice. *Qualitative Research*, *3*(1), 95–117.

Snelgrove, S. R. (2004). Approaches to learning of student nurses. *Nurse Education Today*, *24*, 605–614.

Spouse, J. (1998). Scaffolding student learning in clinical practice. *Nurses Education Today*, *18*, 259–266.

Stanberry, A. M., & Azria, E. M. (2001). Perspectives in teaching gerontology: Matching strategies with purpose and context. *Educational Gerontology*, *46*(1), 25–31.

Sternberg, R. J. (1997). *Thinking styles*. New York: Cambridge University Press.

Sullivan, D. L., & Chumbley, T. (2010). Critical a new approach to patient care. *JEMS*, *35*(4), 48–53.

Sullivan, W., & Rosin, M. (2008). *A new agenda for higher education: Shaping a life of the mind for practice*. San Francisco, CA: Jossey-Bass.

Swenson, M. M. (2000). Toward a narrative-centered curriculum for nurse practitioners. *Journal of Nursing Education*, *39*, 109–115.

Tanner, C. A. (2010). Transforming prelicensure nursing education: Preparing the new nurse to meet emerging health care needs. *Nursing Education Perspectives*, *31*(6), 347–353.

The Royal College of Physicians and Surgeons of Canada. (2004). *Skills of the new millennium. Report of the societal needsworking group*. Retrieved 3rd July, 2010 from http://rcpsc.medical.org/publications/index.php

Tiwari, A., Chan, S., Wong, E., Wong, D., Chui, C., Wong, A., & Patil, N. (2006). The effect of problem-based learning on students' approaches to learning in the context of clinical nursing education. *Nurses Education Today*, *26*, 430–438.

Trigwell, K., Prosser, M., & Ginns, P. (2005). Phenomenographic pedagogy and a revised Approaches to teaching inventory. *Higher Education Research and Development*, *24*(4), 349–360.

Trigwell, K., Prosser, M., & Lyons, F. (1999). Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education*, *37*, 57–70.

Turale, S., Ito, M., & Nakao, F. (2008). Issues and challenges in nursing education in Japan. *Nurses Education In Practice*, *8*, 1–4.

Uys, L. R., & Gwelle, N. S. (2005). *Curriculum Development in Nursing: Process and Innovation*. New York: Routledge.

Uzuntiryaki, E. (2007). Learning styles and high school students' chemistry achievement. *Science Education International*, *18*(1), 25–37.

Van Blankenstein, F. M., Dolmans, D. H. J. M., Van der Vleuten, C. P. M., & Schmidt, H. G. (2011). Which cognitive processes support learning during small-group discussion? The role of providing explanations and listening to others. *Springerlink*, *39*, 189–204.

Van den Heede, K., Lasaffre, E., Diya, L., Vleugels, A., Clarke, S. P., & Aiken, L. H. (2009). The relationship between inpatient cardiac surgery mortality and nurse numbers and educational level: analysis of administrative data. *International Journal Of Nursing Education Studies*, *46*, 796–803.

Vaughn, L., & Baker, R. (2001a). Teaching in the medical setting: balancing teaching styles, learnung styles and teaching methods. *Medical Teacher*, *23*(6), 610–612.

Vaughn, L., & Baker, R. (2001b). Teaching in the medical setting: balancing teaching styles, learning styles and teaching methods. *Medical Teacher*, *23*(6), 610–614.

Vaughn, L. M., & Baker, R. C. (2008). Do different pairings of teaching styles and learing styles make a difference? Preceptor and resident perceptions. *Teaching and Learning in Medicine*, *20*(3), 239–247.

Vermetten, Y. J., Lodewijks, H. G., & Vermunt, J. (1999). Consistency and variability of learning strategies in different university courses. *Higher Education*, *37*, 1–21.

Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Havard University.

Watson, G., & Glaser, E. M. (2006). *Critical Thinking Appraisal. Short Form Mannual*. San Antonio: Pearson and Talent lens.

Webb, N. M. (1989). Peer interaction and learning in small groups. *International Journal Of Nursing Educational Research*, *13*, 21–40.

Wellard, S. J., Bethune, E., & Heggen, K. (2007). Assessment of learning in contemporary nurse education: Do we need standardised examinations for nurse registration? *Nurse Education Today, 27*(1), 68–72.

World Federations for Medical Education. (2004). *Continuing Professional Development of Medical Doctors: WFME Global Standards for Quality Improvement*.Retrieved3rdJuly,2010fromhttp://www.sund.ku.dk/wfme/Activities/Translations%20of%20Standard%20Documents/WFME20%CPD.pdf

World Health Organisation. (2006). *The world health report. Working together for health*(pp113.Retrieved10thOctober,2011fromwww.who.int/entity/whr/2006/06 chap3 enpdf

World Health Organisation. (2007). *The WorldHealth Report: A safer Future. Global Public Health Security in the 21 century*. Retrieved20thOctober,2010from http://www.bookorders@who.int

World Health Organisation. (2010). *Framework for Action on interprofessional education and collaborative practice* (pp. 1–57). Health Professions Networks, Nursing & Mdwifery, Human Resources for Health.

Yefimov, V. (2003). *On pragmatic institional economics, paper presented at "The Information Society: Understanding its Institutions Interdisciplinarily" conference of the European Association for Evolutionary Political Economy*. Maastricht, 7-10 November.

Zhang, H., & Lambert, V. (2008). Critical thinking dispositions and learning styles of baccalaureate nursing students from china. *Nursing and Health Sciences, 10,* 175–181.

Zhaou, Z. N. (n.d.). Four "Pillars of Learning" for the Reorientation and Reorganinization of Curriculim: Reflections and Discussions. Retrieved 10th October, 2011 from www.ibe.unesco.org/cops/Competencies/PillarsLearningZhou.pdf

Zhou, Nanzhao, & Sun Yunxiao. (2001). *Towrad Learning Society: Building Four Pillars of Learning* (eds.). Beijing: Beijing Press.

APPENDIX A:

GRASHA's TEACHING STYLE INVENTORY: VERSION 3.0 QUESTIONNAIRE FOR THE EDUCATORS

Instructions:

Respond to each of the items in terms of how they apply to the courses that you teach. Try to answer as honestly and as objectively as you can. Resist the temptation to respond as you believe you should or ought to think or behave or in terms of what you believe is the expected or proper thing to do. Use the following rating scale when responding to each item:

Key:

1	=	strongly disagree	4	=	moderately agree
2	=	moderately disagree	5	=	strongly agree
3	=	undecided			

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
1	Facts, concepts, and principles are the most important things that students should acquire.					
2	I set high standards for students in this class.					
3	What I say and do models appropriate ways for students to think about issues in the content.					
4	My teaching goals and methods address a variety of student learning styles.					
5	Students typically work on course projects alone with little supervision from me.					
6	Sharing my knowledge and expertise with students is very important to me.					
7	I give students negative feedback when their performance is unsatisfactory.					
8	Activities in this class encourage students to develop their own ideas about content issues.					
9	I spend time consulting with students on how to improve their work on individual and/or group projects.					
10	Activities in this class encourage students to develop their own ideas about content issues.					
11	What I have to say about a topic is important for students to acquire a broader perspective on the issues in that area.					
12	Students would describe my standards and expectations as					

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
	somewhat strict and rigid.					
13	I typically show students how and what to do in order to master course content.					
14	Small group discussions are employed to help students develop their ability to think critically.					
15	Students design one or more self-directed learning experiences.					
16	I want students to leave this course well prepared for further work in this area.					
17	It is my responsibility to define what students must learn and how they should learn it.					
18	Examples from my personal experiences often are used to illustrate points about the material.					
19	I guide students' work on course projects by asking questions, exploring options, and suggesting alternative ways to do things.					
20	Developing the ability of students to think and work independently is an important goal.					
21	Lecturing is a significant part of how I teach each of the class sessions.					
22	I provide clear guidelines for how I want tasks completed in this course.					
23	I often show students how they can use various principles and concepts.					
24	Course activities encourage students to take initiative and responsibility for their learning.					
25	Students take responsibility for teaching part of the class sessions.					
26	My expertise is typically to resolve disagreements about content issues.					
27	The course has very specific goals and objectives that I want to accomplish.					
28	Students receive frequent verbal and/or written comments on their performance.					
29	I solicit student advice about how and what to teach in this course.					
30	Students set their own pace for completing independent and/or group projects					
31	Students might describe me as a "storehouse" of knowledge" who dispenses the fact, principles, and concepts they need.					
32	My expectations for what I want students to do in this class are clearly defined in the syllabus.					
33	Eventually, many students begin to think like me about course content.					

