PRE-SERVICE TEACHERS’ CONCERNS ON
TEACHING PRACTICUM: A MIXED METHODS
CASE STUDY FROM ZIMBABWE

By

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DECLARATION

I Chemunondirwa Christopher Chitumwa (student number 202367274), hereby declare that the thesis for Doctor of Philosophy in Education is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

..................................................
Signed

..............................
Chemunondirwa Christopher Chitumwa
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DEDICATION

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ABSTRACT

The purpose of this study was to identify and examine pre-service teachers’ concerns relating to their teaching practicum in Zimbabwe and to suggest strategies that could be used to support them in a digitalised era. This study was necessitated by the desire to understand the concerns that pre-service teachers experience during teaching practicum in a fast changing world and in a depressing, unstable socio-politico-economic environment.

The study employed a meta-conceptual approach comprising constructivist and social cognitive epistemology as its theoretical framework. A concurrent mixed methods research design was utilised to address the research questions. Both quantitative and qualitative methods were used to design the study, collect, and analyse data. Thirty participants comprising of 24 pre-service teachers and six college supervisors were purposively selected for the qualitative study from United College of Education in Zimbabwe. Qualitative data was collected by means of interviews and analysed through a thematic analysis. For the quantitative phase, 300 pre-service teachers were chosen through stratified random sampling from the same institution and were asked to complete a questionnaire. One hundred and ninety-three questionnaires were returned and usable, giving a return rate of 64%. Data from the survey were analysed using descriptive and inferential statistics.

Findings from the study revealed that pre-service teachers experience diverse concerns during teaching practicum that included classroom management, teacher knowledge, socio-economic factors, workload, interpersonal relationships and assessment anxiety. Findings from the quantitative phase revealed some differences in the levels of concerns among the year groups. A general downward trend in the levels of concerns was detected except for teacher beliefs concerns that remained constant. Findings from the qualitative phase of the study revealed that the concerns that pre-service teachers experienced during teaching practicum had negative impact on their classroom practice. Most of the student teachers had devised some coping strategies to deal with their concerns and they were satisfied with the quality of support from mentors and peers, but not that from their supervisors. In an increasingly globalised world, the researcher felt that teaching practicum related concerns could be minimised by exploiting the benefits of digitalised knowledge and communities of learning.

Keywords: concerns on teaching practice, pre-service teachers, teaching practicum
# TABLE OF CONTENTS

DECLARATION ............................................................................................................. i

ACKNOWLEDGEMENTS .......................................................................................... ii

DEDICATION .............................................................................................................. iv

ABSTRACT ................................................................................................................ v

LIST OF APPENDICES ............................................................................................. xiv

LIST OF FIGURES ..................................................................................................... xv

LIST OF GRAPHS ..................................................................................................... xvi

LIST OF TABLES ...................................................................................................... xvii

LIST OF ACRONYMS ............................................................................................... xix

CHAPTER ONE ........................................................................................................... 1

INTRODUCTION AND BACKGROUND TO THE STUDY ........................................... 1

1.1 INTRODUCTION ................................................................................................. 1

1.2 BACKGROUND TO THE PROBLEM ..................................................................... 2

1.3 PROBLEM STATEMENT ..................................................................................... 6

1.4 AIM OF THE STUDY .......................................................................................... 7

1.5 OBJECTIVES OF THE STUDY ........................................................................... 7

1.6 RESEARCH HYPOTHESES ................................................................................. 8

1.7 RESEARCH QUESTIONS .................................................................................... 8

   1.7.1 Primary research question ......................................................................... 8

   1.7.2 Secondary research question ................................................................... 9

1.8 SIGNIFICANCE OF STUDY ............................................................................... 9

1.9 THEORETICAL FRAMEWORK .......................................................................... 11

1.10 CLARIFICATION OF TERMS ............................................................................. 12
1.10.1 Pre-service teacher .......................................................... 12
1.10.2 Teaching practicum .............................................................. 12
1.10.3 Pre-service teachers’ concerns ............................................ 12
1.10.4 Learner .............................................................................. 13

1.11 RESEARCH METHODOLOGY AND DESIGN .............................. 13
1.11.1 Data collection strategies ....................................................... 14
   1.11.1.1 Questionnaire ............................................................. 14
   1.11.1.2 Interviews ................................................................ 14
1.11.2 Population and sampling ...................................................... 14
1.11.3 Data analysis ....................................................................... 15
1.11.4 Pilot study ........................................................................... 15

1.12 VALIDITY AND RELIABILITY ...................................................... 16

1.13 ETHICAL CONSIDERATIONS ...................................................... 16

1.14 LIMITATIONS AND DELIMITATIONS OF THE STUDY ............... 17
1.14.1 Limitations of the study ......................................................... 17
1.14.2 Delimitations of the study ....................................................... 17

1.15 SUMMARY ............................................................................. 17

CHAPTER TWO ............................................................................ 19

PERSPECTIVES ON PRE-SERVICE TEACHERS TEACHING PRACTICUM
EXPERIENCES ........................................................................... 19

2.1. INTRODUCTION ....................................................................... 19

2.2. LEARNING THEORIES IN TEACHER EDUCATION ................... 19
   2.2.1. Social cognitive theory ................................................... 20
   2.2.2. Social constructivism theory ........................................... 22

2.3. TEACHERS’ BELIEFS AND SELF EFFICACY ............................. 28
   2.3.1. Teachers’ self-efficacy .................................................... 28
   2.3.2. Sources of teachers’ self-efficacy .................................... 30

2.4. CHANGES IN TEACHER EFFICACY BELIEFS ............................. 33

2.5. TEACHER KNOWLEDGE AND EFFICACY ................................. 37
2.6. PRE-SERVICE TEACHERS’ CONCERNS MODEL........................................40

2.7. PRE-SERVICE TEACHERS’ CONCERNS DURING TEACHING PRACTICUM...43
   2.7.1. Classroom management ........................................................................44
   2.7.2. Linking theory to practice ....................................................................46
   2.7.3. Being observed, evaluated and assessed ................................................49
   2.7.4. Workload ............................................................................................51
   2.7.5. Timing of teaching practicum .................................................................52
   2.7.6. Relationships with key stakeholders in the school ................................53
   2.7.7. Teacher knowledge ..............................................................................57
   2.7.8. Support and resources ..........................................................................58

2.8. IMPACT OF PRE-SERVICE TEACHERS’ CONCERNS ..................................59

2.9. ADDRESSING PRE-SERVICE TEACHERS’ CONCERNS ............................61
   2.9.1. The management of pre-service teachers’ concerns ...............................62
   2.9.2. Adoption of blended learning approach: Can it be a solution to pre-service teachers’ concerns? .................................................................64

2.10. SUMMARY OF CHAPTER ...........................................................................70

CHAPTER THREE ..............................................................................................71

RESEARCH PARADIGM, DESIGN AND METHODS ..............................................71

3.1. INTRODUCTION ............................................................................................71

3.2. RESEARCH AIM, OBJECTIVES, HYPOTHESES AND QUESTIONS .............71
   3.2.1. Research aim .........................................................................................71
   3.2.2. Objectives of the study .........................................................................71
   3.2.3. Research hypotheses ............................................................................72
   3.2.4. Research questions ...............................................................................72
      3.2.4.1. Primary research question ...............................................................73
      3.2.4.2. Secondary research question .........................................................73

3.3. RESEARCH PARADIGM .................................................................................73

3.4. PHILOSOPHICAL WORLDVIEW OF MIXED METHODS RESEARCH ..........74
   3.4.1. Worldviews of quantitative and qualitative research methods ...............74
   3.4.2. Worldview in mixed methods research ................................................76
4.3. DETAILS OF THE RESPONDENTS

4.4. DESCRIPTIVE STATISTICS RESULTS

4.4.1. General areas of concerns

4.4.2. Pre-service teachers’ beliefs

4.4.3. Teacher knowledge

4.5. INFERENTIAL STATISTICS RESULTS

4.5.1. Parametric analyses

4.5.2. Non-parametric analysis

4.5.2.1. Kruskal-Wallis test results for GC

4.5.2.2. Mann-Whitney U tests for GC category

4.5.2.3. Kruskal-Wallis tests results for TB

4.5.2.4. Kruskal-Wallis tests results for TK

4.5.2.5. Mann-Whitney U tests for TK category

4.6. VALIDATION PROCEDURES

4.7. SUMMARY OF CHAPTER

CHAPTER FIVE

QUALITATIVE DATA PRESENTATION AND ANALYSIS

5.1. INTRODUCTION

5.2. PRE-SERVICE TEACHERS’ CONCERNS DURING TEACHING PRACTICE

5.2.1. Theme 1: Classroom management

5.2.1.1. Classroom discipline

5.2.1.2. Time

5.2.2. Theme 2: Teacher knowledge

5.2.2.1. Content knowledge

5.2.2.2. Generic pedagogical knowledge

5.2.2.3. Pedagogical content knowledge

5.2.2.4. Learner diversity

5.2.2.5. Agriculture

5.2.3. Theme 3: Socio-economic factors

5.2.3.1. Infrastructure

5.2.3.2. Resources
5.2.3.3. Financial ........................................................................................................ 181
5.2.3.4. Deployment .................................................................................................. 182
5.2.4. Theme 4: Workload ......................................................................................... 184
      5.2.4.1. Lesson preparation workload ................................................................. 185
      5.2.4.2. Teaching workload .................................................................................. 186
      5.2.4.3. Marking and assignments workload ...................................................... 188
5.2.5. Theme 5: Interpersonal relationships ............................................................. 190
      5.2.5.1. Relationships with mentors ................................................................. 190
      5.2.5.2. Parental involvement ............................................................................. 194
5.2.6. Theme 6: Observation and assessment ......................................................... 195
      5.2.6.1. Assessment anxiety .............................................................................. 196
      5.2.6.2. Assessment during teaching practice ..................................................... 197
      5.2.6.3. Lesson observation feedback ................................................................ 199
5.2.7. Theme 7: Support ......................................................................................... 201
      5.2.7.1. Mentor support ..................................................................................... 201
      5.2.7.2. Peer support ......................................................................................... 203
      5.2.7.3. Supervisor support ............................................................................... 204
5.2.8. Theme 8: Information and Communication Technology .............................. 205
      5.2.8.1. Internet as a networking platform .......................................................... 205
      5.2.8.2. Internet as a source of information ....................................................... 207
      5.2.8.3. Barriers to the integration of ICTs ......................................................... 208

5.3. SUMMARY OF CHAPTER .................................................................................. 209

CHAPTER SIX .......................................................................................................... 212

QUANTITATIVE AND QUALITATIVE DATA INTEGRATION, INTERPRETATION AND DISCUSSION ........................................................................................................... 212

6.1. INTRODUCTION ............................................................................................... 212

6.2. PARTICIPANTS IN THE STUDY ..................................................................... 213

6.3. DATA COLLECTION AND ANALYSIS OF THE DATASETS ............................. 214

6.4. DATA INTEGRATION AND INTERPRETATION PROCESS ......................... 215

6.5. INTERPRETATION AND DISCUSSION OF THE RESEARCH FINDINGS ...... 217
      6.5.1. Concerns of pre-service student teachers ............................................... 217
      6.5.1.1. Concerns related to classroom management ......................................... 220
6.5.1.2. Concerns relating to teacher knowledge ......................................................... 223
6.5.1.3. Concerns related to socio-economic factors ...................................................... 225
6.5.1.4. Concerns related to workload during teaching practice ...................................... 228
6.5.1.5. Concerns related to lesson observation and assessment ....................................... 230
6.5.1.6. Concerns related to interrelationships in the host school .................................... 234
6.5.2. Variation of student teachers’ concerns ............................................................... 243
6.5.3. Impact of student teachers’ concerns .................................................................... 247
6.5.3.1. Impact of classroom management on the execution of classroom tasks ............... 248
6.5.3.2. Impact of teacher knowledge on the execution of classroom tasks ...................... 249
6.5.3.3. Impact of socio-economic factors on the execution of classroom tasks ............... 253
6.5.3.4. Impact of heavy workload on the execution of classroom tasks .......................... 254
6.5.3.5. Impact of lesson observation and assessment on the execution of classroom tasks .. 256
6.5.3.6. Impact of interrelationships in the host school on the execution of classroom tasks ......................................................................................................................... 258
6.5.4. Survival strategies of student teachers ................................................................. 260
6.5.4.1. Survival strategies for classroom management ..................................................... 260
6.5.4.2. Survival strategies for lack of teacher knowledge ............................................... 265
6.5.4.3. Survival strategies for socio-economic challenges ............................................. 269
6.5.4.4. Survival strategies for heavy workload during teaching practicum ..................... 271
6.5.4.5. Survival strategies for evaluation anxiety during teaching practice ..................... 273
6.5.4.6. Survival strategies for interpersonal relationships related concerns ................... 276
6.5.5. Supporting pre-service teachers ........................................................................... 277
6.6. SUMMARY OF CHAPTER ...................................................................................... 279

CHAPTER SEVEN ........................................................................................................ 281

SUMMARY, FINDINGS AND RECOMMENDATIONS ................................................. 281

7.1. INTRODUCTION ..................................................................................................... 281

7.2. OVERVIEW OF THE RESEARCH PROCESS ..................................................... 281
7.2.1. Introduction and background to the study .......................................................... 281
7.2.2. Perspectives on pre-service teachers’ teaching practice experiences ..................... 282
7.2.3. Research paradigm, design and methods ............................................................. 283
7.2.4. Quantitative data presentation and analysis ......................................................... 284
7.2.5. Qualitative data presentation and analysis ........................................................... 285
7.2.6. Quantitative and qualitative data integration, interpretation and discussion ......... 285
7.3. SUMMARY OF MAIN FINDINGS ........................................................................................................285
7.4. IMPLICATIONS OF THE FINDINGS ON TEACHING PRACTICUM AND POLICY ..................................................................................................................................................290
7.5. RECOMMENDATIONS OF THE STUDY ............................................................................................293
7.6. PROPOSED FRAMEWORK TO ADDRESS PRE-SERVICE TEACHERS’ TEACHING PRACTICUM CONCERNS: TEACHING PRACTICUM NETWORKING .............................................295
7.7. LIMITATIONS OF THE STUDY ........................................................................................................299
7.8. CONCLUSION ....................................................................................................................................301

Bibliography ........................................................................................................................................302

ADDENDUM ........................................................................................................................................339
LIST OF APPENDICES

Appendix A: Ethical clearance .......................................................... 339
Appendix B: Request to conduct study: Ministry of Higher and Tertiary Education ........ 340
Appendix C: Permission to conduct study: Ministry of Higher and Tertiary Education ...... 341
Appendix D: Request to conduct study: Ministry of Education, Sport, Arts & Culture ...... 342
Appendix E: Permission to conduct study: Ministry of Education, Sport, Arts & Culture ... 343
Appendix F: Request to conduct study at United College of Education ...................... 344
Appendix G: Permission to conduct study at United College of Education .................. 345
Appendix H: Participant letter of information .................................................. 346
Appendix I: Letter of informed consent (questionnaire) ........................................ 348
Appendix J: Letter of informed consent (interviews) ............................................ 349
Appendix K: Questionnaire ................................................................................. 350
Appendix L: Interview schedule for pre-service teachers ....................................... 356
Appendix M: Interview schedule for college supervisors ....................................... 357
Appendix N: Extract of the interviews transcripts ................................................ 358
# LIST OF FIGURES

Figure 1: Reciprocal determinism

Figure 2: Zone of proximal development

Figure 3: Efficacy Expectation

Figure 4: Teacher knowledge model

Figure 5: Facets of pedagogical knowledge

Figure 6: Domains of pedagogical content knowledge

Figure 7: Components of Senge’s learning organisation

Figure 8: Quinn’s (2008) improving organisational learning infrastructure

Figure 9: Traditional pre-service teacher support connections

Figure 10: Huberman’s skills development cycle

Figure 11: Concurrent triangulation design

Figure 12: Location of research site

Figure 13: Braun and Clarke’s model of thematic qualitative data analysis

Figure 14: Thematic data analysis process

Figure 15: General areas of concern scale

Figure 16: Pre-service teachers’ beliefs scale

Figure 17: Teacher knowledge scale

Figure 18: Pre-service teachers’ concerns during teaching practice

Figure 19: Data integration and interpretation

Figure 20: Proposed framework to address pre-service teachers’ teaching practicum concerns: Teaching practicum networking
LIST OF GRAPHS

Graph 1: Zone of proximal development – level of challenge and competence ....................25
Graph 2: Efficacy scores on four measures at three phases of teaching experience ..........35
Graph 3: Pre-service teachers’ course influence .............................................................36
Graph 4: Age groups (Frequency versus age group, N = 193) .....................................117
Graph 5: Results by gender (Frequency versus gender, N = 193) .................................117
Graph 6: Histogram 1 for the level of GC concerns .......................................................121
Graph 7: Box-Plots for GC ..............................................................................................122
Graph 8: Variation of mean scores per item for GC ......................................................122
Graph 9: Variation of median per item for GC ...............................................................123
Graph 10: Variation of mode per item for GC .................................................................124
Graph 11: Histogram 2 for the level of TB concerns ......................................................128
Graph 12: Box-Plots for TB ............................................................................................129
Graph 13: Variation of mean scores per item for TB ......................................................129
Graph 14: Variation of median score per item for TB ....................................................130
Graph 15: Mode variation per item for TB .................................................................131
Graph 16: Histogram 3 for the level of TK concerns .....................................................134
Graph 17: Box-Plots for TK ............................................................................................135
Graph 18: Variation of mean scores per item for TK .....................................................135
Graph 19: Variation of median score per item for TK ...................................................136
Graph 20: Mode variation per item for TK .................................................................136
Graph 21: Variation of TB .............................................................................................141
Graph 22: Variation of GC across year groups ..............................................................143
Graph 23: Variation of TK across year groups ...............................................................144
Graph 24: Composite bar chart for gender information ..............................................214
LIST OF TABLES

Table 1: Quantitative and qualitative worldview assumptions ............................................. 75
Table 2: Mixed Methods designs .......................................................................................... 80
Table 3: Quantitative phase sample sizes distribution .......................................................... 86
Table 4: Qualitative phase sample size distribution .............................................................. 87
Table 5: Pilot study sample ................................................................................................ 92
Table 6: Quantitative data analysis procedures ................................................................. 96
Table 7: Legitimation strategies ......................................................................................... 107
Table 8: Return rate per year and course ........................................................................... 116
Table 9: Items associated with general areas of concerns of pre-service teachers .......... 120
Table 10: Items associated with pre-service teachers’ beliefs .......................................... 125
Table 11: Items associated with pre-service teachers’ knowledge .................................... 132
Table 12: Breakdown table of descriptive statistics ......................................................... 138
Table 13: Multivariate tests of significance ...................................................................... 138
Table 14: ANOVA’s .......................................................................................................... 138
Table 15: ANOVA results for GC: Single factor ............................................................... 139
Table 16: ANOVA results for TB: Single factor ............................................................... 139
Table 17: ANOVA results for TK: Single factor ............................................................... 140
Table 18: Scheffe Post Hoc Test: GC ............................................................................. 142
Table 19: Scheffe Post Hoc Test: TK ............................................................................. 143
Table 20: Cohen’s d test and p-values for GC ................................................................. 145
Table 21: Cohen’s d test and p-values for TK ................................................................. 146
Table 22: Ranks for GC ................................................................................................... 149
Table 23: Test statistics for GC ....................................................................................... 149
Table 24: Ranks for first year and second year GC category ......................................... 149
Table 25: Test statistics .................................................................................................. 149
Table 26: Ranks for first year and third year GC category .............................................. 150
Table 27: Test statistics .................................................................................................. 150
Table 28: Ranks for second year and third year GC category ......................................... 150
Table 29: Test statistics .................................................................................................. 151
Table 30: Ranks for TB ................................................................................................... 151
Table 31: Test statistics for TB ....................................................................................... 151
Table 32: Ranks for TK ................................................................................................... 152
Table 33: Test statistics for TK ....................................................................................... 152
Table 34: Ranks for first year and second year TK category ......................................... 153
Table 35: Test statistics for TK (first year and second year) .......................................... 153
Table 36: Ranks for first year and third year TK category .............................................. 153
Table 37: Test statistics for TK (first year and third year) .............................................. 154
Table 38: Ranks for second year and third year TK category ......................................... 154
Table 39: Test statistics for TK (second year and third) .................................................. 154
Table 40: Cronbach’s alpha values ................................................................................. 155
Table 41: Themes and categories of pre-service teachers concerns’ during teaching practice .......................................................................................................................... 160
Table 42: Sample statistics for student teachers ............................................................... 213
Table 43: Sample statistics for supervisor ....................................................................... 213
Table 44: Theme table for the merged data ..................................................................... 218
LIST OF ACRONYMS

ANOVA  Analysis Of Variance
CDS    Curriculum Depth Study
CETT   Commission on Effective Teachers and Teaching
CK     Content knowledge
DEECD  Department of Education and Early Childhood Development
DHET   Department of Higher Education and Training
ECD    Early Childhood Development
ECDP   Early Childhood Development Programme
ES     Environmental Science
GC     General area Concerns
GD     Great deal
GP     General Programme
GPK    General pedagogical knowledge
GTE    General Teaching Efficacy
ICT    Information Communication Technology
IMF    International Monetary Fund
MANOVA Multivariate Analysis Of Variance
MESC   Ministry of Education Sport and Culture
MHTE   Ministry of Higher and Tertiary Education
MOOC   Massive Open Online Courses
NMMU   Nelson Mandela Metropolitan University
NS     Never stressed me
OECD   Organisation for Economic Co-operation and Development
OSU    Ohio State University
PCK    Pedagogical content knowledge
PE     Physical Education
POTRAZ Postal and Telecommunication Regulatory of Zimbabwe
PTE    Personal Teaching Efficacy
QB     Quite a bit
RME  Religious and Moral Education
SA  Strongly agree
SACE  South African Council for Educators
SAT  Stressed me all the time
SD  Strongly disagree
SDG  Sustainable Development Goals
SI  Some influence
SMT  Stressed me most of the time
SPSS  Statistical Package for the Social Sciences
SST  Stressed me some of the time
SWA  Somewhat agree
SWD  Somewhat disagree
TB  Teacher Beliefs
TIC  Teacher in Charge
TK  Teacher Knowledge
UCE  United College of Education
UNESCO  United Nations Educational, Scientific and Cultural Organisation
UNICEF  United Nations International Children’s Emergency Fund
USA  United States of America
VL  Very little
ZANU PF  Zimbabwe African National Union Patriot Front
ZAP  Zone of Actual Development
ZESA  Zimbabwe Electricity Supply Authority
ZINTEC  Zimbabwe Integrated National Teacher Education Course
ZND  Zone of no development
ZPD  Zone of proximal development
CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Teaching practicum is widely recognised as one of the most important components of any teacher education course (Lasauskiene & Rauduvaite, 2015, p. 122; Ngara, Ngwarai & Ngara, 2013, p. 126; Sharma, 2015, p. 14). There are a number of reasons for this from literature: teaching practicum provides pre-service teachers with excellent opportunities to learn how to teach, understand the roles, attitudes and behaviours of teachers and acquire teaching skills in a classroom setup (Kiggundu, 2007, p. 99; Kildan et al., 2013, p. 57). In other words, teaching practicum provides pre-service teachers with good examples of how they could learn to become teachers. In addition, teaching practicum provides pre-service teachers with opportunities to apply theories learnt during on-campus courses to authentic classroom contexts (Cheng, 2012, p. 4938; Lee, 2008, p. 117; Ngara et al., 2013, p. 126). Furthermore, teaching practicum provides pre-service teachers with an opportunity to be assessed (Gujjar, Noreen, Saifi & Bajwa, 2010, pp. 340-341), reflect on their practice (Isac, da Costa, Araujo, Calvo & Albergaria-Almeida, 2015, pp 24, 54; Manzar-Abbas & Lu, 2013, pp. 174, 181) and manage their concerns as classroom practitioners (Kiggundu, 2007, p. 99; Kildan et al., 2013, p. 57). From this we can conclude that teaching practicum has many facets and it is a vital component of teacher education curriculum.

Despite all the above benefits to the professional development of pre-service teachers, research has also shown that teaching practicum is fraught with many concerns (Goh & Matthews, 2011, pp. 98-99; Harris, 2011, p. 106; Murray-Harvey et al., 1999, p. 43). Numerous categories of teaching practice related concerns have been identified in literature. Malik & Ajmal (2010, p. 18) identified evaluation anxiety, inadequate pedagogical content knowledge and classroom management skills, and interpersonal relation conflicts as the major concerns that student teachers experience during practicum. Furthermore, Zagami (2010, p. 70) noted that student teachers expressed concerns balancing teaching practicum and personal commitments, teaching load, managing time and feedback on their competence in the classroom. Kabilan and Izzaham (2008, p. 88) also found that Malaysian student
teachers were concerned about with work overload, supervision, and environment, pedagogical and content knowledge during their practicum.

1.2 BACKGROUND TO THE PROBLEM

The study was conducted at United College of Education (UCE), one of the government teachers’ colleges in Zimbabwe that offers the 2-5-2 programme. The 2-5-2 programme is a three-year diploma programme that mainly prepares primary school teachers at a distance because it is structured in such a way that it has a longer teaching practicum period than the residential period (Maguraushe, 2015, p. 91; Maphosa & Ndamba, 2012, p. 76). The name 2-5-2 programme was derived from how the major components of the training programme were structured termly: 2 terms (approximately twenty-six weeks) for the theoretical component at college; 5 terms (approximately sixty-five weeks) continuously on teaching practicum; and another 2 terms (approximately twenty-six weeks) for the theoretical component at college (Maphosa & Ndamba, 2012, p. 76; Tshuma & Bhebhe, 2016, p. 1). This teachers’ training programme is founded on the philosophy that pre-service teachers can learn to teach on the job even with limited prerequisite theory, skills and knowledge (Samkange, 2013, p. 223); a teachers’ apprenticeship of some sort where trainee teachers learn to teach through what works in the classroom by observation and supervised teaching.

The 2-5-2 programme was introduced by the Zimbabwean Government in January 2002 as a merger of the Zimbabwe Integrated Teachers Education Course (ZINTEC) and the conventional model of training where student teachers would spend more time on campus than in schools (MHTE, 2001, p. 1; Mswazie & Gamira, 2011, pp. 411-412). Applicants into the course are required to have at least five ordinary level passes with Grade C, or better including Mathematics and English and are expected to choose between an Early Childhood Development Programme (ECDP) (K-3) and the General Programme (GP) (4-7) for their study. The training programme has two main components: theoretical and practical components. The theoretical component consists of courses in psychology, sociology, philosophy, applied education and an in-depth study of an academic area that are covered during the first two and the last two terms of the course on campus. These courses were designed to acquaint pre-service teachers with knowledge on human behaviour, pedagogical content knowledge and disciplinary knowledge within the primary school curriculum.
The second and more valuable component is the teaching practicum component which is done continuously over five terms in schools. It is within this component that student teachers are socialised into the profession as they experiment with teaching and learning approaches introduced in foundation and methods courses in a classroom setting (Kiggundu, 2007, p. 99; Kildan et al., 2013, p. 57; Maguraushe, 2015, p. 91). As part of their preparation for teaching practice, student teachers are expected to undertake a number of activities such as syllabi interpretation, preparing schemes of work and lesson planning, micro-teaching sessions and visits to schools for teaching practice. Once deployed at their selected school, student teachers are assigned to a grade and attached to an experienced and qualified teacher who becomes their mentor who they would consult on almost all their teaching practice activities (Maphosa & Ndamba, 2012, p. 76; Maunganidze, 2015, pp. 19-20). Student teachers are also expected to be involved in all other school related activities such as gate, assembly, break time duties and co-curricular activities (Magudu, 2014, p. 5). In addition to these duties student teachers are also expected to continue with their theoretical studies in the form of assignments and to conduct a research project in one of the learning areas in the primary school curriculum. Contact with learners in a classroom setting during teaching practicum brings with it challenges for pre-service teachers such as mastery of subject content, the creation of appropriate learning space, class control and evaluation. With the added chores of managing a home and social obligations, most pre-service teachers experience challenges and concerns in their roles as teachers.

Current research on teaching practicum have revealed that the concerns that student teachers face can either have positive or negative effects on them. Some of these concerns promote resilience and emotions that lead to good health, motivation, creativity and professional growth even in challenging environments and recurring setbacks (Gloria, Faulk & Steinhart, 2012, pp. 185-186; Mujtaba & Reiss, 2013, p. 627-628). In other words, student teachers, who experience positive stress, are less likely to suffer from burnout. However, these group of concerns represent a very small proportion of students’ concerns as a majority of them are overwhelmed by heavy workloads, being evaluated, disruptive behaviour by learners, changing curriculum, lack of support and poor working conditions (Gloria et al., 2012, pp. 185-186; Mujtaba & Reiss, 2013, pp. 627-628). These negative concerns undermine pre-service teachers’ professional growth as they are more likely to lead to distress, burnout, poor health, negativity towards the profession and ultimately the quality of teacher produced.
Recent research has also shown that pre-service teachers’ concerns are influenced by a number of factors that include among others experience in the field, individual differences, socio-economic factors, location, and country (Cooper & He, 2012, p. 99; Fuller, 1969, p. 219). For example, a cross cultural study of pre-service teachers’ concerns in Singapore and Australia revealed that student teachers from these two countries had different levels of concerns (Murray-Harvey et al., 1999, p. 33). A more recent study of pre-service teachers’ concerns by Berg and Smith (2014, p. 21) showed slightly different categories of concerns for Australian pre-service teachers to the ones noted by Murray-Harvey et al., (1999, p. 33). In Malaysia, Kabilan and Izzaham (2008, p. 88) also found that Malaysian student teachers were concerned about work overload, supervision, and environment, pedagogical and content knowledge during their practicum. A later study by Goh and Matthews (2011, pp. 92, 96) in Malaysia identified four main themes of pre-service student teachers’ concerns during practicum, namely: classroom management and student discipline, institutional and personal adjustment; classroom teaching; and student learning. There are a number of conclusions that can be drawn from these studies. It was clear that certain student teachers’ concerns were culture and context specific. This meant that student teachers’ concerns could be influenced by characteristics and knowledge systems of individuals and the environment in which their concerns were generated. These studies also highlight the need to continuously monitor the concerns of student teachers and to accept that they experience different concerns in different contexts. Thus, we can conclude that while these studies on pre-service teacher education from other countries are important, local and contextual conditions may influence student teachers’ concerns. While a plethora of studies have been conducted in the field of teacher education internationally, it is clear that in the Zimbabwean context, however, very limited research has been conducted on pre-service teachers’ concerns and experiences while on teaching practice with a focus on how technologies could be used to assist them. Hence a desire to undertake this study to acquire a deeper understanding of pre-service teachers concerns within the Zimbabwean context.

The current forms of support available to pre-service teachers during teaching practice, include friends, peers, mentors, and college supervisors is considered limited in a digitalised era (Jaipal-Jamani, Figg, Gallagher, Scot, & Ciampa, 2015, p. 30). For example, the model of training for the 2-5-2 programme makes it difficult for teacher educators to offer continuous support and guidance to student teachers during teaching practicum. The support and guidance from college supervisors is mostly limited to occasional supervisory and post
lesson discussion which is sometimes conducted in haste. This study also seeks to identify strategies that could be used to strengthen the support that pre-service teachers receive from their college supervisors and peers in other schools so as to minimise the effects of teaching practicum related concerns. Malik and Ajmal (2010, p. 18) argue that teaching practicum related concerns like stress generally have numerous toxic consequences that could cause health, behavioural and learning problems for student teachers.

Teacher stress, one of the main concerns that student teachers experience during teaching practicum, has been cited in literature as a major driver of teacher attrition the world over (Boggess, McBride & Griffey, 1985, p. 202; and Zimbabwe is no exception. Teacher attrition in Zimbabwe remains critical against a background fuelled by poor working conditions, depressed economy and changing curriculum (Chireshe & Shumba, 2011, p. 116). Like all civil servants, teachers, including college supervisors, have for some time now been paid salaries that are below the poverty datum line and many of them have left the profession or moved to other countries (Mapfumo et al., 2012, p. 157). Research conducted by the South African Council for Educators (SACE) (2011, p. 5) and Gomba (2015, p. 57) also indicate that the majority of teachers who were employed in South Africa from Zimbabwe left mainly due to socio-politico-economic factors. A recent study by Tshabalala and Ncube (2014, pp. 152, 155) shows that attrition rates among Mathematics and Science teachers in Zimbabwe are extremely high (approximately 61%) in rural schools mainly because of heavy workloads and poor working conditions. Thus, teacher attrition is a cause for concern for the education sector in Zimbabwe as it represents a loss of skilled human capital (Zvavahera, 2015, pp. 1, 7); a dent on the already burdened Zimbabwean finance budget, that disrupts schooling of learners and quality of delivery (Tshabalala, 2014, pp. 149-150, 155) and ultimately the quality of mentors as expert teachers leave the profession. Undoubtedly, this has negative effects on the quality of mentoring that student teachers receive during teaching practicum. Furthermore, with an increase in the number of pre-service student teachers in each year group, the system of supporting students that entirely depends on face-to-face instruction during teaching practice was weak and was not in line with trends in other countries. The situation was further exacerbated by the deployment of student teachers over a large area.

The brief account of the 2-5-2 programme provided, highlights some of the potential areas of concern that Zimbabwean pre-service teachers experienced during teaching practice in schools. Given that that pre-service teachers’ concerns are influenced by a number of
behavioural traits that include: beliefs, knowledge base, and teaching skills that student teachers bring with them into teacher education courses, it has generated intense interest across teacher education programmes in other countries in recent years (Celik, 2008, p. 98; Stair, Warner & Moore, 2012, p. 154). For instance, Stair et al., (2012, p. 154) recommended that the study of pre-service teachers’ concerns should be on-going because of an ever-changing educational climate that brings with it new types and levels of concerns among student teachers. The researcher is of the view that an awareness and knowledge of pre-service teachers’ concerns could provide teacher educators with the necessary insight to design teacher education programmes that take pre-service teachers’ concerns into account. It is with this background in mind that this study sought to identify and examine pre-service teachers’ concerns relating to their teaching practicum in Zimbabwe and to suggest strategies that could be used to support them.

1.3 PROBLEM STATEMENT

Although teaching practicum has been viewed as a fruitful capstone component by the United College of Education, pre-service teacher education programmes like any other are becoming an increasingly demanding and stressful experience (Cheng, 2012, p. 4938; Kiggundu, 2007, p. 99). This is critical for pre-service teachers in a knowledge driven era, changing school curriculum and the unstable social, political and economic environment in Zimbabwe. For some time, pre-service teachers at UCE have been complaining about these changes in Zimbabwe together with the common concerns associated with teaching practicum such as workload (Dlamini, Okeke & Mammen, 2014, p. 581); and teacher knowledge (Luft & Roehrig, 2007, p. 47). Furthermore, research by Danner (2014, p. 49) in Nigeria, and Goh & Matthews (2011, pp. 98-99) in Malaysia revealed that pre-service teaching practicum is one of the most stressful components of the teacher training programme. Similarly, a study by Mapfumo et al., (2012, p. 161) in Zimbabwe, indicated that teaching practicum continues to be characterised by high levels of stress which had detrimental effects on the professional development of student teachers. Many of these concerns arise from a lack of support, knowledge, skills and confidence to manage unpredictable classroom situations. For ‘digital natives’ to take up teaching as their future careers there is a need to seriously adopt measures to address the concerns of pre-service teachers during teaching practicum.
While it may be a challenge to address some of the pre-service teachers’ concerns in Zimbabwe under the current socio-politico-economic environment, the researcher believes that there are a number of ways in which student teachers can be supported to continually learn in a digital era. Recent developments in technology, globalisation of knowledge, school curriculum changes and increased complexity of the present-day world have introduced new challenges and place new demands on pre-service teachers during teaching practicum (Cornu, 2010, pp. 11, 16; Koc, 2011, p. 116). These complexities coupled with the deteriorating socio-politico-economic environment in Zimbabwe exacerbate the challenges (Machingambi, Ngwaru & Musingafi, 2014, p. 19). New hybrids of concerns have arisen that require teacher educators and pre-service teachers to devise new strategies for solving them. These technological innovations have the potential to transform the way teacher educators support student teachers during teaching practice. With the right attitudes, skills, knowledge and behaviours of expert teachers, student teachers may be enabled to communicate effectively in non-traditional ways (Vogel & Klassen, 2001, p. 105). Furthermore, the concept of the inverted or flipped classroom provides excellent opportunities for college supervisors to offer personalised support from a distance in order to enhance active learning among student teachers (Kemp & Grieve, 2014, pp. 1-2). Given this background together with the worsening socio-politico-economic situation in Zimbabwe, and the changing curriculum in schools, the findings of this study will provide some tangible solutions to address some of the concerns that student teachers experience during teaching practicum.

1.4 AIM OF THE STUDY

The aim of this case study was to identify and examine pre-service teachers’ concerns relating to their teaching practicum at schools in Zimbabwe.

1.5 OBJECTIVES OF THE STUDY

The objectives of the study were to:

- examine the variation of UCE pre-service teachers’ concerns across first, second and third year levels on teaching practice;
• establish how UCE pre-service teachers’ concerns affect their classroom practice;
• identify some of the strategies used by UCE pre-service teachers to cope with teaching practicum related concerns; and
• review the forms of support that UCE pre-service teachers receive and suggest how the support that they receive could be integrated with information communication technologies.

1.6 RESEARCH HYPOTHESES

The first research objective stated above was refined into specific research hypotheses that were tested for the quantitative phase. The following hypotheses were stated:

• The null hypothesis ($H_0$) was: There are no differences between first, second and third year student teachers’ level of concerns during the period they are on teaching practice.
• The alternative hypothesis ($H_a$) was: There are differences between first, second and third year student teachers’ level of concerns during the period they are on teaching practice.

1.7 RESEARCH QUESTIONS

In order to address the research problem highlighted above, a primary and secondary research questions were formulated to guide this study.

1.7.1 Primary research question

The primary research question was:

• What are UCE pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe?
1.7.2 Secondary research question

In addition to the above research question, the following secondary research questions were formulated:

- To what extent are UCE pre-service teachers’ concerns different across the first, second and third year levels?
- How do the concerns that UCE pre-service teachers have impact their ability to execute their tasks in the classroom?
- What are some of the strategies used by UCE pre-service teachers to cope with teaching practicum concerns?
- How can UCE pre-service teachers be supported to deal with their teaching practice related concerns in a digital era?

1.8 SIGNIFICANCE OF STUDY

The findings of this study are significant in a number of ways. Overall, the study highlights some of the reasons why it is important for teacher educators and other stakeholders to seriously consider, understand and address student teachers’ concerns. The study also unearthed some of the survival skills employed by student teachers as they learn how to teach in classroom contexts. Fullan (2001, pp. 40, 47) believes that all individuals (including pre-service teachers) experience some concerns and implementation dips when they encounter situations that require new skills or knowledge, for example, change in practice, beliefs or curriculum. Given that implementation dips are closely associated with a decline in performance and confidence levels before possibly improving, mentors and supervisors need to be sensitive to student teachers’ needs so that the length and the depth of the dips are reduced to the minimal level. In brief, this study explains why a close analysis of student teachers’ concerns during teaching practicum is such an important area of research for future development in teacher education.

Current literature on teacher education has revealed valuable connections between student teachers’ concerns and their future professional development as teachers. For example, given
that teaching practicum related concerns vary with time spent in the field, an understanding of pre-service teachers’ conditions is critical when addressing specific concerns at different times and making teaching practicum more relevant to their needs as learner teachers (Fuller, 1969, pp. 209, 218-221; Fuller & Bown, 1975, pp. 37-39). Therefore, it is imperative that there are close interactions between student teachers, mentors and college supervisors in a manner that allows for the free exchange of ideas, skills and knowledge. A professionally growing teacher requires the ability to make sense of their mistakes, share them with their colleagues and to grow from them (Kwo, 1999, pp. 307-308). Thus, this study provides a platform for student teachers to express their concerns and how they desired to be empowered professionally between the infrequent classroom visits by the college supervisors. Appropriate scaffolds, either by the mentors or college supervisors can only be applied and be beneficial to pre-service teachers if correct categories of student teachers’ concerns have been identified in the first place. While individual differences may exist among student teachers, a general understanding of the variation of pre-service teachers’ concerns across first, second and third years is important when addressing teaching practicum related concerns. Recent developments in ICTs, including mobile communication have ushered in new and innovative ways in which student teachers can be supported through electronic professional learning networks. With the Qingdao Declaration advocating for the use of ICT, including mobile learning to achieve educational targets for equity, access, quality and lifelong learning as outlined in the Sustainable Development Goals (SDGs) of the United Nations (UNESCO, 2015, pp. 2-3), some teacher education programmes are seeking ways of how best they can tap into the power of ICTs for the benefit of their students.

Furthermore, knowledge of pre-service teachers’ concerns could be used to explain the socialisation process experienced by teachers in schools (Chou, 2011, pp. 190, 192; Zeichner & Gore, 1990, p. 334). This knowledge of socialising teachers into the profession is not only required by teacher educators but also by induction and curriculum managers in schools to inform their interventions. Teacher educators can utilise pre-service teachers’ concerns to inform their own teaching, improve their preparation of student teachers for teaching practicum and support them during their internships in schools. Given that most of the student teachers graduate without having reached the third and most effective phase of their professional development (Cooper & He, 2012, p. 99; Fuller, 1969, p. 219), the study of teachers’ concerns is important for those in charge of induction programmes and curriculum in schools.
More importantly, future pre-service teachers in the 2-5-2 programme will find the study beneficial as the findings and recommendations will assist them in improving their confidence and competency during teaching practice. The researcher is of the view that knowing what to expect during teaching practice will dispel some of the student teachers’ concerns and ultimately improve the quality of their experiences. Furthermore, a framework that has been developed in this study will assist to address pre-service teachers’ concerns during teaching practice internship in schools. The proposed framework seeks to harness the power of information communication technology like mobile phones, social media and internet to support pre-service teachers to handle their self-doubts and become responsive to reforms and diversity in addition to the conventional approaches. This study provides an avenue in which UCE can initiate an online mentoring programme with their former student teachers that extends beyond graduation (Guise, 2013, pp. 65, 67).

1.9 THEORETICAL FRAMEWORK

The theoretical framework that undergirds this study was a meta-conceptual approach comprising constructivist and social cognitive epistemology. Social constructivism stresses the importance of culture and context and recognises the acquisition of new knowledge and skills as being socially constructed as opposed to created (Munro, 2007, p. 116; Vakalisa, 2016, p. 44). In particular, constructivists believe that learning is a process of enculturation into a community of practice where individuals collaborate, interact and participate in the construction of knowledge through social negotiation (Iyer & Reese, 2013, pp. 27, 29).

This study was also informed by the social cognitive theory, a theoretical perspective in which learners (including pre-service teachers) are seen as self-regulating, self-reflective and self-organizing organisms that are shaped and shepherded by inner and/or external forces (Feist & Feist, 2009, p. 486). In addition, Ormrod (2006, p. 330), Gibbs (2003, p. 4) and Bandura (1977b, p. 23) claim that social cognitivists conceptualise learning as a process in which individuals observe and imitate other people’s behaviour and it also involves the interaction, reciprocity and interdependence of teachers’ cognitive, behaviour and environmental factors. In other words, pre-service teachers are social beings that learn how to teach from observation and connections they have with significant others in their professional lives. Therefore, learning to teach is more than just imitating the good behaviour of a mentor, but also involves complex processes of balancing behaviour, personal, and
environmental factors. This theoretical framework offered a robust platform on which to understand and interpret the concerns of pre-service teachers’ concerns during practicum.

1.10 CLARIFICATION OF TERMS

Four key terms were identified that the researcher felt needed further clarification for the purposes of this study: pre-service teacher, teaching practicum, concerns and learner.

1.10.1 Pre-service teacher

Dickerson (2008, p. 8) defines a pre-service teacher as a “student in a teacher education programme who may or may not be currently involved in student teaching or partaking in the teaching field experience”. In this study the term pre-service teacher, student teacher, and trainee teacher will be used interchangeably and will refer to a trainee teacher who does not have a professional teacher qualification but who is gaining work based experience in the field. Occasionally, pre-service teachers will also be referred to as mentees.

1.10.2 Teaching practicum

Collinson et al., (2009, p. 9) conceptualised teaching practicum “as an induction into the teaching profession both to improve teachers’ skills and to extend the body of knowledge on effective teaching practices” In short, it is a period of training where student teachers are socialised into the teaching profession. Teaching practicum embraces all the learning that student teachers experience in schools. It covers activities such as co-curricular activities, evaluation of learners’ performance, and break time duty master. It also includes learning from inputs from college supervisors, mentors, pupils and the surrounding community. For the purposes of this study teaching practicum will include the full range of activities highlighted above, not just the teaching of lessons within a classroom context. Teaching practicum and teaching practice will be used interchangeably.

1.10.3 Pre-service teachers’ concerns

According to Hagger and Malmberg (2011, p. 599) concerns are regarded as thoughts that student teachers would like to circumvent or consider as detrimental to their well-being. For
the purposes of this study pre-service teachers’ concerns will be viewed as unpleasant emotions that arise when student teachers fail to cope with the demands of their work during teaching practice. Therefore, in this study, a concern will be regarded as any matter of interest to a student teacher which at the same time is a source of worry, distress, burden, unhappiness, uneasiness, anxiety or stress.

1.10.4 Learner

In this study, the term learner will be primarily used to refer to young students in primary schools and students will apply to pre-service teachers so as to avoid confusion between these groups of learners. Occasionally, learner and pupils will be used interchangeably.

1.11 RESEARCH METHODOLOGY AND DESIGN

This study employed mixed methods case study research design in which both qualitative and quantitative methods were used to identify and examine pre-service teachers’ concerns relating to their teaching practicum at schools and to suggest forms of support that could be employed to assist them to manage their concerns effectively. Mixed methods research methodology according to Creswell (2014, pp. 4, 14-15) is an approach to inquiry that utilises both qualitative and quantitative approaches at every stage of the research process; research question development, sampling strategies, data collection methods, data analysis, interpretation and validation or conclusion.

This research design produced ‘rich, thick’ data and also enhanced the research validity beyond the sole use of either qualitative or quantitative research designs. By adopting a middle ground to the main research approaches, the researcher was able to visualise, understand and interpret pre-service teachers’ concerns during teaching practicum from both quantitative and qualitative perspectives. Furthermore, mixed method research methodology is consistent with the philosophical worldview assumptions that provided a foundation for this study because the pragmatic worldview according to Creswell (2014, pp. 10-11) and Teddlie and Tashakkori (2009, p. 7); it accommodates any methodological tools that best address research questions where the focus was on what works and not on the methods used.
1.11.1 Data collection strategies

The researcher used data collection approaches that are compliant with a concurrent mixed methods design where quantitative and qualitative data are collected separately at approximately the same time or with a slight time lapse between the phases (Ivankova, 2015, p. 20; Leedy & Ormrod, 2014, p. 270). Qualitative data was collected by means of personal interviews while quantitative data was collected by using a closed-ended questionnaire.

1.11.1.1 Questionnaire

A closed-ended questionnaire was used to identify the levels of concerns that pre-service teachers experienced during their internship in schools. The items focused on what the trainee teachers felt uncomfortable with during teaching practicum. The questionnaire included sections on demographic information, general areas of concern expressed by pre-service teachers; pre-service teachers’ beliefs and teachers’ knowledge beliefs (See Appendix K for details).

1.11.1.2 Interviews

The study also employed a semi-structured interview protocol to gather data. The researcher conducted one individual interview with each of the purposively selected participants (for the qualitative phase) in order to capture and develop an in-depth understanding of pre-service teachers’ concerns during teaching practice internship in schools. Interview questions focused on concerns that student teachers experienced during their teaching internship in schools, forms of support that they received, and their own suggestions on the roles that information communications technologies could play in supporting them during their internship in schools (See Appendices L and M for details).

1.11.2 Population and sampling

The study was conducted at an institution with a population of 1 613 pre-service teachers and 113 supervisors. For the qualitative phase, 30 participants were purposively selected and for the quantitative phase, stratified random sampling was used to obtain a representative
sample of 300 student teachers from three-year groups pursuing the 2-5-2 teacher training programme.

1.11.3 Data analysis

Data analysis in mixed methods research study involves analysing quantitative data using quantitative methods and qualitative data using qualitative methods separately before they are merged (Creswell & Plano-Clark, 2007, pp. 136-137). Quantitative data was analysed by using both descriptive and inferential statistics. Descriptive statistics was used to analyse the composition and characteristics of the sample data. According to Onwuegbuzie and Combs (2010, p. 400-401), descriptive statistics include measures of central tendency, measures of spread, skewness, and kurtosis. Thus, the purpose of descriptive statistics was to describe and summarise sample data and measures. In addition to descriptive statistics, inferential statistical analysis was used to test the hypotheses (i.e., to test whether there were any differences in opinions between the first, second and third year student teachers’ concerns during teaching practicum), and to make statistical generalisations about the population and assigning probabilities to predictions based on the findings from the sample (Onwuegbuzie & Combs, 2010, p. 401).

A thematic approach was used in the analysis of qualitative data and it involved uncovering patterns, themes and meanings that emerged from the pre-service teachers’ experiences during teaching practice from the in-depth interviews (Bernard & Ryan, 2010, pp. 287-289; Braun & Clarke, 2006, p. 79).

1.11.4 Pilot study

Prior to using both instruments a pilot study was conducted at another institution offering the 2-5-2 programme. The purpose of the pilot study was to identify flaws in the research instruments, improve the items, format and scale the items before they were used in the actual collection of data, and to enhance the validity and reliability of the instruments.
1.12 VALIDITY AND RELIABILITY

The value and practicability of research is determined mainly by the methods used, quality of data collected and analysis employed; which is the validity and reliability of the research. Kirkhart (2005, p. 30) defines validity as “an overall judgement of the adequacy and appropriateness of evaluation-based inferences and actions and their respective consequences”. Risks of bias in this study were minimised by using mixed methods and utilising respondent validation where interview transcripts were returned to the interviewees for confirmation and amendment (Scott & Morrison, 2006, p. 252).

The second dimension of research trustworthiness was reliability which is an indicator of consistency of one’s research design to yield similar results by independent researchers with different populations (Scott and Morrison, 2006, p. 208). To ensure reliability, the researcher employed meticulous instrument design and piloting of all data collection instruments.

1.13 ETHICAL CONSIDERATIONS

Ethics in research determine the working relationship between the researcher, participants, and the community at large (Creswell, 2014, pp. 92-95). Prior to the commencement of data collection, the researcher obtained ethical approval from Nelson Mandela University (NMMU) Research Ethical Committee (Human), approval from concerned education sectors in Zimbabwe (Ministry of Higher and Tertiary Education (MHTE), Ministry of Education, Sport, Arts and Culture (MESAC)), approval from United College of Education (UCE) management, and the consent from the participants who were involved in the study (see appendices A-J). Additional verbal permission was also sought from principals of schools and mentors where student teachers were stationed during the teaching practice for the researcher to conduct the interviews. The interests of each participant were well protected before, during and after research. All participants were made aware of the researcher’s intentions of the study and the inherent risks associated with participating in such a research project. Each participant was required to sign a consent form in which they acknowledged that they were aware of the type of data to be collected and its use in this study, how they were expected to participate, and how it would directly or indirectly affect them. On no account were the participants coerced before, during and after the research to engage in any activity that they were not comfortable with. To ensure anonymity, respondents did not write
their names on the questionnaires and pseudonyms were used for the interviews. Explanatory memos and pre-interview briefings were also some of the ways in which the researcher tried to gain informed consent from participants during the interviews. In addition, prior to each interview, the researcher reminded each participant of their right to withdraw from the study without penalty.

1.14 LIMITATIONS AND DELIMITATIONS OF THE STUDY

1.14.1 Limitations of the study

Like all research method designs, some limitations including potential areas of bias, errors, and subjectivity were identified within the research design. Since this study was a mixed methods case study, the findings of this study were only restricted to UCE. The small size of the sample that was used during the qualitative phase and the corresponding method of selection of participants had some limitations and elements of bias. No attempt was made to generalise the findings to other institutions except for the UCE population.

1.14.2 Delimitations of the study

This study was delimited to UCE, one of the institutions offering the 2-5-2 programme located in the city of Bulawayo south west of Zimbabwe. Only participants who were teaching in the Bulawayo Province were included in the study. Secondly, the study was delimited to concerns that pre-service teachers experienced as teachers during teaching practicum. Lastly, the study was delimited to pre-service teachers in the 2-5-2 programme in Zimbabwe.

1.15 SUMMARY

This chapter provided a concise, but detailed account of the research background, the statement of problem, aims and objectives and research questions. It also provided an outline of the concurrent mixed methods research design and explained why pragmatism was adopted as the worldview. The collection of data by means of both the closed-ended questionnaire and in-depth individual interviews and the data analysis procedures were
explained. Subsequently, the delimitations and limitations of the research design, and ethical considerations were discussed.

Chapter Two will focus on a relevant literature review associated with pre-service teachers’ concerns on teaching practicum and its interplay with learning theories, content knowledge, pedagogical knowledge and pedagogical content knowledge within the context of pre-service teaching practice.
CHAPTER TWO

PERSPECTIVES ON PRE-SERVICE TEACHERS TEACHING PRACTICUM EXPERIENCES

2.1. INTRODUCTION

In the previous chapter the introduction and background to the study were presented. The focus of this chapter is on a theoretical framework that undergirds this study. Relevant literature on teachers’ concerns will also be presented. In order to develop a logical argument, this chapter is organised as follows: learning theories in teacher education, teacher beliefs, teacher knowledge and teachers’ concerns. This extensive review of the literature will contribute to an understanding of some of the physiological and emotional states that pre-service teachers experience during teaching practicum. This study sought to understand the concerns of Zimbabwean pre-service teachers as they learn how to teach in a classroom situation with the intention of developing a framework that could be used to address pre-service teachers’ concerns. Literature on teacher professional development indicates that concerns are influenced by a number of behavioural traits that include; beliefs, knowledge base, and teaching skills that student teachers bring with them into teacher education courses. In order to fully comprehend how pre-service teachers’ behaviour could be modified, it was necessary to provide a brief review of teacher education learning theories. Knowledge of learning theories provided some insight into how pre-service teachers learn and how to create an enabling environment for their professional development during teaching practicum.

2.2. LEARNING THEORIES IN TEACHER EDUCATION

Numerous theories of learning exist on how teachers learn. For the purposes of this study the researcher opted for the social cognitive and social constructivist theories because they explain teacher learning in the 2-5-2 programme much better. The process of learning how to teach was seen as having both social cognitive and social constructive dimensions, therefore, these strands of cognitivism and constructivism were explored in depth in the next section. The two theories are similar to some extent as they share a number of underlying
assumptions and epistemological positions. For example, the central tenet of these two learning theories is that individuals generate new knowledge, skills and meaning from interactions of what they know and believe, events and activities with which they come in contact, and through their social engagements (Seifert & Sutton, 2009, p. 34; Ultanir, 2012, p. 202). However, the two learning theories have their own differences, hence the need to marry the two in this study. Social cognitive theory was viewed as stressing more on the mechanism of intellectual development and acquisition of knowledge (Bandura, 1999, pp. 21, 24). On the other hand, social constructivist theory was conceptualised as emphasising the importance of culture, language, and social structure in understanding what occurs in society and social interactions in the construction of knowledge (Powell & Kalina, 2009, p. 245; Vygotsky, 1978, p. 25). Thus, the two learning theories provide a robust and comprehensive explanation, prediction and understanding of pre-service teachers’ concerns during teaching practicum.

2.2.1. Social cognitive theory

According to Goddard (2003, p. 185) and Luszczynska & Schwarzer (2005, p. 128) social cognitive theory is concerned primarily with ways that people exercise control over their lives. Historically, social cognitive theory grew out of the discontentment with the theory of behaviourism which assumes that all behaviour is a result of external stimuli and not internal mental processes. Early cognitivists like Edwin Holt, Harold Brown, Neal Miller, John Dollard and Noam Chomsky believed that individuals are self-regulating, proactive, self-reflective and self-organising organisms in addition to being reactive shaped and shepherded by inner and/ or external forces (Feist & Feist, 2009, p. 486). Social cognitive constructivism is linked to the prominent works of Piaget, Bruner and Ausubel. Social cognitivists believe that knowledge is actively constructed in an individuals’ mind and not directly transferred from tutor to student or through social interactions in their environment (Liu & Matthews, 2005, p. 387; Seifert & Sutton, 2009, p. 34). In other words, social cognitivists emphasise the belief that learning should be learner centred and that it must include discovery learning activities that enable learners to construct and reconstruct knowledge as they interact with the environment.

Jean Piaget, who was one of the leading scholars of cognitivism, introduced his cognitive development theory. Although much of Piaget’s work has been used mainly to explain
behaviour in young children, it has implications in the teaching and learning of pre-service teachers especially in terms of the concepts of assimilation and accommodation. Assimilation is a process whereby new knowledge is integrated into pre-existing beliefs, while accommodation occurs when new knowledge cannot be assimilated and pre-existing beliefs must be replaced or reconstructed (Gurbuzturk & Sad, 2009, p. 201). Later social cognitivists like Albert Bandura believed that learning is an internal process that stems from mental activities such as memory, motivation, reflection and thinking (Bandura, 1993, p. 118). In addition, social cognitivists claim that human behaviour is learned through observation of other people’s behaviour (Ormrod, 2006, p. 330; Bandura, 1977b, p. 23). In other words, learners, like pre-service teachers, are social beings who learn how to teach from observation in their social environments with guidance from knowledgeable experts. In this sense teaching and learning are seen as an interaction between the teacher’s cognitive, behavioural and environmental factors (Gibbs, 2003, p. 4). This phenomenon of reciprocal determinism is illustrated in Figure 1 below.

Figure 1: Reciprocal determinism

Adapted: Bandura (1986, p. 24)

When the phenomenon of reciprocal determinism is applied to teacher education, teachers can be viewed as both agents of change and responders to change. In other words, the
reciprocity influences of these factors make teachers both producers and products of their environment. Furthermore, cognitive psychologists claim that the concepts that pre-service teachers know and use automatically are learned through what they termed observational learning in which student teachers observe new behaviours from their mentors and integrate them with the knowledge that they already have (Miller, 2011, p. 235). In simple terms, pre-service teachers learn from social connections they have with significant others in their professional lives. Therefore, learning to teach is more than just imitating the good behaviour of a mentor, but also involves complex processes of balancing behaviour, personal, and environmental factors.

2.2.2. Social constructivism theory

Social constructivism, a component of constructivism, maintains that knowledge is constructed as individuals interact with others as well. Major contributors to the constructivist theory include John Dewey, Jean Piaget, Seymour Papert, Lev Vygotsky and Jerome Bruner to mention a few. The basic assumption of constructivism is that learners (including pre-service teachers) are not empty vessels to be filled with knowledge but they construct their own knowledge based on their beliefs and what they already know (Prawat, 1992, p. 355; Richardson, 2003, pp. 1623-1624; Salkind, 2008, p. 182). Social constructivists claim that knowledge, behaviour and personality exist in a social context where it is shared with others instead of being represented in the minds of individuals (Ultanir, 2012, p. 202; Phillips, 2000, p. 6). That is, knowledge must be grounded in the social values, history, language, religions and culture by which the learner acquires and understands the world. From this, the researcher concluded that pre-service teachers learning from the socio-constructive perspective can be enhanced through social and cultural interactions with significant others in teacher education. Such engagements afford pre-service teachers the opportunity to express and critique both their own viewpoints and those of their peers and instructors. This indicates that the socio-constructivism has relevance to teacher education.

Lev Semyonovich Vygotsky, one of the gurus of social constructivism, believed that social interaction is a fundamental agent for human development. The Vygotskyian perspective of human learning is that it is a social venture or collaborative activity where learners are transformed by cognitive tools provided for by their culture (Liu & Matthews, 2005, pp. 392-393; 396), history (Liu & Matthews, 2005, p. 396), language (Vygotsky, 1978, p. 25;
In teacher education, constructivism places pre-service teachers at the centre of the learning experience. In particular, social constructivists believe that pre-service teachers can gain knowledge through the process of interacting with their mentors, supervisors, peers and their environment. This implies that instructors are no longer sources or transferors of knowledge but facilitators or guides who provide temporal support to student teachers’ learning and then gradually fade into the background as they master the tasks beyond their abilities. Seifert and Sutton (2009, p. 34) and Wood, Bruner & Ross (1976, p. 90) referred to this temporal supporting role for a novice as scaffolding. Taber (2011, p. 52) also supports the use of scaffolding as a strategy that could be used to support learners to go beyond their current levels of expertise. Therefore, scaffolding can enable students to reach a higher level of achievement than they are able to reach on their own. In teacher education scaffolding can assist pre-service teachers to expand their knowledge as they are taken out of their comfort zones and forced to integrate their prior knowledge with new material and experiences.

The concept of scaffolding is linked to Vygotsky’s (1978) theoretical concept: the Zone of Proximal Development (ZPD) which is illustrated in Figure 2 on the next page. The three concentric circles in the diagram illustrate the Zone of Actual Development (ZAD), ZPD
and the Zone of No Development (ZND) for student teachers. The most important of these zones in the development of students’ skills is ZPD, which represents an area of potential growth or development beyond their current level of expertise (Vygotsky, 1978, p. 86). The primary role of mentors, college supervisors and peers in the ZPD will be to provide resources and support that will scaffold student teachers to reach higher levels of competency.

Taber (2011, p. 52) claims that Vygotsky’s (1978) notion of ZPD stresses two issues of relevance to teacher educators. Firstly, it highlights the importance of knowing the ZPD of the concerned pre-service teachers in addition to their current levels of knowledge or skill competency before any support can be offered. In other words, meaningful support and guidance should be pitched slightly above the current level of operation or understanding.

**Figure 2: Zone of proximal development**

<table>
<thead>
<tr>
<th>ZND: Zone of No Development; ZPD: Zone of Proximal Development; ZAD: Zone of Actual Development (ZAD) (Adapted: Taber 2011, p. 51)</th>
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<tr>
<td><strong>ZND</strong>: Beyond capability even with support</td>
</tr>
<tr>
<td><strong>ZPD</strong>: Beyond capability unaided, but possible with support</td>
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<tr>
<td><strong>ZAD</strong>: Current skills, knowledge and understanding</td>
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by Nakamura and Csikszentmihalyi’s (2002, p. 94) diagram explaining this zone. Graph 1 below shows the relationship between the level of challenge and the level of competency and how they affect the three zones. From the diagram, professional growth can only take place in the stretch zone (ZPD) where student teachers are excited, challenged, willing to take the risk and are expectant of learning new skill or knowledge. Support that is targeted at the ZAP or the comfort zone is seen as been boring, lifeless and unchallenging. On the other extreme end, support that targets the ZND (or the panic zone) creates fear, stress, frustration and tiredness. It is therefore imperative that mentors and college supervisors know their student teachers’ emotional, cognitive, social and physical needs so that they are able to provide appropriate support aimed at targeting student teachers’ ZPD.

Graph 1: Zone of proximal development – level of challenge and competence

![Diagram of Zone of Proximal Development](image)

Adapted: Nakamura and Csikszentmihalyi (2002, p. 94)

In Zimbabwe most colleges, if not all, train mentors to assist student teachers to take risks, make mistakes, and support them to acquire new skills. The question that remains is: Are the scaffolds that Zimbabwean pre-service teachers receive during teaching practicum within their ZPD? Interactions between student teachers and supervisors provide important clues on how and when student teachers should be supported. In addition to face-to-face communication, the development and use of information communication technologies such as electronic mail, short text messages, ‘WhatsApp’ and social networks has significantly altered the way student teachers access information and knowledge and communicate. Some researchers refer to this new development as the connectivism learning theory while others
prefer to view it as a modified strand of socio-constructivism.

The debate on whether connectivism (or distributed learning) should be considered as a new stand-alone learning theory or a modified strand of socio-constructivism is an ongoing one. Indeed, connectivism is historically linked to Lev Vygotsky’s social constructivism, Seymour Papert’s constructionism and Richard Clark’s theory of embodied active cognition. Connectivism theory was first proposed as a learning theory for the digital age by George Siemens. Siemens (2005, p. 3) felt that the traditional learning theories were built on the understanding that experience is the best teacher, that learning occurs inside a person (i.e. the learning that occurs in the individual’s brain) and that learners had sufficient prior knowledge for effective growth. However, he claimed that these theories have failed to acknowledge the learning that occurs outside a person (i.e. learning that is stored and manipulated by technology) or learning that comes from the experiences of other people. Siemens (2008, p. 10) also proposed that knowledge is networked or exists in networks and learning is the ability of an individual to identify links within a network, connect with others in the network or seek information within the network. Earlier on, Siemens (2005, p. 4) had identified the following eight pillars of connectivism:

- learning and knowledge rests in a diversity of opinions;
- learning is a process of connecting specialised nodes or information sources;
- learning may reside in non-human appliances;
- capacity to know more is more critical than what is currently known;
- nurturing and maintaining connections is needed to facilitate continual learning;
- ability to see connections between fields, ideas, and concepts is a core skill;
- currency is the intent of all connectivist learning activities;
- decision-making is it a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.

These pillars illustrate the potential that connectivism could play in learning in a digital era where students are becoming comfortable with the use of digital devices in learning.
Furthermore, connectivism posits that knowledge exists in networks and learning is largely a process of forming network connections which are not completely under the control of the learner (Siemens, 2005, p. 4). In other words, learning in the digital era is no longer entirely dependent on the individual or the people around them, but it is also distributed among artefacts like computers, web, internet, and networks. Indeed, technology has taken over some of the cognitive tasks of learners like storage and the retrieval of information. More specifically, Siemens (2005, p. 4) borrowed expressions from the chaos theory, networking and self-organisation to explain his theory. The chaos and complexity components of connectivism stem from the rapidly changing knowledge of core and diverse knowledge sources associated with networks.

Researchers seem to agree in defining a network as links between units or nodes that could be connected to create an integrated whole for example computer networks and social networks. According to Kop and Hill (2008, p. 2) nodes or learning communities stem from connections that exist within a network. Similarly, Barabasi (2002, p. 106) acknowledges that learning communities compete for connections because such links represent survival in a networked world. In teacher education, nodes can be mentors, teacher educators and pre-service teachers (including those in other programmes). Put simply, connectivism regards learning as a process that connects information sources. Therefore, in this study, connectivism was regarded as a modern extension of the socio-constructivism perspective where technology is utilised in the learning process and not as a stand-alone learning theory.

Recent advances in the electronic industry as pointed out by Zaka (2013, pp. 32, 37) have ushered in enormous volumes of information and knowledge available for use or sharing in teacher education. These technological developments in information communication technologies have considerably altered the way pre-service teachers access information, acquire knowledge and use it in their classrooms. It has also changed the way teacher educators design their learning activities and support student teachers during teaching practicum in schools in other teacher programmes.

Despite the differences between cognitivism and constructivism (or connectivism), literature acknowledges that they have their own common ground. Firstly, they both believe that learners are constructors of their own cognitive tools and external realities (Richardson, 2003, p. 1625). In other words, learning is not a passive process but an active one where
learners are actively engaged in knowledge construction. Secondly, they believe that knowledge and external realities are constructed and reconstructed continuously through personal experience (Ultanir, 2012, p. 199). To fully understand how concerns during teaching practicum arise, influence behaviour and why it necessary to address them, it is critical to explain the role of teachers’ beliefs and knowledge in the learning process of pre-service teachers.

2.3.  TEACHERS’ BELIEFS AND SELF EFFICACY

The beliefs that student teachers hold about what constitutes teaching and learning are important in understanding their concerns and their ability to cope in the midst of challenges during teaching practicum including the form of support they need to move from just merely surviving to becoming confident and efficient teachers. However, before discussing the influence of teachers’ beliefs further on learning how to teach, it is also important to understand the term beliefs in an educational context. A review of educational literature indicates that there is no universally agreed upon definition of what beliefs are and this makes the study of teachers’ beliefs complex (Pajares, 1992, p. 307). For example, Richardson (1996, p. 103) analysed definitions of beliefs from anthropological, social, psychological and philosophical perspectives and found that there is reasonable agreement among these three fields. In teacher education, beliefs are opinions or judgments and evaluations that pre-service teachers have relating to their teaching and learning, and the world around them (Haney et al., 2003, p. 367; Gibbs, 2003, p. 1; Pajares, 1992, pp. 314). For example, all pre-service teachers hold beliefs relating to their teaching, learners, subject content matter, pedagogical skills, and roles and responsibilities during teaching practicum. Hence, beliefs have an influence on how pre-service teachers’ conduct themselves in the classroom, shape their confidence and grow professionally. In addition, beliefs hold the key to understanding the practice of pre-service teachers’ concerns during teaching practicum. One form of teachers’ beliefs that have been proposed to influence teachers’ attitudes and behaviour in the classroom is self-efficacy beliefs.

2.3.1. Teachers’ self-efficacy

Close to thirty years ago, Albert Bandura introduced the concept of self-efficacy. In general, self-efficacy refers to one’s perceived belief relating to one’s capacity to overcome certain
challenges which may not necessarily correspond with one’s actual competency level (Cubukcu, 2008, p. 149; Gibbs, 2003, p. 3; Bandura, 1997, p. 3). In teacher education, self-efficacy is related to how pre-service teachers feel about and behave towards their job. Both Pajares (1992, p. 307) and Gordon (2001, p. 5) agree that teachers’ self-efficacy is an indicator of pre-service teachers’ effectiveness in the classroom. The development of teacher self-efficacy is linked to the works of Julian Rotter’s locus of control theory and Albert Bandura’s social cognitive theory. The social cognitive theory identified teachers’ self-efficacy as a derivative of social cognitive process in which teachers shape beliefs about their own capacity to perform at a given level of competence (Henson, 2001, p. 3). Therefore, teacher self-efficacy can be conceptualised as a measure of the level of confidence that a teacher has in performing a set of teaching tasks and the ability to persist in that action despite the concerns that they are facing (Henson, 2001, p. 7; Tschannen-Moran & Woolfolk-Hoy, 2001, p. 783). The levels of confidence cover a wide range of educational outcomes such as teacher enthusiasm, motivation, commitment and resilience; and learner instructional behaviour and achievement.