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
34	Students can make choices among activities in order to complete course requirements.					
35	My approach to teaching is similar to a manager of a work group who delegates tasks and responsibilities to subordinates.					
36	There is more material in this course than I have time available to cover it.					
37	My standards and expectations help students develop the discipline they need to learn					
38	Students might describe me as a “coach” who works closely with someone to correct problems in how they think and behave					
39	I give students a lot of personal support and encouragement to do well in the course					
40	I assume the role of a resource person who is available to students whenever they need help					

APPENDIX B:

GRASHA RIECHMAN LEARNING STYLES SCALE

Instructions:

The following questionnaire is designed to help you clarify your attitudes and feelings towards the courses you took in the BSN programme. There is no right or wrong answers to each question. However, as you answer each question, form your answers with regard to your general attitudes and feelings towards all of your courses in the BSN programme.

Key:

1	=	strongly disagree	4	=	moderately agree
2	=	moderately disagree	5	=	strongly agree
3	=	undecided			

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
1	I prefer to work by myself on assignments in my courses					
2	I often day dream during class					
3	Working with other students on class activities is something I enjoy doing					
4	I like it whenever teachers clearly state what is required and expected					
5	To do well, it is necessary to compete with other students for the teacher's attention					
6	I do whatever is asked of me to learn the content in my class					
7	My ideas about the content often are as good as those in the textbook					
8	Classroom activities are usually boring					
9	I enjoy discussing my ideas about course content with other students					
10	I rely on my teachers to tell me what is import for me to learn					
11	It is necessary to compete with other students to get a good grade					
12	Class sessions typically are worth attending					
13	I study what is important to me and not always what the					

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
	instructor says is important					
14	I very seldom excited about material covered in a course					
15	I enjoy hearing what other students think about issues raised in class					
16	I only do what I am absolutely require to do in my courses					
17	In class, I must compete with other students to get my ideas across					
18	I get more out of going to class than staying at home					
19	I learn a lot of the content in my classes on my own					
20	I don't want to attend most of my classes					
21	Students should be encouraged to share more of their ideas with each other					
22	I complete assignments exactly the way my teachers tell me to do them					
23	Students have to be aggressive to do well in courses					
24	It is my responsibility to get as much as I can out of a course					
25	I feel very confident about my ability to learn on my own					
26	Paying attention during class sessions is difficult for me to do					
27	I like to study for tests with other students					
28	I do not like making choices about what study or how to do assignments					
29	I like to solve problems or answer questions before anybody else can					
30	Classroom activities are interesting					
31	I like to develop my own ideas about course content					
32	I have given up trying to learn anything from going to class					
33	Class sessions make me feel like part of a team where people help each other learn					
34	Students should be more closely supervised by teachers on course projects					
35	To get a head in class, it is necessary to step on the toes of other students					
36	I try to participate as much as I can in all aspects of a course					
37	I have my own ideas about how classes should be run					
38	I study just hard enough to get by					
39	An important part of taking courses is learning to get along with other people					
40	My notes contain almost everything the teacher said in class					

S.No	ITEMS	RESPONSE				
		1	2	3	4	5
41	Being one of the best students in my classes is very important					
42	I do all course assignments well whether or not I think they are interesting					
43	If I like a topic, I try to find out more about it on my own					
44	I typically cram for examinations					
45	Learning the material was a cooperative effort between students and teachers					
46	I prefer class sessions that are highly organized					
47	To stand out in my classes, I complete assignments better than other students					
48	I typically complete course assignments before their deadlines					
49	I like classes where I can work at my own pace					
50	I would prefer that teachers ignore me in class					
51	I am willing to help other students out when they do not understand something					
52	Students should be told exactly what material is to be covered on examinations					
53	I like to know how well other students are doing on examinations					
54	I complete required assignments as well as those that are optional					
55	When I don't understand something I first try to figure it out for myself					
56	During class sessions, I tend to socialize with people sitting next to me					
57	I enjoy participating in small group activities during class					
58	I like when teachers are well organized for a session					
59	I want my teachers to give me more recognition for the good work					
60	In my classes, I often sit toward the front of the room					

APPENDIX C:

BIGGS' STUDY PROCESS QUESTIONNAIRE REVISED (R-SPQ-2F) FOR GRADUATE NURSES TO ASSESS LEARNING APPROACHES

Instructions:

This questionnaire has a number of questions about your attitudes towards your studies and your usual way of studying

You are requested to respond to each item by indicating how true the statement is, using a 5 point likert scale from regarding your approach to learning. There is no right way of studying. It depends on what your own style and the course you are studying. Please answer each question as honestly as you can.

Choose the one most appropriate response to each question. Do not worry about projecting a good image. Your answers are confidential.