The study of self-efficacy in teacher education highlights the importance of knowing the ability levels of pre-service teachers and their beliefs that they can overcome their teaching practicum concerns. The study of self-efficacy is equally important to teacher educators as it offers them knowledge about the psychological states of their students and how best they can be motivate to learn. Teacher self-efficacy has been considered as a more reliable predictor of behavioural outcomes than any other motivational constructs (Henson, 2001, p. 3; Gibbs, 2003, p. 3; Ashton, 1984, p. 28; Bandura, 1977, p. 206) and it has also been associated with teacher adoption of innovations, ratings of teacher competencies, classroom management strategies, learner motivation and achievement and professional development and teacher training (Ormrod, 2006, p. 341; Gibbs, 2003, p. 3; Gibson & Dembo, 1984, pp. 569-570). For example, when a teacher’s perceived self-efficacy is high, they demonstrate more effort, set high goals for themselves and are more persistent and resilient to overcome their obstacles. Conversely, when a teacher’s perceived self-efficacy is low, they generally exercise less effort, set low targets, give up easily when they have concerns and are less likely open to new ideas or to experiment with new methods.

Research in teacher education has also provided increasing evidence that teachers’ sense of self-efficacy plays a critical role in influencing their learners’ motivation and academic
performance. Pupils’ efficacy beliefs on their school work largely depend on the quality of self-efficacy beliefs held by their teachers. In the case of teacher education, pre-service teachers buy into their supervisors’ belief system (Cubukcu, 2008, pp. 151-152). Midgley, Feldlaufer and Eccles (1989, pp. 251-252) also argue that efficacious teachers had very strong beliefs that enabled them to bring about positive changes in their learners’ learning and attitudes. This possibly explains why some researchers like Ormrod (2006, p. 341) support pre-service teachers who over-estimate their efficacy levels as they view it as having a positive effect on the development of their self-efficacy levels. On the contrary, Bandura (1986, p. 394) believed that having high self-efficacy levels among pre-service teachers can be dangerous as they are less likely to try tough tasks that help them develop new skills and abilities. There are positive and negative effects on both sides of the coin and what is critical is for teacher educators to be aware of the strategies for enhancing the self-efficacy levels of student teachers during teaching practicum.

2.3.2. Sources of teachers’ self-efficacy

In proposing his theory on social cognitive theory, Bandura (1977b) highlighted factors that could be used to enhance a change in teachers’ self-efficacy. These include performance accomplishments or mastery experiences, vicarious experiences, social persuasions and physiological states or emotional arousal (Bandura, 1977b, p. 195). Figure 3 on the next page illustrates the pictorial view of Bandura’s (1977) model of the factors that could enhance changes in teacher beliefs and how they could be developed.

Recent studies on self-efficacy changes have also revealed that performance accomplishments or mastery experiences have the most powerful influence on perceived self-efficacy as they provide direct feedback on an individual’s capabilities (Shaukat & Iqbal, 2012, p. 82). Every teacher experiences certain levels of success in their daily activities. For instance, Shaukat & Iqbal (2012, p. 82) and Woolfolk-Hoy & Spero’s (2005, p. 345) noted that a successful accomplishment of a task promotes pre-service teachers’ classroom self-efficacy beliefs and failure lowers it. Similarly, Harreveld (2010, p. 49) found that communication and collaborative learning provides opportunities for teachers to change their efficacy beliefs as learners by recognising and respecting the strengths and weaknesses of their co-workers. Therefore, if pre-service teachers’ beliefs are shaped and developed through experience, it would be reasonable to deduce that changes in beliefs are also shaped
by experiences. To sum up, one can conclude that both positive and negative experiences influence teachers’ efficacy levels, but not to the same extent.

**Figure 3: Efficacy Expectation**

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>MODE OF INDUCTION</th>
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<td>Adapted: Bandura (1977, p. 195)</td>
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Social cognitive theorists argue that pre-service teachers can learn by observing the behaviours of their professional models (Ormrod, 2006, p. 330; Bandura, 1977b, p. 23) or through vicarious experiences. For example, pre-service teachers may observe their mentor or peers using effective practices and may feel more confident that, through its use, they could be more successful in their teaching. Hendry and Oliver (2012, pp. 4-6) noted that peer observations among educators enabled them to acquire new teaching skills and receive comprehensive feedback which ultimately enhanced their self-efficacy. In the same vein, some of the pre-service teachers were found to model their previous teachers whom they had observed over a number of years (Kagan, 1992, p. 154). Interestingly, Ormrod (2006, p. 330) posits that lesson observations may not necessarily lead to a behavioural change in pre-service teachers as learning to teach is an internal and complicated process that is also self-regulatory. However, it is generally accepted that lesson observations are beneficial to
student teachers as they provide tangible examples on how to teach a concept or topic. Observations also afford pre-service teachers an opportunity to reflect on their beliefs and behaviours and those of other teachers in their lives. More importantly, lesson observations provide opportunities in which the pre-service teachers’ concerns can be addressed. The act of reflection affords student teachers opportunities to make connections between their thoughts and actions and to identify and confront their own contradictions. Therefore, if their behaviour falls short of their performance standard, it will be evaluated negatively and discarded. Hence, pre-service teachers should be encouraged to become reflective practitioners in order to develop their practice beyond the mechanical mode.

Constructivists also acknowledge that pre-service teachers hold beliefs and experiences relating to learning and teaching long before they commence their teacher education studies. This implies that the socialisation of student teachers into teaching begins at home and then further increases during formal schooling. Kroll (2004, p. 200) also argues that student teachers bring with them vast experiences of teaching from the time they were in primary school. Therefore, learning to teach is an active and complex process that involves individuals constructing and reconstructing their own knowledge and not becoming passive recipients of information (Ultanir, 2012, pp. 196-197). This means that both trainee teachers and instructors have different roles from the traditional behaviourist roles. For example, instructors are considered as facilitators in the learning process and not as sources of knowledge, while student teachers will make sense of what they are taught using their prior experiences (Taber, 2011, pp. 55, 57).

Pre-service teachers can also learn through social persuasion (including verbal persuasion) offered after some teaching tasks. During teaching practicum, verbal persuasion can be offered during post-lesson discussions when either mentors, peers or supervisors provide specific and positive feedback and encouragement on ways to improve a student teacher’s practice (Oh, 2010, pp. 4, 13). Verbal persuasion can also be given during group discussion or workshops or after a lesson observation. For example, if student teachers’ supervisors, mentors or peers are able to persuade them verbally that they possess the capabilities to overcome specific difficulties they are more likely to mobilise greater effort and to persist longer when confronting their concerns. In cases where such persuasion is conducted in a cordial manner, pre-service teachers are able to open up and share their concerns with their mentor or college tutor without fear of reprisal. This indicates that feedback or verbal
persuasion is crucial in the professional development of pre-service teachers’ self-efficacy provided it is administered appropriately and timely. Karimi and Ahmad (2013, p. 198), Mahroiean and Forozia (2012, p. 304), and Tubaishat and Lansari (2011, p. 210) also echo the same sentiments that verbal persuasion should be provided timely or it may fail to influence pre-service teachers’ self-efficacy beliefs. In addition, the social status of the source of the persuasion may determine the extent to which the support is received. Mulholland and Wallace (2001, p. 244) noticed that the influence of social persuasion largely depended on the perceived trustworthiness of the instructors, including their status, expertise, and confidence. This means that verbal persuasion, on its own, may be limited in its ability to change the belief systems of pre-service teachers.

The last factor that Bandura (1977a, p. 195) proposed that could positively influence teacher self-efficacy is physiological states or emotional arousal. It is generally accepted that teaching is an emotional practice and that all pre-service teachers experience tension or stress between their beliefs and their actions in the practice of their teaching (Hargreaves, 1998, p. 850; Kagan, 1992, pp. 163-164). The journey to learn how to teach and the practice of teaching is filled with affective factors such as fatigue, stress, anxiety, concerns and excitement. These physiological and emotional states that pre-service teachers face provide information about their self-efficacy beliefs and can boost or diminish their feelings about their sense of proficiency. It is clear from these studies that pre-service teachers’ efficacy and teaching concerns are not directly related. Smith, Corkery and Calvent (2013, p. 71) concluded that teaching efficacy and teaching concerns are not exchangeable, but are inversely correlated. In other words, when teaching concerns decrease, teaching efficacy increases and vice-versa. Hence, the drive to reduce student teachers’ concerns and the mutation of negative states to positive ones play an influential role in modifying perceived self-efficacy beliefs of pre-service teachers. The aim of this mixed methods case study is to identify and examine pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe and also to formulate a framework that could be used to support pre-service teachers during this critical period.

2.4. CHANGES IN TEACHER EFFICACY BELIEFS

Researchers on efficacy beliefs show that teachers’ beliefs are not stagnant but that they are created and recreated through cultural and social interactions (Pajares, 1992, p. 316).
Similarly, Woolfolk-Hoy and Spero (2005, pp. 344, 346) and Pajares (1992, p. 317) also speculated that teacher efficacy beliefs are malleable during pre-service and appear to be somewhat resistant to change for experienced teachers as they become comfortable with their beliefs. Mulholland and Wallace (2001, p. 243) also observed that a majority of the positive changes on the teachers’ sense of teacher efficacy occur during pre-service teaching practicum and some during the induction year. Thus, the first years of teaching (which commence during teaching practicum) could be critical to the development of the self-efficacy of teachers.

Although teachers’ beliefs about teaching and learning appear to be resistant to change, Pajares (1992, p. 321) believed that change is easier with new beliefs and that change in beliefs follows change in behaviour. This would imply that pre-service teachers’ practice during teaching practicum may lead to change in their beliefs relating to their learning and teaching. Posner, Strike, Hewson and Gertzog (1982) proposed a model of conceptual change based on Piaget’s concept of assimilation and accommodation. Although both processes have been known to alter teacher beliefs, accommodation requires a greater alteration of pre-existing beliefs than assimilation. According to Posner et al., (1982, p. 220) individuals can only accommodate new beliefs provided their old beliefs encounter difficulties and the new beliefs are able to resolve the difficulties. Additionally, Bandura (1997, p. 82) claims that positive changes in self-efficacy are a result of powerful disruptions to pre-existing belief system of an individual. Such disruptions can occur where pre-service teachers’ beliefs are challenged and corrected during teaching practicum assessment. Thus for change to occur, there must be some destruction of beliefs before new ones can be constructed. The process of destruction and reconstruction can create anxiety, tension, concerns and depression among student teachers (Woods, 1996, p. 293). This is where the support of knowledgeable mentors and supervisors are needed to scaffold student teachers’ practice beyond their zone of proximal development. Collectively, these findings suggest that teaching practicum sessions in schools could be the most appropriate time to develop pre-service teachers’ self-efficacy as they have more opportunities for their practice to be critiqued and corrected.

Woolfolk-Hoy and Spero (2005) conducted a study in which they explored the changes in teachers’ efficacy levels at three stages of a teacher education programme: during the first quarter of their initial preparation programme, at the end of preparation programme after
their teaching practicum and at the end of their first year of teaching. Fifty-three participants were asked to complete three instruments that yielded four measures of self-efficacy, namely: Bandura Teachers’ Self-Efficacy Scale; Ohio State University (OSU) Teacher Confidence Scale; and Gibson and Dembo’s instrument that provided two measures of efficacy, personal teaching efficacy (PTE) and general teaching efficacy (GTE) (Woolfolk-Hoy & Spero, 2005, pp. 349-349). Findings from the study showed a similar pattern among the efficacy scales during the three phases of teacher experience. Self-efficacy levels generally went up during teaching practicum and went down during actual teaching. Graph 2 below shows the variations of the mean scores of the four scales during the three phases.

Graph 2: Efficacy scores on four measures at three phases of teaching experience

![Graph 2: Efficacy scores on four measures at three phases of teaching experience](image)

Bandura scale range: 1-9; OSU, PTE & GTE range: 1-6
Adapted: Woolfolk-Hoy and Spero (2005, p. 351)

Woolfolk-Hoy and Spero (2005, p. 351) observed that all four measures show a general increase in self-efficacy from the beginning of the programme to the end of teaching practice and a decline from the end of teaching practice to the end of the first year of teaching (except for the OSU scale that remained constant). The increase in self-efficacy levels was attributed to support that pre-service teachers received during teaching practice.

In a later and related study entitled: *A cross sectional study of pre-service teacher efficacy throughout the training years*, Woodcock (2011, p. 26) administered Hoy and Woolfolk-Hoy’s (1993) 10-item Teacher Efficacy Scale to 467 pre-service teachers training to become primary and secondary school teachers at the beginning and at the end of their courses.
respectively. Graph 3 below illustrates the mean scores of GTE (Primary), GTE (Secondary), PTE (Primary) and PTE (Secondary) at the beginning and at the end of the training course. Woodcock (2011, p. 27) detected the following changes in pre-service teachers’ efficacy levels during the study:

- primary school teachers had a higher level of GTE than their secondary school counterparts at the beginning of their training course;
- there were no major differences in PTE levels between primary and secondary school teachers at the beginning of their training courses;
- the PTE level for primary school teachers did not change much during the course but it decreased during the same period for secondary school teachers;
- the GTE level for primary school teachers remained fairly stable during the course but it increased during the same period for secondary school teachers.

**Graph 3: Pre-service teachers’ course influence**

![Graph 3](image)

Adapted: Woodcock (2011, pp. 27-29)

On the whole, the results seem to suggest that there are no major changes in GTE and PTE levels for primary school pre-service teachers during their training while GTE levels for secondary pre-service teachers increased during training and their PTE levels dropped considerably during their training (Woodcock, 2011, p. 30). These findings from Woodcock’s (2011, p. 29) study suggest that teacher education courses can significantly increase secondary school teachers’ beliefs to influence learners’ family background,
discipline and motivation. In spite of their positive influence on GTE levels, teacher education courses seem to decrease secondary school pre-service teachers’ beliefs to reach the most difficult students, assess the difficulty of the task and reach the most unmotivated students.

Findings from these two studies illustrate how and what causes changes in the self-efficacy levels of teachers in general and some of the challenges that researchers have with the variation of teacher self-efficacy during training. It is clear that pre-service teachers’ beliefs about the nature of learning, teaching, and knowledge change across time as they become more experienced or influenced by teacher education courses. However, some researchers believe that teacher education courses have no effect on the pre-service teachers’ efficacy levels (Woodcock, 2011, p. 30). To the contrary, other researchers, are of the opinion that teacher education courses may exert some positive influence on pre-service teachers’ efficacy levels. For example, while Woodcock (2011, p. 30) and Woolfolk-Hoy & Spero (2005, pp. 343-345) observed that teacher education courses enhance efficacy levels among pre-service teachers. Woodcock (2011, p. 30) also found that teacher efficacy levels may decrease as teachers gain experience.

2.5. TEACHER KNOWLEDGE AND EFFICACY

Studies on teacher education have intimated that learning to teach is a complex endeavour that requires diverse forms of knowledge to function effectively during teaching practicum. Shulman (1986, pp. 7-10) classified teachers’ knowledge into three distinct categories: teachers’ content matter knowledge (CK); teachers’ curricular knowledge; and the teachers’ pedagogical content knowledge (PCK). In his later works, Shulman (1987, p. 8) produced a detailed list of the teacher knowledge domains that included CK, PCK, general pedagogical knowledge, curriculum knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and knowledge of educational ends, purpose and values. Of the numerous forms of knowledge that pre-service teachers need to know, the main ones are CK, curriculum knowledge, pedagogical knowledge and most importantly PCK. Figure 4 on the next page shows one of the models of teacher knowledge that was suggested by Grossman (1990, p. 5). The model shows how subject matter knowledge, general pedagogical knowledge, pedagogical content knowledge and knowledge of the context are inextricably linked and dependent on each other. Subject content knowledge or subject-
matter knowledge covers the body of knowledge that teachers are expected to teach or what learners have to learn in a specific subject.

**Figure 4: Teacher knowledge model**

![Teacher knowledge model diagram]

Adapted: Grossman (1990, p. 5)

From Figure 4 above, general pedagogical knowledge is portrayed as mainly consisting of knowledge of learning and learners, classroom management and curriculum and instruction. This understanding depicts general pedagogical knowledge as knowledge that encompasses planning and organisation of lessons and teaching methods. Figure 5 on the next page further elaborates on the key facets that influence pedagogical knowledge. According to Morine-Dershimer and Kent (1999, p. 23) classroom management and organisation, classroom communication and discourse and teacher reflection are the primary facets of general pedagogical knowledge. In addition, Figure 5 (on the next page), also highlights the relationship between general pedagogical knowledge and personal pedagogical knowledge which is acquired from personal beliefs, attitudes and practical experience. Ho and Toh (2000, p. 272) also claim that teacher knowledge is intricately linked to teachers’ beliefs about their knowledge and practice. From this discussion, the researcher was able to conclude that teacher knowledge and beliefs are related and they have a significant impact on classroom practice.
In addition to the subject matter knowledge and general pedagogical knowledge, teachers need PCK, a unique and tacit knowledge that they use in the teaching process (Kind, 2009, p. 270). There are many perspectives about what constitutes PCK and the debate has been on going with each perception emphasising a different quality, attribute or context. However, central to most definitions of PCK, is that it is the knowledge that teachers need to make the subject matter accessible to pupils (Kleickmann et al., 2013, p. 91). Shulman (1986, p. 9) also argues that PCK is a form of knowledge that focusses on the content to be taught, learners, learning theories, and pedagogy that enables teachers to teach particular content to particular learners. PCK also covers aspects of what makes a particular learning area easy or difficulty to understand including remediation (Carlsen, 1999, p. 136; Kleickmann et al., 2013, p. 91). Figure 6 on the next page illustrates the categories identified by Morine-Dershimer and Kent (1999, p. 22) as contributing to PCK. The model conceptualises PCK as having six main categories: knowledge of learners and learning; knowledge of specific contexts; content knowledge; curriculum knowledge; knowledge of the educational ends, goals purposes and values linked to knowledge of assessment procedures; and pedagogical knowledge. In simple terms, PCK was conceptualised as the integrative combination of subject content knowledge, general pedagogical knowledge and contextual knowledge that Zimbabwean pre-service teachers need to implement in the primary school curriculum.
The above discussion shows that all components of teacher knowledge are important and need to be developed separately for student teachers to execute their roles confidently. The discussion also indicates that self-efficacy beliefs and teacher knowledge are intertwined and that they influence pre-service teachers’ learning and ultimately their effectiveness in the classroom (McDonough & Matkins, 2010, p. 14; Riese & Reinhold, 2010, pp. 79-80). For instance, teachers plans are a representation of the belief systems they have about teaching and learning, and are a manifestation of the knowledge they possess (Pajares 1992, p. 325). Hence the importance of including PCK in teacher education programmes, content knowledge and pedagogical skills (McDonough & Matkins, 2010, p. 14).

2.6. PRE-SERVICE TEACHERS’ CONCERNS MODEL

One of the major contributors to the study of pre-service teachers’ concerns was Frances Fuller who defined teachers’ concerns as supposedly challenges or anxieties that teachers face in their line of duties as classroom practitioners such as maintaining discipline, inadequate resources, negative attitudes by parents and a lack of subject-matter (Fuller, 1969, p. 209). Cubukcu (2008, p. 149) concurs and also noted that teacher anxiety occurs in many
forms like emotional feelings of worry, fear and apprehension. In this study, a concern will be taken as any matter of interest to a student teacher which at the same time is a source of worry, distress, burden, unhappiness, uneasiness, anxiety or stress (Abebe & Mariam, 2011, p. 65; Danner, 2014, p. 65; Kyriacou, 2001, p.28).

In his pre-service Teachers’ Concerns’ Model, Fuller (1969, p. 218) proposed that pre-service teachers traverse three phases of concerns: a pre-teaching phase, an early teaching phase and a late teaching phase. The first or pre-teaching phase takes place before practicum and is not related to teaching at all, but one of self-protection. Any concerns that pre-service teachers may have at this stage could best be described as “vague and difficult to classify” as they were issues not directly linked to classroom teaching for example academic performance, conflict with peers or rumours they had heard from the field about classroom teaching (Fuller, 1969, p. 219). Put simply, during this phase pre-service teachers are not certain of their concerns as classroom practitioners, but more as teacher education students. Pre-service teachers’ concerns may include ideas such as “It doesn’t work”, “It works but I can’t do it” or “I can’t do it, and it doesn’t work anyway, so why learn it” (Wheatley, 2005, p. 750). However, Cooper and He (2012, p. 99) found that prior to teaching practicum student teachers were concerned with various teaching aspects such as lesson delivery, classroom management, learner diversity and effectiveness of instructions – a phase that Fuller (1969, p. 220) classified as the second. This shows that these phases are not clearly demarcated but contain transition phases that may include both phases.

The other two phases of teachers’ concerns sequentially follow each other during practicum. The second or early teaching phase commences when pre-service teachers are on teaching practicum and during this stage, their foremost concern will be on the self as a professional (Stair et al., 2012, p. 153). According to Fuller (1969, p. 220), concerns at this stage consist of covert concerns, because they are only expressed during confidential interviews and overt concerns as they are not in written form. Therefore, during this stage, student teachers are covertly concerned about the support they received from the school community or college supervisors and their outlook as professionals. They were also overtly concerned about their abilities in the classroom like their knowledge of subject matter, lesson presentation, classroom management and coping with the pressure of being evaluated by supervisors (Fuller, 1969, pp. 220-221). The third or impact phase also starts during teaching practicum as pre-service teachers’ concerns shift from self to that of their learners. At this stage pre-
service teachers become concerned about their abilities to understand learner capabilities, state learner objectives, assess learner gains and conduct self-evaluation in view of learner gains (Fuller, 1969, p. 221).

Six years later after Frances Fuller’s initial suggestion on pre-service teachers’ concerns model, Fuller and Bown presented a modified model in which they proposed that teachers at different stages of their professional development, experience unique concerns in the classroom. The three phases were: survival or self-concerns, teaching situation or task concerns and pupils or impact concerns (Fuller & Brown, 1975, pp. 37-39). The first stages of the two models are similar in that the concerns of teachers at this phase are vague and they are mainly linked to their experiences as students and rarely as teachers. In the survival concerns phase of Fuller and Brown’s (1975) model, pre-service teachers experience concerns for ‘self’ and ‘one’s adequacy and survival as a teacher, about class control, about being liked by pupils, about supervisors’ opinions, about being observed, evaluated, praised and failed’ (p. 37). Contact with learners in a classroom brings in a new set of concerns for the pre-service teacher like mastery of subject content, creation of appropriate learning space, class control and evaluation. At this stage, student teachers have doubts relating to their teaching abilities and they generally lack confidence in their work. As they move away from abstract concerns of teaching and focus on self as teachers, student teachers gradually enter the second stage.

Just like in the initial teachers’ concerns model, the second and the third phases follow each other sequentially with a transitional phase in between. The second phase ushers in concerns about teaching and not just survival concerns. At this stage, teachers are not just concerned about themselves, but also about limitations and frustrations of teaching and the demands of teaching (Fuller & Brown, 1975, p. 39). They no longer worry about subject content but on how best to transmit it to their learners. As the focus of teachers’ concerns shift from self to learners, the pre-service teachers graduate to the third or the impact phase where their major concerns are on learners’ academic and emotional needs (Fuller & Bown, 1975, p. 39).

Both Fuller’s (1969) and Fuller and Brown’s (1975) models discussed above suggest that pre-service teachers’ concerns develop sequentially as they gained experience in the classroom, starting with concern for self, followed by task and finally impact. So, if the general concerns of pre-service teachers are known and the way they change with time,
teacher educators will be better able to equip themselves with knowledge, skills and attitudes to handle instructional and psychological deficiencies prior to teaching practicum or to provide timely and relevant support during teaching practicum.

2.7. **PRE-SERVICE TEACHERS’ CONCERNS DURING TEACHING PRACTICUM**

Studies on student teachers’ concerns during teaching practice abound the world over. Zagami (2010, p. 70) found that student teachers expressed concerns balancing teaching practicum and personal commitments, teaching load, managing time and feedback on their competence in the classroom. In a similar study in Pakistan, Malik and Ajmal (2010, pp. 19-21) identified heavy load, being observed and evaluated, classroom management and writing detailed lesson plans as the major concerns for the student teacher during practicum. Kabilan and Izzaham (2008, p. 88) found that Malaysian student teachers expressed concerns with teaching large mixed ability classes, use of mother tongue as medium of instruction in teaching English and teacher centred approaches by mentors. A later study by Goh and Matthews (2011, pp. 92, 96) in Malaysia identified four main themes of student concerns during practicum, namely: classroom management and student discipline; institutional and personal adjustment; classroom teaching; and student learning.

In a cross cultural study on students teachers’ concerns in Singapore and Australia, Murray-Harvey *et al.*, (1999, p. 33) observed that pre-service teachers were most concerned about teaching load, lesson planning, time management, enforcing discipline and being observed and assessed by their supervisors. They also noted that Singaporean students seemed to have higher levels of stress than their Australian counterparts and females reported higher levels of stress than males in both countries (Murray-Harvey *et al.*, 1999, p. 33). More recently, Berg and Smith (2014) conducted a comparative study on perceptions of efficacy beliefs and concerns student teachers had during teaching practicum in Malaysia, United Kingdom and New Zealand. Findings from the study revealed that pre-service teachers’ concerns and efficacy beliefs were culture and context specific (Berg & Smith, 2014, p. 21). Eight areas of concerns on teaching were identified: conflict with parents, classroom management, subject knowledge, status of teachers in society, government and school policy, false accusations, poor link between theory and practice, and quality of support offered during teaching practice. In Nigeria, Danner (2014, pp. 53-54) identified five categories of concerns.
experienced by student teachers on teaching practice, namely, school staff cooperation, evaluation, professional preparation, unsuccessful lessons and class control with school staff cooperation topping the list. All these studies show that student teachers’ concerns are real and need tangible solutions. Some of the concerns experienced by student teachers from literature are discussed below.

2.7.1. Classroom management

Classroom management is one of the key elements for effective learning in the classroom. However, according to Wong and Wong (2009, p. 80) classroom management is one of the major concerns for pre-service teachers and reason of teacher attrition. Dibapile (2012, p. 59) and Woodcock et al., (2012, p. 3) expressed similar views but went further to claim that classroom management is not only a concern for student teachers but for qualified teachers and school administrators as well. Although classroom management encompasses a number of interrelated aspects like discipline, learner involvement, learner diversity, allocation of resources and time, it is mostly associated with classroom discipline (Vakalisa, 2016a, p. 380). This possibly arises from the fact that classroom discipline is the major area of concern among classroom management components. However, classroom management also includes organisational, communication and proactive skills which are needed to create and manage a learning space where learners are free to participate and achieve their full potential. Cooper and He (2012, pp. 100, 102) found that the majority of student teachers in the USA were concerned about classroom management aspects like learner discipline and the creation of a classroom where there was mutual respect among stakeholders.

Studies in other countries also revealed some of the concerns that student teachers experience during teaching practicum. Berg and Smith (2014, p. 31) found that maintaining discipline was a challenge for pre-service teachers in New Zealand, England and Malaysia especially where there were big classes. In another study conducted in the United Kingdom, Mousavi (2007, pp. 36-37) also highlighted indiscipline as an area of concern especially with big classes with mixed ability learners or coming from different backgrounds. The situation was worsened in cases where there were demotivated (Mousavi, 2007, p. 35) or uncooperative learners (Kiggundu & Nayimuli, 2009, p. 350). A study in Turkey by Celik (2008, pp. 103-104) also revealed a number of classroom management related concerns experienced by pre-service teachers like assisting learners with learning or behavioural problems, motivating
learners, assessing learners’ performance, dealing with feelings of insufficiency, teaching mixed ability learners in over-crowded classes, managing seatwork or group work, time and class, and enforcing discipline. Pakistani pre-service teachers were also concerned with maintaining discipline especially when teaching concepts that had already been taught by mentors (Malik & Ajmal, 2010, p. 20). Findings by Kiggundu and Nayimuli (2009, pp. 350, 354) in South Africa revealed that discipline was lacking in most schools. Some learners were rude to the student teachers and some would play cards, were noisy, would eat or use cell phones in class knowing that they would not be punished for their misconduct. Similarly, Mtika (2008, pp. 192-194) noted that learners in Malawi were sometimes disrespectful or rude towards student teachers. Surprisingly, Kyriacou and Stephens (1999, p. 22) found that some student teachers were concerned about becoming a strict disciplinarian which was not part of their character.

In Zimbabwe, Mapfumo et al., (2012, p. 159-160) found that female student teachers experienced higher stress levels than their male counterparts especially from boys. They attributed this disparity to a lack of respect of female teachers and a lack of discipline in some schools. This was also compounded by the type of introductions that student teachers received at the schools where they were introduced as trainee teachers which lead to their loss of authority with learners. This may have given some of the boys the courage to undermine the authority of the student teachers particularly the female ones.

In addition to maintaining discipline, teachers need a management plan of how to deal decisively with naughty learners and the anxiety associated with such disruptive behaviour (Danner, 2014, p. 49). On the same issue, LaCaze, McCormick and Meyer (2012, pp. 1-2) recommend that a management plan with routines, rules and consequences should be in place on the first day of school and should be applied consistently to all learners. Pinder (2008, p. 16) also observed that student teachers sometimes reduced their concerns by initially imitating their mentor before they develop their own management style. Therefore, it is imperative that student teachers adhere to the management plan of their mentors if they are to be successful with classroom management. However, the art of learning how to effectively manage a classroom takes time, effort, patience and understanding of management principles (Berry, Shields, & Krickovich, 2012, p. 170).
2.7.2. Linking theory to practice

According to Berg & Smith (2014, p. 32), one of the purposes of the teaching practice is to provide an opportunity to bridge theory with classroom practice. However, classroom situations that do not match textbook or campus learning theories are sources of pre-service teachers’ concerns. Berg and Smith (2014, p. 32) found that some student teachers expressed concerns of having too much theory and very little practice or vice-versa. Darling-Hammond (2010, p. 40) asserts that university courses are sometimes “too theoretical” or “too abstract and general, in ways that leave teachers bereft of specific tools to use in the classroom”. Similarly, Kagan (1992, p. 162) observed that some teacher education courses failed to equip pre-service teachers with adequate knowledge and skills to bridge the gap between theory and practice. This means that some college courses may be too theoretical and may not always offer practical advice that is needed to deal with day to day problems in the classroom. For example, Mtika (2008, pp. 151, 155-157) observed that Malawian pre-service teachers had problems using learner centred approaches which had been considered appropriate during lectures, while learners and mentors preferred the use of teacher centred approaches. In a similar study in South Africa, Heeralal and Bayaga (2011, p. 102) found that learners disliked the use of group work, an approach that had been considered to be learner centred. Similar concerns were noted in Malaysia where learners expected teachers to do most of the talking while they listened quietly and resisted student teachers who attempted to use deductive approaches (Kabilan & Izzaham, 2008, p. 91). On another front, most mentors in Malawi felt that the school curriculum was not ideal for mentoring since it was too congested and examination driven and it left them with no option but to teach using teacher centred approaches (Mtika, 2008, p. 189). These studies clearly reveal that there is sometimes a poor link between college work and classroom practice in some programmes.

A number of studies have attempted to address this poor link between theory and practice but there appears to be an on-going debate on who is most effective in addressing it as well. Pinder (2008, p. 16) was of the opinion that mentors were conveniently positioned to link the student teachers’ theoretical knowledge with practice through constructive engagement at the instance it happened. In other words, they provide on-site support. However, Cheng and Tang (2010, p. 102) claim that teacher educators are in a much better position to bridge the gap between theory and practice as they are more knowledgeable of the theories and practice of teaching than ordinary teachers in schools. While both views hold water, in the
In the case of Zimbabwe, for now Pinder’s (2008, p. 16) view would count because of the nature of the 2-5-2 programme where teachers spend more time on teaching practice than on campus with their supervisors. On-site support can be of great benefit to student teachers if schools are effective learning organisations as purported by Senge (2006). Based on Senge’s (2006, p. 3) view of a learning organisation, a school can be a place where student teachers are given an opportunity to experiment on their practice, are stretched beyond their comfort zones and are free to work and learn collaboratively with their mentors and peers. Each of the five interdependent disciplines in Senge’s (2006, p. 3) model of a learning organisation (shown Figure 7 below), namely systems thinking, personal mastery, shared vision, team learning and mental models are critical in creating a learning community and the professional development of student teachers during teaching practicum.

**Figure 7: Components of Senge’s learning organisation**

![Diagram of Senge's learning organisation](image)

Adapted: Senge (2006, p. 3)

When the five disciplines are properly integrated, they can create learning schools where everyone (including pre-service teachers on teaching practicum) is free to build their capacity (Senge *et al.*, 2000, p. 5). Figure 8 on the next page shows the three main drivers of a learning organisation: leadership that reinforces learning, supportive learning environment and concrete learning process and practices.
Recent technological developments have also opened new and exciting opportunities where pre-service teachers can also learn from a distance. Thus, Cheng et al.’s (2010, p. 102) view can also be accommodated considering the recent advances in technology and the nature of some of the prospective applicants in teacher education who are digital natives as opposed to digital immigrants in the past. From this discussion, the researcher felt that there is a need to strengthen both support systems from mentors and college supervisors for the benefit of the student teachers. Danner (2014, p. 50) and Nakpodia (2011, p. 37) expressed similar views with Cheng et al., (2010, p. 102) but they went further to explain how teacher education institutions can utilise their advantage position to reduce the incidence, severity
and influence of teaching practicum related concerns linked to integration of theory and practice. One suggestion was to expose student teachers to micro-teaching sessions prior to deployment in schools. According to Ismail (2011, pp. 1043-1044, 1047-1050), micro-teaching sessions provide student teachers with an excellent opportunity to try out some instructional methods and skills in front of their peers and supervisors. The confidential support and feedback that student teachers could receive during these sessions could be helpful as they provide them with an opportunity to learn and relearn from their experiences and that of their fellow micro-teachers (Danner, 2014, p. 50). In addition to the micro-teaching sessions before teaching practicum, Nakpodia (2011, p. 37) also recommended that student teachers observe and reflect on the lessons of expert teachers for a period of one week before they are given a chance to teach their first lesson.

2.7.3. Being observed, evaluated and assessed

Although lesson observation has been acknowledged as a powerful strategy to support the professional growth of pre-service teachers, numerous studies have revealed that nearly all pre-service teachers were concerned about being observed, evaluated or assessed during teaching practicum. Being observed, evaluated and assessed are stressful activities not only for student teachers but even for experienced teachers regardless of the observer (Bilali & Tarusha, 2015, p. 90; Celik, 2008, pp. 99, 105). Akinsola (2014, p. 41), Danner (2014, p. 49) and Kyriacou & Stephens (1999, p. 18) refer to this fear of being observed, evaluated or assessed during teaching practicum “evaluation anxiety”. Recent research studies have shown that the presence of a supervisor in the classroom creates high levels of evaluation anxiety among pre-service teachers (Akinsola, 2014, pp. 41-43; Mtika, 2008, p. 166) especially in classes where there are disciplinary problems (Kyriacou & Stephens, 1999, p. 18). Failing to maintain discipline in the classroom and dealing with disruptive learners during a lesson is an indication that the student teacher is not control of the situation. Effective teaching and learning cannot take place in a chaotic classroom.

Recent studies by Akinsola (2014, p. 41), Dunning (2012, p. 64) and Guise (2013, p. 66) on evaluation anxiety have also revealed some of the factors that lead to this concern. For example, Akinsola (2014, p. 41) highlighted some of the causes of evaluation anxiety as the complex nature of teaching, a lack of teacher knowledge and self-efficacy. Most of this form of evaluation anxiety arises from the fear of making mistakes in front of the mentor,
supervisor or peers. According to Paker (2011, p. 216) this type of evaluation anxiety could be reduced if constructive feedback is provided and if the assessment is based on a process-oriented rather than a product-oriented checklist. Dunning (2012, p. 64) and Guise (2013, p. 66) also indicated mistrust between student teachers and supervisors as one of the causes of evaluation anxiety. This status quo seems to stem from a narrow understanding of supervision as a process of directing or intimidating student teachers (Stephens and Walters, 2009, p. 89). A broader view of supervisors’ roles includes them in both advisory and assessor roles (Dunning, 2012, p. 51; Gujjar et al., 2010, p. 344). Nakpodia (2011, p. 36) shares the same sentiments but has additional roles for a supervisor as a morale booster and interpreter of feedback. Although supervisors have many roles, the assessor role was found to be more dominant than the advisor role in Malawi (Mtika, 2008, p. 166). This possibly explains why student teachers are mostly stressed by supervisors’ assessment.

Some student teachers expressed concerns when they were supervised by non-subject specialist lecturers. For example, pre-service teachers in Malawi felt that they would benefit more from subject specialist lecturers as they were more knowledgeable on both the content and methodology of a learning area than the other supervisors (Mtika, 2008, pp. 166-167, 170). In the same vein, Al-Issa and Al-Bulushi (2010, p. 54) found that the supervisors sometimes gave contradictory remarks to the same students which left them confused as to which of the supervisors’ recommendations to follow. In cases where student teachers do not agree with assessors, Pinder (2008, p. 15) found that students would just comply without questions as a way to manage the conflict, but it diminished their likelihood of learning from the situation. This highlights the aspect of bias of the evaluation process and restraint by student teachers during feedback does not imply that they agree with the assessor.

Cases of abuse of power by supervisors were also reported by Mtika (2008, pp. 202-203). For example, some student teachers were penalised for issues that had no connection with the classroom teaching and learning. Supervisors took advantage of their superior role to avenge some of their personal clashes with student teachers. Supervisors are expected to ease student teachers’ concerns and address them using non-threatening mentoring, supervisory or evaluation skills (Guise, 2013, p. 66). Mtika (2008, pp. 169-170, 174) and Murray-Harvey et al., (1999, p. 33) pointed to the need to change the role of supervisors from a more directive to a more collaborative one in order to reduce assessment anxiety.
In concluding his study Celik (2008, p. 106) argues that the college supervisor and student teacher hold the keys to effective management of teaching practicum related concerns. He proposed four strategies that could support student teachers to manage their concerns effectively. Firstly, the college supervisor should conduct a study during the first two weeks of teaching practicum to identify the concerns of student teachers and prioritise them according to their severity and influence. Secondly, the college supervisor should express his or her pledge to support the trainee teachers on any teaching concern and make a concerted effort to open communication channels for the benefit of the trainee teachers. Thirdly, teacher educators are encouraged to appraise their student teachers on what he termed “an instantaneous problem-management strategy” – a crisis management plan that involves identifying the concern, drawing up a plan of action, confronting the concern and resolving the concern long before they are deployed in schools. Lastly, student teachers can learn to manage their teaching practicum related concerns by cultivating a culture of thorough preparation and all-encompassing application. Although the four strategies outlined above are not comprehensive, they will go a long way in addressing some of the key concerns faced by trainee teachers during teaching practice.

2.7.4. Workload

Although student teachers are expected to teach a reduced load during teaching practice, a number of them have expressed concerns at the workload of student teachers (Malik & Ajmal, 2010, p. 20; Celik, 2008, p. 99). Kyriacou and Stephens (1999, p. 19) found that student teachers needed more time to plan and prepare, find and develop curriculum materials, understand the content to be taught, design and administer the task and mark the written work compared to experienced teachers who would have developed survival skills. Similarly, Malik and Ajmal (2010, p. 20), Nakpodia (2011, p. 36) and Mousavi (2007, pp. 35-36) agree that student teachers have an increased load and responsibilities during teaching practicum as they are expected to draw up plans daily, teach at least half the full load of a qualified teacher, mark and participate fully in co-curricular activities. Some teachers in Swaziland acknowledged that they were moderately stressed by their jobs (Dlamini, Okeke & Mammen, 2014, p. 581). These Swazi teachers were mainly stressed by contractual problems, nature of their work, work environment and work relationships. Some of the teacher trainees in Nigeria, Turkey and South Africa claimed that they never have enough time to go through their work at school or to read around the topic and they often had

Apart from the teaching related concerns, student teachers also expressed concerns in balancing their college work and social responsibilities. For example, most student teachers in many of the programmes were expected to submit distance learning assignments and conduct their research projects while they were still on teaching practicum (Celik, 2008, p. 101). In some programmes, student teachers are expected to concurrently attend lessons and undertake teaching practice (Kiggundu & Nayimuli, 2009, p. 19). Similarly, mature age student teachers seemed to have double life loads as they were confronted with both family and educational responsibilities (Campbell & Uusimaki, 2006, p. 2). Ogonor and Badmus (2006, p. 7) expressed similar sentiments but they are of the view that the double life load is not only a problem of mature aged student teachers but for all trainees. A later study by Celik (2008, pp. 101, 105) revealed that a majority of trainee teachers in Turkey expressed concerns at balancing teaching practicum with family commitments. Linked to family responsibilities is gender differences among the concerns expressed. Danner (2014, p. 54) asserts that female student teachers in Nigeria experience higher levels of concerns than their counterparts. Danner (2014, p. 50) also attempts to explain the gender differences in levels of concerns and posits that the “difference is mostly as a result of social-cultural forces such as early experiences, biological factors, educational policies and cultural context which has led to girls becoming unnecessary nervous adults”. Similar findings were also noted among Australian and Singaporean student teachers and gender differences in anxiety levels was also attributed to socio-cultural forces (Murray-Harvey et al., 1999, pp. 41, 43).

2.7.5. Timing of teaching practicum

The time of deployment of student teachers in schools seems to have a strong bearing on whether they will receive maximum support from mentors and achieve their outcomes from teaching practice. Some of the Malawian student teachers and supervisors felt the deployment of student teachers on teaching practice during national examinations was inappropriate (Mtika, 2008, pp. 205-206). Some of the mentors were appointed as invigilators and did not have adequate time to observe and support their mentees. The
situation was further exacerbated by a lack of space in some schools as some of the classrooms were used as venues for the national examinations. Hence, Mtika (2008, pp. 205-206) concluded that teaching practice was ideal during a term when there were no national examinations. Similarly, some student teachers in South Africa expressed concerns with their late deployment in schools. Towards the end of the year, most teachers would have completed the syllabi and would be preparing the learners for the end of year examinations (Kiggundu, 2007, pp. 350, 356-357). This left the student teachers with little or no topics to teach and some of the class teachers were reluctant to accommodate them at this critical stage of preparing and writing of examinations. While the time for teaching practicum could be a problem for teacher programmes that have a short teaching practicum, it was not so for student teachers in this study. Student teachers in the 2-5-2 programme were on teaching practice continuously for nearly twenty months. This gave the student teachers in this study ample time to experience the rhythm of the school year (Fraser & Watson, 2014, p. 3).

2.7.6. Relationships with key stakeholders in the school

Teaching practicum provides opportunities for teacher trainees to be socialised into the profession through their interaction with qualified teachers in the schools (Gujjar et al., 2010, p. 339; Nakpodia, 2011, p. 33; Mtika, 2008, pp. 161, 211). However, the placement of student teachers into new schools for a short period of time creates a number of concerns for them. One of these areas of concern is building new relationships with key stakeholders in schools i.e., learners, teachers, general workers, parents and the community at large. Kiggundu and Nayimuli (2009, pp. 352, 356-357) noted that some of the student teachers were affected psychologically by a lack of introductions and induction when they first arrived at the schools. This impacted the student teachers’ confidence, effectiveness and attitude towards the teaching profession negatively. Ogonor and Badmus (2006, p. 8) expressed similar views and further accentuates the importance of induction and orientation to employee effectiveness in new environments. On this note, Tudela (2014, p. 159) recommends that student teachers be introduced and treated like all other teachers. Some of the pre-service teachers were excluded from some school activities like decision making and staff meetings either physically or by means of language barriers and yet they were expected to implement the resolutions (Kiggundu & Nayimuli, 2009, pp. 351, 354, 357). Some of these challenges that student teachers face could be reduced if teaching practice coordinators can avoid deploying student teachers to under performing schools or schools that would have
excluded student teachers from school activities during previous deployment periods, undermined student teachers’ dignity, and hindered student teacher professional growth (Kiggundu & Nayimuli, 2009, p. 357). Furthermore, the relationship between stakeholders in teacher education could be strengthened if teacher training institutions could hold periodic workshops to iron out thorny issues, update on any changes and induct new mentors (Kiggundu & Nayimuli, 2009, p. 357).

In most teacher education programmes, mentors were found to play an important role and also a source of concern during teaching practicum. Mentors have been identified as the most influential person in the life of student teachers during teaching practicum (Kasperbauer & Roberts, 2007, p. 32; Pitton, 2006, p. 2). Similarly, mentors are important players in Zimbabwean teacher education as they have been engaged to provide closer and frequent supervision, feedback and support for student teachers. All Zimbabwean student teachers from teacher’s colleges are expected to operate under a mentor (Musingafi & Mafumbate, 2014, p. 35; Tshuma & Ndebele, 2015, p. 407). However, not all experienced and expert teachers could become good mentors (DEECD, 2010, p. 3; Pitton, p. 2006, pp. 2-3). Experienced teachers may display practice that contribute to the smooth running of classroom procedures and lesson delivery but offer little support and guidance to student teachers who require critical reflection and wholesome feedback to their practice. In the absence of formal mentor preparation programmes, accreditation and acknowledgement of the vital role played by mentors in the professional development of student teachers, the effectiveness of teaching practicum in Zimbabwe may be weakened. Many of the untrained mentors end up using outdated methods from their own experience when they were student teachers in schools (Dunning, 2012, p. 49). This explains the reasons why mentoring needs to be formalised in all countries.

There are many critical roles that mentors should play in the professional development of pre-service teachers. The main functions of mentors include being a coach, supporter, critic, and instructor (Starkey & Rawlins, 2011, pp. 11-12; Maphosa, Shumba, & Shumba, 2007, p. 297; Guise, 2013, p. 65). However, what is most critical is to know the process of effective mentoring and to use it appropriately. Starkey and Rawlins (2011, pp. 11-12) found shared goal setting, joint planning, giving responsibility for planning to student teachers, feedback on planning prior to lessons, scheduled or informal meetings, and written or verbal feedback on lessons to be highly effective. While there is no single effective approach that mentors
can use to support pre-service teachers, they need to be knowledgeable of what it takes to be an effective mentor.

Despite the great work done by mentors, a number of studies have shown that not all mentors were consistently providing the expected assistance to mentees (Danner, 2014, p. 50; Guise, 2013, p. 65). For example, Kiggundu & Nayimuli (2009, p. 351) expressed concerns at the unprofessional behaviour displayed by some of the mentors. Some of the mentors (including other teachers) in Zimbabwe and RSA regarded student teachers as relief teachers while they took a back seat without offering any guidance or assistance (Maphosa et al., 2007, pp. 300-303; Kiggundu & Nayimuli, 2009, pp. 351, 355). In Pakistan, Malik and Ajmal (2010, p. 22) found that student teachers who were left alone in classes had high levels of anxiety as some of them did not know what to do when the situation got out of control. Similarly, Rakicioglu-Soylemez and Eroz-Tuga (2014, p. 154) observed that some of the student teachers in Turkey were concerned with the manner by which some of the cooperating teachers gave feedback after lesson observations. Some of the cooperating teachers were reluctant to provide feedback at all or would provide it after some days and others were not consistent in the way they would provide feedback on different occasions. Therefore, cooperating teachers have a duty to calm down their mentees and need to pledge their support to circumvent their challenges and place them on a successful trail. Student teachers also have a critical role to play in terms of their own professional growth. They should be open and honest about their concerns to the cooperating teacher if they hope to be assisted effectively.

A lack of confidence in student teachers’ competency to teach and the abuse of student teachers by mentors has also been reported in literature during teaching practicum. Kiggundu and Nayimuli (2009, pp. 352-353) found that some mentors had no confidence in the capabilities of the student teachers to teach certain learning areas and they would either stop them in the middle of a lesson and take over or shout at them in front of learners. Such mentor behaviour, demeans the status of student teachers and erodes their self-confidence. Heeralal and Bayaga (2011, p. 103) also laments the exclusion of student teachers from meaningful engagement with learners under the pretext that there was limited time. In a similar study, Kyriacou and Stephens (1999, p. 22) noted that student teachers felt they were “not being regarded as the real teacher” because of the roles they were assigned like being a non-participant observer, being given incidental roles, uncertainty on whether to imitate the behaviours of the “real teachers” or not and mentor stealing the show. Some of the mentors
and teachers openly abused their authority by sending either learners or student teachers on personal errands during lessons (Kiggundu & Nayimuli, 2009, pp. 352-353). One of the main functions of teaching practicum is to provide pre-service teachers with an opportunity to try out something new, make mistakes and to grow from them. Therefore, they should be given all the time and support to experiment.

A number of reasons have been postulated as to why the relationship between mentors and student teachers sometimes turn sour. The relationship is sometimes complicated by differences in perspectives, expectations, personality, and a lack of clarity of roles (Rakicioglu-Soylemez & Eroz-Tuga, 2014, p. 146). For example, the relationships between mentors and mature age mentees are sometimes tricky as mentees are either the same age as their mentor or older (Campbell & Uusimaki, 2006, p. 2). Kıldan et al., (2013, p. 57) found that a significant number of student teachers (45%) did not benefit professionally during their teaching practicum because their mentors did not give them enough teaching time for certain learning areas. Malik and Ajmal (2010, p. 21) found weak mentor support on certain college requirements which mentors were not appraised of like drawing up of detailed schemes of work and lesson plans in a format that the college expected and preparation of learning aids. Schools sometimes use a different format of planning to the one used by teacher training institutions. Student teachers had to use trial and error methods that involved having to redesign the schemes of work or lesson plans due to over-planning or under-planning. Preparing learning aids, worksheets, and handouts required materials which were not available in the schools and student teachers were compelled to buy at their own expense (Celik, 2008, pp. 101, 103). The studies cited above clearly show that it is difficult to have a perfect mentor-mentee combination and it calls for cool heads for it to function effectively. There is a need for commitment for it to work, effective communication and a clear understanding of what exactly is required from the relationship.

Parental involvement in their children’s school work is very important and their demands on teachers vary from country to country and from community to community. While some parents are content with work done by most teachers, some parents place excessive demands on the teachers like high pass rates and quality results. Berg and Smith (2014, p. 31) found that Malaysian trainee teachers were concerned by the high parental expectations on their children to pass with flying colours in national examinations. A sizeable number of parents believed teaching was an easy job and many of them looked down on teaching as a profession.
(Berg & Smith, 2014, p. 32). While the vital role that parents play in learners’ development, learning and achievement in school is unquestionable, sometimes there is low parental involvement due to a number of factors like learners’ character, cultural and parental beliefs. However, student teachers need to involve their mentor and principal in dealing with parents.

2.7.7. Teacher knowledge

One of the main aims of teaching practicum is to provide an opportunity for the student teacher to develop and put into practice teacher knowledge and acquire attitudes of a teacher (Mayes & Burgees, 2010, p. 42; Kasperbauer & Roberts, 2007, p. 32). Nearly all student teachers experienced some form of concerns regarding their knowledge and skills as teachers but it usually decreases during training (Danner, 2014, pp. 50-51; Zagami, 2010, p. 70). However, in some cases such concerns persist and create high levels of concerns that could eventually drive them out of the profession (Malik & Ajmal, 2010, p. 17; Campbell, & Uusimaki, 2006, pp. 1-2). This is because learning to teach at primary school, is a complicated process that is premised upon the student teachers’ acquisition, integration and application of diverse kinds of teacher knowledge and practices. Pre-service teachers are expected to have fundamental learning, disciplinary learning, pedagogical learning, situational learning and practical learning (DHET, 2015a, p. 16; DHET, 2015b, p. 12) for them to function effectively as classroom practitioners.

A number of studies have indicated the importance of having a solid foundation on all domains of teacher knowledge. For example, research conducted by Mawer (1995, p. 12) found that the majority of the students of physical education in the United Kingdom were concerned about the content of the activities they were expected to teach. Knowledge concerns were also cited by student teachers from Malaysia (Goh & Matthews, 2011, p. 92) and South Africa (Mudzielwana & Maphosa, 2014, pp. 398-399). Similarly, Mudzielwana and Maphosa (2014, pp. 398-399) found that student teachers were anxious about making mistakes because of their inadequate content. These studies show the importance of student teachers having in-depth knowledge of the content they are expected to teach. In simple terms, student teachers must be content knowledge specialists of the subjects they teach.

In addition to having in-depth subject matter content knowledge, pre-service teachers require pedagogical knowledge (Banner & Cannon, 1997, p. 7; Kleickmann et al., 2013, p. 91;
Norton, 2010, p. 69). This knowledge is critical when planning for instruction and creating a conducive learning environment. For example, Mawer (1995, p. 14; Shulman, 1986, p. 9) and Murray-Harvey et al., (1999, p. 36) noted that some of the Pakistani, British, and Australian students respectively were concerned about writing detailed lesson plans and selecting appropriate content for their lessons. Lesson delivery was also regarded as an area of concern particularly where the lessons failed to follow the intended plan or where learners asked challenging questions (Malik & Ajmal, 2010, p. 21). These studies illustrate how important it is for student teachers to have pedagogical content knowledge.

### 2.7.8. Support and resources

Previous studies have also shown that the socio-economic and cultural context in the community where the school is located have some influence on the practice of students during teaching practice (Chireshe & Shumba, 2011, p. 116; Jensen et al., 2012, p. 29; Mapfumo et al., 2012, pp. 160-161; Rajput & Walia, 2002, p. 1). For example, Atmore, van Niekerk and Ashley-Cooper (2012, pp. 9, 18-21) found that socio-economic factors and apartheid legacy in South Africa undermined the quality of education, health care, social services and nutrition of learners. Celik (2008, pp. 101, 103) and Mapfumo et al., (2012, p. 160) also cite situations where student teachers were deployed in poor schools with little or no teaching resources. Therefore, the lack of resources and infrastructure is not a unique challenge to Zimbabwe alone but a common concern for most of the developing countries.

Teaching practicum is also an excellent opportunity for pre-service teachers to experience the excitement and challenges of the teaching profession (Goh & Matthews, 2011, p. 92; Murray-Harvey et al., 1999, p. 32). Two of these challenges are weak support systems and a lack of learner support materials in schools. In most teacher education programmes, support and guidance that student teachers received during teaching practice came from mentors. Support from college supervisors has always been considered weak due to the limited time they spent with student teachers in schools with the bulk of that time dedicated to lesson observation. Only very limited time is dedicated to counselling or advising student teachers on areas for improvement as the university supervisors are usually under pressure to observe a number of lessons in a short space of time. Concern for lack of support from lecturers was noted in New Zealand although not that serious (Berg & Smith, 2014, p. 32). Okobia, Augustine and Osagie (2013, pp. 9-10) observed that some college activities like
lecturing, meetings, and research supervision sometimes clash with teaching practice outreach programmes. This further limited the time that lecturers could dedicate to supporting student teachers on teaching practice.

The availability of learner support materials is critical to the effective implementation of any curriculum. However, the shortage of learner support materials is prevalent in most developing countries in Sub-Saharan Africa like Zimbabwe. Ogonor and Badmus (2006, p. 7) found that the majority of schools in Nigeria did not provide students with materials to use. Students in South Africa also expressed concern at having to teach overcrowded classes with limited learner support materials (Kiggundu & Nayimuli, 2009, p. 354). Furthermore, the learning space in some of these classes prevented student teachers from using learning strategies like co-operative learning and group work that they learnt at college. There major concerns was that there was no space to create groups or to monitor the group tasks.

Studies on the challenges that student teachers faced during teaching practicum in Zimbabwe have unearthed a number of concerns. For instance, Chireshe and Shumba (2011, p. 116) and Machingambi et al., (2014, pp. 18, 22) found that the financial condition of Zimbabwean student teachers during teaching practicum was pathetic. The small allowance that student teachers were receiving was not adequate to cover for their living expenses like accommodation, transport, food, and learning materials. Furthermore, Nhundu (1999, p. 267) and Zvavahera (2015, p. 2) noted that most rural schools in Zimbabwe failed to retain or recruit qualified teachers because of poor accommodation, lack of electricity, availability of clean water, unreliable transport systems and a lack of social services like clinics, libraries and shops. With less experienced and qualified teachers than their urban counterparts, student teachers in rural areas received a poorer quality of mentoring and support. The absence of social services like libraries and internet cafes also made it difficult for student teachers to study, conduct research for their assignments and prepare their lesson plans. Lack of electricity also made it difficult for student teachers to mark, plan and study at night.

2.8. IMPACT OF PRE-SERVICE TEACHERS’ CONCERNS

A review of student teachers’ concerns during teaching practicum indicates that they have both negative and positive impacts on the professional development of teachers. Insights into teaching practice related concerns of pre-service teachers could provide important clues into
concepts and skills that student teachers would not have fully mastered (Berg & Miksza, 2010, p. 40). While all student teachers experience high levels of stress on becoming a teacher which normally dissipate as knowledge and skills are acquired during training, however, in some instances student teachers express continuing anxiety which could slow down their professional development or could drive them out of the profession altogether (Campbell, & Uusimaki, 2006, pp. 1-2). Findings by Swabey, Castleton, & Penney (2010, p. 29) revealed that between 25% and 40% of newly qualified teachers in the USA, Australia and some of the western countries leave teaching before the end of the third year mainly due to stress related issues that normally emerge during teaching practicum. Murray-Harvey et al., (1999, pp. 32-33) and Campbell & Uusimaki (2006, p. 2) also noted that stress affects student teachers’ behaviour which in turn can reduce their classroom effectiveness and learner achievement and increase learner anxiety and consequently classroom disruptions. Similarly, Murray-Harvey et al., (1999, p. 33) observed that teaching practicum related stress has a negative impact on student teachers and teacher educators should assist student teachers to manage their concerns as high levels of stress can lead to aggressive behaviour, late coming, work absenteeism, poor performance or early exit from the profession. Likewise, Head, Hill, and Maguire (1996, p. 71) concluded that “too little stress can cause apathy and boredom while frequent or excessive stress can lead to mental and physical illness, lack of sleep, poor concentration and general under-performance”. This means that moderate levels of stress is ideal as student teachers are more likely to remain in the profession for longer periods of time.

Although teaching practicum related concerns are generally associated with negative effects, they can provide a sense of achievement and professional growth in three main areas: taking responsibility, developing confidence, and creating an orderly classroom (Kyriacou & Stephens, 1999, p. 26). This implies that the pressure of being in charge of some classroom tasks and successfully accomplishing them brings with it a feeling of satisfaction or morale booster for student teachers. For example, the creation of an orderly learning space is highly valued by student teachers. Furthermore, such feelings confirm a level of trust in the ability of the student teacher by the mentor or supervisor. Celik (2008, p. 106) believed that having a certain level of concern during teaching practicum is normal and could be important and a powerful motivator. Similarly, Celik (2008, p. 98) agrees that practicum related concerns enable student teachers to become more confident. Additionally, the study of teaching practicum related concerns also provide teacher educators with valuable insight into the knowledge that student teachers find useful during this critical period.
2.9. ADDRESSING PRE-SERVICE TEACHERS’ CONCERNS

A review of the literature on addressing pre-service teachers’ concerns indicates that it is connected to successful teaching; an issue that is riddled with a lot of controversy in teacher education (Kleinman, 2006, p. 234). Both Kleinman (2006, p. 234) and Powell (2007, p. 112) acknowledge that research on successful teaching has produced very little suggestions for teacher educators on what constitutes good teaching. However, Gibbs (2003) identified three key attributes that he assumed effective teachers should have or how they may be enhanced:

- **Survival.** Teachers need to be able to survive the demands, threats and challenges within the diverse circumstances of teaching. This is particularly true, but obviously not exclusively so, for beginning teachers.

- **Resilience and persistence.** Teachers need to be resilient and persistent, even when the odds seemed stacked against them.

- **Innovativeness.** Teachers need the capacity for innovativeness, to be prepared to generate new solutions and take on new teaching approaches, and be willing to risk failure (p. 2).

These three attributes indicate that effective teachers need to have a knowledge of basic principles and procedures of teaching, in-depth knowledge of the learning areas, coupled with high level of confidence. In addition, effective teachers need to exercise control of their actions using their belief systems. Mulholland and Wallace (2001, p. 244) observed that support from teacher educators and mentors was one of the key factors that influenced the belief systems of student teachers and enhanced their enthusiasm and confidence in their work. As pointed out earlier, learning occurs progressively as it builds upon previous experiences and instructors should provide activities that conveniently link ZAD and ZPD. Furthermore, stakeholders in teacher education programmes would benefit if they took heed of Schulz’s (2005, p. 149) recommendations that teaching is a complex emotional and intellectual activity that cannot be reduced to a series of routines or behavioural traits that can be learned and repeated yearly. Instead, teacher educators should focus their attention on transforming student teachers’ pre-existing beliefs, providing continual support and creating independent, reflective and active thinkers.
As already pointed out, beliefs are resistant to change once they have been formed and they require ample time for them to be modified (Woodcock, 2011, p. 23; Pajares, 1992, p. 311; Prawat, 1992, p. 357). On this issue, Dweck (2006, p. 208) recommends that instructors pay attention to the fact that it takes time for old beliefs to be replaced by new ones and in many cases the old and new beliefs may coexist side by side until such time when one of them takes over. In other words, for new beliefs to be formed individuals must be dissatisfied with the old ones and the new beliefs should be intelligible and useful in explaining new situations. Therefore, in order to bring about lasting change to pre-service teachers’ practice, teacher education programmes should focus on changing or reshaping the pre-existing beliefs with favourable ones (Gurbuzturk & Sad, 2009, p. 201). Richardson (1996, p. 10) and Prawat (1992, p. 357) were even sceptical about the role of teacher education in changing the beliefs of pre-service teachers during training as most of their pre-existing beliefs remain unchanged during training. Hence, teacher educators need to be concerned about pre-existing beliefs that pre-service teachers bring with them into teacher education programmes and the effectiveness of their activities to transform these pre-existing beliefs.

2.9.1. The management of pre-service teachers’ concerns

A review of literature on the management of pre-service teachers’ concerns shows that there are a number of strategies for solving them. Malik and Ajmal (2010, pp. 21-22) identified three main remedial strategies used by pre-service teachers to manage their concerns during teaching practicum: communication with supervisors or mentors; talking to friends or family; and use of self-management skills like preparation, planning and organisational skills. van der Linden and Koet (2012, p. 132) assert that the role of the mentor has gone beyond just initiating the student teacher into the profession to a more reflective role that includes attending to the student teacher’s concerns. Malik and Ajmal (2010, p. 22) also found that guidance and support from college supervisors prior to teaching practice, coordination between the college supervisor and the school mentor, a reduced workload, greater responsibilities by schools to student teachers and changing teaching practice assessment from summative to formative as some of the strategies that could serve to address student teachers’ concerns on teaching practice. Improved communication and collaboration between lecturers and mentors on the college’s expectations during teaching practice, instructional methods that student teachers could use and clarity on evaluation and assessment practices will go a long to addressing student teachers’ concerns.
Murray-Harvey (1999, p. 6) proposed four coping strategies, namely: personal; professional; social; and institutional. These coping strategies are similar to what Zimbabwean pre-service teachers are currently employing to manage their teaching practicum related concerns. Firstly, personal coping strategies include thinking positively about a situation and setting realistic goals; relaxation techniques like involvement in sport, listening to music or meditation; engagement in routine activities like housework; self-deprecation activities like laughing at one’s mistakes; and a good balance of social and work activities (Murray-Harvey, 1999, p. 7). Secondly, professional coping strategies hinge on the professional preparedness of the student teachers. A thorough understanding of the curriculum, detailed planning and good organisational skills are some of the main professional coping strategies suggested by Murray-Harvey (1999, p. 7). Thirdly, contact with friends and relatives have been accepted as a morale booster by student teachers but not for their professional support (Murray-Harvey, 1999, pp. 8-9). Murray-Harvey (1999, p. 8) included chatting with friends and relatives and attending social gatherings as some of the social coping strategies. Lastly, institutional coping strategies have been used where student teachers make connections with fellow student teachers, cooperating teachers (including other teachers in the school) and college supervisors. Student teachers rated these connections highly because of the moral and professional help they were able to receive (Starkey & Rawlins, 2011, pp. 22-23). For example, over ninety percent of New Zealand student teachers reported receiving or giving support to their peers during teaching practice in the form of text messages, email, informal face-to-face meetings, staff room discussions, and college organised discussion groups (Starkey & Rawlins, 2011, pp. 22-23). Mayes & Burgees (2010, p. 42) argue that the effectiveness of the support system for student teachers by teacher educators during teaching practice depends largely on the quality of communication and support provided. Therefore, from the literature presented in this chapter, the traditional pre-service teachers’ support system in Zimbabwe is conceptualised to have four main connections as represented in Figure 9 on the next page, namely mentor, peers, supervisors, and friends and relatives. With this traditional support system, the strong and most functional connections are the links with the mentor (including other teachers in the school) and links with other peers in the school. Student teachers generally find mentor and peer observations less threatening than their supervisors and the discussions that follow during post-conference more productive (Hendry & Oliver, 2012, p. 6). The other two links are generally weak or unreliable because of limited face-to-face contact time or lack of professional knowledge.
Student teachers, mentors and supervisors in New Zealand seem to agree on the types of feedback that students considered most useful during teaching practicum. Feedbacks directed towards student teachers’ performance, quality of tasks, learner performance and behaviour management were viewed as most helpful (Starkey & Rawlins, 2011, pp. 16-22).

2.9.2. Adoption of blended learning approach: Can it be a solution to pre-service teachers’ concerns?

During the last ten years the world has witnessed rapid technological advances and teachers all over the world have been embracing some of these as instructional tools in their lessons (Murley, Jukes & Stobaugh, 2013, p. 1). Postle and Tyler (2010, p. 61) contend that recent research in fourth generation technologies have revealed that they are equally as good as location based approaches in teacher education. As a result, teacher education institutions have increasingly adopted a new form of learning called blended learning or hybrid learning in their teacher education programmes. Blended learning is an approach to education that supports multiple perspectives to learning but mainly integrates the traditional face-to-face instructional methods with online instruction resources (Karimi & Ahmad, 2013, p. 197; Zaka, 2013, p. 24; Aleksic & Ivanovic, 2013, p. 96; Grgurovic, 2011, p. 100). For example,
Garrison and Vaughan (2008, p. 6) defined blended learning as “the thoughtful fusion of face-to-face and online learning experiences. Karimi and Ahmad (2013, p. 197) held similar views but also regarded blended learning as a form of distance education. Hence, blended learning has been hailed as a much better approach to learning because it combines the advantages of each approach. Face-to-face instructions facilitate the transmission of tacit knowledge, allow for the spontaneous generation of ideas, and provide opportunities for instructors to provide timely feedback and to quickly diagnose problems and solve them (Karimi & Ahmad, 2013, p. 198; Mahroeian & Forozia, 2012, p. 304). On the other hand, the strength of online learning lies in its flexibility in that both student teachers and instructors can participate in discussions at a time and place that is convenient to them and create learning communities, communities of practice and knowledge building communities (Kanuka & Rourke, 2013, pp. 22-23; Dabbagh, 2005, pp. 30-31).

A study by Zaka (2013, pp. 27-28), revealed that the use of blended learning encourages student centred-learning, helps in the acquisition of information communication technology (ICT) skills, extends learning beyond the lesson hours, promotes collaborative interactions and supports student engagement and motivation. Likewise, Aleksic and Ivanovic (2013, p. 98) believed that the adoption of blended learning could improve the efficiency of the teaching process by creating a “communication bridge” between the college lecturer and student teachers. Furthermore, blended learning “can improve the outcomes of learning, increase student satisfaction and make subject more accessible to a wider range of students” (Aleksic & Ivanovic, 2013, p. 102). Therefore, it becomes imperative that teacher education courses in Zimbabwe be revised to take advantage of the digitally literate student teachers. For example, the rapid increase in the proportion of teacher trainees with smart phones has ushered in new and exciting ways of communicating and collaborating with friends and relatives, peers, expert teachers and teacher educators wherever and whenever they need information (Tinmaz, 2012, p. 235). Apart from that, fourth generation technologies have transformed the role of learners from passive absorbers of knowledge to active creators and connectors of knowledge when used in blended learning (Tinmaz, 2012, pp. 236-237).

Harreveld (2010, p. 51) also identified blended learning as one of the four potential areas where mobile phones could be used to support the professional development of teachers in Sub-Saharan Africa. Both training and support could be provided by text or voice messages, and email. Together with the vast resources on the Internet about and for student teachers,
networking has increasingly become important when searching for or disseminating information and providing support to student teachers on teaching practice. Some of the networking tools on the Internet include Facebook, YouTube, Twitter, Mixit, WhatsApp, Skype, Animoto, Dropbox, Googlebox, Wordpress, Google Earth, and Instagram just to mention a few. All these social networking tools have extended and strengthened the relationships or connections between professionals, friends and relatives. More importantly, these communication tools have opened up brand-new possibilities for teacher educators and student teachers to communicate and collaborate on areas of concern. These new technologies could allow top-down, bottom-up or horizontal connections where the demand for their use is driven by users’ needs for resources, support and professional growth. For example, a student teacher can post a discussion thread on any area of teaching concern and can receive assistance from their college supervisors, peers, and experts from all over the world. In such a situation, learning will occur as the student teacher sifts through the contributions of other participants and implement some of the suggestions. Further learning could occur as the student teachers share either the information or their experiences on the network. For example, student teachers on teaching practicum in Turkey were contacting their university on any area of concern and received support through emails from experts or discussion boards from both peers and experts (Koc, 2011, p. 116).

Similarly, a college supervisor can initiate and facilitate a discussion on an area of interest to student teachers. For example, Melissa Mallon, a Coordinator of Library Instruction at Wichita State University in the USA successfully facilitated online activities to strengthen her lessons on how undergraduate students could use various research tools in the library (Mallon, 2013, p. 21). Using SubjectPlus, a research guide software, students were able to collaboratively create an online research guide with links to books, databases, journals, and websites that students could use to write their research projects (Mallon, 2013, p. 21). In addition, she also coordinated activities on Piazza, an educational social network where students could post questions or discuss issues related to an English language course (Mallon, 2013, p. 21).