1 = never or rarely true of me 2 = sometimes true of me

3 = true of me about half of the time 4 = frequently true of me

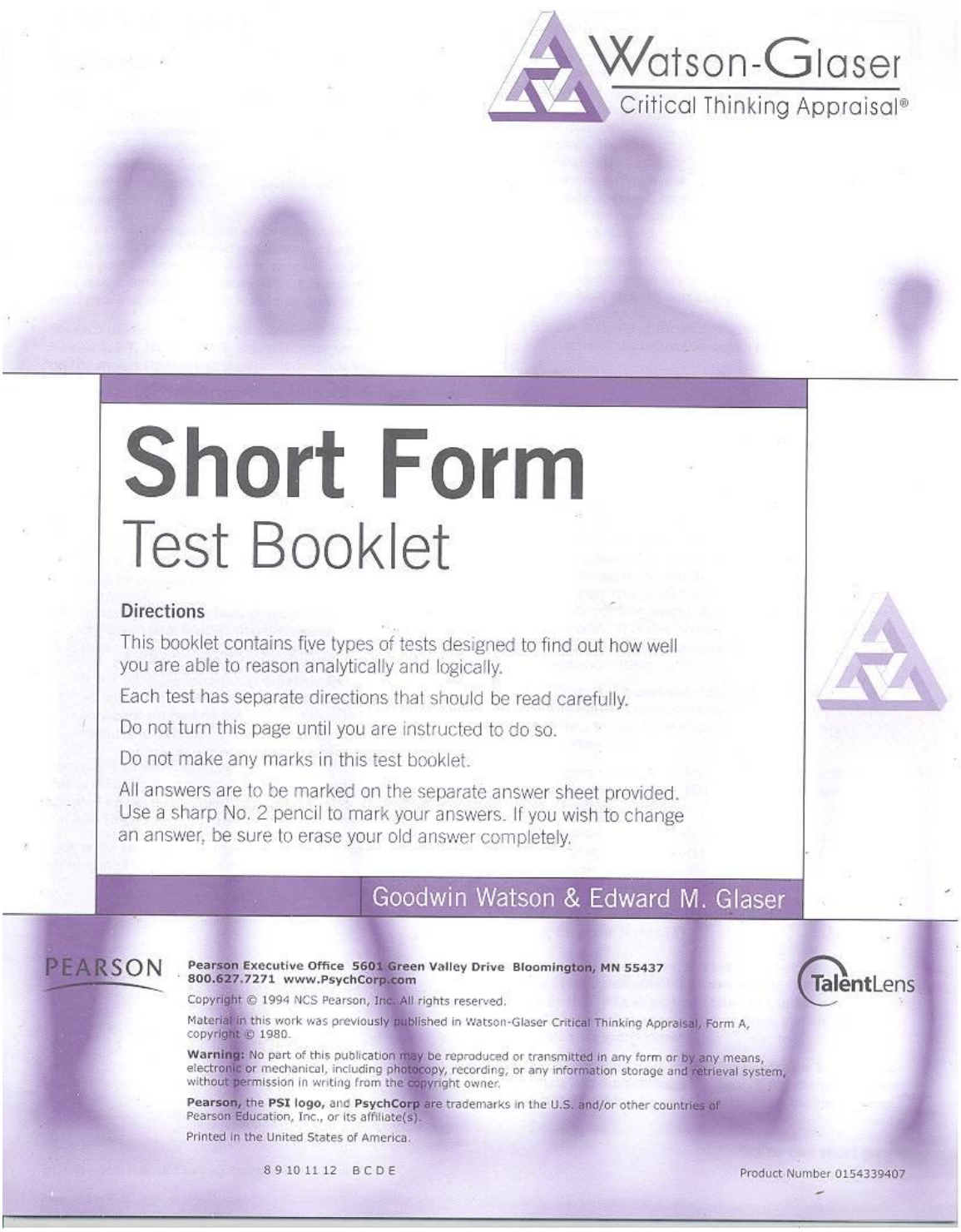
5 = always or almost always true of me

S. No	ITEM	RESPONSE				
		1	2	3	4	5
1	I find that studying can give me a feeling of deep personal satisfaction					
2	I find that I have to do enough work on a topic so that I can form my own conclusions before I am satisfied					
3	My aim is to pass the course while doing as little work as possible					
4	I only study seriously what's given out in class or in the course outlines					
5	I feel that virtually any topic can be highly interesting once I get into it					
6	I find most new topics interesting and often spend extra time trying to obtain more information about them					
7	I do not find my course very interesting so I keep my work to the minimum					
8	I learn some things by rote, going over and over them until I know them by heart even if I do not understand them					

S. No	ITEM	RESPONSE				
		1	2	3	4	5
9	I find that studying academic topics can at times be as exciting as a good novel or move					
10	I test myself on important topics until I understand them completely					
11	I find I can get by in most assessments by memorizing key sections rather than trying to understand them					
12	I generally restrict my study to what is specifically set as I think it is un necessary to do anything					
13	I work hard at my studies because I find the material interesting					
14	I spend a lot of my free time finding out more about interesting topics which have been discussed in different classes					
15	I find it is not helpful to study topics in depth, it confuses and wastes time, when all you need is a passing acquaintances with topics					
16	I believe that lecturers should not expect students to spend significant amounts of time studying Material everyone knows won't be examined					
17	I come to most classes with questions in mind that I want answering					
18	I make a point of looking at most of the suggested readings that go with the lectures					
19	I see no point in learning materials which is not likely to be in the examination					
20	I find the best way to pass examinations is to try to remember answers to likely questions					

APPENDIX D:

WATSON-GLASER CRITICAL THINKING APPRAISAL FORM FOR GRADUATE NURSES



Test 1: Inference

Directions

An inference is a conclusion a person can draw from certain observed or supposed facts. For example, if the lights are on in a house and voices can be heard coming from the house, a person might infer that someone is at home. But this inference may or may not be correct. Possibly the people in the house did not turn the lights and the television off when they left the house.

In this test, each exercise begins with a statement of facts that you are to regard as true. After each statement of facts you will find several possible inferences–that is, conclusions that some persons might draw from the stated facts. Examine each inference separately and make a decision as to its *degree* of truth or falsity.

For each inference you will find spaces on the answer sheet labeled **T, PT, ID, PF** and **F.** For each inference make a mark on the answer sheet under the appropriate headings as follows:

T if you think the inference is definitely **TRUE;** that it properly follows beyond a reasonable doubt from the statement of facts given.

PT if, in the light of the facts given, you think the inference is **PROBABLY TRUE;** that it is more likely to be true than false.

ID if you decide that there are **INSUFFICIENT DATA;** that you cannot tell from the facts given whether the inference is likely to be true or false; if the facts provide no basis for judging one way or the other.

PF if, in the light of the facts given, you think the inference is **PROBABLY FALSE;** that it is more likely to be false than true.

F if you think the inference is definitely **FALSE;** that it is wrong, either because it misinterprets the facts given, or because it contradicts the facts or necessary inferences from those facts.

Sometimes, in deciding whether an inference is probably true or probably false, you will have to use certain commonly accepted knowledge or information that practically every person has. This will be illustrated in the example that follows.

Look at the example in the next column; the correct answers are indicated in the block at the right.

Example

Two hundred students in their early teens voluntarily attended a recent weekend student conference in a Midwestern city. At this conference, the topic of race relations and means of achieving lasting world peace were discussed, because these were the problems the students selected as being most vital in today's world.

Test 1: Inference

	T	PT	ID	PF	F
1.	○	●	○	○	○
2.	○	○	○	●	○
3.	○	○	●	○	○
4.	○	○	○	○	●
5.	●	○	○	○	○

1. As a group, the students who attended this conference showed a keener interest in broad social problems than do most other students in their early teens.
2. The majority of the students had not previously discussed the conference topics in their schools.
3. The students came from all sections of the country.
4. The students discussed mainly labor relations problems.
5. Some teenage students felt it worthwhile to discuss problems of race relations and ways of achieving world peace.

- In the above example, inference 1 is probably true (**PT**) because (as is common knowledge) most people in their early teens do not show so much serious concern with broad social problems. It cannot be considered definitely true from the facts given because these facts do not tell *how much* concern other young teenagers may have. It is also possible that some of the students volunteered to attend mainly because they wanted a weekend outing.
- Inference 2 is probably false (**PF**) because the students' growing awareness of these topics probably stemmed at least in part from discussions with teachers and classmates.
- There is no evidence for inference 3. Thus, there are insufficient data (**ID**) for making a judgment on the matter.
- Inference 4 is definitely false (**F**) because it is given in the statement of facts that the topics of race relations and means of achieving world peace were the problems chosen for discussion.
- Inference 5 necessarily follows from the given facts; it therefore is true (**T**).

In the exercises that follow, more than one of the inferences from a given statement of facts may be true (**T**), or false (**F**), or probably true (**PT**), or probably false (**PF**), or have insufficient data (**ID**) to warrant any conclusion. Thus, you are to judge each inference independently.

Make a heavy black mark in the space under the heading that you think best describes each inference. If you change an answer, erase it thoroughly. Make no extra marks on the answer sheet.

Go to the next page.

Exercises

Years ago, the United States Armed Forces conducted an experiment called "Operation Snowdrop" to find out what kinds of military personnel seemed to function best under severe arctic climatic conditions. Some of the factors examined were weight, age, blood pressure, and national origin. All of the participants in "Operation Snowdrop" were given a training course in how to survive and function in extreme cold. At the conclusion of the experiment, it was found that only two factors among those studied distinguished between personnel whose performance was rated as "effective" and those rated "not effective" on the arctic exercises. These factors were: (1) desire to participate in the experiment and (2) degree of knowledge and skill regarding how to live and protect oneself under arctic conditions.

1. Despite the training course given to all of the participants in "Operation Snowdrop," some participants exhibited greater arctic survival knowledge or skill than others.

2. It was believed by the Armed Forces that military operations might someday be carried out in an arctic-like environment.

3. A majority of the personnel who participated in "Operation Snowdrop" thoroughly disliked the experience.

4. Participants having normal weight and blood pressure were rated as significantly more effective on the arctic exercises than were the other participants.

Some time ago a crowd gathered in Middletown to hear the new president of the local Chamber of Commerce speak. The president said, "I am not asking, but demanding, that labor unions now accept their full share of responsibility for civic improvement and community welfare. I am not asking, but demanding, that they join the Chamber of Commerce." The members of the Central Labor Unions who were present applauded enthusiastically. Three months later all the labor unions in Middletown were represented in the Chamber of Commerce. These representatives worked with representatives of other groups on committees, spoke their minds, participated actively in the civic improvement projects, and helped the Chamber reach the goals set in connection with those projects.

5. Both the labor union representatives and the other members of the committees came to a better recognition of one another's viewpoints through their Chamber of Commerce contacts.