In another study, Megan Guise, a teacher educator decided to continue mentoring his students beyond graduation across United States of America and other parts of the world by using Web 2.0 technologies. He realised that he could use virtual mentoring to encourage collaboration, professional development and continued sense of belonging and support to his
former student teachers (Guise, 2013, p. 65). Using emails, Guise (2013, p. 67) was able to facilitate discussions among some of his former students to create English teaching resources. Although he initially wanted to use face-to-face discussions on Skype for on campus meetings, it failed to materialise due to family, social and professional obligations of the participants. However, he was more successful with group discussions on the English Companion Nting where contributors created their profiles and participated in discussions of interest. Plans are already in place for Megan Guise to partner his current student teachers with alumni using blogging, Twitter and Goodreads. Some of his English methods assignments require his current student teachers to make contact with at least one of his former student teachers on a blog; share teaching and learning materials like pictures, videos of them teaching and resource materials; and plan together on how to teach a particular topic (Guise, 2013, p. 69). As the pair interacted on the blog, Guise (2013, p. 69) found that both his current student teacher and the former student teacher were enriched. The current student teacher would get support on how to plan and teach a topic, while the alumni will acquire knowledge and skills of how to become a good mentor. He also had intentions of using Twitter accounts to post links to useful websites, inspirational quotes on teaching, books to enhance their professional growth and sharing student teachers’ experiences during teaching practice in schools. In addition to his plans with blogging, and Twitter, Megan Guise intended to create an account on Goodreads for his current and former student teachers in which they would share what they read recently, what they are reading, what they plan to read, and sites where they could obtain further reading material.

In a similar study, Zagami (2010, p. 73) found that the involvement of pre-service students on Twitter during teaching practicum significantly reduced the levels of stress compared with a controlled group that was excluded from the social networking activities. The student teachers used the social network for activity sharing, achievement sharing, attitude sharing, resource and event sharing with their peers (Zagami, 2010, p. 71). Some of the trainee teachers in the same study claimed that it would have been very difficult to complete their teaching practicum without the support of the social network (Zagami, 2010, p. 73). Similarly, student teachers in New Zealand confirmed that the experience gained during online courses proved handy during teaching practice (Starkey & Rawlins, 2011, p. 10).

Although online learning could be an effective tool in supporting pre-service teachers during teaching practicum, both teacher educators and student teachers should be comfortable with
using technology. Murley, Jukes and Stobaugh (2013, p. 2) found that some of the teacher educators were not enthusiastic with the use of technology to support student teachers. Similarly, Mayes and Burgees (2010, p. 42) found that student teachers in China, Bangladesh and Scotland do not use information communication technologies unless they are integrated into their assessed activities. A recent study by Juutinen, Houvinen and Yolaho (2011, pp. 104-105) revealed that technophobia – a fear for technology is increasingly becoming a problem in our technological society. Likewise, Postle and Tyler (2010, pp. 65-66) acknowledge that there is a reluctance on the adoption and use of online approaches by some Australian teacher education institutions. Starkey and Rawlins (2011, p. 28) warn that constructive conversations among student teachers do not mushroom on their own unless teacher educators equip their trainees with skills and knowledge on the benefits of social networking prior to teaching practice. Therefore, teacher educators are encouraged to initiate formal and informal online groups so that trainee teachers are comfortable with sharing their learning experiences or searching for assistance from supervisors, peers, and experts on areas of concerns (Stair et al., 2012, p. 153). A study by Goktas and Yildirim (2009, pp. 194-195, 197, 199) identified some of the barriers and enablers of ICTs integration into pre-service education programmes. The main barriers were a lack of in-service training for teacher educators, software or hardware, knowledge and skills of ICTs or ICTs integration and technical support. The main enablers were having technology plans, offering in-service training and support for teacher educators, and allocation of more money for information communication technology (ICT) upgrades.

A large proportion of student teachers in Zimbabwe may not be technologically literate but efforts have been made to include ICT literacy as part of the teacher education curriculum. For example, Cain and Chretien (2013, p. 2) argue that there is a ray of hope in the future use of social networks in developing countries like Zimbabwe. They predicted that the current socially connected youth will “become nimble multitaskers with the ability to coalesce fragmented online conversations into meaningful information” (p. 2). There is hope that the next generation of teacher educators and student teachers will be technologically literate and will increasingly use social networks to communicate and collaborate on issues related to teaching practicum.

Similarly, Tinmaz (2012, pp. 241-242) found that in many countries like Zimbabwe, some of the teachers and teacher educators do not have personal computers, laptops or smart
phones while in some of the developed nations with very good ICT facilities, the computers were underutilised. Worse still, some institutions with these state of the art technologies (including teacher education institutions) have not fully embraced social networking platforms because they operate on informal platforms. Some employees have reportedly been fired from their jobs because of their activities on social media (Tinmaz, 2012, p. 242). These studies show that new innovations are not automatically integrated into teachers’ practice because they have been considered beneficial by policy makers. A number of models have been suggested from literature on workplace learning for teachers such as Moloi’s (2012, pp. 31-33), Watkins and Marsick’s (1993, p. 29) and Huberman’s (1995, p. 207). All these models show that the development of a new skill or the use of new knowledge goes through a number of phases before they become part of student teachers’ professional practice. In Huberman’s model (shown in Figure 10 below), the cyclic process is interspaced with experimentation and feedback or support for the trainee.

Figure 10: Huberman’s skills development cycle

![Huberman's skills development cycle](image)

Adapted: Huberman (1995, p. 207)

The exchanges, technical inputs, demonstrations, feedbacks and supports shown in Figure 10 above are critical phases for pre-service teachers to catapult them from their comfort zones or jump start their skills development.
2.10. SUMMARY OF CHAPTER

This chapter commenced with a review of the social cognitive and social constructivist theories and how they apply to teacher education. These learning theories provided a foundation to understand the concerns of pre-service teachers as learners during teaching practicum in Zimbabwean schools. Furthermore, the learning theories also offered a strong base to make recommendations to support these teachers during this critical period of training. Social cognitivists and social constructivists’ perspectives to learning were discussed and it was noted that they generally agree that learning is an active process that involved learners using their prior knowledge to understand new information.

It was evident from literature that teaching practicum is fraught with difficulties and concerns which affect the future development of teachers. Hence the need to identify the sources of teaching concerns of pre-service teachers and to address them long before they could cause irreparable damage to their professional life. Chief among the concerns that trainee teachers experience during internships in schools are classroom management, linking theory with practice, evaluation anxiety, workload, relationships with stakeholders in the schools, teacher knowledge, and support. Numerous suggestions have also been put forward to address these concerns and most of them seek to strengthen the mentor and supervisor’s roles. Recent developments in distance education have brought on board blended learning, a form of learning that has potential to significantly reduce the severity and influence of teaching practicum related concerns.

Chapter Three addresses the research approach, design and methods related to this mixed methods case study. Some of the theories that have been reviewed in this chapter will be used to construct interview guides and questionnaire that will be used for the purpose of data collection.
CHAPTER THREE

RESEARCH PARADIGM, DESIGN AND METHODS

3.1. INTRODUCTION

In the previous chapter, a literature study was undertaken and the theoretical framework that undergirds this study was provided. The focus of this chapter is on the research design and methodology. The researcher first discusses the research design, research objectives, hypotheses and questions chosen for this study. Thereafter, detailed accounts of sampling methods, methods of data collection, data analysis, data integration and interpretation, and data validation procedures will be provided together with ethical considerations. The chapter will conclude with a discussion on the limitations and delimitation of the study.

3.2. RESEARCH AIM, OBJECTIVES, HYPOTHESES AND QUESTIONS

3.2.1. Research aim

The aim of this mixed method case study was to examine pre-service teachers’ concerns relating to their teaching practicum internship at schools in Zimbabwe and to suggest forms of support that could be implemented to assist them to manage their concerns effectively in a digital era. The research objectives, hypotheses and questions are stated below.

3.2.2. Objectives of the study

The objectives of the study were to:

- examine the variation of UCE pre-service teachers’ concerns across first, second and third year levels on teaching practice;
- establish how UCE pre-service teachers’ concerns affect their classroom practice;
- identify some of the strategies used by UCE pre-service teachers to cope with teaching practicum related concerns; and
- review the forms of support that UCE pre-service teachers receive and suggest how
the support that they receive could be integrated with information communication technologies.

3.2.3. Research hypotheses

The first research objective stated above was refined into specific research hypotheses that were tested for the quantitative phase. In order to investigate how pre-service teachers’ concerns vary across the first, second and third year, hypotheses linking the areas of concern and the period of study were stated. The categories of concerns were general areas of concerns (GC), teacher beliefs (TB) and teacher knowledge (TK). The hypotheses were:

- The null hypothesis ($H_0$) for this objective was: There are “no differences” between the mean scores of general area of concerns (GC), teacher beliefs (TB) and teacher knowledge (TK) among first, second and third year student teachers during the period they are on teaching practicum. Mathematically, the null hypothesis $H_0$ was:
  
  $H_{01}$: $\mu_{GC1} = \mu_{GC2} = \mu_{GC3}$
  
  $H_{02}$: $\mu_{TB1} = \mu_{TB2} = \mu_{TB3}$
  
  $H_{03}$: $\mu_{TK1} = \mu_{TK2} = \mu_{TK3}$

- The alternative hypothesis ($H_a$) was: The mean scores of general areas of concerns (GC), teacher beliefs (TB) and teacher knowledge (TK) are “not equal” among first, second and third year student teachers during the period they are on teaching practicum. Mathematically, hypothesis $H_a$ was:
  
  $H_{a1}$: $\mu_{GA1} \neq \mu_{GA2} \neq \mu_{GA3}$
  
  $H_{a2}$: $\mu_{TB1} \neq \mu_{TB2} \neq \mu_{TB3}$
  
  $H_{a3}$: $\mu_{TK1} \neq \mu_{TK2} \neq \mu_{TK3}$

3.2.4. Research questions

A primary and secondary research questions were formulated to guide this study.
3.2.4.1. Primary research question

The primary research question was:

- What are UCE pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe?

3.2.4.2. Secondary research question

In addition to the above research question, the following secondary research questions were formulated:

- To what extent are UCE pre-service teachers’ concerns different across the first, second and third year levels?
- How do the concerns that UCE pre-service teachers have impact their ability to execute their tasks in the classroom?
- What are some of the strategies used by UCE pre-service teachers to cope with teaching practicum concerns?
- How can UCE pre-service teachers be supported to deal with their teaching practice related concerns in a digital era?

3.3. Research paradigm

In general, research is understood as a systematic investigation into a specific problem which in the process yields new knowledge. According to Creswell (2014, p. 3) there are three main paradigms in research: qualitative, quantitative and mixed methods. Guba (1990, p. 17) explains a research paradigm as a set of beliefs or assumptions that guide research studies and are characterised through their ontology, epistemology and methodology. Similarly, Teddlie and Tashakkori (2009, p. 84) regard a research paradigm as “a worldview, together with the various philosophical assumptions associated with that point of view”. In other words, a research paradigm is a set of beliefs, values and philosophical assumptions about how things work or systems of thinking. These set of beliefs, values and assumptions mainly include ontology (nature of reality or what things are), epistemology (philosophy of knowledge or the relationship between the researcher and the researched), axiology (the role
of values), *rhetoric* (language of research) and *research methodologies* (process of research) (Guba & Lincoln, 2005, p. 200; Johnson, Onwuegbuzie & Turner, 2007). The study adopted a mixed methods research paradigm which Creswell (2014, p. 3) describes as residing in the middle of the qualitative and quantitative research paradigm. Hence there is a need to expand on quantitative and qualitative research paradigm in the next section.

### 3.4. PHILOSOPHICAL WORLDVIEW OF MIXED METHODS RESEARCH

The nascent field of mixed methods has been accompanied by fierce but productive debates on what is the best paradigm for this third methodological movement and whether paradigms and methods should be mixed or not (Johnson & Onwuegbuzie, 2004, pp. 16-17; Onwuegbuzie & Leech, 2005, p. 376). Since mixed methods research paradigm resides in the middle continuum between quantitative and qualitative research paradigm, it has its own unique beliefs and philosophical assumptions of reality, knowledge and values. To understand the philosophical worldview of mixed methods research, it was critical to briefly describe the worldviews of both quantitative and qualitative research methods.

#### 3.4.1. Worldviews of quantitative and qualitative research methods

A review of quantitative and qualitative research methods shows that they have different philosophical assumptions and distinct methodological approaches. Flick (2014, p. 542) defines qualitative research as “research interested in analyzing the subjective meaning or the social production of issues, events, or practices by collecting non-standardized data and analyzing texts and images rather than numbers and statistics” and quantitative research as a research approach that is “interested in frequencies and distribution of issues, events or practices by collecting standardized data and using numbers and statistics for analyzing them”. Creswell (2014, p. 4), also explains quantitative research as “an approach for testing objective theories by examining the relationship among variables” and qualitative research as “an approach for exploring and understanding individuals or groups ascribe to a social or human problem”. From these definitions, it is clear that quantitative and qualitative research methods use different philosophical assumptions about how research should be conducted and the role of the researcher. Table 1 on the next page summarises the main philosophical assumptions of quantitative and qualitative paradigm. It is clear from Table 1 that there are differences in the knowledge claims between quantitative and qualitative approaches. For
example, the quantitative approach is also termed the traditional form of research; positivist, experimental or empiricist, and is based on the fact that the only authentic knowledge is scientific knowledge: knowledge based on science rather than on subjective assumptions or unsupported claims (Creswell, 2014, p. 7). This means that quantitative researchers can only study a phenomenon through experimentation, observation, control and measurement without influencing it or being influenced by it (Nieuwenhuis, 2015, p. 55).

**Table 1: Quantitative and qualitative worldview assumptions**

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Question</th>
<th>Quantitative</th>
<th>Qualitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological</td>
<td>What is the nature of reality?</td>
<td>Reality is objective</td>
<td>Reality is subjective</td>
</tr>
<tr>
<td>Epistemological</td>
<td>What is the relationship between the researcher and the researched?</td>
<td>Researcher is independent</td>
<td>Researcher interacts with the researched and is a research instrument</td>
</tr>
<tr>
<td>Axiological</td>
<td>What is the role of values?</td>
<td>Values-free and unbiased</td>
<td>Value-laden and biased</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>What is language of research?</td>
<td>Formal</td>
<td>Informal</td>
</tr>
<tr>
<td>Methodological</td>
<td>What is the process of research</td>
<td>Deductive</td>
<td>Inductive</td>
</tr>
</tbody>
</table>

Adapted: Teddlie and Tashakkori (2009, p. 88)

The ontological position of the quantitative paradigm holds that there is only one objective reality that is observed by the researcher who in most cases has very little, if any influence on the phenomenon or object that is being researched (Nieuwenhuis, 2015, p. 52). In simple terms, positivists believe that researchers are objectively separated from the subject matter. This means that researchers and their biases are not known to the respondents in the study and similarly the respondents’ characteristics are hidden from researchers.

In contrast, the qualitative research paradigm, according to Creswell (2014, p.8), is based on
interpretivism and constructivism, both which stem from an idealist perspective. Idealism is an ontological view that “holds that ideas and the mental (including social and cultural) are the most fundamentally real” (Johnson & Gray, 2010, p. 71). In simple terms, reality in qualitative research is fundamentally an individual’s mental activity as they interact with their actions or environment. Furthermore, an idealist viewpoint emphasises that there are multiple realities to any given phenomenon depending on the individual’s interpretation of reality (Johnson & Gray, 2010, p. 72; Nieuwenhuis, 2015, p. 56). Thus, reality in qualitative study could be viewed as being socially and psychologically constructed. The role of researchers in quantitative research is also distinctly different to their counterparts in qualitative research. In qualitative research as highlighted by Nieuwenhuis (2015, pp. 55-56) researchers’ biases may be known to participants in the study and similarly participants’ characteristics may be known to the researcher as well.

3.4.2. Worldview in mixed methods research

The researcher opted for the pragmatic philosophical worldview (knowledge claim) which has been hailed as the best philosophical foundation for mixed methods research by Creswell (2014, pp. 10-11), Johnson and Onwuegbuzie (2004, pp. 16-17) and Feilzer (2010, p. 8). This is a critical component of the present study because it enabled the researcher to interpret reality about pre-service teachers’ concerns during teaching practicum, both qualitatively and quantitatively. The researcher is cognisant that on-going debates indicate two extreme approaches where, for example, quantitative and qualitative purists postulate that the two main research approaches can only be used in specific situations and should never be mixed in a single study (Johnson & Onwuegbuzie, 2004, p. 20). Some researchers have argued against a false dichotomy between quantitative and qualitative research paradigms and advocated for their use in research (Johnson, Onwuegbuzie, & Turner, 2007, p. 125).

Given that pragmatism has been chosen as a worldview for the study it offers a philosophy according to Creswell (2014, pp. 10-11) in which the research emphasis on the problem is more important than the methods that are used. Pragmatism as a worldview is derived from the works of Peirce, James, Mead and Dewey who posit that knowledge claims “arise out of actions, situations and consequences rather antecedent conditions (Creswell, 2014, pp. 10-11). The philosophical assumptions of mixed methods studies allowed the use of methods of research that best met both the quantitative and qualitative research strategies to
investigate the concerns of pre-service teachers’ during teaching practicum. This would not have been possible if the researcher restricted his study to either quantitative or qualitative approaches exclusively. The pragmatic worldview was thus relevant for the study because it aims at solving practical problems relating to teachers’ concerns during teaching practice rather than a focus on the assumption of knowledge (Creswell, 2014, p. 11; Feilzer, 2010, p. 8). In this regard, the researcher worked with participants from both an objective and subjective point of view depending on whether he was occupied with the quantitative or qualitative aspect respectively.

Likewise, Tashakkori and Teddlie (1998, p. 30) posit that the adoption of pragmatism as a worldview enables researchers to “study what is of interest and of value to (them), study it in the different ways that (they) deem appropriate, and use the results that can bring about positive consequences within (their) value system”.

A mixed method research paradigm enabled the researcher to collect quantifiable data on pre-service teachers’ preferences, attitudes and behaviour during their school-based internships. Furthermore, the use of the mixed methods research paradigm afforded the researcher an opportunity to collect qualitative data focusing on in-depth individual interviews (with student teachers and college supervisors) to identify student teachers’ concerns, the impact of their concerns on classroom tasks and the coping strategies they used to survive teaching practicum.

3.5. RESEARCH DESIGN

A research design is a plan of the study that details the philosophical assumptions, research methodology, instruments that were employed, how data was collected and interpreted (Creswell, 2014, p. 12). In other words, the research design articulates what data was needed, what methods were used to collect and analyse data, and how all this was used to answer the research questions. In this study, a concurrent triangulation design was used (Creswell, 2014, pp. 15, 219-220; Creswell & Plano-Clark, 2011, p. 66). A research design is considered to be mixed methods if it employs both qualitative and quantitative approaches at any stage, including research question development, sampling strategies, data collection methods, data analysis, or conclusion (Johnson, Onwuegbuzie, & Turner, 2007, p. 123).
Several definitions of mixed methods have emerged over the last two decades and two of them are cited below from some of the gurus in mixed methods research. Johnson, Onwuegbuzie, and Turner (2007) define mixed methods research as a

“type of research in which a researcher or team of researchers combine elements of qualitative and quantitative approaches (e.g. use of qualitative and quantitative viewpoints, data collections, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration” (p. 123).

Similarly, Creswell and Plano-Clark (2007) define mixed methods as a

“research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases of the research process”.

These definitions provided a base on which to understand and use mixed methods research design in investigating pre-service teachers’ concerns in Zimbabwe. Furthermore, these definitions provide a strong agreement that mixed methods is a procedure for collecting, analysing and merging quantitative and qualitative data in a study with the intention of understanding and capturing trends and details of a phenomenon. For the purpose of this study quantitative data was generated from a close-ended questionnaire and qualitative data was collected from a semi-structured interviews. In addition to collecting and analysing the datasets (qualitative and quantitative data) on pre-service teachers’ concerns, the datasets were integrated with the intention of gaining a more comprehensive picture on how student teachers viewed pre-service teachers’ contexts.

### 3.5.1 Rationale for using concurrent mixed methods design

The rationale for using mixed methods was to combine complementary strengths of quantitative and qualitative research methodologies as highlighted by Johnson & Onwuegbuzie (2004, p. 16) and Creswell & Plano-Clark (2007, p. 33). Complementarity refers to the use of quantitative and qualitative methods to examine overlapping and different facets of pre-service teachers’ concerns. This produced a rich and in-depth analysis and
enhanced research validity of the integrated qualitative and quantitative research designs (Creswell, 2014, p. 202).

Mixed methods researchers acknowledge that qualitative and quantitative research methods on their own have inherent biases and weaknesses and by using mixed methods approach, it increases the likelihood that the collected data will be richer, meaningful, and ultimately more useful in responding to the research questions (Creswell, 2014, p. 202; Greene, 2007, p. xiii). In other words, the use of mixed methods in this study enhanced and enriched the researcher’s view of the Zimbabwean pre-service teachers’ concerns during teaching practice. Additional reasons for using mixed methods in this study included: triangulation, complementarity, development, initiation and expansion (Johnson & Onwuegbuzie, 2004, p. 22). Of these, triangulation and complementarity are applicable to this study.

Furthermore, the use of a mixed methods research design minimised some of the weaknesses of the quantitative and qualitative methods by maximising on their strengths. This understanding was poignantly captured by Brady and Collier (2004, p. 5) who claimed that “qualitative researchers are perhaps handicapped by a lack of quantification and small numbers of observations, whereas quantitative researchers may sometimes suffer from procrustean quantification and a jungle of dissimilar cases”. The use of the concurrent triangulation design minimised the effects of these weaknesses and strengthened the researcher’s inferences as overlapping and different data sets on pre-service teachers’ concerns were collected, analysed and merged into a coherent whole. Furthermore, according to Teddlie and Tashakkori (2009, p. 33) the use of mixed methods research is much better than either qualitative or quantitative research design on their own for the following reasons: it covers a wide range of research questions; yields better inferences and it accommodates conflicting views of reality. These reasons motivated the researcher to adopt the mixed method research design to identify and examine pre-service teachers’ concerns relating to their teaching practicum in schools.

### 3.5.2 Mixed methods research designs

There are a number of mixed methods research designs (or classification schemes) available in literature. By definition, research designs represent a way of classifying theoretical concepts that are created by “cross classifying or combining two or more simple concepts to
form a set of interrelated sub-types” (Neuman, 2006, p. 55). In other words, research designs are simplified strategies of inquiry that guide the design, implementation, analysis and integration of qualitative and quantitative results. Most of the mixed methods research designs address the following aspects: priority (i.e., qualitative or quantitative dominant); implementation design (sequential, embedded, and parallel or concurrent) and integration. Some of the popular mixed methods research frameworks are: Creswell and Plano-Clark (2007, p. 85); Teddlie and Tashakkori (2009, pp. 163-164); Caracelli and Greene (1997, p. 23). These designs differ in many ways but they have at least these common links: there is collection, analysis and integration of qualitative and quantitative at some stage during the study. Creswell and Plano-Clark’s (2007, p. 85) framework is illustrated in Table 2 below. The model has four major aspects, namely: triangulation; embedded; explanatory and exploratory.

Table 2: Mixed Methods designs

<table>
<thead>
<tr>
<th>Design type</th>
<th>Timing of qualitative and quantitative</th>
<th>Relative weighting of qualitative and quantitative</th>
<th>Mix</th>
<th>Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangulation</td>
<td>Concurrent: qualitative &amp; quantitative is conducted at the same time.</td>
<td>Equal</td>
<td>Merging of data occurs during interpretation or analysis.</td>
<td>QUAL + QUAN</td>
</tr>
<tr>
<td>Embedded</td>
<td>Concurrent &amp; sequential</td>
<td>Unequal</td>
<td>Embed one type of data within a larger design.</td>
<td>QUAN (qual) or QUAL (quan)</td>
</tr>
<tr>
<td>Explanatory</td>
<td>Sequential: quantitative followed by qualitative</td>
<td>Usually quantitative is given priority.</td>
<td>Phase 1 informs phase 2</td>
<td>QUAN → qual</td>
</tr>
<tr>
<td>Exploratory</td>
<td>Sequential: qualitative followed by quantitative</td>
<td>Usually qualitative is given priority</td>
<td>Phase 1 informs phase 2</td>
<td>QUAL → quan</td>
</tr>
</tbody>
</table>
Creswell and Plano-Clark’s (2007, p. 85) designs presented above vary on whether the qualitative and quantitative data are collected concurrently or sequentially; have equal weight or not; are mixed before or during data collection, analysis or interpretation. A concurrent triangulation design was used for the purposes of this study which in its simplest form involves collecting and analysing quantitative and qualitative data separately with the integration taking place during interpretation. Quantitative and qualitative data sets were collected at more or less the same time with respect to the same research questions. The quantitative and qualitative phases were given equal weighting during data collection, analysis and interpretation. Figure 11 on the next page provides a pictorial representation on how the concurrent triangulation design was conducted.

A number of factors were taken into consideration in using this concurrent triangulation design. The use of a concurrent triangulation design produced a thicker and richer discussion of results (Creswell, 2014, p. 202; Leedy & Ormrod, 2014, p. 270). The triangulation of the research approaches provides a platform to reveal common ground to an inquiry which in turn made the research findings more convincing and accurate (Yin, 1994, p. 92). Furthermore, the integration of two research approaches (quantitative and qualitative) allowed the researcher to confirm, cross-validate or corroborate findings from the two unique data sets (Creswell, 2014, p. 223). In other words, it enabled the researcher to examine the consistency or convergence across qualitative and quantitative data results in order to increase the validity of inferences. Thus, the real strength of a concurrent design lies in its ability to obtain two different forms of data that could be combined to produce a clear and accurate picture of a phenomenon. Last but not least, a concurrent triangulation design was used because as pointed out by Ivankova et al., (2015, p. 275), it takes less time to complete than sequential designs. Figure 11: Concurrent triangulation design
Furthermore, the integration of two research approaches (quantitative and qualitative)
enabled the researcher to confirm, cross-validate or corroborate findings from the two unique data sets (Creswell, 2014, p. 223; Creswell & Plano-Clark, 2007, pp. 65, 118). In other words, it enabled the researcher to examine the consistency or convergence across qualitative and quantitative data results in order to increase the validity of inferences. Thus, the real strength of a concurrent design lies in its ability to obtain two different forms of data that could be combined to produce a clear and accurate picture of a phenomenon. Last but not least, a concurrent triangulation design was used because it was considered by Ivankova et al., (2015, p. 275) to take less time to complete than sequential designs.

3.6. METHODS USED

A research method refers to a systematic and specific execution of a research design that includes sampling, data collection, data analysis, interpretation of findings and data validation procedures. This study employed a case study research design in which both qualitative and quantitative methods were used concurrently to build an inclusive understanding of teachers’ concerns during practicum. Creswell (2009, p. 13) defines a case study as an inquiry where there is an in-depth exploration of a programme, an event, an activity, a process or individuals bounded by time. Likewise, Bassey (2012, p. 156) and McMillan and Schumacher (2010, p. 24) assert that a case study examines an activity bounded in time and space in-depth with the intention of assisting policy makers to make informed judgments and decisions on an issue.

The use of case study research design was considered appropriate because the study sought to explore and explain the concerns that pre-service teachers experience during their teaching internship in schools at one institution offering the 2-5-3 programme. This is line with Walsham’s (1993) assertion that “case studies provide the main vehicle for research in the interpretive tradition” (p. 14). Similarly, Yin (2009, p. 13) contends that case study methods are appropriate when investigating contextual conditions of a phenomenon. An interpretative position provided an orderly approach to understand the concerns of pre-service teachers during teaching practice from a qualitative perspective. More specifically, the study contributed to an in-depth understanding of teaching practicum related concerns by providing rich thick descriptions, analysis, and interpretation of the case. Furthermore, a case study is not limited to any method of data collection or analysis (Merriam, 1998, p. 28). Therefore, a mixed methods approach was considered appropriate as it provided a
comprehensive picture of pre-service teachers’ concerns during teaching practicum.
The use of the case study approach enabled the researcher to study United College of
Education’s teaching practice component with the intention of discovering meaning,
investigating processes, gaining insight and understanding of pre-service teachers’ concerns
during teaching practice in its natural setting. The selected sample from United College of
Education (UCE) either filled out closed-ended questionnaires or described their teaching
practice experiences during in-depth individual interviews. Thus, the use of mixed methods
case study allowed for the study of a phenomenon in its natural setting using both
quantitative and qualitative methods of data collection and analysis. The analysis of their
accounts enabled the researcher to uncover and comprehend some of their strivings, tensions,
and motivations that produce certain behaviours during this critical phase of their
professional development.

In order identify and examine pre-service teachers’ concerns relating to their teaching
practicum internship at schools in Zimbabwe, a research plan was designed. The plan
involved the design of research instruments, obtaining ethical clearance, piloting the research
instruments, sampling of the research participants, collecting data, analysing and interpreting
data and report writing.

3.6.1. Research site

The research site for the study was United College of Education (UCE), one of institutions
offering the 2-5-2 programme located in the city of Bulawayo, south west of Zimbabwe
shown in Figure 12 on the next page.

The research site was purposively selected from eight teachers’ colleges in Zimbabwe that
offer the 2-5-2 programme, after considering the deployment distribution of student teachers
and urban/rural settings of the practicing schools, accessibility, the general knowledge of the
institution and the geography of the surrounding area. This selection criteria made it easy for
the researcher to access the research site and follow student teachers in schools at a low cost
and collect quality data in the process.
3.6.2. Target population and sampling

The population for this study included all the United College of Education (UCE) pre-service teachers and lecturers in pre-service programme. The enrolment of United College of Education at the time of study was one thousand six hundred and thirteen (1 613) for the three year groups and a staff complement of one hundred and thirteen (113). A sample was selected from this population that suited a mixed methods research design: probability (for the quantitative phase) and non-probability (for the qualitative phase) sampling procedures. Proper sampling was critical for this study because it had important implications for the study and validity of the inferences that were drawn from the results. Probability sampling was used to select respondents for the quantitative phase while nonprobability sampling was used to select participants for the qualitative phase as this increased external validity and transferability of the findings respectively (Teddlie & Yu, 2007, p. 78). Furthermore, appropriate sample sizes were used; quantitative research studies typically use large samples and qualitative studies normally use small samples (Kemper et al., 2003, p. 277).
3.6.2.1 Sampling for the quantitative study

In order to collect quantitative data, the stratified random sampling procedure was used to obtain a representative sample of the pre-service teachers in the 2-5-2 programme so that every member of the population had an equal chance of being included in the study. Stratified sampling refers to the sampling procedure where the researcher divides the population into distinguishable sub-groups or strata such that each participant belongs to a single stratum and then the researcher selects participants from these strata randomly and proportionally (Muijs, 2012, p. 144). The rational of using stratified random sampling was to enable the researcher to select sample sizes from each strata proportionally. Neuman (2012, pp. 99-100) is of the view that stratified random sampling can be also conceptualised as proportional stratification in that the numbers of respondents selected from each strata is proportional to the size of the strata in the population. Each of the strata in the population was assumed to be having an experience that was different from the other groups.

The student teacher population from three year groups was one thousand six hundred and thirteen (1613) pre-service teachers. Three hundred students were drawn proportionally and randomly from the population. The main advantage of random sampling according to Neuman (2012, p. 93) is that it produces samples that are true representative of the population and this made it easier for the researcher to generalise the results to the entire population. Table 3 below shows the sample sizes of each stratum for the quantitative phase.

**Table 3: Quantitative phase sample sizes distribution**

<table>
<thead>
<tr>
<th>Programme</th>
<th>ECDP</th>
<th>GP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Year</td>
<td>30</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Year</td>
<td>30</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Year</td>
<td>30</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td>90</td>
<td>210</td>
<td>300</td>
</tr>
</tbody>
</table>
Enrolment figures at the intuition showed that there were about five GP students for every two ECDP students. Hence, the number of respondents selected from the GP group were more than the number of respondents in the ECDP group. The respondents were selected using the year group name list and a table of random numbers. This procedure served to eliminate sampling bias or error in the selection of the sample (Neuman, 2012, p. 93).

3.6.2.2 Sampling for the qualitative study

Purposive sampling was used to select a sample for the in-depth interviews as it had the potential to yield participants with rich and thick information that was of interest to this study. Purposive sampling refers to the type of sampling in which participants were deliberately selected for the important information that they could provide to respond to research questions (Creswell, 2014, p. 189; Maxwell, 1997, p. 879). Therefore, purposive sampling involves identifying sub-groups within the population and selecting participants from each sub-group in a purposive manner. The interviewees were selected for their relevance to the study rather than for their representation. This form of sampling yielded fitting cases with rich information on the concerns experienced by pre-service teachers during their internship in schools. Twenty four pre-service teachers were selected for this qualitative phase with eight (8) participants being selected from each of the three year groups of the 2-5-2 programme. The ECDP and GP samples comprised three (3) and five (5) participants respectively per year group. Table 4 below shows the sample sizes of each stratum for the qualitative phase (in-depth interviews).

Table 4: Qualitative phase sample size distribution

<table>
<thead>
<tr>
<th>Year Group</th>
<th>ECDP</th>
<th>GP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2nd Year</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>3rd Year</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>15</td>
<td>24</td>
</tr>
</tbody>
</table>
More participants were selected from the GP than the ECDP because statistical data from the institution showed that there are generally more pre-service teachers in the GP than the ECDP.

Opinions of six college supervisors on pre-service teachers’ concerns during practicum were also sought to verify Six (6) college supervisors were also selected the following departments and programmes: Teaching Practice (1), ICT (2), ECDP (1) and GP (2) based on their wealth of experience, knowledge and expertise in supervising student teaching during teaching practice. The researcher made use of the expert judgement of The Teaching Practice Department personnel to identify and select the twenty four (24) pre-service teachers and the college supervisors as they have more knowledge and details of their students and staff who are involved in teaching practice supervision. Participants from the pre-service teachers were selected from those who had expressed concerns or shown some signs of concerns during teaching practice and who were willing to participate in the study. Similarly, the selection of the college supervisors was guided by years of experience, expertise, willingness to participate in the study and relevance to the study.

3.6.3. Instrumentation

A single structured questionnaire (for student teachers) with closed-ended items and two interviews guides (one for student teachers and another for college supervisors) with open-ended questions were used as data collection instruments during the study. The questionnaire was used to collect quantitative data while interview guides were used to collect qualitative data. The instruments are further explained below.

3.6.3.1. Questionnaire

A single structured questionnaire with 54 items was used to unearth concerns that pre-service teachers experience during their internship in schools. The items focused the trainee teachers’ attention on what they felt uncomfortable with during teaching practicum. The researcher used closed-ended questions with 4, 5 and 6 point Likert scales for the survey items as they could focus the participants’ attention on specific issues of interest, they took less time to administer, and they allowed the participants to choose one of the options
indicating a level of agreement or disagreement with a statement. The approximate time to complete the questionnaire was estimated at twenty-five minutes. The questionnaire comprised the following sections and subsections (see Appendix K for details):

- **Demographical information** – gender, age group, programme, subjects passed at ordinary level and main study;
- **General area of concern of pre-service teachers** – sixteen items using a 4-point Likert scale ranging from 1 (Never stressed me) to 4 (Stressed me all the time);
- **Pre-service teachers’ beliefs** – eighteen items using a 5-point Likert scale ranging from 1 (Nothing) to 5 (A great deal) and has three subscales: disciplinary self-efficacy (four items); instructional self-efficacy (three items); and assessment practice self-efficacy (five items);
- **Teacher’s knowledge** – fifteen items using a 6-point Likert scale ranging from 1 (Strongly disagree) to 6 (Strongly agree).

The use of a questionnaire for the purposes of this study presented the following advantages: it was economical, in terms of time and money; it was able to elicit information from 300 pre-service teachers; was easy to standardise and removed interview bias (McMillan & Schumacher, 2010, pp. 195, 205). The use of a questionnaire also placed less pressure on the pre-service teachers as they could complete it in their own time and they were able to divulge sensitive information since they were assured of anonymity and confidentiality (McMillan & Schumacher, 2010, p. 195; Leedy & Ormrod, 2014, p. 197).

3.6.3.2. Interview guide

Two interview guides were prepared for this study to collect qualitative data; one was for pre-service teachers and another for supervisors. Both interview guides included both standardised open-ended or semi-structured questions. According to Jansen (2015, p. 9), open-ended questions allow the researcher to elicit honest responses to complex issues, provide participants’ opportunities to express their perceptions and interpretation of their experiences on the phenomenon under study in rich detail, and allow for varied ways of responding to questions. Teddlie and Tashakkori (2009, p. 229) also claim that open-ended questions could generate substantial information that could lead to new understanding of the phenomenon under investigation. The questions in both interview guides were structured in
such a way so as to elicit information on pre-service teachers’ concerns during teaching practicum from college supervisors and student teachers. Standardised open-ended interviews (30 in total) were used to collect qualitative data. According to Teddlie and Tashakkori (2009, p. 229) standardised open-ended interviews are interviews where the exact wording and sequencing of questions are employed. The interview guide for student teachers comprised nine questions while the one for supervisors comprised of seven (see Appendices L and M for details). Thus, the individual interviews with the two groups of participants enabled the researcher to capture and develop an in-depth understanding of pre-service teachers’ concerns during teaching practice internship in schools. The questions in both guides focused the participants’ attention on student teachers’ concerns during teaching internship in schools; forms of support that they receive from mentors, college tutors and peers; and suggestions that information communications technologies could play to alleviate pre-service teachers’ concerns during their internship in schools.

3.6.3.3. Pilot testing instruments

Teddlie and Tashakkori (2009, p. 203) define a pilot study as a small study that is undertaken to test instruments before the actual data collection. The research instruments (questionnaire and the interview guides) that were used in this study were pilot-tested in March 2014 at one of the colleges offering the 2-5-2 programme using 18 student teachers and two supervisors. The main purpose of the pilot study was to identify flaws in the research instruments with a view to improving the items or questions before they were used in the actual questionnaire. The revised instruments were reviewed by the promoter and fellow research colleagues. This process was done to enhance the validity and reliability of the research instruments as well as the appropriateness of the data collection procedures that were planned for this study.

In designing the instruments for the study, the researcher took cognisance of measurement validity (quantitative) and credibility (qualitative) in this mixed methods study because these constructs cannot be measured, observed or measured directly but indirectly. Hence, the measures of validity or credibility showed how well an instrument was able to measure its unobservable attribute. Within the context of this study, validity or credibility of the research instruments referred to their representativeness to all the elements (Delport, 2005, pp. 160-161) that pre-service teachers were experiencing during their internship in schools. In other words, to what extent did the instruments cover all topics, issues, content or dimensions of
the phenomenon it intended to measure? Leedy and Ormrod (2014, p. 93) and Teddlie & Tashakkori (2009, pp. 209-210) are of the view that content validity could be established through judgements of other researchers or experts. This explains why the instruments had to be reviewed by experts within teacher education. Rogers (1995, p. 6) expressed a similar view of enhancing instrument validity through peer review, but posits that content validity should include literature review in addition to expert judgements of other researchers.

In addition to measurement validity/credibility, reliability/dependability of an instrument was important in eliciting quality data for the purposes of this study. According to Leedy and Ormrod (2014, p. 93) reliability of an instrument “is the consistency with which a measuring instrument yields a certain, consistent result when the entity being measured hasn’t changed”. In contrast, dependability is the qualitative equivalent of quantitative concept of reliability (Teddlie & Tashakkori, p. 209). In other words, reliability of an instrument is its ability to consistently and accurately measure the concept under investigation over a period of time. For example, Leedy and Ormrod (2014, p. 93) identified four forms of reliability that are of interest to researchers in quantitative research:

- **Interpreter reliability** – the degree to which two or more participants give the same results;
- **Test-retest reliability** – the degree to which the same instruments will give the same results on different occasions;
- **Equivalent forms reliability** – the degree to which different versions of the same instrument will produce similar results; and
- **Internal consistency reliability** – the degree to which items in an instrument produce similar results.

The researcher determined the reliability of the questionnaire using Cronbach $\alpha$ values for the main subsections of the questionnaire. The Cronbach’s $\alpha$ values were determined by an independent researcher. Cronbach’s $\alpha$ values show the inter-item correlations or internal consistency of an instrument’s items (Field, 2013, p. 709; Pietersen & Maree, 2015c, p. 216).

As for the interview schedules, the researcher asked his research colleagues to review the interview guides for accuracy and content. They were asked to assess the validity of the
instruments as well as to check for grammar, ambiguous statements and the order in which the questions were asked. A number of suggestions were presented and some of them were used to fine tune the research instruments. The modified instruments were then tested using a small sample of 2-5-2 student teachers from another college.

The Teaching Practice Department was requested to identify 18 student teachers and two college supervisors who were involved in the pilot study for the quantitative phase (see Table 5 below). Equal representation among the three year groups of pre-service teachers was used while proportional representation was used in constituting the participants from the Early Childhood Education Programme (ECDP) and General Programme (GP). From each year group, there was one student from the ECDP group and two students from the GP that were selected for each instrument. This ratio was used because there are generally more student teachers in the GP than the ECDP group. Nine student teachers were requested to complete the questionnaire and another nine were interviewed by the researcher. Two college supervisors were selected and interviewed from the ECDP and GP groups respectively.

Table 5: Pilot study sample

<table>
<thead>
<tr>
<th>YEAR GROUP</th>
<th>ECDP</th>
<th>GP</th>
<th>ECDP</th>
<th>GP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>2nd Year</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3rd Year</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

During the pilot interviews, the researcher found that the Ministry of Education had introduced Agricultural Science as a new learning area in all grades as from January 2014 and some of the participants confirmed that they had not been prepared adequately to teach the subject in the schools. As a result of these findings, the researcher modified questions ‘40’ and ‘41’ in the questionnaire to include Agricultural Science in addition to Science.
None of the other items in the original questionnaire were modified.

The interviewees experienced problems in understanding and responding to the questions on how their concerns had affected their ability to execute their tasks in the classroom and how ICTs could be used to address their concerns during their internship in schools. These questions were rephrased. The two questions on the forms of support they required during teaching practice were divided into three questions so as to include mentor or other teachers’ support, college tutor’s support and peer support. These questions were also rephrased so that they could uncover what forms of support they were currently receiving and what they expected from their mentors, tutors and peers. One extra question was added to the interview schedule which requested that the interviewees identify and justify the form of support they considered most helpful. The pilot study thus enabled the researcher to identify the changes that needed to be effected to both the interview schedule and the questionnaire. These changes were made and the re-adapted versions of the instruments were used.

3.6.4. Data collection

The researcher used data collection approaches that are compliant with concurrent mixed methods design where quantitative and qualitative data were collected separately at approximately the same time or with a slight time lapse between the phases (Ivankova, 2015, p. 20; Leedy & Ormrod, 2014, p. 270). A survey design was used for the quantitative phase while interviews were employed for the qualitative phase. This data collection approach is commonly referred to as triangulation because it uses a multi-variant approach and it has the potential to strengthen the findings of a study (Creswell, 2014, pp. 15, 219-220). Furthermore, the use of triangulation increases the degree of reliability, trustworthiness and validity of the research findings (Bush, 2007, p. 100; Scott & Morrison, 2006, p. 253).

3.6.4.1. Quantitative data collection process

The researcher used a modified Teachers’ Sense of Efficacy Scale questionnaire with closed-ended items for the quantitative phase. The questionnaire was adapted to the Zimbabwean context after receiving permission to use it from Anita Woolfolk-Hoy. For easy distribution and collection, the questionnaires were issued to the sampled student teachers during vacation school sessions when particular year groups were attending lessons at the college.
Completed questionnaires were collected by the Teaching Practice Department. A single questionnaire was administered among 300 student teachers in the 2-5-2 programme between August 2014 and March 2015.

3.6.4.2. Qualitative data collection process

For the qualitative phase, one semi-structured interview was conducted with each of the 30 purposively selected participants that included 24 pre-service teachers and six college supervisors. For consistency in interviewing the participants, the researcher used interview schedules with predetermined questions (see Appendices L, M and N for details). Prior arrangements were made with each participant to discuss the purpose of the study and interview modalities like the use of pseudonyms, taking of notes, recording device, and consent form. A sample of the information sheet (see Appendix H) and consent forms that was were used during the interviews is attached as Appendix J. Interview questions were open-ended, semi-structured and ordered in such a way that it was easy for the researcher to capture and analyse the participants’ attitudes, feelings, beliefs, experiences and reactions to concerns they had during teaching practice and the support they require. During the interviews, the researcher avoided giving his personal opinion on the interviewee’s contributions, but probed where additional information was required. These interviews were audio-recorded and notes were also taken by the researcher. Thereafter, the audio recordings were transcribed. The interview record was given to each of these interviewees in order to conduct a member check and validate the researcher’s interpretation. This ensured the internal validity or credibility of the collected data.

3.6.5. Data analysis

This section explains how the collected data was analysed. Data analysis is generally accepted in research as a process of organising and transforming data into findings and searching for (and explaining) patterns in the given data in order to address the research questions (Bernard & Ryan, 2010, p. 109; Creswell & Plano-Clark, 2011, pp. 203, 208; Patton, 2015, p. 521). In other terms, data analysis is a process where researchers systematically organise and interpret data. Data analysis in mixed methods research involves making sense of both qualitative and quantitative data. Quantitative and qualitative research approaches differ in the way they analyse data in addition to the way data is collected (Gelo,
Braakmann, & Benetka, 2008, pp. 268-271). Qualitative analysis utilises predominantly inductive methods (Teddle & Tashakkori, 2009, pp. 250-151) that allow for the generation of new ideas and theories, explanations of how and why a phenomenon occurs and the range of their effects, and exploration of associations between attitudes, behaviour and experiences. On the other hand, quantitative analysis utilises deductive methods (Teddle & Tashakkori, 2009, p. 250) that are ideal for measuring pervasiveness of known phenomenon and central patterns of association, including inferences of causality. Therefore, mixed methods analysis involves qualitative and quantitative data analysis that are “combined, connected, or integrated in research studies” (Teddle & Tashakkori, 2009, p. 263). In this concurrent mixed methods design, qualitative and quantitative data were analysed separately while the mixing of the data sets only took place during interpretation.

3.6.5.1. Quantitative data analysis

In quantitative research, data analysis is viewed as a process of presenting and interpreting numerical data using statistical methods (Creswell & Plano-Clark, 2011, pp. 207; Teddle & Tashakkori, 2009, p. 256). Creswell & Plano-Clark (2011, pp. 205) proposed a format for analysing quantitative data that involves the following stages: data preparation, exploration of data and analysis, representation, interpretation and validation of data. Data from the quantitative survey were analysed using both descriptive and inferential statistics. According to Creswell (2009, p. 152) descriptive statistics should include the means (i.e., average, median and mode), standard deviation, and the range of the variables. In general, descriptive statistics procedures are used to organise, summarise or describe numeric data so that it can be clearly presented and interpreted. In addition, inferential statistics were used to examine the descriptive statistics results to make deductions on some of the population parameters.

As soon as questionnaires were received, they were scrutinised to check if they were useable and then numbered for easy identification or else they were excluded from any further statistical analysis. Out of the initial 300 questionnaires that were initially distributed, 193 questionnaires were fully completed among those that were returned. This represented a return rate of 64.3% which Ladik, Carrillat and Solomon (2007, p. 266) considered good.

Prior to capturing data from completed questionnaires, all the items were coded by assigning numeric values to all the responses in the questionnaire for capturing into Microsoft Excel.
document format. A spreadsheet with all responses was prepared with in-built mechanisms to check the validity of the entered values. For example, certain items only allowed numeric values in a certain range. This was put into place to reduce capturing errors. When a questionnaire was received, it was scrutinised to check if it was fully completed and then numbered for easy identification or else it was excluded from any further statistical analysis. Responses of correctly completed questionnaires were captured onto a spreadsheet.

As soon as the data was entered into SPSS software, the researcher conducted an exploratory data analysis (where the data is visually inspected, conduct descriptive analyses, and check for trends and distributions) so as to identify and remove duplicate entries or errors (Creswell & Plano-Clark, 2011, pp. 205-206). An adapted version of the quantitative data analysis procedures that was used is presented in Table 6 below.

To make sense of the collected data, the researcher organised and summarised the raw data and conducted an exploratory data analysis. Firstly, a summary of the demographic information (i.e., gender, age group, programme, main study, and subjects passed at ordinary level) of the participants involved in the study was collated. The results were represented using frequencies, percentages, diagrams, tables and then analysed descriptively.

Secondly, the frequencies from each ranked item were identified, and the means and standard deviations of the eight categories (i.e., general areas of concerns; disciplinary self-efficacy; instructional self-efficacy; assessment self-efficacy; learning environment self-efficacy; teacher knowledge; pedagogical knowledge and pedagogical content knowledge) of these experiences were computed.

Table 6: Quantitative data analysis procedures

<table>
<thead>
<tr>
<th>Stage number</th>
<th>Data analysis stage</th>
<th>Quantitative data analysis procedures</th>
</tr>
</thead>
</table>
| 1.           | Data preparation    | - Coding of data by assigning numeric values  
|              |                     | - Prepare data for analysis with computer  
|              |                     | - Clean the dataset  
|              |                     | - Recode or compute variables for computer and analysis  
<p>|              |                     | - Establish codebook  |</p>
<table>
<thead>
<tr>
<th>Stage number</th>
<th>Data analysis stage</th>
<th>Quantitative data analysis procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Exploration of data</td>
<td>• Visually inspect data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Conduct descriptive analyses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check for trends and distributions</td>
</tr>
<tr>
<td>3.</td>
<td>Analysis of data</td>
<td>• Choose statistical tests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Analyse data to answer the research questions or test hypotheses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Report inferential tests, effect sizes and confidence interval</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use SPSS</td>
</tr>
<tr>
<td>4.</td>
<td>Representation of data</td>
<td>• Represent results in the statement of results</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provide results in tables and figures</td>
</tr>
<tr>
<td>5.</td>
<td>Interpretation of data</td>
<td>• Explain how the results address the research questions or hypotheses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compare the results with past literature, theories, or prior explanations.</td>
</tr>
<tr>
<td>6.</td>
<td>Validation of data</td>
<td>• Use external standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Validate and check the reliability of scores from past instrument use.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establish validity and reliability of current data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Assess the internal and external validity of results.</td>
</tr>
</tbody>
</table>

Adapted: Creswell and Plano-Clark (2011, pp. 205-206)

The analysis was undertaken to summarise and discover trends and distributions in the survey data. This further enabled the researcher to gain insight into the collected data, detect anomalies in the data as well as propose preliminary models of variation of pre-service teachers’ concerns during the period when they are on teaching practice. The exploratory data analysis also guided the researcher to select the most appropriate statistical tests that could be used for the purposes of this study. Thereafter, the means and standard deviations were compared among the year groups and programmes to determine if there was any link between the year of the course and levels of concern. The t-test and analysis of variance
(ANOVA) was also used to assess if the means of the eight categories in the questionnaire for the three year groups are statistically similar or different from each other or not (see section 4.8). Charts, graphs and tables generated from the SPSS programme were integrated in the analysis. In addition, regression analysis was used to model the behaviour of pre-service teachers’ concern across the three year period.

A summary of the results from the spreadsheet were transferred to SPSS software for statistical analysis. A one-way Multivariate Analysis of Variance (MANOVA) with three dependant variables: general area concerns (GC), teacher beliefs (TB) and teacher knowledge (TB) and one independent variable at three different levels, that is year 1, 2 and 3 was conducted. The main purpose of the test was to investigate if there were any differences between the levels of perceptions of teaching practice concerns among the three year groups. The results from the MANOVA also enabled the researcher to identify combinations that needed further tests. In cases where there were significant effects, a series of one-way ANOVA tests were implemented to test if there were any statistically significant differences in the mean scores between the three year groups.

The focus at this stage was on the interpretation and comprehension of the multivariate effect of the data. Comparisons among the three year groups were performed for each category of teaching practice concerns. This enabled the researcher to identify groups that had different statistical mean scores (Pietersen & Maree, 2015a, p. 229).

3.6.5.2. Qualitative data analysis

Mouton (2011, p. 108), understood qualitative data analysis as a process that “involves breaking up the data into manageable units, patterns, trends and relationships … relationships between concepts or variables, and to see whether there are any patterns or trends that can be identified or isolated, or to establish themes in the data”. Similarly, Stake (1995, p. 78) defines qualitative data analysis as “a search for patterns, for consistency, for consistency within certain conditions which we call correspondence”. Likewise, Mouton (2011, p. 108) says qualitative analysis “involves breaking up the data into manageable units, patterns, trends and relationships … relationships between concepts … and to see whether there are any patterns or trends that can be identified or isolated, or to establish themes in the data”. From these definitions, qualitative data analysis was understood as a process of
data reduction strategy that aims at summarising and capturing the key elements of one’s study by transforming qualitative data into codes, categories and themes. This process of analysing qualitative data is commonly referred to as thematic analysis (Braun & Clarke, 2006, p. 79; Teddlie & Tashakkori, 2009, p. 252) or content analysis (Patton, 2015, p. 541; Bernard & Ryan, 2010, pp. 287-289).

An inductive thematic analysis was used in analysing qualitative data. Braun and Clarke’s (2006, p. 93) thematic model of data analysis shown in Figure 13 below was used.

**Figure 13: Braun and Clarke’s model of thematic qualitative data analysis**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Familisation with data** | • Listened repeatedly to the recordings.  
• Read and re-read the transcriptions.  
• Wrote some notes on the margins of the transcriptions. |
| **Generation of codes** | • Used same colour codes to make similar phrases.  
• Made inferences on the emerging codes. |
| **Searching for themes** | • Classified the codes and put them into themes.  
• Described meaning of each theme including what they include and/or exclude. |
| **Reviewing themes** | • Asked myself the following questions: Do the themes make sense?  
Do they cover the entire data?  
• Generated a thematic or cognitive map analysis. |
| **Defining and naming of themes** | • Gave names to the themes and developed working definitions.  
• Described which data is covered by each theme. |
| **Producing the final report** | • Finalised my selection of themes that addressed the research questions.  
• Verified data using personal & member checks, plus peer review. |

Adapted: Braun and Clarke (2006, p. 93)

The process of qualitative data analysis commenced with the researcher immersing himself in the data by repeatedly listening to the interview tapes so as to get a birds’ view; categorisation and organisation of data in search for patterns, themes and meanings that emerged from the data. Thereafter, a word for word transcription of the key interviews was undertaken. This approach had the advantage of capturing the actual words of participants and it reduced distortion of data associated with the other approaches. The rationale for using
thematic analysis was that it is an efficient approach of summarising massive and varied
textual data from which research findings can easily be drawn (Patton, 2015, p. 542). This
model enabled the researcher to identify and classify patterns, concepts, themes and
meanings that emerged from participants’ experiences.

Data analysis began with several readings of the transcriptions to firstly gain a broad
understanding and later a more thorough understanding of the texts. Thus, the intention in
the first phase was for the researcher to familiarise himself with the data. This was followed
by open coding where labels were attached to portions of text or phrases that were considered
relevant to the research questions (Patton, 2015, p. 542; Creswell & Plano-Clark, 2011, p.
208). This involved identifying and marking key words, phrases or paragraphs describing
concerns of trainee teachers and assigning labels to them. Searching for themes refers to the
process of scrutinising and assembling the codes to identify broader patterns of meaning or
themes. A theme is viewed by Braun and Clarke (2006, p. 82) as “a dominant feature or
characteristic of a phenomenon under study”. Hence, the identified themes in this study were
conceptual linkages between portions of texts in the transcriptions and were derived from a
bottom up coding (Bergman, 2010, p. 391). In other words, the themes were developed
inductively from codes and categories that had emerged from raw data.

The fourth phase involved revisiting the transcripts once more under the lens of the identified
themes. The intention of this next round of coding was to perfect the initial set of categories
and themes; and thus remain with core themes that showed internal coherence. Some of the
initial themes were merged, split, or removed completely. During the defining and naming
phase, the researcher described the meaning of the themes in detail as they are used in this
study. Producing the final report refers to the process of interweaving the analytic narratives
and direct quotes; and a critical comparison of the results with existing literature. A critical
comparison of the findings with existing literature will be effected in Chapter 6. This was
accompanied by a thorough examination of the manner in which the themes were expressed
and an exploration of the relationships between the themes. The process of developing
themes was not linear, but as portrayed in Braun and Clarke’s (2006, p. 93) model in Figure
14 (on the next page), it could best be described as an iterative or recursive process because
of the cyclic or repetitive nature of the process of finalisation of the list of themes.
3.6.5.3. Quantitative and qualitative integration, analysis and discussion

The analysis of the quantitative and qualitative data was followed by the integration of data in which the findings from the two phases (quantitative and qualitative) were brought together for comparison, analysis and interpretation to form one coherent whole. Creswell and Plano-Clark (2007, p. 7) suggest that in mixed methods research, it is inadequate to simply collect and analyse quantitative and qualitative data separately; since there is a need for the datasets to be intermeshed with each other without loss of their quality and nature. According to Creswell (2015, p. 75) “Integration refers to how one brings together the qualitative and quantitative results in a mixed methods study”. Similarly, Onwueguzie and Leech (2006, p. 491) described integration as “the final stage, whereby both quantitative and qualitative data are integrated into a coherent whole or two separate sets”. Simply, integration is a process of merging the two data sets into a coherent discussion.

The decision on when to merge quantitative and qualitative datasets is an important stage in the mixed methods research design (Creswell & Plano-Clark, 2007, pp. 80-81). Two issues are critical during this stage: when is integration going to take place (Creswell, 2009, pp.
208, 210; Ivankova, 2015, p. 21) and which methods will be used to mix the data (Creswell & Plano-Clark, 2007, pp. 80, 83). In this study, the mixing of the datasets took place during the final step of the research process after the separate analysis of the data sets (Creswell, 2014, pp. 223; Ivankova, 2015, p. 21). There was no interaction between quantitative and qualitative data during collection and analysis of data. Creswell and Plano-Clark’s (2011, pp. 215-216) framework for data analysis for a concurrent mixed methods research design was adopted and adapted for this study. The process involved the following steps:

- Collecting the quantitative and qualitative data concurrently.
- Independently analysing the quantitative and qualitative data using the most suitable analytic approach.
- Specifying the dimensions by which to compare the results from the two datasets.
- Specifying what information would be compared across the dimensions.
- Completing the refined analysis.
- Representing the comparisons.
- Interpreting how the merged data would respond to research questions.
- Summarising findings and recommendations.

The first two steps in the process above were completed in Chapter Four and Chapter Five respectively where data was collected and analysed separately using appropriate analytic approaches. The last step in the process was completed in Chapter Six and Chapter Seven.

A number of methods of integrating quantitative and qualitative datasets have been suggested from literature depending on the type of mixed methods design. According to Caracelli and Greene (1997, pp. 196-197), there are four procedures in which data in mixed methods research can be merged: data transformation, typology development, extreme cases analysis, and data consolidation/merging. The researcher used a combination of data transformations and consolidation/merging to integrate quantitative and qualitative datasets. Data transformation involves changing one dataset into another (e.g., counting the occurrence of the themes in the qualitative data) and comparing the transformed dataset with the other dataset (i.e., the quantitative dataset). With the consolidation approach, quantitative and qualitative datasets are discussed together for example reporting the quantitative statistical results followed by qualitative quotes or themes to confirm or refute the quantitative results.
The rationale for mixing qualitative and quantitative datasets was to strengthen the research findings of this study (Baxter & Jack (2008, p. 554). Given that each data source in this study is a small piece of the puzzle and when the pieces are brought together, they produced a compact picture of the concerns that pre-service teachers encounter during teaching practice.

3.7. VALIDITY AND RELIABILITY

The value and practicability of a study is determined predominantly by the quality of data collection and analysis employed, which is validity and reliability in quantitative research; trustworthiness and dependability in qualitative research and legitimation and synchronic reliability in mixed methods research (Onwuegbuzie & Johnson, 2006, p. 48). In research, validity is generally viewed as a level of accountability and legitimacy that is achieved during research design, sampling, data collection, analysis and interpretation. For Morse, Barrett, Mayan, Olson and Spiers (2002, p. 13) validity and reliability are achieved when researchers rigorously follow a number of verification strategies in their research. To ensure quality of the results in this mixed methods study, key validity and reliability issues of quantitative methodology, credibility and dependability issues of qualitative methodology, and legitimation and synchronic reliability issues were incorporated in the research design.

3.7.1. Quantitative validation procedures

Validity is a concept that is widely used in a number of ways in research and it has numerous viewpoints. Kirkhart (2005) defines validity as “an overall judgement of the adequacy and appropriateness of evaluation-based inferences and actions and their respective consequences” (p. 30). Hence, validity in this study was viewed as a concept that measures the degree to which the collected evidence supports the interpretation of the data. In other words, validity was equated to the soundness of the researcher’s inferences from the evidence that was gathered during the investigation.

Therefore, the only potential threats to the study were selection bias and attrition or experimental mortality. Selection bias was minimised by using probability sampling to select the participants for the quantitative phase. Threats arising from non-submission or late submission of the questionnaire are foreseen and this may skew the final sample from which information was be used to draw up inferences. As a precaution to minimise the effects of
experimental mortality, follow-up reminders and promises of anonymity have been planned to improve the response rate of the questionnaires.

Another key form of validity in quantitative research is external validity. External validity refers to the degree to which research findings can be generalised to and across individuals, contexts and time periods (Leedy & Ormrod, 2014, p. 98; Ryan, Scapens & Theobald, 2002, p. 123). In other words, external validity is the degree to which findings of this study can be applied beyond this current study, that is, to other teachers’ colleges offering the 2-5-2 programme in Zimbabwe or similar programmes in other countries. Ryan, Scapens and Theobald (2002, p. 123-124) identified three key potential threats among others to external validity in quantitative research: population, time and environmental. With respect to population validity, they argued that if the sample that is drawn from the population is biased, small or not random, then external validity is severely jeopardised. For the quantitative phase of the study, a large randomly selected sample (N = 300) was drawn from the entire population of United College of Education. This ensured that the potential threats associated with the selection of the sample are minimised and the generalisation of research findings to the entire population was credible.

Time validity was identified as a potential threat to external validity of this study. Time validity refers to the degree to which the results of this study can be applied to other time periods (Ryan, Scapens and Theobald, 2002, pp. 123-124). The results of this study may or may not be generalised to other time periods because the 2-5-2 is continuously undergoing reviews as the stakeholders see fit.

Apart from internal and external validities, the quality of inferences may be influenced by credibility of the instrument i.e., validity of measurement instrument. According to Leedy and Ormrod (2014, pp. 91-92) there are four forms of validity of measurement instrument: how well does an instrument measure what it purports to measure, namely: content validity, criterion validity, construct validity and face validity. Construct validity addressed the issue of whether the questionnaire was able to measure an unobservable construct of human behaviour like concerns of pre-service teachers (Leedy & Ormrod, 2014, p. 92). In other words, there should be some form of theoretical evidence that the items contained in the instruments will assess the concerns of pre-service teachers during their internships in schools. According to Newman and Benz (1998, p. 25) “construct validity can be obtained
by measuring the internal consistency of the instrument”. Cronbach’s alpha coefficient was used to determine the internal consistency of the questionnaire. An independent statistician determined Cronbach’s alpha coefficient. Closely related to construct validity is content validity which is concerned with “the extent to which a measurement instrument is a representative sample of the content area (domain) being measured” (Leedy & Ormrod, 2014, p. 91). In other words, will the questionnaire be able to cover the domain of pre-service teachers’ experiences during their internship in schools. Content validity strategies included expert review of the extent to which the items in the questionnaire matched the research objectives. Criterion validity refers to the degree to which an instrument behaves in a manner for which it was designed (Leedy & Ormrod, 2014, p. 92). In other words, how did the results of the investigation predicted or correlated with the criterion measure of pre-service teachers’ concerns during teaching practicum. Criterion validity involved comparisons with other standard questionnaires in teacher efficacy beliefs such as the Ohio State Teacher Efficacy Scale (OSTES) and Wayne Hoy and Anita Woolfolk-Hoy’s Teachers’ Efficacy Scale (TES). Finally, face validity of an instrument refers to the extent to which the items in the questionnaire purport to measure pre-service teachers’ concerns during teaching practicum (Leedy & Ormrod, 2014, p. 91). To ensure the face validity of the questionnaire, the instrument and its scoring system was verified by a group of researchers.

Reliability is also an important measure in quantitative research which is concerned with the consistency of an instrument or data collection in a study. Therefore, reliability in this study refers to the extent to which items in the questionnaire correlate with each other. For example, if the correlation between the items is high, then there is internal consistency in the questionnaire. This means, reliability is concerned with the consistency of one’s research design to yield similar results when it is used by other researchers. In other words, reliability refers to the quality of measurement procedures that provides repeatability and accuracy.

The reliability of the questionnaire was assessed using Cronbach’s alpha coefficient. Additionally, reliability was enhanced by using a standard questionnaire that was assessed by a team of experts and piloted before use.

3.7.2. Qualitative validation procedures

One of the main focuses of any research is to capture authentically the experiences of the
participants and present them in a manner that shows that the researcher has clearly understood the phenomenon under study (Tashakkori & Teddlie, 2003, p. 694). In their later work, Teddlie and Tashakkori (2009, p. 209) proposed two basic questions to assess the quality in the qualitative phase of the mixed methods research:

- Am I truly measuring/recording/capturing what I intend to, rather than something else?
- Assuming that I am measuring/capturing what I intend to, is my measurement/recording consistent and accurate (i.e., yields little error)?

The first question relates to the research credibility and the second relates to the research dependability. Earlier on Stake (1995) made a similar observation and proposed that validity in qualitative research answers the question “Did we get the story right” (p. 107). In other words, are the accounts presented by the researcher and the selected participants accurate and credible? Therefore, validity in qualitative research refers to the legitimacy of the research findings. Validity in qualitative research can be determined using trustworthiness criterion established by Lincoln and Guba (1985, p. 290). Trustworthiness can be established through four aspects: credibility, transferability, dependability, and conformability. Credibility refers to the match between the participants’ experience of reality and how it was presented to the readers as a true and accurate account of the phenomenon (Leedy & Ormrod, 2014, p. 103). In other terms, credibility is analogous to internal validity in quantitative research, that is, how do research findings match reality. Credibility can be ensured by staying in the field for some time, providing rich and thick accounts of the pre-service teachers’ experiences for readers to draw their own conclusions, getting feedback from experts and participant validation (Leedy & Ormrod, 2014, p. 106; Creswell, 2009, pp. 191-192; Lincoln & Guba, 1985, p. 314). Creswell (2009, pp. 191-192) also identified eight (8) strategies that could be used to determine credibility or trustworthiness of qualitative data:

- **triangulation techniques** – using more than one way approach to gather and investigate the realities of participants;
- **member checks** – asking participants to verify the researcher’s interpretation and representation of their reality;
- **thick descriptions** – presenting multiple view points of the phenomenon;
- *clarify researcher bias* – explaining potential sources of researcher bias and providing tangible ways in which it will be addressed;
- present negative information;
- *prolonged engagement with participants* – spending quality time with participants, learning from them and checking for any misinformation;
- *use peer debriefing* – getting expert help and advice from peers or supervisors involved in the study; and
- *use of external auditors* – getting expert help from expert who are not directly involved in the research study.

Even though assessing the accuracy of qualitative findings is not easy, the researcher adopted some of Creswell’s (2009, pp. 191-192) strategies to determine the trustworthiness and credibility of interview data and these were shown in Table 7 (on the next page). In addition to ensuring the credibility of the findings, the researcher considered the transferability of the research findings. Transferability is analogous to external validity in quantitative research and refers to the extent to which the research findings can be applied to other contexts (Leedy & Ormrod, 2014, p. 105) i.e., other colleges offering the 2-5-2 teachers’ programme in Zimbabwe or similar programmes in other countries. Transferability has and still remains a major problem in qualitative research (especially with a case study) mainly due to the subjectivity from the researcher as a key instrument (Creswell, 2014, pp. 203-204). Critics argue that a study of a few cases offers a poor basis for generalising findings of research. Statistically, transferability of results from a qualitative phase in which a case study methodology is used (Leedy & Ormrod, 2014, pp. 143-144) is not advisable because of the use of a small purposively selected sample which may not be a representative sample of the targeted population (Johnson & Onwuegbuzie, 2004, p. 20). Furthermore, transferability could be a major threat because of the subjectivity from the researcher as a key instrument in qualitative research. Instead, transferability of results can be accomplished by presenting the findings in such a manner that allows the audience to assess their applicability to other contexts or settings. In other words, research findings can be transferred to other settings through analytic generalisation and not through statistical generalisation.

**Table 7: Legitimation strategies**

Strategy | Validation process  
--- | ---  
**Triangulation** | Two data collection methods were used in this research project. This provided rich and detailed information on the concerns of pre-service teachers during their internships in schools. The two sources of data complemented and verified each other thereby reducing the researcher’s bias.  
**Peer debriefing** | The researcher was supervised by a well-informed supervisor in the area of study who was keen to check and discuss the results with the researcher. Furthermore, the research data and findings were also reviewed by fellow researchers in teacher education as a way to enhance the credibility of the researcher’s data analysis and interpretations.  
**Thick description** | The interviews provided rich detailed information about the results of this study that could be used to assess its credibility.  
**Member checks** | The use of member checks involves a process whereby the researcher asked the participants to verify the researcher’s analysis, interpretation and representation of their reality during teaching practice. This further enhanced the credibility and truthfulness of the researcher’s findings.  
**Researcher’s journal** | The researcher generated a diary in which he recorded his experiences and reflections during and after the interviews.

Adapted: Creswell’s (2009, pp. 191-192)

Research findings in qualitative research are transferable to new contexts; if they can they can fit into the new contexts. This was achieved by providing thick descriptions of the settings under which the study was conducted so that readers could evaluate the applicability of the findings to other contexts (Seale, 1999, p. 45).

Like quantitative research, qualitative research also has its own unique measure of obtaining consistent findings under the same or similar contexts i.e., reliability. Reliability in qualitative research deals with dependability, consistency of the research findings (Nunan, 1999, p. 14). Merriam (1998) views dependability as the extent to which research findings can be replicated (p. 205) with similar participants in similar contexts. Dependability refers
to the assurance that if the study were to be repeated in the same context with the same participants, the same results will be obtained. In other words, reliability is related to the quality of measurement and it evaluates the quality of integration of the data, data analysis and formulation of the conclusion. Obtaining dependability is not always easy and straightforward as in quantitative research because data in qualitative research is normally narrative in nature and may be subjective (Zohrabi, 2013, p. 259). This is further worsened by the possibility of multiple interpretations of reality by both the researcher and the participants. The researcher believes that dependability of the research findings has been addressed through the detailed procedure and explanation on how data was collected and analysed.