6. Union participation in the Middletown Chamber of Commerce greatly reduced worker-management disputes in that town.

7. Most of the union representatives regretted having accepted the invitation to participate in the Chamber of Commerce.

Go to the next page.

Test 2: Recognition of Assumptions

Directions

An assumption is something presupposed or taken for granted. When you say "I'll graduate in June," you take for granted or assume that you will be alive in June, that your school will judge you to be eligible for graduation in June, and similar things.

Below are a number of statements. Each statement is followed by several proposed assumptions. You are to decide for each assumption whether a person, in making the given statement, is really making that assumption—that is, taking it for granted, justifiably or not.

If you think that the given assumption is taken for granted in the statement, make a heavy black mark under **ASSUMPTION MADE** in the proper place on the answer sheet. If you think the assumption is *not* necessarily taken for granted in the statement, blacken the space under **ASSUMPTION NOT MADE.** Remember to judge each assumption independently.

Below is an example. The block at the right shows how these items should be marked on the answer sheet.

Example

Statement: "We need to save time in getting there so we'd better go by plane."

Proposed Assumptions:

1. Going by plane will take less time than going by some other means of transportation. (It is assumed in the statement that the greater speed of a plane over the speeds of other means of transportation will enable the group to reach its destination in less time.)

2. There is plane service available to us for at least part of the distance to the destination. (This is necessarily assumed in the statement since, in order to save time by plane, it must be possible to go by plane.)

3. Travel by plane is more convenient than travel by train. (This assumption is not made in the statement—the statement has to do with saving time, and says nothing about convenience or about any other specific mode of travel.)

Test 2 Assumption	Made	Not Made
1.	●	○
2.	●	○
3.	○	●

Exercises

Statement: "Zenith is the city to move to—it has the lowest taxes."

Proposed Assumptions:

8. Lower taxes imply efficient city management.

9. In deciding where to live, it is important to avoid high taxes.

10. The majority of the residents in Zenith are content with their present city government.

Statement: "I'm traveling to South America. I want to be sure that I do not get typhoid fever, so I shall go to my physician and get vaccinated against typhoid fever before I begin my trip."

Proposed Assumptions:

11. If I don't take the injection, I shall become ill with the fever.

12. By getting vaccinated against typhoid fever, I decrease the chances that I will get the disease.

13. Typhoid fever is more common in South America than it is where I live.

Statement: "If war is inevitable, we better launch a preventive war now while we have the advantage."

Proposed Assumptions:

14. If we fight now, we are more likely to win than we would be if forced to fight later.

15. If we don't launch a preventive war now, we'll lose any war that may be started by an enemy later.

Go to the next page.

Test 3: Deduction

Directions

In this test, each exercise consists of several statements (premises) followed by several suggested conclusions. *For the purposes of this test, consider the statements in each exercise as true without exception.* Read the first conclusion beneath the statements. If you think it *necessarily follows* from the statements given, make a heavy black mark under **CONCLUSION FOLLOWS** in the proper place on the answer sheet. If you think it is *not a necessary conclusion* from the statements given, put a heavy black mark under **CONCLUSION DOES NOT FOLLOW** even though you may believe it to be true from your general knowledge.

Likewise, read and judge each of the other conclusions. Try not to let your prejudices influence your judgment—just stick to the given statements (premises) and judge each conclusion as to whether it *necessarily* follows from them.

The word *some* in any of these statements means an indefinite part or quantity of a class of things. *Some* means *at least* a portion, and *perhaps* all of the class. Thus, "Some holidays are rainy" means *at least* one, possibly more than one, and *perhaps* even all holidays are rainy.

Study the example carefully before starting the test.

Example

Some holidays are rainy. All rainy days are boring. Therefore, ...

1. no clear days are boring. (The conclusion does not follow. You cannot tell from the statements whether or not clear days are boring. Some may be).
2. some holidays are boring. (The conclusion necessarily follows from the statements since, according to them, the rainy holidays must be boring.)
3. some holidays are not boring. (The conclusion does not follow, even though you may know that some holidays are very pleasant.)

Test 3 Conclusion	Follows	Does Not Follow
1.	○	●
2.	●	○
3.	○	●

Exercises

No person who thinks scientifically places any faith in the predictions of astrologers. Nevertheless, there are many people who rely on horoscopes provided by astrologers. Therefore, ...

16. people who lack confidence in horoscopes think scientifically.
17. many people do not think scientifically.

All members of symphony orchestras enjoy playing classical music. All members of symphony orchestras spend long hours practicing. Therefore, ...

18. musicians who play classical music do not mind spending long hours practicing.
19. some musicians who spend long hours practicing enjoy playing classical music.

Rice and celery must have a good deal of moisture in order to grow well, but rye and cotton grow best where it is relatively dry. Rice and cotton grow where it is hot, and celery and rye where it is cool. In Malabo, it is very hot and damp. Therefore, ...

20. neither the temperature nor the moisture conditions in Malabo are favorable for growing a celery crop.
21. the temperature and moisture conditions in Malabo are more favorable for growing rice than for growing celery, cotton, or rye.
22. conditions in Malabo are not altogether favorable for growing a cotton or a rye crop.

Most persons who attempt to break their smoking habit find that it is something that they can accomplish only with difficulty, or cannot accomplish at all. Nevertheless, there is a growing number of individuals whose strong desire to stop smoking has enabled them to break the habit permanently. Therefore, ...

23. only smokers who strongly desire to stop smoking will succeed in doing so.
24. a strong desire to stop smoking helps some people to permanently break the habit.

Go to the next page.

Test 4: Interpretation

Directions

Each exercise below consists of a short paragraph followed by several suggested conclusions.

For the purpose of this test, assume that everything in the short paragraph is true. The problem is to judge whether or not each of the proposed conclusions logically follows beyond a reasonable doubt *from the information given in the paragraph.*

If you think that the proposed conclusion follows beyond a reasonable doubt (even though it may not follow absolutely and necessarily), then make a heavy black mark under **CONCLUSION FOLLOWS** in the proper place on the answer sheet. If you think that the conclusion does *not* follow beyond a reasonable doubt from the facts given, then blacken the space under **CONCLUSION DOES NOT FOLLOW**. Remember to judge each conclusion independently.

Look at the example below; the block at the right shows how the answers should be marked on the answer sheet.

Example

A study of vocabulary growth in children from eight months to six years old shows that the size of spoken vocabulary increases from zero words at age eight months to 2,562 words at age six years.

Test 4 Conclusion	Follows	Does Not Follow
1.	●	○
2.	○	●

1. None of the children in this study had learned to talk by the age of six months. (The conclusion follows beyond a reasonable doubt since, according to the statement, the size of the spoken vocabulary at eight months was zero words.)

2. Vocabulary growth is slowest during the period when children are learning to walk. (The conclusion does not follow since there is no information given that relates growth of vocabulary to walking.)

Exercises

When the United States Steel Corporation was created in 1902, it was the largest corporation America had known up to that time. It produced twice as much steel as all of its domestic competitors put together. Today, the United States Steel Corporation produces about 20% of the steel that is made in this country.

25. In 1902, the United States Steel Corporation produced not less than 66% of the total domestic output of steel.

26. Today, domestic competitors produce more than three times as much steel as the United States Steel Corporation.

27. The United States Steel Corporation produces less steel today than it did in 1902.

Pat had poor posture, had very few friends, was ill at ease in company, and in general was very unhappy. Then a close friend recommended that Pat visit Dr. Baldwin, a reputed expert on helping people improve their personalities. Pat took this recommendation and, after three months of treatment by Dr. Baldwin, developed more friendships, was more at ease, and in general felt happier.

28. Without Dr. Baldwin's treatment, Pat would not have improved.

29. Without a friend's advice, Pat would not have heard of Dr. Baldwin.

When I go to bed at night, I usually fall asleep quite promptly. But about twice a month I drink coffee during the evening, and whenever I do, I lie awake and toss for hours.