3.7.3. Mixed methods validation procedures

Although the focus of credibility in qualitative and validity in quantitative research differs, their purposes in both methodologies is to check the quality of the research process starting from research design, data collection techniques and instruments, data collected right up to data analysis (Creswell & Plano-Clark, 2007, p. 133). Some mixed methods researchers have agreed that validity be termed legitimation in line with what they called “bilingual nomenclature” (Onwuegbuzie & Johnson, 2006, p. 48) in which the terminology used is acceptable to both qualitative and quantitative researchers. Legitimation involves assessing the trustworthiness of both qualitative and quantitative data and together with the interpretations that follow. Hence, validity or trustworthiness in mixed methods research implies that the correct methods have been used to find answers to research questions.

Mixed methods researchers generally agree that discussion of potential threats to a study enhances the quality of the study (Venkatesh, Brown, & Bala, 2013, pp. 40-41). Discussion of potential threats provided readers with adequate information on which to judge the quality of inference that were drawn from this study. However, the use of mixed methods design in a research study increases the range and severity of threats to validity to those of quantitative and qualitative phases combined because of the additional aspects that arise due to the mixing of the data sets (Lisle, 2011, p. 110; Creswell & Plano-Clark, 2007, p. 145; Venkatesh, Brown, & Bala, 2013, p. 31). Potential threats to validity and reliability may arise during research design, data collection, and analysis. In order to address validity and reliability threats in mixed methods research, researchers seem to agree that one must identify the threats of each method before presenting the integrative framework in mixed

Onwuegbuzie & Johnson (2006, p. 57) identified nine general categories of threats to legitimisation in mixed methods research: sample integration; inside–outside; weakness minimization; sequential; conversion; paradigmatic mixing; commensurability; multiple validities; and political validity. Some of these threats apply to this study and they have already been addressed under qualitative and quantitative validation procedures.

3.8. ETHICAL CONSIDERATION

Ethics in research determines the working relationship between the researcher, participants, and the community at large and it covers a number of overlapping issues like informed consent, confidentiality and harm of participants (Creswell, 2014, pp. 92-95). Leedy and Ormrod (2014, p. 106) identified four main categories related to ethical issues, namely: “protection from harm, voluntary and informed participation, right to privacy, and honesty with professional colleagues”. The researcher followed proper ethical standards to ensure that the participants were protected from any form of harm; confidentiality of participants was protected; participants were fully informed about the study; and that the researcher did not abuse his privilege of access to participants or their information.

Prior to data collection, the researcher sought clearance from the Nelson Mandela University Research Ethical Committee (Human) to proceed with the study (see Appendix A). Approval of the study was granted after analysing the researcher’s proposal including ethical considerations and the rights of the participants during data collection and analysis. A written request was also sought from the Zimbabwean Ministry of Higher and Tertiary Education (MHTE) and Ministry of Education Sport, Arts and Culture (MESAC) to collect data from teachers’ colleges and schools respectively (see Appendices B, C, D and E). Further written request was also sought from the Principal of United College of Education where the study was conducted (see Appendices F and G). Additional verbal permission was sought from principals of schools and mentors where the student teachers were stationed during the teaching practice for the researcher to conduct the interviews.

The researcher tried his best to protect the participants from harm before, during and after the study. Each form of data gathering technique has its own specific ethical issues while
some are general. Participants were made aware of the researcher’s intentions of the study and the inherent dangers associated with participating in such a research project. In other words, the researcher took some time to explain verbally and in writing (see Appendix H) the researcher’s aim and objectives, why the information was being sought, how they were required to participate during the study, and how the study directly or indirectly affect them.

In addition, participants were informed of all data collection activities including data recording devices that were utilised and the rationale for their use. All these activities were conducted so that the participants could freely decide to participate in the study with full knowledge of what was being investigated. Thereafter, participants were required to sign a consent form (see Appendices I and J) in which they acknowledged that they were fully aware of what it meant to be part of the study and that they had voluntarily accepted the invitation to participate without being pressurised before they could participate in the study. Providing informed consent meant that participants had full understanding of the purpose of the study, methods to be used during data collection, their role in the study and the risks that may be involved during or after the study. Direct consent was used as all the participants were above eighteen (18) years of age and they did not require parental consent for their involvement in the research. Under no circumstances were any of the participants coerced or unfairly pressurised before, during and after the research to do anything they did not want. During the briefing sessions before data collection, participants were also informed of their right to decline to participate in the study or to withdraw from the study at any point without being ridiculed or penalised. Participants were assured that there were no anticipated risks associated with participation in the study. No rewards (in cash or in kind) were promised or given to any of the participants.

Before conducting the interviews, the researcher made an effort to build trust with each of the interviewees so that they could speak freely knowing that whatever they said would be confidential. Although the use of face-to-face interviews could generate rich data, it however poses a number of ethical challenges as the researcher developed a close, intimate relationship with the participants. Chief among these ethical concerns is confidentiality. According to Esterberg (2002, p. 50) true confidentiality in face to face interviews is impossible. To ensure confidentiality, the researcher assured the participants that their records or analysis of their responses would be safeguarded so that no one else would have access to them. In addition to protecting the confidentiality of the participants, the researcher
also sought to protect the privacy of the participants even when analysing, reporting and publishing the results. All collected data, tapes, transcribed documents, personal details like names of the participants, phone numbers, email addresses were safely stored. Pseudonyms were used during the interviews and during the transcription of interviews.

It was not easy to know all the forms of dangers involving pre-service teachers in the research beforehand. For example, during the interviews participants could have disclosed information that may have ruined their relationship with their mentors, school or college. It was therefore crucial that the identities of the participants were protected at all times. Participants who filled out the questionnaires were requested not to write their names or any personal information like contact numbers or email addresses anywhere on the questionnaires in order to protect their privacy and safeguard their identity. Upon receiving the questionnaires, they were assigned codes for easy capturing of details and analysis and not for tracking their source. Participants, who were interviewed, were assigned pseudonyms to ensure anonymity during interviews, analysis and interpretation. In addition to protecting the rights of participants, the researcher tried his best to present his findings in a complete and honest manner as suggested by Leedy and Ormrod (2014, p. 110) without misrepresenting what was done or misleading the readers about the research findings.

3.9. DELIMITATIONS

This study was limited to one institution that was offering the 2-5-2 programme. It was also limited to the teaching practice component of the 2-5-2 programme only. Only those pre-service teachers who were deployed in and around Bulawayo (see research site in Figure 12 on page 85) urban area were interviewed. This reduced the distance that the researcher had to travel to arrange and conduct the interviews. Furthermore, the study was delimit ed to concerns that pre-service teachers experience as teachers during teaching practicum.

3.10. SUMMARY OF CHAPTER

The intention of this chapter was to outline the research design and the methods that were used to conduct this study relating to pre-service teachers’ concerns during their teaching practicum internship in Zimbabwean schools. This study used a concurrent mixed methods research design where quantitative and qualitative datasets were collected and analysed.
separately and then merged during interpretation. Pragmatism was used as the worldview because it allowed the researcher to work from an objective or subjective point of view depending on whether he was occupied with the quantitative or qualitative aspect respectively. In addition, a case study methodology was used as it permitted the researcher to study the concerns of pre-service teachers in their natural setting using both quantitative and qualitative methods of data collection and analysis.

The chapter also included sections on the procedures that were used to select participants for the study, collect data, validate data, analyse and integrate the datasets. Mixed methods sampling procedures were used to select participants for the study where probability sampling was used to select participants for the quantitative phase and purposive sampling was used to select participants for the qualitative phase. Quantitative data was collected using a survey while qualitative data was collected using interviews. The two datasets were collected almost concurrently. Quantitative data was analysed using both descriptive and inferential statistics. Thematic content analysis from personal interviews was used to uncover patterns, themes and meanings that emerged from the participants’ experiences during practicum. The two datasets were integrated together to create a compact picture of the concerns that pre-service teachers encounter during practicum. The merging of the datasets was implemented using data transformation and concurrent discussion of the results.

This chapter also contains a comprehensive explanation of the verification strategies that were employed during the study to ensure the trustworthiness of inferences. These included the piloting of the research instruments, peer debriefing, thick description, member checks and keeping of a researcher’s journal. A detailed account on how the rights and privileges of the participants were guaranteed and safeguarded during data collection and reporting was also given. The chapter was concluded with a discussion of the limitations and delimitation of the study.

Chapter Four focuses on the presentation and analysis of quantitative data from the questionnaire. The data will be represented using percentages, diagrams and tables and thereafter analysed using descriptive and inferential statistics.
CHAPTER FOUR

QUANTITATIVE DATA PRESENTATION AND ANALYSIS

4.1. INTRODUCTION

In the previous chapter, details of the research procedures used to conduct this study were discussed. The purpose of this chapter is to present and discuss the quantitative findings on the concerns faced by pre-service teachers during their internship in schools. The data was collected by means of a questionnaire filled out by respondents from three different year groups in the 2-5-2 programme at the United College of Education in Zimbabwe. Data from the survey were analysed using both descriptive and inferential statistics. According to Creswell (2009, p. 152) and Onwuegbuzie and Combs (2010, p. 401) descriptive statistics is the use of statistical measures of central tendency such as the means (i.e., average, median and mode), standard deviation, and the range of the variables to organise and summarise quantitative data. Hence, descriptive statistics was understood in this study as procedures that were used to organise, summarise, and describe numeric data so that they could be presented and interpreted. Inferential statistics were used to further examine the descriptive statistics results so that predictions that were not obvious from a glance could be made on the collected data. Multivariate Analysis Of Variance (MANOVA) and Analysis Of Variance (ANOVA) were used to assess if the means of the three categories in the questionnaire for the aforementioned year groups were statistically similar or not. This involved testing the hypotheses, and linking them to the research questions.

The SPSS produced tables of results which were presented either as tables or figures. The results were also discussed in relation to how they addressed the research objectives and hypotheses. Non-parametric analyses were also used to confirm the results obtained from the parametric analyses. Further interpretation of data will be effected in chapter six where the results will be compared with relevant literature. The chapter concluded with measures that were put into place to enhance the quality of the quantitative data analysis employed.
4.2. RESPONSE RATE OF QUESTIONNAIRES

Out of the three hundred (300) questionnaires that were distributed, one hundred and ninety three (193) questionnaires were fully completed among those that were returned. This represented an average return rate of 64.3% which according to Ladik, Carrillat and Solomon (2007, p. 266) was fairly good. Similar surveys identified from literature had higher response rates partly because of the size of their sample and the sampling procedures that were used. For example, Kiggundu and Nayimuli (2009, p. 349) had a 100% response rate in their study on the challenges faced by post graduate certificate of education students (PGCE) at Vaal University of Technology in South Africa in which they used the entire population (of 26) student teachers in their study. For a survey, a sample of 26 was considered small (Maree & Pietersen, 2015b, p.179). The response rate may also be affected by the sampling techniques used to select the respondents. For instance, Chireshe and Shumba (2011, p. 115) carried out a study in Zimbabwe with a sample of 62 purposefully selected in-service primary school teachers on a Bachelor of Education programme. Although they had a 100% response rate, their sample was not randomly selected like most survey studies (Collins, 2010, p. 362; Maree and Pietersen, 2015b, p. 172). Collins (2010, pp. 362, 364) suggested a minimum of 64 participants for a one tailed test and a minimum of 82 for a two tailed test which must be randomly selected.

There are several factors that could have affected the response rate in this study even though measures were put into place to improve it. A lack of motivation among the respondents could have contributed as there were no incentives for those who returned a completed questionnaire. Incentives are known to positively influence response rates in some surveys. Baruch and Holtom (2008, p. 1139) and Shih & Fan (2009, p. 26) found that incentives did not significantly improve the response rate. On the contrary, Fan and Yan (2010, p. 135) and Olsen, Abelsen & Olsen (2012, pp. 4-5) found that incentives increased the response rate. Rolstad, Adler and Ryden (2011, p. 1105) found that incentives like cash and gifts increased the response rate by 7.3%. Olsen et al., (2012, pp. 4-5) noted that incentives significantly improved the response rates especially among lower socio-demographic groups. Incentives may have increased the response rate in this study given the economic situation in Zimbabwe. The length of the questionnaire may have had some bearing on the response rate as well as the questionnaire consisted of 54 items in addition to the demographic information. Fan and Yan (2010, p. 133) found that the length of a questionnaire is proportional to the
response rate. Table 8 below shows the questionnaire response rate in terms of the actual numbers and percentage per year group.

Table 8: Return rate per year and course

<table>
<thead>
<tr>
<th>Year and course</th>
<th>Number of questionnaires issued</th>
<th>Number of returned questionnaires</th>
<th>Return rate per year and course (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year ECD</td>
<td>30</td>
<td>21</td>
<td>70.0</td>
</tr>
<tr>
<td>First year GP</td>
<td>70</td>
<td>40</td>
<td>57.1</td>
</tr>
<tr>
<td>Second year ECD</td>
<td>30</td>
<td>23</td>
<td>76.7</td>
</tr>
<tr>
<td>Second year GP</td>
<td>70</td>
<td>44</td>
<td>62.9</td>
</tr>
<tr>
<td>Third year ECD</td>
<td>30</td>
<td>27</td>
<td>90.0</td>
</tr>
<tr>
<td>Third year GP</td>
<td>70</td>
<td>38</td>
<td>54.3</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>193</td>
<td>64.3</td>
</tr>
</tbody>
</table>

The ECD groups had the highest return among the three year groups with the third year (ECDP) group topping the list. The lowest return rate was from the third year GP group with only thirty-eight of the seventy questionnaires being returned (i.e., a return rate of 54.4%). A possible explanation for the difference in the return rate between ECD and GP groups was that the ECD groups comprised fewer student teachers, making it easier for the Teaching Practice Department to distribute, collect and conduct follow-ups.

4.3. DETAILS OF THE RESPONDENTS

The researcher found it of paramount importance to include the demographic information of the respondents who participated in the study. The demographic information provides readers with a clearer picture of the context of the study. Respondents’ details included age group, gender, learning areas passed at ordinary level, and the main learning area of specialisation in their course. From the completed questions, 2.6% of the student teachers were in the age group 18-20 years; 6.7% in the age group 21-23 years; 14.5% in the age group 24-26 years; 22.3% in the age group 27-29 years and 53.9% in the age group 30 and older. This information is represented diagrammatically in Graph 4 on the next page. The results illustrate an exponential growth in the number of respondents per age group from the age of 18 to over 30 years. These results seem to suggest that older people are taking up
teaching as a profession than those directly from schools. One possible reason for this could be that teaching is one of the few professions that still leads to a regular income although the remuneration is low and it is shunned by the students straight from school.

**Graph 4: Age groups (Frequency versus age group, N = 193)**

With respect to gender representation of the respondents, 140 (72.5%) were female and 53 (27.5%) were male student teachers as represented in Graph 5 below.

**Graph 5: Results by gender (Frequency versus gender, N = 193)**

This indicated a ratio of 2.64 female student teachers for every male student teacher. These findings reveal that there were some gender imbalances in the selected sample. The possible
reasons for this numerical insight will be explained in Chapter Six.

All the respondents had at least five passes in subjects at ordinary level including Mathematics and English Language with grade ‘C’ or better. On average 15% of the student teachers had passed Agricultural Science. Agricultural Science was introduced as a new learning area in the primary school curriculum at the beginning of 2014. Its inclusion in the curriculum meant that trainee teachers were now expected to teach the subject even if they had never studied it during their formal learning or in their courses at college. Respondents were equally distributed among the 11 main study areas offered by the institution, namely, Religious and Moral Studies, Social studies, ChiShona, English, IsiNdebele, Art and Design, Music and Dance, Physical Education, Environmental Science and Mathematics.

4.4. DESCRIPTIVE STATISTICS RESULTS

The researcher collected quantifiable data on respondents’ preferences, attitudes and behaviour in which teacher efficacy beliefs and PCK were tested in order to identify levels and variations of pre-service teachers’ concerns during school based internships. The data collected from the questionnaire indicated varied responses from the respondents on their areas of concerns during teaching practice within and among the year groups. In order to obtain an overall picture of the areas of concerns and how their concerns changed during teaching practice, statistical mean scores were calculated for each of the items in the questionnaire and were also ranked. The rankings were grouped according to the three main sections in the questionnaire: general areas of concern (GC), pre-service teachers’ beliefs (TB) and teacher knowledge (TK).

4.4.1. General areas of concerns

The first group of concerns were classified as general areas of concern because they represented common themes that had been highlighted by student teachers in previous research studies. Although the items that were used were not exhaustive, the list covered a variety of issues ranging from fear of failing teaching practice, instructional design, classroom management, workload, and lesson delivery. Sixteen items in this group were ranked from the most stressful to the least stressful ones. The mean scores were calculated from the views of all the respondents where a score of 1 represented the preference “Never
stressed me” (NS); 2 represented the preference “Stressed me some of the time” (SST); 3 represented the preference “Stressed me most of the time” (SMT); and 4 represented the preference “Stressed me all the time” (SAT). The ranked statistical mean scores for the sixteen items are shown in Table 9 on the next page. The values were given to two decimal numbers not so much for their accuracy but for their use in ranking the items. The average scores also provided the researcher with a measure of severity of the concerns that student teachers’ experience during teaching practice. To interpret what the mean scores implied, they were rounded to the nearest whole number as decimal numbers; like 1.46 did not reveal much about student teachers’ perceptions on concerns that they experienced during teaching practice. It is difficult to understand the significance of decimal numbers that had been derived from a Likert scale. For example, a mean score of 1.46 was rounded to 1 and it was interpreted to mean NS. Figure 15 below was used to attach meaning to the mean scores.

Figure 15: General areas of concern scale

Using this scale, none of the mean scores were classified as NS or SAT. This implied that on the whole, none of the student teachers would be classified as being stressed all the time or never stressed at all during teaching practice. This left most of the student teachers in the SST and SMT categories.

The SST and SMT categories represent those students who were stressed some of the times or stressed most of the times by at least one aspect of the general areas of concern during teaching practice. Seven of the sixteen items were classified as SMT with fear of failing the practicum and being assessed topping the list with mean scores of 2.63 and 2.58 respectively. These two aspects are closely linked as they are associated with anxiety of assessment during teaching practicum. The other items in the SMT category were striking a balance between practicum and personal commitments, lack of disciplinary content knowledge and general workload during teaching practice.
Table 9: Items associated with general areas of concerns of pre-service teachers

<table>
<thead>
<tr>
<th>Item number</th>
<th>Description</th>
<th>Mean Score</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fear of failing the practicum</td>
<td>2.63</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Being assessed (e.g. by my supervisor or mentor)</td>
<td>2.58</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Striking a balance between the practicum and personal commitments</td>
<td>2.45</td>
<td>3</td>
</tr>
<tr>
<td>16</td>
<td>Lack of content in a learning area.</td>
<td>2.40</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Coping with the overall teaching workload</td>
<td>2.39</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Managing practicum-related assignments</td>
<td>2.36</td>
<td>6</td>
</tr>
<tr>
<td>14</td>
<td>Helping learners with learning difficulties</td>
<td>2.26</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>Enforcing discipline and helping learners with behavioural problems</td>
<td>2.23</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>Managing time</td>
<td>2.21</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Writing detailed lesson plans</td>
<td>2.15</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Selecting appropriate content for my lessons</td>
<td>2.08</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>Preparing resources for my lessons</td>
<td>2.00</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>Delivering the lesson</td>
<td>1.90</td>
<td>13</td>
</tr>
<tr>
<td>13</td>
<td>Managing the group work and/or individual seatwork.</td>
<td>1.89</td>
<td>14</td>
</tr>
<tr>
<td>11</td>
<td>Marking pupils’ written work and giving feedback</td>
<td>1.76</td>
<td>15</td>
</tr>
<tr>
<td>Item number</td>
<td>Description</td>
<td>Mean Score</td>
<td>Rank order</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>9</td>
<td>Establishing rapport with learners.</td>
<td>1.65</td>
<td>16</td>
</tr>
</tbody>
</table>

The aspects that mostly stressed the student teachers some of the time were those related to disciplining learners and managing time; key issues under classroom management. The next three items on the list could be classified under design and development of learning activities and these were: writing plans, selection of appropriate content and preparation of learning aids. The items at the bottom of the list were lesson delivery, managing classroom activities, marking and establishing rapport with learners in that order. The last group of items could be grouped under implementation and evaluation activities. Graph 6 (Histogram 1) below shows the frequency distribution of the respondents’ average scores for the GC category.

**Graph 6: Histogram 1 for the level of GC concerns**

The histogram also exhibited some properties of normality although it had some elements of positive skewedness. Normality in data is one of the requirements for one to use parametric analysis that involve MANOVA and ANOVA (Field, 2013, p. 642). This further justified the use of parametric analysis in the analysis of Likert scale-generated data.

The box-plots in Graph 7 on the next page shows the distribution of the mean scores for first, second and third year student teachers from the bottom to the top of the diagram. The box-plot for year one and year three resembled each other and their major difference was the
length of their whiskers. The first year group had a longer lower whisker while the third year had a longer upper whisker. A longer whisker meant that there was greater spread in the scores in that particular group. The third year group showed signs of more stress possibly due to final assessment during this period while that of the first year group could possibly be attributed to their lack of experience in the field. The second year box plot had a lower value for the minimum value, lower quartile, median and upper quartile. Furthermore, the second year group had a larger interquartile range showing that there was a greater spread of their views than the other two groups. From this, the researcher concluded that on average, the level of GC concerns decrease from year one to year two and increase again in year three.

**Graph 7: Box-Plots for GC**

![Box Plots for GC](image)

Graph 8, Graph 9 and Graph 10 show the variation of the mean scores, medians and modes per question for each of the three year groups respectively. The variation of the mean scores shows that the mean scores for year groups one and three were very close to each other.

**Graph 8: Variation of mean scores per item for GC**

![Mean Scores Graph](image)
The mean scores for the second year group were generally lower than the other two year groups except for items 7 and 11 where the mean scores of the three groups were almost the same. Item 7 was on the selection of appropriate content for their lesson and item 11 was on marking pupils work and giving feedback. On average, these items created less stress for student teachers some of the times during teaching practice. The peak values on Graph 8 occurred with items 1, 4, 12 and 16 and they represented situations that stressed student teachers most often during teaching practice. These included fear of failing the practicum, being assessed, enforcing discipline and a lack of content knowledge.

Graph 9 below shows the median values variation for the GC 16 items. Year one and three median values were nearly the same except for items 5, 9, 14 and 16 where year one values were higher than year three values. Based on the median values, the first year group appears to be more stressed than the other year groups.

Graph 9: Variation of median per item for GC

This is expected given that they were the least experienced group among the three groups. The median values for year two were generally lower than the other groups and were pegged at level 2 except for the 8th and 10th items where the value was 1. This seems to suggest that year two student teachers were less stressed in terms of the fear of failing teaching practice, instructional design, classroom management, workload, and lesson delivery.

Graph 10 on the next page is a representation of the modal values for the GC 16 items, portrays almost the same picture like the median values. Year one values are the same with year three values except for items 5, 9, 14 and 16 which are higher by one level. Year two
values were again lower than the other year groups except for items 5, 6, 7 and 9 where they are either equal to year one or year three. These findings further confirm that the GC category of concerns vary during the three year period when students were on teaching practice.

**Graph 10: Variation of mode per item for GC**

From the graph of modal values (Graph 10 above), the researcher concluded that the GC started high in year one, decreased in year two and then increased in year three.

### 4.4.2. Pre-service teachers’ beliefs

Respondents were asked to rate their self-efficacy levels in four sub-categories, namely classroom discipline, instructional ability, assessment competencies, and creation and maintenance of conducive learning environment. In this section of the questionnaire, respondents were given a statement in which they were expected to express how well they could address a certain classroom situation. A score of 1 indicated that they would do “Nothing” (N); 2 indicated they would do “Very little” (VL); 3 indicated they would have “Some influence” (SI); 4 indicated that they would have “Quite a bit” (QB); and 5 indicated that they would have “A great deal” (GD) of influence. Like in the previous sections, a mean score was calculated for each of the nineteen items under pre-service teachers’ beliefs (TB) and ranked according to how weak they were able to intervene in given situation. A summary of the pre-service teachers’ responses on teacher beliefs is shown in Table 10 on the next page.
<table>
<thead>
<tr>
<th>Item number</th>
<th>Description</th>
<th>Mean Score</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>How much can you do to get through to the most difficult learners?</td>
<td>3.35</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>How well can you establish a classroom management system with each group of learners in your class?</td>
<td>3.40</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>How much can you do to calm a learner who is disruptive or noisy in your class?</td>
<td>3.42</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>How much can you do to get children to follow classroom rules?</td>
<td>3.58</td>
<td>4</td>
</tr>
<tr>
<td>28</td>
<td>How much can you use a variety of assessment strategies in your class?</td>
<td>3.68</td>
<td>5</td>
</tr>
<tr>
<td>26</td>
<td>Do you use strategies to encourage self-assessment?</td>
<td>3.69</td>
<td>6</td>
</tr>
<tr>
<td>24</td>
<td>Do your assessment practices reflect the full range of learning objectives?</td>
<td>3.73</td>
<td>7</td>
</tr>
<tr>
<td>33</td>
<td>Do you support learners to develop investigating and problem solving skills?</td>
<td>3.73</td>
<td>7</td>
</tr>
<tr>
<td>29</td>
<td>How much can you do to motivate learners who show low interest in their school work?</td>
<td>3.77</td>
<td>9</td>
</tr>
<tr>
<td>35</td>
<td>Do you plan your learning programme based on the learners’ prior knowledge and skills?</td>
<td>3.77</td>
<td>9</td>
</tr>
<tr>
<td>34</td>
<td>Is your teaching flexible and responsive to the values, needs and interests of individual learners?</td>
<td>3.80</td>
<td>11</td>
</tr>
<tr>
<td>27</td>
<td>Do you use assessment information to plan or adjust your learning programme?</td>
<td>3.82</td>
<td>12</td>
</tr>
<tr>
<td>Item number</td>
<td>Description</td>
<td>Mean Score</td>
<td>Rank order</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>32</td>
<td>Do you use strategies to encourage and support learners to collaborate?</td>
<td>3.83</td>
<td>13</td>
</tr>
<tr>
<td>22</td>
<td>To what extent do you involve learners in such a way that it fully supports their needs and the development of their skills and knowledge?</td>
<td>3.88</td>
<td>14</td>
</tr>
<tr>
<td>30</td>
<td>Do you work to ensure that each learner experiences success through support and valuing their work?</td>
<td>3.91</td>
<td>15</td>
</tr>
<tr>
<td>21</td>
<td>To what extent can you craft good questions for your learners?</td>
<td>3.93</td>
<td>16</td>
</tr>
<tr>
<td>23</td>
<td>To what extent can you provide an alternative explanation or example when learners are confused?</td>
<td>3.93</td>
<td>16</td>
</tr>
<tr>
<td>25</td>
<td>Do you provide frequent feedback to support learners’ further learning?</td>
<td>3.93</td>
<td>16</td>
</tr>
<tr>
<td>31</td>
<td>Do you encourage and support learners to take responsibility for their learning?</td>
<td>3.98</td>
<td>19</td>
</tr>
</tbody>
</table>

An analysis of the outcome on pre-service teachers’ beliefs in Table 10 above shows that self-efficacy beliefs were not the same in the four areas: learner discipline, instructional practices, assessment of learners and the creation of a conducive learning environment. When the four sub-sections were ranked, student teachers were less efficacious with learner discipline followed by assessment of learners, creation of learning environment and finally instructional practices. In order to attach some meaning to these scores, the scores were rounded to the nearest whole number and Figure 16 below was used to interpret the scores.

**Figure 16: Pre-service teachers’ beliefs scale**
Since the statistical means for the nineteen items were in the range 3.35 to 3.98 this meant that on average none of the student teachers’ responses could be classified under would do “Nothing”, have “Very little” influence and have “A great deal” of influence. This was interpreted to mean that on average student teachers had some confidence to intervene in most of the classroom situations that sometimes caused concerns. Only three items were placed under would have “Some influence” with the remaining sixteen items under would have “Quite a bit of influence”. The items that student teachers felt less efficacious about were: How much can you do to get through to the most difficult learners; how well can you establish a classroom management system with each group of learners in your class; and, how much can you do to calm a learner who is disruptive or noisy in your class? All three items were closely connected and were all classified under disciplinary self-efficacy. The fourth ranked item: How much can you do to get children to follow classroom rules?; was also a continuation of issues related to disciplinary self-efficacy although it was classified under items that student teachers felt they would have quite a bit or some influence. These results show consistency in the respondents’ answers. This also agreed with the findings under general areas of concerns where enforcing discipline and helping learners with behavioural problems was one of the major issues causing concern among student teachers. This finding seems to suggest that student teachers’ self-efficacy was low on issues under classroom management. This could be interpreted to mean that student teachers who would generally apply less effort and set very low targets, were less likely to open up to new ideas and would give up easily when confronted with issues related to classroom management.

The next group of items that student teachers seemed to be less efficient in were under learner assessment practices. They were not confident in their selection and use of assessment practices that addressed the needs of learners. For example, they had challenges with the use of a variety of assessment strategies in their classes and the selection of assessment practices that took into account learning objectives of their lessons. The next group of concerns were on the creation of an appropriate learning environment. The items in this group touched on student teachers’ teaching styles and their ability to motivate learners and to remain focussed on their tasks. Student teachers’ responses showed some degree of hesitancy in their ability to intervene on key aspects of creating a positive learning environment. Student teachers were more confident on items related to instructional self-efficacy. The instructional items focussed on lesson presentation attributes like the student teachers’ confidence in front of learners. This meant that the student teachers demonstrated more confidence and resilience.
to intervene on situations that had to do with lesson delivery.

Graph 11 below shows the frequency distribution of the respondents’ average scores for the TB category. The histogram displays some degree of normality in the collected data.

**Graph 11: Histogram 2 for the level of TB concerns**

Graph 12 (box-plots 2) on the next page, is a combined box and whisker plots for the mean scores of the TB category. First year and third year distributions are nearly evenly distributed as displayed by the location of the median in the middle of the box and the length of their respective whiskers are almost equal. This would imply that the mean scores and median scores are almost similar. The second year frequency distribution is positively skewed because the upper quartile is farther from the median than the lower quartile. This implies that the mean score for the second year group was most likely greater than its median. Furthermore, the lower whisker is longer than the upper whisker indicating that there were a few exceptional small values within the second year distribution. These results show that the second year student teachers were more confident in intervening in some of the situations in the classroom like learner discipline, instructional practices, assessment of learners and the creation of a conducive learning environment. The lower scores from first year students are understandable because they have less experience in the field. The lower values for third year students indicate the possibility of some factors influencing their teacher beliefs.
Graph 12: Box-Plots for TB

Graph 13, Graph 14 and Graph 15 illustrate the variation of the mean, median and modal scores for TB respectively. The mean scores represented in Graph 13 (shown below) are generally close to each other and they seem to follow the same pattern.

Graph 13: Variation of mean scores per item for TB

The median scores for items 17 to 35 represented in Graph 14 (on the next page), do not show many differences between the year groups. Minor differences were on items 19 and 20 where the second year group had higher scores than the other two year groups; item 30 where the first years had lower scores than the other two year groups; and item 35 where the third year students also had a lower score than the other two groups. At least 50% of the second year students had some influence on situations where they had to calm a disruptive learner.
and establish a conducive classroom that takes into account the different learning styles of learners than the other two year groups. Learner disruptive behaviour in the classroom can be a stressful experience for student teachers who have no knowledge of its causes and strategies for handling it. In addition to learning how to deal with disruptive behaviour, student teachers need the capacity to create a classroom management system that fosters a learning environment that treats everybody with respect.

**Graph 14: Variation of median score per item for TB**

![Graph 14](image)

On item 30, at least 50% of the first year group felt they had some influence in motivating their learners to succeed in their work. Although there are many factors that motivate learners to succeed in their work, teachers have the potential to ignite that passion to learn given the amount of time they spend with their learners. The art of motivating learners to achieve their goals is something that some of these student teachers had to acquire during teaching practice. At least 50% of the third year students felt that they had some influence when planning learners’ activities and taking into account their prior learning experiences. For effective planning and teaching of new knowledge, student teachers needed to appreciate their learners’ prior knowledge of concepts, skills and belief systems. It is common knowledge within the teaching profession that one of the significant factors that influence the understanding of new knowledge is the learners’ prior knowledge.

The variation of the modal scores (shown in Graph 15 on the next page) seems not to have a particular pattern across the nineteen items and they are mostly clustered around levels
three and four in which students say they were able to intervene with some influence or quite a bit of influence. The second year group appear to be more confident in most situations than the other two groups. Items 19 and 20 had the lowest modal scores for first and third year groups respectively. There is some agreement with variation of the median scores above.

**Graph 15: Mode variation per item for TB**

![Graph 15](image)

### 4.4.3. Teacher knowledge

The last categories of concerns were referred to as teacher knowledge (TK) concerns. Teacher knowledge was considered as that form of knowledge that student teachers need in order for them to fully function in the classrooms. This form of knowledge covered aspects on disciplinary content knowledge in all the learning areas in the primary school curriculum, pedagogical knowledge and pedagogical content knowledge. Respondents were asked to indicate their opinions on their ability to execute key tasks in the classroom. A score of 1 signified that they “Strongly disagree” (SD); 2 signified they “Disagree” (D); 3 signified “Somewhat disagree” (SWD); 4 signified “Somewhat agree” (SWA); 5 signified “Agree” (A); and 6 signified “Strongly agree” (SA). A mean score was calculated for each of the 19 items and the items were ranked according to how students felt challenged to deal with the task. Table 11 (on the next page) shows the ranked items with the most difficult task on top.
Table 11: Items associated with pre-service teachers' knowledge

<table>
<thead>
<tr>
<th>Item number</th>
<th>Description</th>
<th>Mean Score</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>I have sufficient knowledge about science and agricultural science.</td>
<td>3.52</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>I have various ways and strategies of developing my understanding of science and agricultural science.</td>
<td>3.65</td>
<td>2</td>
</tr>
<tr>
<td>51</td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in mathematics.</td>
<td>3.81</td>
<td>3</td>
</tr>
<tr>
<td>53</td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in science.</td>
<td>3.84</td>
<td>4</td>
</tr>
<tr>
<td>36</td>
<td>I have sufficient knowledge about mathematics.</td>
<td>3.89</td>
<td>5</td>
</tr>
<tr>
<td>37</td>
<td>I have various ways and strategies of developing my understanding of mathematics.</td>
<td>3.99</td>
<td>6</td>
</tr>
<tr>
<td>49</td>
<td>I am familiar with common learner understandings and misconceptions.</td>
<td>4.11</td>
<td>7</td>
</tr>
<tr>
<td>50</td>
<td>I know how to organize and maintain classroom management.</td>
<td>4.14</td>
<td>8</td>
</tr>
<tr>
<td>44</td>
<td>I know how to assess learner performance in a classroom.</td>
<td>4.23</td>
<td>9</td>
</tr>
<tr>
<td>48</td>
<td>I can use a wide range of teaching approaches in a classroom setting (collaborative learning, direct instruction, inquiry learning, problem/project based learning etc.).</td>
<td>4.33</td>
<td>10</td>
</tr>
<tr>
<td>52</td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in languages.</td>
<td>4.37</td>
<td>11</td>
</tr>
<tr>
<td>Item number</td>
<td>Description</td>
<td>Mean Score</td>
<td>Rank order</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>47</td>
<td>I can assess a student’s learning in multiple ways.</td>
<td>4.41</td>
<td>12</td>
</tr>
<tr>
<td>39</td>
<td>I have various ways and strategies of developing my understanding of the languages (L1 and L2).</td>
<td>4.46</td>
<td>13</td>
</tr>
<tr>
<td>54</td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in content subjects.</td>
<td>4.46</td>
<td>13</td>
</tr>
<tr>
<td>38</td>
<td>I have sufficient knowledge about languages (L1 and L2).</td>
<td>4.47</td>
<td>15</td>
</tr>
<tr>
<td>45</td>
<td>I can adapt my teaching based-upon what learners currently understand or do not understand.</td>
<td>4.47</td>
<td>15</td>
</tr>
<tr>
<td>46</td>
<td>I can adapt my teaching style to different learners.</td>
<td>4.49</td>
<td>17</td>
</tr>
<tr>
<td>42</td>
<td>I have sufficient knowledge about other content subjects.</td>
<td>4.54</td>
<td>18</td>
</tr>
<tr>
<td>43</td>
<td>I have various ways and strategies of developing my understanding of content subjects.</td>
<td>4.57</td>
<td>19</td>
</tr>
</tbody>
</table>

In order to make sense of the statistical mean scores, Figure 17 below was used to group the scores. None of the items had a score less than 3.5 or above 5.5. This meant that on average, none of the students strongly agreed, somewhat disagreed, disagreed and strongly disagreed with the statements. All the responses were in the category somewhat agreed and agreed.