30. My problem is mostly psychological; I expect that the coffee will keep me awake and, therefore, it does.

31. On nights when I want to fall asleep promptly, I'd better not drink coffee in the evening.

Go to the next page.

Test 5: Evaluation of Arguments

Directions

In making decisions about important questions, it is desirable to be able to distinguish between arguments that are strong and arguments that are weak, as far as the question at issue is concerned. *For an argument to be strong, it must be both important and directly related to the question.*

An argument is weak if it is not directly related to the question (even though it may be of great general importance), or if it is of minor importance, or if it is related only to trivial aspects of the question.

Below is a series of questions. Each question is followed by several arguments. *For the purpose of this test, you are to regard each argument as true.* The problem then is to decide whether it is a *strong* or a *weak* argument.

Make a heavy black mark on the answer sheet under **ARGUMENT STRONG** if you think the argument is strong, or under **ARGUMENT WEAK** if you think the argument is weak. Judge each argument separately on its own merit. *Try not to let your personal attitude toward the question influence your evaluation of the argument, since each argument is to be regarded as true.*

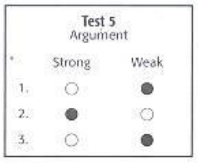
In the example, note that the argument is evaluated as to how well it supports the side of the question indicated.

When the word *should* is used as the first word in any of the following questions, its meaning is, "Would the proposed action promote the general welfare of the people in the United States?"

Example

Should all young adults in the United States go to college?

1. Yes; college provides an opportunity for them to learn school songs and cheers. (This would be a silly reason for spending years in college.)
2. No; a large percent of young adults do not have enough ability or interest to derive any benefit from college training. (If this is true, as the directions require us to assume, it is a weighty argument against all young adults going to college.)
3. No; excessive studying permanently warps an individual's personality. (This argument, although of great general importance when accepted as true, is not directly related to the question, because attendance at college does not necessarily require excessive studying.)



Exercises

Should groups in this country who are opposed to some of our government's policies be permitted unrestricted freedom of press and speech?

32. Yes; a democratic state thrives on free and unrestricted discussion, including criticism.
33. No; the countries opposed to our form of government do not permit the free expression of our points of view in their territories.

Should the United States Department of Defense keep the public informed of its anticipated scientific research programs by publicizing ahead of time the needs that would be served by each program?

34. No; some become critical of the government when widely publicized projects turn out unsuccessfully.
35. Yes; only a public so informed will support vital research and development activities with its tax dollars.

Do juries decide court cases fairly when one of the opposing parties is rich and the other is poor?

36. No; because rich people are more likely to settle their cases out of court.
37. No; most jurors are more sympathetic to poor people than to the rich, and the jurors' sympathies affect their findings.
38. No; because rich people can afford to hire better lawyers than poor people, and juries are influenced by the skill of the opposing lawyers.

Should students be excused from public schools to receive religious instruction in their own churches during school hours?

39. No; having public school children go off to their separate churches during school hours would seriously interfere with the educational process and create friction among children of different religions.
40. No; religious instruction during school hours would violate our constitutional separation of church and state; those who desire such instruction are free to get it after school hours.

Stop.
You may go back and check your work.

WATSON- GLASER CRITICAL THINKING APPRAISAL ANSWER SHEET

Copyright © 1994 by NCS Pearson, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner. **Pearson, PsychCorp**, the **PSI logo** and the **Watson-Glaser Critical Thinking Appraisal** are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s). Material in this work was previously published in Watson-Glaser Critical Thinking Appraisal, Answer Document, forms A and B, copyright © 1980 NCS Pearson, Inc. All rights reserved. Printed in the United States of America.

APPENDIX E:

CHECKLIST FOR QUALITY CURRICULUM EVALUATION RUBRIC

Components of quality	Quality details	Does not Meet 1	Partially Meets 2	Meets 3
A process & tools to assess students' interest, learning styles & self-directedness that:	Provide for student self assessment			
	Include strategies for students to take responsibility for learning			
	Are part of the selection/admission process			
	Inform teaching and learning			
A process & tools for assessing students' prior knowledge that:	Include clearly defined requisite learning (knowledge & skills)			
	Include one or more assessment of requisite learning			
A standards-based content outline that:	Is transparent/available			
	Addresses essential/core content			
	Addresses future and/or relevant national content standards			
	Takes into account standards of the MNMC			
Articulated learning outcomes that:	Are based on the MNMC professional outcomes			
	Include appropriate levels of cognitive domain (Bloom's taxonomy)			
	State how & under what conditions learning will be demonstrated			
	Are linked to appropriate assessment strategies			
Suggested teaching strategies/ approaches that:	Are learner centered; inclusive of learner goals & learning styles			
	Require learner to build on prior knowledge & construct meaning			
	Assist with the application of knowledge, skills for meaningful use in practice			
	Address appropriate levels of learning			
	Are multisensory			
	Include learning reflection and feedback			
	Model appropriate & evidence-based practices			
	Include combinations of individual, small & large group methods			
	Make effective use of communications & information technology			

Components of quality	Quality details	Does not Meet 1	Partially Meets 2	Meets 3
Suggested assessment strategies that:	Are transparent			
	Are formative and summative			
	Takes account of continuous assessment			
	Uses a variety of methods and contexts			
	Provide opportunity for self-assessment			
	Inform teaching and evaluation of learning			
	Monitor, document and certify learner achievement			
Suggested teaching-learning resources that:	Includes minimum/compulsory resource list			
	Updated and reviewed annually for relevance & validity			
	Are accessible for students to direct their own learning			
	Are relevant to the curriculum & learning level			
	Are sufficiently varied and derived from multiple sources			
	Appeal to multiple senses			

APPENDIX F:

INVITATION LETTER FOR EDUCATORS TO PARTICIPATE IN STUDY

My name is Evelyn Chilemba and I am currently studying at the University of the Witwatersrand (WITS), Johannesburg in South Africa. I am conducting a study on the education process of graduate nurses in Malawi towards fulfilling the requirements for a higher degree (PhD). The study will require your participation as an educator at KCN, in the second phase I may require you to participate in an interview to give you the opportunity to provide more detailed information about your teaching approaches and experiences at KCN. Through the generation of the knowledge base regarding current best practices, the research will contribute to improved approaches in teaching and learning resulting in competent and critical thinking graduate nurses necessary for meeting the challenges of the clinical environment.

For this study, I hope to interview at least twenty educators in order to explore on the broader perspectives of the teaching experiences of the educators on the BSN programme.

Participation in the study involves being interviewed, which will take between 40minutes to one hour. The interview will be conducted in a private place and will be tape recorded. All information gathered during the study will remain confidential and only codes will be used to distinguish the individuals and institutions. My supervisor and I will have access to the information. The recorded tapes and research tools will be kept in locked cabinets and will be destroyed after five years.

The topics that will be covered during the interview will include;

- Classroom teaching experiences
- Teaching approaches
- Critical thinking and learning for practice
- Students readiness to learn
- Assessing learning

The interview will be an opportunity for participants to share views with the researcher in teaching approaches and experiences. My hope is that our conversations will be beneficial in influencing the learning for practice concept among graduate nurses. Ethics approval was sought from relevant research ethics committees. If you are interested in participating sign the consent form attached or if you have any questions, please contact me at;

Tel 265 171 688 7 (home)
265 999 257 746 (mobile)
Email: evelynchilemba@yahoo.co.uk

APPENDIX G:

INDIVIDUAL INVITATION TO GRADUATE NURSES TO PARTICIPATE IN STUDY

My name is Evelyn Chilemba and I am currently studying at the University of the Witwatersrand (WITS), Johannesburg in South Africa. I am conducting a study on the education process of graduate nurses in Malawi towards fulfilling the requirements for a higher degree (PhD). The study will require your participation as a graduate nurse from KCN. In the second phase I may require you to participate in an interview to give you the opportunity to provide more detailed information about your educational process and experiences at KCN. Through the generation of the knowledge base regarding current best practices, the research will contribute to improved approaches in teaching and learning resulting in competent and critical thinking graduate nurses ready to meet the challenges of the clinical environment.

For this study, I hope to interview at least fifty graduate nurses in order to explore on the broader perspectives of the educational processes of the BSN graduate nurses.

Participation in the study involves being interviewed, which will take between 40minutes to one hour. The interview will be conducted in a private place and will be tape recorded. All information gathered during the study will remain confidential and only codes will be used to distinguish individuals and institutions. My supervisor and I will have access to the information. The recorded tapes and research tools will be kept in locked cabinets and will be destroyed after five years.

The topics that will be covered during the interview will include;

- Experiences of new graduates
- Classroom teaching experiences
- Teaching approaches
- Critical thinking and learning for practice
- Learning assessments

The interview will be an opportunity for participants to share views with the researcher in teaching approaches and experiences. My hope is that our conversations will be beneficial in influencing the learning for practice concept among graduate nurses. Ethics approval was sought from relevant research ethics committees. If you are interested in participating sign the consent form attached or if you have any questions, please contact me at:

Tel 265 171 688 7 (home)
265 999 257 746 (mobile)
Email: evelynchilemba@yahoo.co.uk

APPENDIX H:

INTERVIEW GUIDE FOR NURSE EDUCATORS

INTRODUCTION

As explained during our first contact interview regarding the study on learning for practice among the graduates registered nurses. Please answer /reflect on the following broad questions as frankly as possible.

1. What are your classroom teaching experiences as an educator at this college?

Probes:

Teaching methods/ approaches

Learning styles/ approaches

Promotion of critical thinking

2. What are your preferred teaching approaches/styles in classroom teaching?

Probes:

Subject content

Critical thinking

3. What makes you choose a particular method for teaching?

Probes

Thinking

Student numbers

4. How did you promote thinking in your teaching experience?

5. How does the BSN curriculum enhance learning among graduate nurses?

6. What are some of the challenges that you had encountered during classroom teaching?

7. What are some of the memorable classroom teaching encounters?

8. What suggestions do you have on teaching?

APPENDIX I:

NURSE EDUCATOR TRANSCRIPT CODE: NE06

APPENDIX I: NURSE EDUCATOR TRANSCRIPT

CODE: NE06

I. **May you tell me your classroom teaching experiences as an educator at this college?**

P. Thank you very much, I teach midwifery students who are at the end of the training and are supposed to have well developed critical thinking skills which they are supposed to demonstrate at this level but unfortunately our students as far as I am concerned their approaches most of the times which we use they do not empower them to do that self-directed learning for instance, you might have some of the scenarios which they have already covered so when you are giving them some information we take them that they have some information are not novice and have not experienced some of the things which you want to build on, so most of the methods that I have seen people using or putting across are the lecture methods apart from giving them problem based learning whereby you can pause a problem the students should have a mechanism of actually trying to look for solutions of that problem. And the other thing is competency based, whereby even our teaching or learning can happen in the clinical area but our students they lack even reflecting on their aim whatever they are learning in the clinical area because they should also be given chances of reflecting what they are doing there whether its according to what information they and theoretically or probably some of the information which they have read in some of their books. So in that context so I feel that out students they are not really empowered and they can not even challenge the teacher even the nurses who are already qualified in the clinical area because they still do much of the routine things. Midwifery is a difficulty area and we anticipate that these students they can bring a lot from general nursing but you see that when you teach you teach them as if they are just starting, you start all over again, so our teaching approaches are not good, the lecturing method, we are supposed to abandon this old teaching method and try and employ new mechanism so that they should critically think

I. What are your preferred teaching approaches/styles in classroom teaching?

P. Most of the times I like of course the problem based one I normally put a scenario and then you try and make them think especially when you know that they are

already exposed, for instance the high risk midwifery at the back of your mind you already know these students have already been in the maternity so you try to bring some of the issues in front like even the grieving and bereavement. These again you start in the general nursing and again you pause a scenario and then ask them how they can as well handle to tackle it. And most of these other things, time is gone whereby we mostly do passive in class, I think simulation also can be taken on board. There are other things also that you think are strictly in the clinical area but when we have our clinical laboratory and for sure making them really practice the skills which some of them might be missing in the clinical area which you do it in the laboratory via the simulations I think that also can do a bigger part.

I. What makes you choose a particular method for teaching?

P. The content and number of students determine the type of teaching that one would do, sometimes you would want to give students more time but then you have limited time and a lot of students, sometimes I prefer to do group discussions so that I facilitate the group discussions, but with the big numbers of students it's not easy to supervise the big numbers of students. But given the opportunity group discussions where you facilitate the groups would be the best. No I do not think that we are empowering our students because most of the times we teach them and they do not find information for themselves, most of the time they come to complain that we do not have adequate books, and cannot find information in the library, so I think there is something that we need to do to promote that responsibility among out students, so that they take ownership of their learning otherwise most of them are not serious with their learning they want somebody to push them and I think because lecturing is the most used approach to teaching content, at this institution.

I. Are you saying your preferred teaching approaches are problem based learning?

P. Yes problem based learning, simulations and role play, discussions, small groups which they can work the whole year so that they can be helping each other in whatever you are putting across even the assignments because you are making them think. Of course, it depends with the lecturers who are there, I think its time that we replicate what our colleagues might be conversant with, because for sure in order to empower we need to sit down and bring about these recent teaching approaches which we think can empower students, for instance in the some

department where some are solely depending on the lecture method and there are other lecturers who give problem based approach and other lecturers who give assignments, some students hate assignments because they think it's not a way of learning and when you give them assignments for example projects you are trying to empower them, to go out there and critically analyse the situation that is there, and by so doing is more of an interactive between the lecturers and the students. Although sometimes we abuse the opportunities, students go out there and we do not give them proper feedback, and some because they think this topic is a bit challenging to them they throw it to the students and students do the assignments and they just mark them and do not give feedback and sometimes the students do not have proper direction.

I. How did you promote thinking in your teaching experiences?

P. Mm about quality it is not what I expected because I went through the diploma program and how it is the degree program which is to be at a higher level even the quality itself is not supposed to be compromised but it's the opposite and I can tell you that those in the CHAM institutions they can even surpass us, they are more skill oriented than our graduates because some of our graduates they do not have those analytical skills and sometimes the performance of their duties leaves a lot to be desired and I think all this goes back to where we are coming from and also sometimes to the quality of the people teaching these students, I have seen that we might think people are quality theoretically but practically they are not quality and they are employed at KCN and this is what we have seen at KCN. We need people who have lots of experiences and who can teach the right things, the right attitudes to our students. So the quality of teachers also needs to be checked in terms of experience an expertise. The quality is not matching with the education offered at this place. Critical thinking depends with the way we made the theory because if we do not impact those critical thinking skills so you see that the students are remote controlled, they want to be pushed every now and then to do the right things, and they want to be followed now and then on their own if you leave them they do not mind whether what they are doing is right or professional I would like to see these students go out there that people should say these are from KCN especially these days when we have a lot of competitors, sometimes these students from CHAM schools surpass our students in critical thinking, decision making and even some

wait, for the old times to pass a decision. Unfortunately our students have right subject content at the higher level which when they analyse and use they can give the best care. I feel the best way how to do it is to ask the students how they want to be taught, and I think we need to empower them at first year at college we should tell them what they should expect at the college, and there should be consistency in the way we teach because every body comes and they do and use different methods of teaching. Now may be students will love lecturing because they do not have to put a lot of efforts in the way they are to learn. The teacher has already given them everything including the notes. So they would not like someone who makes them to work on their own so if there is something that can be done is to reinforce the consistency in the teaching and this could be the best thing to do. As an institution we should think of a way and that should be promoted.

I. How does the BSN curriculum enhance learning among graduate nurse?

P. My experience I may be wrong or right but I feel they learn more after clinical practical, to me I feel after theory we give them a lot of information at the same time because of the block system they memorized content for exams and not for clinical practice. So when you go back to clinical you say this is the condition, the pneumonia patient can you remember what we talked about. Some will remember, some will not, they even forget the positions, even building rapport with the patient or even apply the basic nursing skills they learnt, so it is after clinical that I saw students making sense from the subject content.

I make sure that content is presented in an individualized way requiring the student to think to say o.k. she is an antenatal pt, yes what are the main issues concerning the client should be able to identify the problems and then look at problems and reflect to say how can I help this mother like the current situation we do not have fansidar for malaria prophylaxis, no iron tablets,(CT) so I am always saying o.k. we do not have iron tablets, how can you still help this woman, that she does not get malaria or anaemia, so in the absence of iron and fansidar which is routine, what else can I do, to help this client because I can not just say this woman should go. There are still things that you can still go to help this woman to prevent her from getting malaria and anaemia. So these are some of the methods I enjoy to make them think.

I. Are you saying the classroom teaching does not necessarily make our students ready for practice because of wide scope of practice?

P. In my case I think and I do not know if it would be possible so that we do it Concurrently, theory and practice. For example you teach students how to document vital signs on a chart in the morning and in the afternoon lets go to the clinical area and practice.

I. What are some of the challenges that you had encounters during classroom teaching?

P. The challenges are most of the times, you know we have these big numbers, whereby you are saying you are practicing student centred learning, some of the students might becoming forth answering, even in these groups because they are so many we divide them in bigger groups which is not productive because we are supposed to put them in small groups even when you are trying to make them go and practice the skills. And another challenge is in some of the topics we go in different lecturers and use different strategies so building on especially when it comes to skills it becomes a problem because some have their own method of teaching, assignments and so own and because of the large groups the students do not concentrate, most of the times. I think they have notes from previous groups and when they are in class they have these presentations they are busy reading the notes on laptop and the presentations. Some lecturers also use teaching notes for a number of years and students have capitalized on that. Even the examinations they are recycling the same things. This encourages rote learning as students are not given opportunity to critically analyse the learning content. Or sometimes you give them an assignment so that they come up with information you see them coming up with old notes so I do not know.

I. What are some of the memorable classroom teaching encounters that you have had?

P. The memorable encounters are whereby as I have already said in midwifery mostly is skills whereby you have done a procedure and you demonstrate to the

students they do it in the classroom and the same things you go to the clinical area you find them do them for instance the episiotomy whereby you come up with a flexa foam and suturing materials and a suture and the students also suture when I go to the clinical area I see my students suturing the episiotomy I am happy. Especially when I see that they are doing what I taught them to do, especially the procedures because we do not have shortcuts of that, so my memorable moment is when I do a skill which is more practical, even attitudes although they are very abstract, so I am coping up and happy about them.

I. What suggestions do you have on teaching?

P. Every year we use the same time without analyzing that is it working like for Anatomy and Physiology what would be the ideal time for students to learn. If students have not performed well do we also evaluate the teaching time, we should also ask questions to give input, ask them why they find other courses difficult? Anatomy and Physiology is abstract but we have not looked at that why a lot of students fail. Do we have enough time for teaching? Ask students where we can improve, they know also where to change they have the right answers to some of the learning issues. If we can think like this we can promote students learning but students have failed we have not analysed the reasons and we still teach the

APPENDIX J:
INTERVIEW PROTOCOL FOR GRADUATE NURSES

INTRODUCTION

As explained during our first contact interview regarding the study on learning for practice among the graduates registered nurses. Please answer /reflect on the following broad questions as frankly as possible.

1. How did you perceive your educational preparation in relation to your professional role?

   Probes:
   - Readiness to take professional role
   - Integrating theory in practice
   - Decision making
   - Support to professional role

2. How did you perceive your own learning in the BSN programme?

   Probes:
   - Subject content
   - Teaching
   - Critical thinking

3. How did the teaching in the BSN promote your thinking in relation to learning for practice?

4. How did you perceive the nature of classroom teaching during training?

   Probes:
   - Empowering
   - Resources
   - Time allocation compared to subject content
   - Learning objectives
   - Level of competences and skills
   - Integration of theory to practice
   - Teaching approaches

5. What are your perceptions on the classroom assessments in the BSN programme?

   Probes:
   - empowerment
   - Timing
   - Scope of examinations in relation to subject content

6. What suggestions do you have on classroom learning?

APPENDIX K:

ETHICAL CLEARANCE – HUMAN RESEARCH ETHICS COMMITTEE

M110220

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Ms Evelyn Chilemba

CLEARANCE CERTIFICATE	**M110220**
PROJECT	Learning for practice:an analysis of the education process of graduate Nurses in Malawi
INVESTIGATORS	Ms Evelyn Chilemba.
DEPARTMENT	Department of Nursing Education
DATE CONSIDERED	25/02/2011
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 13/05/2011 **CHAIRPERSON** .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Prof Judith Bruce

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES...

;

APPENDIX L: POST GRADUATE COMMITTEE APPROVAL OF TITLE

Faculty of Health Sciences
Medical School, 7 York Road, Parktown, 2193
Fax: (011) 717-2119
Tel: (011) 717-2745

Reference: Ms Tania Van Leeve
E-mail: tania.vanleeve@wits.ac.za
24 June 2011
Person No: 526875
PAG

Mrs EB Chilemba
P.O Box 40409
Lilongwe 4
malawi
265
Malawi

Dear Mrs Chilemba

Doctor of Philosophy: Approval of Title

We have pleasure in advising that your proposal entitled "*Learning for practice: An analysis of the education process of graduate nurses in Malawi*" has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Sandra Benn
Faculty Registrar
Faculty of Health Sciences

APPENDIX M: ETHICAL CLEARANCE – UNIVERSITY OF MALAWI

UNIVERSITY OF MALAWI

Principal

K.M Maleta, MBBS PhD

Our Ref.:

Your Ref.: P.06/11/1096

College of Medicine
Private Bag 360
Chichiri
Blantyre 3
Malawi
Telephone: 01 877 245
01 877 291
Fax: 01 874 700

Email: comrec@medcol.mw

3rd August 2011

Mrs. E. Chilemba
P.O Box 415
KCN
Blantyre

Dear Mrs. Chilemba

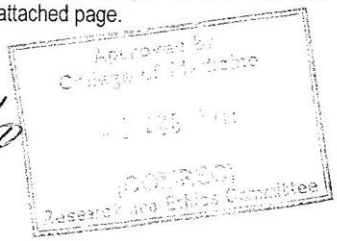
RE: P.06/11/1096 – Learning for Practice: An analysis of education processes of graduate nurse in Malawi version 2

I write to inform you that COMREC reviewed the above mentioned proposal which you resubmitted for expedited review at its meeting of 27th July 2011. I am pleased to inform you that COMREC **approved** your proposal.

As you proceed with the implementation of your study we would like you to take note that all requirements by the college are followed as indicated on the attached page.

Yours Sincerely,





Prof. J.M Mfutso-Bengo

CHAIRMAN - COMREC

JMMB/ck

APPENDICES N AND O:

PERMISSION LETTERS - PRINCIPAL KAMUZU COLLEGE OF NURSING AND MINISTRY OF HEALTH

UNIVERSITY OF MALAWI
KAMUZU COLLEGE OF NURSING

PRINCIPAL
A. MALATA, DipNurs, MRM, B.Sc., MN, PhD

P/BAG 1, LILONGWE, MALAWI
TELEPHONE:265 (0)1 751 622/200
TELEGRAMS: NURSING
FAX: 265 (0) 1 756 424
EMAIL: principal@kcn.unima.mw
Website: www.kcn.unima.mw

Ref. No.: KCN/P18

17th March, 2011

Mrs. E. B. Chilemba
C/o Kamuzu College of Nursing
Private Bag 1
LILONGWE

Dear Mrs. Chilemba

REQUEST FOR PERMISSION TO CARRY OUT RESEARCH AT KAMUZU COLLEGE OF NURSING

I am in receipt of your memorandum dated 16th March, 2011 regarding your intention to carry out your research on "**Learning for Practice**" at Kamuzu College of Nursing.

The College has no objection into approving your request.

Yours sincerely

A. M. Malata, PhD
Principal

cc.: Research Director

Telephone: + 265 789 400

Facsimile: + 265 789 431

All Communications should be addressed to: The Secretary for Health

MINISTRY OF HEALTH

P.O. BOX 30377

LILONGWE 3

MALAWI

21st March, 2011

FROM: SECRETARY OF HEALTH,

MINISTRY OF HEALTH,

P.O.BOX 30377,

LILONGWE 3.

TO: CHAIRMAN

RESEARCH ETHICS COMMITTEE,

UNIVERSITY OF WITWATERSRAND.

TO WHOM IT MAY CONCERN

I write to register the Ministry's support for Mrs. Evelyn Chilemba to use our district hospitals as some of the study sites for her Ph.D studies. In particular she intends to study "Learning for practice" amongst graduate nurses to identify best learning and teaching approaches that empower learners. This will be useful for the Ministry to improve service delivery in our facilities.

Yours sincerely,

pp SECRETARY FOR HEALTH

APPENDIX P:
LETTER OF PERMISSION TO HOSPITAL DIRECTORS

The Hospital Director

Dear Sir/Madam

PERMISSION TO CONDUCT STUDY ENTITLED "LEARNING FOR PRACTICE: AN ANALYSIS OF THE EDUCATION PROCESS OF GRADUATE NURSES IN MALAWI"

My name is Evelyn Chilemba and I am currently studying at the University of the Witwatersrand, Johannesburg in South Africa. As part of my study programme I am expected to complete a research study in fulfilling the requirements for a PhD.

The study has two phases and will require the involvement of graduate registered nurses (RNs) in your institution. In the first phase, RNs will be required to complete a questionnaire about their study processes at KCN; it will take approximately 45 minutes to complete the questionnaire. In phase 2, samples of RNs will be selected to participate in an interview that will explore, in greater depth, their learning experiences at KCN. These interviews will last approximately 1 hour per person and will be scheduled within 1-2 months after phase 1.

Confidentiality and privacy will be maintained at all times - thus any information provided will neither be made public nor available to others, except to my research supervisor. The RNs names will not be required and all information provided will not bear the name of your institution.

Please do not hesitate to contact me should you require any additional information (see contact details below). I attached my research proposal for your perusal.

Yours sincerely

Evelyn Chilemba
Tel 265 171 688 7 (home)
265 999 257 746 (mobile)
Email: evelynchilemba@yahoo.co.uk

APPENDIX Q AND R:

PERMISSION LETTER TO ETHICS COMMITTEE



UNIVERSITY OF MALAWI

KAMUZU COLLEGE OF NURSING

PRINCIPAL

A MALATA, DIP NURS, MRM

Bsc, MN, PhD

P.O. BOX 415, BLANTYRE, MALAWI

TELEPHONE: + 265 1 873 623

Fax: + 265 1 875 341

TELEGRAMS: NURSING

EMAIL: kbultemeier@kcn.unima.mw

May 31, 2011

University of Malawi
College of Medicine
Research and Ethics Committee

Dear Professor Joseph Mfutso-Bengu:

This letter is written to seek approval on my study titled "*Learning for Practice: An analysis of the Education Process of Graduate Nurses in Malawi.* I am pursuing a PhD in Nursing Education with the University of Witwatersrand in Johannesburg, Republic of South Africa. Attached are my CV and My promoter's. My Local Supervisor is Professor Kaye Bultemeier of Kamuzu of Nursing. The College is in support of the chosen study topic and attached is the letter of support from the Dean of Faculty.

This proposal is ready to be submitted for review by College of Medicine Research and Ethics Committee.

Respectfully,

Evelyn Chilemba
University of Malawi/KCN/Lilongwe
evelynchilemba@yahoo.co.uk
0999257746

UNIVERSITY OF MALAWI

KAMUZU COLLEGE OF NURSING

PRINCIPAL

A MALATA, DIP NURS, MRM

Bsc, MN, PhD

P.O. BOX 415, BLANTYRE, MALAWI

TELEPHONE: + 265 1 873 623

Fax: + 265 1 875 341

TELEGRAMS: NURSING

EMAIL: kbultemeier@kcn.unima.mw

May 31, 2011

University of Malawi
College of Medicine
Research and Ethics Committee

Dear Professor Joseph Mfutso-Bengu:

Dear Sir

Recommendation of a proposal entitled "learning for practice: an analysis of the education process of graduate nurses in Malawi" by Mrs Evelyn B. Chilemba.

Mrs Chilemba is a lecturer in Medical Surgical Nursing at the University of Malawi, Kamuzu College of Nursing and is now pursuing a PhD in Nursing with the University of Witwatersrand, South Africa.

This research is in partial fulfillment of her study and I recommend the proposal as the findings of the research will assist graduate nurse students to learn and practice better methods in the community and the country.

Yours sincerely

APPENDIX S:

PERCENTILE SCORES

Table A.4 Percentile Ranks of Total Raw Scores for Industry Groups

	Industry					
Raw Score	Advertising/ Marketing/ Public Relations	Education	Financial Services/ Banking/ Insurance	Government/ Public Service/ Defense	Health Care	Raw Score
40	99	99	99	99	99	40
39	99	99	97	98	99	39
38	98	98	95	94	98	38
37	95	93	88	88	95	37
36	90	87	80	82	91	36
35	82	84	73	75	84	35
34	77	76	65	68	78	34
33	73	70	58	62	74	33
32	69	62	53	58	69	32
31	64	54	47	56	66	31
30	58	46	41	53	58	30
29	54	40	36	48	53	29
28	48	36	31	42	50	28
27	39	30	24	36	45	27
26	34	27	20	31	39	26
25	31	21	16	28	36	25
24	26	16	14	22	31	24
23	21	13	11	19	26	23
22	19	8	8	13	22	22
21	14	8	7	12	15	21
20	11	6	6	8	12	20
19	8	4	5	4	9	19
18	7	3	4	3	7	18
17	3	2	2	3	6	17
16	3	2	1	2	5	16
15	2	1	1	2	3	15
14	1	1	1	2	3	14
13	1	1	1	1	2	13
12	1	1	1	1	1	12
11	1	1	1	1	1	11
10	1	1	1	1	1	10
9	1	1	1	1	1	9
8	1	1	1	1	1	8
7	1	1	1	1	1	7
6	1	1	1	1	1	6
5	1	1	1	1	1	5
4	1	1	1	1	1	4
3	1	1	1	1	1	3
2	1	1	1	1	1	2
1	1	1	1	1	1	1
0	1	1	1	1	1	0
Raw Score Mean	28.7	30.2	31.2	30.0	28.3	Raw Score Mean
Raw Score *SD*	6.1	5.4	5.7	6.3	6.5	*Raw Score SD*
N	*101*	*119*	*228*	*130*	195	*N*

Copyright © 2006 NCS Pearson, Inc. All rights reserved.

/continued/

APPENDIX T: NURSES AND MIDWIVES COUNCIL PROFESSIONAL OUTCOMES

NURSES AND MIDWIVES COUNCIL OF MALAWI

OBJECTIVE FOR BSC GENERIC PROGRAMME LEADING TO REGISTRATION AS A MALAWI REGISTERED NURSE MIDWIFE

On completion of the programme, the nurse midwife shall be able to:-

Provide comprehensive nursing / midwifery care to individuals, groups, families and communities utilizing the nursing process in a variety of settings in rural and urban areas.

Apply scientific principles in the nursing care of individuals, groups, families and communities based on current research findings.

Competently utilize critical thinking skills in managing clients/ patients.

Demonstrate competence in setting standards in order to provide quality care.

Act as an advocate for individuals, families, groups and communities in a multidisciplinary health care team.

Demonstrate effective managerial skills in the care of individuals, families, groups and communities at all levels.

Function as a member of the multisectoral and multidisciplinary health care team.

Provide culturally acceptable care to individuals, families, groups and communities.

Assume a leadership role in conducting research, disseminating and utilizing research findings.

Manage human and maternal resources effectively.

Actively participate in the promotion of nursing midwifery practice nationally and internationally.

Assume leadership role in teaching and counseling of individuals, families, groups and communities.

Assume responsibility for professional growth through continuing education.

Provide an environment conducive to the promotion of health.