**Figure 17: Teacher knowledge scale**
A close analysis of the results from Table 11 (see previous two pages) also revealed that student teachers’ responses for content knowledge and pedagogical content knowledge varied for the different learning areas in the primary school curriculum. On average student teachers had more challenges with disciplinary content knowledge and pedagogical content knowledge in Agriculture, Mathematics and Science than in languages and Content subjects. The top six items were linked to content knowledge or PCK of Agriculture, Mathematics or Science. The other items under SWA were mainly from the general pedagogy skills except for item 52 which was on PCK for content subjects. General pedagogic skills that student teachers were cautious about were handling of misconceptions, classroom management, assessment and teaching approaches. This agreed with earlier findings where classroom management and assessment had been mentioned as areas of concern under GC and TB. On the whole, student teachers seemed to be decisive on their competencies on content knowledge and PCK for languages and Content subjects. Mathematics, Environmental Science and Agricultural Science were a challenge for all the year groups. Graph 16 below shows the frequency distribution of the respondents’ mean scores for the TK category.

**Graph 16: Histogram 3 for the level of TK concerns**

![Histogram 3 for the level of TK concerns](image)

The histogram also displayed some degree of normality in the collected data. Graph 17 (box-plots 3) on the next page, is a combined box and whisker plots for three year groups in the TK category. All the box-plots were not evenly distributed as the median values were not at in the middle of the box and the length of their respective whiskers were not equal. For year one, the distribution is positively skewed and for year two and three, the distributions are
negatively skewed. Year one had a larger box and longer whiskers indicating a greater spread in their responses. Year two and year three had almost the same values for the lower quartile, median and upper quartile but different lengths for the whiskers.

**Graph 17: Box-Plots for TK**

Graph 18 and Graph 19 show the variation of the mean scores and median scores for item 36 to 54. There is general agreement in the manner in which the mean scores fluctuate and there seems to be very little difference between them. However, of interest were items 36, 37, 40, 41, 49, 50, 51, and 53.

**Graph 18: Variation of mean scores per item for TK**

These items were on understanding of learner misconceptions, and classroom management; content knowledge, pedagogical knowledge, and pedagogical content knowledge on
Mathematics, Environmental Science, and Agricultural Science. Agricultural Sciences was a challenge to teach for most students because it had just been introduced in the curriculum and student teachers had not been given skills to teach it.

**Graph 19: Variation of median score per item for TK**

The pattern in which the median scores vary was similar to the mean scores above and items 40, 41 and 51 came up again among the teacher knowledge items that student teachers felt created more challenges for them. These items dealt with content knowledge and PCK on Environmental Sciences, Agricultural Sciences and Mathematics. The modal scores variation shown in Graph 20 below, portrays the same picture as Graphs 18 and 19 with items 36, 40, 41, 46, 48, 50, 51 and 53 being the most problematic issues.

**Graph 20: Mode variation per item for TK**
Items 46 and 48 mainly affected the first years on the ability to adapt to different learning styles of learners and using a wide range of teaching approaches during lessons. There seems to be agreement between the second and third year modal scores.

Although Graph 18, Graph 19 and Graph 20 had similar features, there were slight differences in the way in which they identified the items that were of major challenges to student teachers. However, they seem to agree on the content and pedagogical content knowledge for Mathematics, Environmental Science and Agricultural Science.

4.5. INFERENTIAL STATISTICS RESULTS

Inferential techniques were used to test the hypotheses stated earlier and to examine the relationship between the dependant and independent variables (Onwuegbuzie & Combs, 2010, p. 401). The use of inferential statistics facilitated the understanding of descriptive statistics presented above and were used to draw some statistical generalisations about the population parameters within a given margin of probable error (Fox & Bayat, 2007, p. 125). This enabled the researcher to have a better view of the collected data which was not obvious at first glance. Inferential statistics also enabled the researcher to determine if there were statistically significant differences in the levels of teaching practice concerns within and between the three year groups and what type of relationship existed between the dependant and independent variables. Both parametric and non-parametric analyses were used in the study. Much of the discussion was focused on parametric analyses and the non-parametric analyses were used to confirm the research findings.

4.5.1. Parametric analyses

The main forms of parametric analyses used in the study were MANOVA and ANOVA. The purpose for conducting MANOVA was to test the statistical mean differences within and in between groups across three dependent variables (Field, 2013, 624). In other words, the test was meant to determine if the statistical means difference among three independent year groups of student teachers on a combination of dependent variables was by chance or not. Table 12 on the next page shows the descriptive statistics table with the sample sizes of each group, statistical mean and standard deviations for GC, TB and TK.
Table 12: Breakdown table of descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>61</td>
<td>2.32</td>
<td>0.49</td>
<td>3.70</td>
<td>0.73</td>
<td>4.01</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd year</td>
<td>67</td>
<td>1.97</td>
<td>0.56</td>
<td>3.86</td>
<td>0.65</td>
<td>4.32</td>
<td>0.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd year</td>
<td>65</td>
<td>2.28</td>
<td>0.48</td>
<td>3.67</td>
<td>0.69</td>
<td>4.25</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All groups</td>
<td>193</td>
<td>2.18</td>
<td>0.53</td>
<td>3.74</td>
<td>0.69</td>
<td>4.20</td>
<td>0.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13 below shows an extract of the multivariate tests table results with the Wilks’ Lambda row entries.

**Table 13: Multivariate tests of significance**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>F</th>
<th>Effect df</th>
<th>Error df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year Group</td>
<td>Wilks Lambda</td>
<td>0.88</td>
<td>4.24</td>
<td>6</td>
<td>0.0004</td>
</tr>
</tbody>
</table>

Since the value of $p < 0.05$, the researcher concluded that statistically, there were significant differences among the three year groups. Hence, the MANOVA was followed up with the Analysis of Variance (ANOVA) test. These tests was meant to determine if there were any significant differences in the statistical means of GC, TB and TK among the three year groups (Pietersen & Maree, 2015a, p. 228). Table 14 below presents a summary of the tests of between subjects effects compiled from Table 15, Table 16 and Table 17.

**Table 14: ANOVA’s**

Marked effects (bold) are significant at $p < 0.05$

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC</td>
<td>8.89</td>
<td>0.000204</td>
</tr>
<tr>
<td>TB</td>
<td>1.45</td>
<td>0.237305</td>
</tr>
<tr>
<td>TK</td>
<td>3.32</td>
<td>0.038077</td>
</tr>
</tbody>
</table>
### Table 15: ANOVA results for GC: Single factor

<table>
<thead>
<tr>
<th>Groups</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>141.3125</td>
<td>2.316598</td>
<td>0.242691</td>
</tr>
<tr>
<td>Year 2</td>
<td>67</td>
<td>132.0625</td>
<td>1.971082</td>
<td>0.315498</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>148.125</td>
<td>2.278846</td>
<td>0.231088</td>
</tr>
</tbody>
</table>

### ANOVA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.694628</td>
<td>2</td>
<td>2.347314</td>
<td>8.888857</td>
<td>0.000204</td>
<td>3.043466</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50.17402</td>
<td>190</td>
<td>0.264074</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>54.86864</td>
<td>192</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 16: ANOVA results for TB: Single factor

<table>
<thead>
<tr>
<th>Groups</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>225.5263</td>
<td>3.697153</td>
<td>0.531085</td>
</tr>
<tr>
<td>Year 2</td>
<td>67</td>
<td>258.6316</td>
<td>3.860173</td>
<td>0.423198</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>238.6316</td>
<td>3.671255</td>
<td>0.480958</td>
</tr>
</tbody>
</table>

### ANOVA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.381882</td>
<td>2</td>
<td>0.690941</td>
<td>1.449353</td>
<td>0.237305</td>
<td>3.043466</td>
</tr>
<tr>
<td>Within Groups</td>
<td>90.5775</td>
<td>190</td>
<td>0.476724</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>91.95938</td>
<td>192</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 17: ANOVA results for TK: Single factor

<table>
<thead>
<tr>
<th>SUMMARY</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>Count</td>
<td>Sum</td>
<td>Average</td>
</tr>
<tr>
<td>Year 1</td>
<td>61</td>
<td>244.8421</td>
<td>4.013805</td>
</tr>
<tr>
<td>Year 2</td>
<td>67</td>
<td>289.8421</td>
<td>4.326002</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>276.3158</td>
<td>4.251012</td>
</tr>
</tbody>
</table>

### ANOVA

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3.346818</td>
<td>2</td>
<td>1.673409</td>
<td>3.325021</td>
<td>0.038077</td>
<td>3.043466</td>
</tr>
<tr>
<td>Within Groups</td>
<td>95.62277</td>
<td>190</td>
<td>0.503278</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>98.96959</td>
<td>192</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 14 and Table 16 above, the p-value for TB was greater than 0.05. This meant that there were no differences in the means of first, second and third year groups’ levels of TB concerns during teaching practice. Therefore, the null hypothesis for TB that stated that there were “no differences” between the mean scores of teacher beliefs (TB) between first year, second year and third year student teachers during the period they are on teaching practice i.e., H₀: μₜᵢᵢ = μₜᵢᵢ = μₜᵢᵢ was accepted. In simple terms, the levels of TB concerns did not change much throughout the three year period. A visual representation of the TB concerns variation across year groups is shown in Graph 21 (on the next page) where the line joining the consecutive yearly TB values is almost parallel to the horizontal axis indicating the consistency in the variable over the three year period.

Since the null hypothesis was not rejected, it was not necessary to run the post hoc tests for TB. Post hoc tests are performed in cases where the null hypothesis is rejected and are meant to identify which of the groups’ statistical means were different or explain why the ANOVA test produced a significant $F$ (Field, 2013, pp. 458-459; Huck, 2004, p. 296). Therefore, the researcher concluded that there was sufficient evidence to suggest that there was no variation in TB of pre-service teachers during the period student teachers were on teaching practice. In simple terms, student teachers’ self-efficacy levels in classroom discipline, instructional
ability, assessment competencies; and the creation and maintenance of conducive learning environment did not change much over the three year period.

Graph 21: Variation of TB

From Table 14, Table 15 and Table 17 on the previous page, the $p$-values for GC ($p = 0.0002$) and TK ($p = 0.0394$) were less than 0.05. This meant that there were significant differences among the statistical means of the three year groups for GC and TK. This lead to the rejection of the null hypotheses that stated that there were “no differences” between the mean scores of general area of concerns (GC) and teacher knowledge (TK) between first year, second year and third year student teachers during the period they are on teaching practice i.e., $H_{01}$: $\mu_{GC1} = \mu_{GC2} = \mu_{GC3}$ and $H_{03}$: $\mu_{TK1} = \mu_{TK2} = \mu_{TK3}$. Based on this result, the researcher concluded that there was sufficient evidence to suggest that at least one pair of statistical means for GC and TK were different. As a result, the alternative hypotheses were not rejected that stated that the mean scores of general area of concerns (GC) and teacher knowledge (TK) are “not equal” between first year, second year and third year student teachers during the period they are on teaching practice i.e., $H_{a1}$: $\mu_{GC1} \neq \mu_{GC2} \neq \mu_{GC3}$ and $H_{a3}$: $\mu_{TK1} \neq \mu_{TK2} \neq \mu_{TK3}$. Stated differently, there was at least one significant difference in the statistical means between first, second and third year groups’ levels for GC and TK concerns during the teaching practice period. Although the ANOVA technique indicated that group means are not equal, it did not precisely reveal which ones are equal. The post hoc tests for one-way ANOVA were run to establish precisely where the statistical means were different (Field, 2013, pp. 464) among three year groups. The Scheffe’s test is one of the many post hoc tests that can be performed to examine the differences between the statistical
means of all possible pairwise combinations of groups in the sample. Scheffe test was chosen mainly because it allows for one to conduct post hoc analysis in which the sizes of the independent groups in the sample are different. (Field, 2013, pp. 458-459; Fridman & Erder, 2015, p. 136; Huck, 2004, p. 299). There were 61 respondents for first year, 67 for second year and 65 for third year. Thus, the Scheffe’s test enabled the researcher to precisely identify the pairs of differently sized samples of year groups where there were significant differences in the statistical means after the ANOVA test had been done.

In order to conduct the Scheffe’s test, the researcher compared the statistical means of two groups at a time for all possible combinations. Since there were three groups, three comparisons were made for GC and another three comparisons for TK as shown in Table 18 and Table 19 respectively. The critical $F_{scheffe}$ value for the Scheffe’s test was calculated using the formula $F_{scheffe} = F_{crit}(n - 1)$ where $F_{crit}$ was obtained from the ANOVA test and $n$ is the number of groups in the sample.

### Table 18: Scheffe Post Hoc Test: GC

<table>
<thead>
<tr>
<th>Differences between</th>
<th>$F_s$</th>
<th>Comparison of $F_s$ and $F_{scheffe}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\mu_{GC1}$ and $\mu_{GC2}$</td>
<td>54.66</td>
<td>$&gt;$</td>
</tr>
<tr>
<td>$\mu_{GC2}$ and $\mu_{GC3}$</td>
<td>44.54</td>
<td>$&gt;$</td>
</tr>
<tr>
<td>$\mu_{GC1}$ and $\mu_{GC3}$</td>
<td>0.68</td>
<td>$&lt;$</td>
</tr>
</tbody>
</table>

From Table 18 above, the calculated $F_s$ values were greater than the $F_{scheffe}$ value in two cases for general concerns of student teachers during teaching practice. As such, the researcher was able to conclude that there were significant differences between these two pairs of groups. The significant differences in the statistical means were between the first year and second year groups, and between second year and third year groups. These differences are evident in Graph 22 on the next page, where the differences between 2.32 and 1.97, and 2.28 and 1.97 are clearly visible.
Graph 22: Variation of GC across year groups

The third value of $F_s$ in Table 18 (on the previous page) was derived from the difference between the first and third year statistical means and it was found to be inferior to $F_{scheffe}$ value, this implied that there was no significant difference between these two year groups. Hence, the researcher concluded that the average value of first year and third year groups’ levels of general concerns were approximately the same. This relatively small difference was clearly shown in Graph 22 above where 2.32 was very close to 2.28.

Table 19 below shows the summary of the Scheffe’s post hoc test for TK where the $F_{scheffe}$ value was 6.08692.

<table>
<thead>
<tr>
<th>Differences between</th>
<th>$F_s$</th>
<th>Comparison of $F_s$ and $F_{scheffe}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\mu_{TK1}$ and $\mu_{TK2}$</td>
<td>12.10</td>
<td>$&gt;$</td>
</tr>
<tr>
<td>$\mu_{TK2}$ and $\mu_{TK3}$</td>
<td>0.70</td>
<td>$&lt;$</td>
</tr>
<tr>
<td>$\mu_{TK1}$ and $\mu_{TK3}$</td>
<td>6.94</td>
<td>$&gt;$</td>
</tr>
</tbody>
</table>

The first and third calculated values of $F_s$ were above the $F_{scheffe}$ value for teacher knowledge concerns. Therefore, the researcher was able to conclude that there were significant differences between two of the three possible pairs of groups for the Scheffe’s test. The significant differences in the statistical means were between the first year and second year...
groups, and between first year and third year groups. These differences are evidently shown in Graph 23 (below) where the differences between 4.32 and 4.01, and 4.25 and 4.01 are clearly visible. Since the second F value in Table 19 (see previous page) that was obtained from the difference between the second and third years’ statistical means was inferior to $F_{scheffe}$ value, this implied that there was no significant difference between these two year groups. Hence the researcher concluded that the average value of second and third year groups’ levels of general concerns were approximately the same. This relatively small difference was shown in Graph 23 where 4.32 was very close to 4.25.

**Graph 23: Variation of TK across year groups**

![Graph 23: Variation of TK across year groups](image)

In addition to the Scheffe’s post hoc tests, the researcher also used Cohen’s $d$ and $p$-values to confirm if there were any significant differences between the statistical means among the year groups. Cohen’s $d$ was used to interpret the size of the difference between the statistical means between any two groups in the study. Mol, Bus, de Jong and Smeets (2008, p. 13) understood Cohen’s $d$ as a measure of effect size. The inclusion of Cohen’s $d$ allows researchers to compare their results with the results from the current study even though they may use different scales to measure the levels of concerns.

Table 20 on the next page shows the summary of Cohen’s $d$ test and $p$-values for GC with the bottom diagonal containing the $p$-values and the top diagonal Cohen’s $d$ values. Cohen’s $d$ is an effect size measure that indicates the standardised difference between two statistical
means (Field, 2013, p. 79). Expressed simply, Cohen’s \( d \) is a measure of the difference between two statistical means expressed in standard deviation units.

Table 20: Cohen’s \( d \) test and \( p \)-values for GC

<table>
<thead>
<tr>
<th></th>
<th>( 1 )</th>
<th>( 2 )</th>
<th>( 3 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>0.66 (M)</td>
<td>0.08 (S)</td>
<td></td>
</tr>
<tr>
<td>2nd year</td>
<td>0.00034</td>
<td>0.59 (M)</td>
<td></td>
</tr>
<tr>
<td>3rd year</td>
<td>0.66332</td>
<td>0.00098</td>
<td></td>
</tr>
</tbody>
</table>

Hence, the rationale for using the Cohen’s \( d \) was that the measurement of effect size would be independent of the units that were used to measure the concerns of student teachers. Cohen (1988, p. 25) provided basic guidelines for interpreting effect size: small if \( d = 0.2 \); medium if \( d = 0.5 \); and large if \( d = 0.8 \). Hence, the effect size indicated whether or not the differences between any two year groups’ statistical means for one area of concerns were large enough to have any practical meaning. A small \( d \) implied that there was hardly any visible difference between any two year groups’ statistical means for one area of concerns. A medium \( d \) implied that there was a noticeable difference between any two year groups’ statistical means for one area of concerns. A large \( d \) implied there were large differences between groups’ mean scores for a particular area of concerns.

In Table 20 above, Cohen’s \( d \) values between first year and second year statistical means; and between second year and third year statistical means were 0.66 and 0.59 respectively. The magnitude of these values implies that the first and third year statistical means (i.e., 2.32 and 2.28 respectively) differ significantly from the second year statistical mean of 1.97. Similarly, the corresponding \( p \)-values for these combinations (i.e., \( p = 0.0010 \) and \( p = 0.0033 \) respectively) show that there were significant differences between the statistical means between these groups as they are much smaller than the significance level of 0.05. The significance level is the probability of concluding that the null hypothesis is wrong when in actual fact it is correct. This is known as a type 1 error in statistics (Field, 2013, p. 67; Pietersen & Maree, 2015b, p. 204). From the calculated \( p \)-values and Cohen’s \( d \) values, the researcher concluded that there was enough evidence to suggest that the differences between the first year and second year GC statistical means and between second year and third year statistical means were significant.
Furthermore, Cohen’s $d$ value (of 0.08) for the difference between first and third year groups’ statistical means indicated a slight difference between the statistical means of these two groups. Hence, the researcher deduced that there was no difference between the statistical means of first year and third year levels of general concerns. A $p$-value of 0.9146 also confirmed that there was no significant difference between these groups’ statistical means. All three conclusions from Cohen’s $d$ and $p$-values agree with the conclusion arrived at from Scheffe’s test earlier on.

Similar tests were performed for teacher knowledge concerns and Table 21 below provides a summary of Cohen’s $d$ test and the $p$-values with the figures on top of the diagonal representing Cohen’s $d$ values and the figures below the diagonal the $p$-values.

Table 21: Cohen’s $d$ test and $p$-values for TK

<table>
<thead>
<tr>
<th></th>
<th>{1}</th>
<th>{2}</th>
<th>{3}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year {1}</td>
<td>0.43 (S)</td>
<td>0.33 (S)</td>
<td></td>
</tr>
<tr>
<td>2nd year {2}</td>
<td></td>
<td>0.01564</td>
<td>0.10 (S)</td>
</tr>
<tr>
<td>3rd year {3}</td>
<td>0.07022</td>
<td></td>
<td>0.52196</td>
</tr>
</tbody>
</table>

In Table 21 above, only the 1st year group (mean of 4.01) differs significantly from the 2nd year group (mean of 4.32). The two statistically significant differences for GC are of medium practical significance while the statistically significant differences for TK are only of small practical significance. Furthermore, the Cohen’s $d$ values between first year and second year statistical means; and between first year and third year statistical means were 0.43 and 0.33 respectively: a distance range between 0.2 and 0.5 standard deviation units. A Cohen’s $d$ in this range is considered medium effect. This implies that the second year and third year statistical means of 4.32 and 4.25 respectively differ moderately from the first year statistical mean of 4.01. However, the corresponding $p$-values (i.e., $p = 0.016$ and $p = 0.0702$ respectively) for these combinations reveal a slightly different picture. While a $p$-value of 0.016 confirmed a significant difference in the statistical means between the first and second year groups at $p < 0.05$, a $p$-value of 0.0702 for the difference between the first and third year statistical means indicated that the result was not significant at $p < 0.05$. Based on these results, the researcher concluded that there was adequate evidence to suggest that the
differences between the first and second year TK statistical means and between first year and third year statistical means were significant even though it was not convincing between first year and third year groups.

The Cohen’s $d$ value (of 0.10) for the difference between the second year and third year groups’ statistical means indicated a slender difference between the statistical means of these two groups. Hence, the researcher inferred that there was no difference between the statistical means of second year and third year levels of teacher knowledge concerns. A $p$-value of 0.52196 for the difference between the second and third year statistical means substantiated the claim that there was no significant difference between these groups’ statistical means at $p < 0.05$. Again, these three conclusions from Cohen’s $d$ and $p$-values agreed to some extent with the conclusion drawn from Scheffe’s test earlier on.

4.5.2. Non-parametric analysis

Non-parametric analyses were also employed to analyse the results from the questionnaire in order to confirm the decisions that had been reached earlier using MANOVA and ANOVA. The rationale for including non-parametric analyses stemmed from the fact that student teachers expressed their concerns in the questionnaire using Likert scales, and the Likert scales yielded ordinal data or data whose differences could be ordered and ranked (Huck, 2004, p. 492; Maree & Pietersen, 2015a, p. 167). The assigned ranks were then used to analyse the differences between the groups. The Kruskal-Wallis and Mann-Whitney U tests were selected among the many possible combinations of non-parametric tests available from literature for comparing independent groups for the following reasons: Kruskal-Wallis test is based on ranked data and allows for follow-up analysis using pairwise comparisons (Field, 2013, pp. 237-238); and Mann-Whitney U uses all the data from the respondents (Huck, 2004, p. 496) and allows for comparisons of unequal samples (Field, 2013, p. 219). In addition, Kruskal-Wallis’ test is accepted in literature as a non-parametric test that can be used to compare differences between three or more independent groups (Field, 2013, p. 236; Pietersen & Maree, 2015a, pp. 224-235). Mann-Whitney U test places greater emphasis on the ranks and not the actual scores to compare differences between independent conditions (Field, 2013, pp. 214, 217, 236-237). Therefore, the Kruskal-Wallis test was used to investigate if there were any differences in the mean values of concerns between the three year groups. The Kruskal-Wallis tests were applied to GC, TB and TK categories of
concerns. The same null and alternative hypotheses were used as before: H\(_0\): \( \mu_1 = \mu_2 = \mu_3 \)
and H\(_a\): \( \mu_1 \neq \mu_2 \neq \mu_3 \) for each of the categories of concerns. The null hypothesis was
accepted in situations where the test statistic (\(H\)) was less than the critical value (\(\chi^2\)) of 5.991
at an alpha value of 0.05 with 2 degrees of freedom. Otherwise, H\(_0\) was rejected and H\(_a\)
accepted when \(H > \chi^2_{0.05, 2}\). In cases where H\(_0\) was rejected, the Mann-Whitney U test was
used for follow-up analysis. Mann-Whitney U test is a non-parametric test that allows
researchers to compare differences in the ranked positions of scores from two independent
samples (Field, 2013, p. 224; Pietersen & Maree, 2015a, p. 233). Hence, the Mann-Whitney
U test was embraced as an appropriate post hoc test to identify groups that had similar
distributions. To achieve this, pairwise comparisons were carried out on the year groups
where the Kruskal-Wallis test had revealed that significant differences existed between
groups in a category of concerns. The null hypothesis for the Mann-Whitney U test was:
There was no difference in the scores of the two groups or the sum of ranks for the two
groups were the same. The alternative hypothesis test was: There was a significant difference
between the scores of the two groups.

4.5.2.1. Kruskal-Wallis test results for GC

Kruskal-Wallis tests were conducted in SPSS for each of the sections in the questionnaire.
Table 22 and Table 23 (on the next page) show the summary of the Kruskal-Wallis test for
GC category. The results showed that the test statistic was in the rejection region and the
null hypothesis was therefore rejected. Based on these facts, the researcher concluded that
there was sufficient evidence at 5% confidence interval, to deduce that at least two of the
three probability distributions for the GC were different. This result confirmed an earlier
result with MANOVA and ANOVA that there were significant differences among the three
year groups for GC. Since the alternative hypothesis was accepted, the researcher went
further to conduct post hoc tests using Mann-Whitney U test to investigate the pattern of the
concerns of student teachers across the year groups.
Table 22: Ranks for GC

<table>
<thead>
<tr>
<th>Year Group</th>
<th>N</th>
<th>Mean rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61</td>
<td>109.93</td>
</tr>
<tr>
<td>2</td>
<td>67</td>
<td>76.84</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
<td>105.65</td>
</tr>
</tbody>
</table>

Table 23: Test statistics for GC

<table>
<thead>
<tr>
<th>GC Score</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>13.558</td>
</tr>
</tbody>
</table>

| Df       | 2      |
| p-value  | 0.001  |

\[ \chi^2 = 5.991 \]

4.5.2.2. Mann-Whitney U tests for GC category

Pairwise comparisons among the three year groups was undertaken using the Mann-Whitney U test. Table 24 and Table 25 below show the summary of the comparisons between the first year and second year mean scores.

Table 24: Ranks for first year and second year GC category

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>76.566</td>
<td>4670.5</td>
</tr>
<tr>
<td>Year 2</td>
<td>67</td>
<td>53.515</td>
<td>3585.5</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 25: Test statistics

<table>
<thead>
<tr>
<th>Score</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1307.5</td>
</tr>
<tr>
<td>Z</td>
<td>3.511</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Since the z value (=3.511) was greater than 1.96, the null hypothesis was rejected and the researcher concluded that there was significant difference between the levels of concerns between the first and second year groups when \( \alpha = 5 \) percent. Table 26 and Table 27 below, show the summary of the pairwise comparisons between the first year and third year scores.

**Table 26: Ranks for first year and third year GC category**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>65.246</td>
<td>3980</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>61.862</td>
<td>4021</td>
</tr>
<tr>
<td>Total</td>
<td>126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 27: Test statistics**

<table>
<thead>
<tr>
<th>Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1876</td>
</tr>
<tr>
<td>Z</td>
<td>0.520</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.603</td>
</tr>
</tbody>
</table>

Since the z value (=0.520) was less than 1.96, the null hypothesis was accepted and the researcher concluded that there was significant evidence to assume that the levels of concerns between the first year and third year groups were the same when \( \alpha = 5 \) percent.

Table 28 and Table 29 show the summary of the pairwise comparisons between the second year and third year mean scores.

**Table 28: Ranks for second year and third year GC category**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2</td>
<td>67</td>
<td>75.351</td>
<td>5048.5</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>56.377</td>
<td>3729.5</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 29: Test statistics

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1451.5</td>
</tr>
<tr>
<td>Z</td>
<td>3.305</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Since the z value (=3.305) was greater than 1.96, the null hypothesis was rejected and the researcher concluded that there was significant difference between the levels of concerns between the second and third year groups when $\alpha = 5$ percent.

4.5.2.3. Kruskal-Wallis tests results for TB

Kruskal-Wallis tests were also conducted for TB. Table 30 and Table 31 below show the summary of the Kruskal-Wallis test for the TB category.

Table 30: Ranks for TB

<table>
<thead>
<tr>
<th>Year Group</th>
<th>N</th>
<th>Mean rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61</td>
<td>93.06</td>
</tr>
<tr>
<td>2</td>
<td>67</td>
<td>105.93</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
<td>91.49</td>
</tr>
</tbody>
</table>

Table 31: Test statistics for TB

<table>
<thead>
<tr>
<th></th>
<th>TB Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H$</td>
<td>2.649</td>
</tr>
<tr>
<td>Df</td>
<td>2</td>
</tr>
<tr>
<td>p-value</td>
<td>0.266</td>
</tr>
</tbody>
</table>

$\chi^2 = 5.991$

The above results showed that the test statistic was in the acceptance region and hence the researcher failed to reject the null hypothesis. Based on these facts, the researcher concluded that the data above provided sufficient evidence at 5% confidence interval, to deduce that
the three probability distributions for the TB were the same. This result confirmed an earlier result with MANOVA and ANOVA that there were no significant differences among the three year groups for TB. Since the null hypothesis was accepted, there was no need to conduct post hoc tests to investigate the patterns of concerns of student teachers across the three-year groups.

4.5.2.4. Kruskal-Wallis tests results for TK

Kruskal-Wallis tests were also conducted for TK category for the three groups. Table 32 and Table 33 show the summary of the Kruskal-Wallis test for the TK category.

**Table 32: Ranks for TK**

<table>
<thead>
<tr>
<th>Year Group</th>
<th>N</th>
<th>Mean rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61</td>
<td>82.88</td>
</tr>
<tr>
<td>2</td>
<td>67</td>
<td>106.66</td>
</tr>
<tr>
<td>3</td>
<td>65</td>
<td>100.30</td>
</tr>
</tbody>
</table>

**Table 33: Test statistics for TK**

<table>
<thead>
<tr>
<th>TK Score</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>6.129</td>
</tr>
<tr>
<td>Df</td>
<td>2</td>
</tr>
<tr>
<td>p-value</td>
<td>0.047</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 5.991 \]

The above results showed that the test statistic was in the rejection region and the null hypothesis was rejected. Therefore, the researcher concluded that the data above provided sufficient evidence at 5% confidence interval, to deduce that at least two of the three probability distributions for the GC were different. This result confirmed an earlier result with MANOVA and ANOVA that there were significant differences among the three year groups for TK. Since the null hypothesis was rejected, there was need to conduct post hoc tests to investigate the patterns of concerns of student teachers across the three-year groups.
4.5.2.5. *Mann-Whitney U tests for TK category*

Pairwise comparisons among the three year groups was undertaken using the Mann-Whitney U test. Table 34 and Table 35 below show the summary of the comparisons between the first year and second year mean scores.

**Table 34: Ranks for first year and second year TK category**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>56.230</td>
<td>3430</td>
</tr>
<tr>
<td>Year 2</td>
<td>67</td>
<td>72.030</td>
<td>4826</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 35: Test statistics for TK (first year and second year)**

<table>
<thead>
<tr>
<th>Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1539</td>
</tr>
<tr>
<td>Z</td>
<td>-2.407</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.161</td>
</tr>
</tbody>
</table>

Since the z value (= -2.407) was less than -1.96, the null hypothesis was rejected and the researcher concluded that there was significant difference between the levels of concerns between the first and second year groups when $\alpha = 5$ percent.

Table 36 and Table 37 show the summary of the pairwise comparisons between the first year and third year mean scores. Since the $z$ value (= -1.743) was greater than -1.96, the null hypothesis was accepted and the researcher concluded that the levels of concerns between the first and third year groups when $\alpha = 5$ percent were almost that same.

**Table 36: Ranks for first year and third year TK category**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>61</td>
<td>57.648</td>
<td>3516.5</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>68.992</td>
<td>4484.5</td>
</tr>
<tr>
<td>Total</td>
<td>126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 37: Test statistics for TK (first year and third year)

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1625.5</td>
</tr>
<tr>
<td>Z</td>
<td>-1.743</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.081</td>
</tr>
</tbody>
</table>

Table 38 and Table 39 show the summary of the pairwise comparisons between the second year and third year mean scores.

Table 38: Ranks for second year and third year TK category

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean rank</th>
<th>Sum of ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2</td>
<td>67</td>
<td>68.627</td>
<td>4598</td>
</tr>
<tr>
<td>Year 3</td>
<td>65</td>
<td>64.308</td>
<td>4180</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 39: Test statistics for TK (second year and third)

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>2035</td>
</tr>
<tr>
<td>Z</td>
<td>0.640</td>
</tr>
<tr>
<td>Asymp. sig (2 tailed)</td>
<td>0.517</td>
</tr>
</tbody>
</table>

Since the z value (=0.620) was less than 1.96, the null hypothesis was accepted and the researcher concluded that there was significant evidence to assume that the levels of concerns between the first year and third year groups were the same when $\alpha = 5$ percent.

4.6. VALIDATION PROCEDURES

As pointed out earlier, the value and practicability of a study is determined mainly by the quality of the procedures of data collection and analyses that were employed. A number of measures were put into place to enhance the reliability and validity of the data analyses.
presented above. To ensure the internal reliability of the instrument, Cronbach $\alpha$ values for the different subsections of the questionnaire were determined by an independent researcher. Cronbach’s $\alpha$ values show the inter-item correlations (Pietersen & Maree, 2015c, p. 216) or internal consistency (Field, 2013, p. 709) of an instrument’s items. In other words, the $\alpha$ values for a questionnaire show the cohesion among the items or they determine how the items in the questionnaire are correlated to each other. Eight $\alpha$ values for different sections of the questionnaire are shown in Table 40 below. Field (2013, p. 709) considers Cronbach’s $\alpha$ values between 0.7 and 0.8 as being acceptable in research. Pietersen and Maree (2015c, p. 216) also provided basic guidelines for interpreting Cronbach’s $\alpha$ values: 0.9 as having high reliability; 0.8 as having moderate reliability; and 0.7 as having low reliability.

Based on these two viewpoints, one can safely consider a minimum value of 0.7 for Cronbach’s $\alpha$ value as being suitable. Furthermore, Pietersen and Maree (2015c, p. 216) suggested that any Cronbach’s $\alpha$ values lower than 0.6 were unacceptable in research. None of the researcher’s Cronbach’s $\alpha$ values were in that region. The least Cronbach’s $\alpha$ value was 0.74 which was within an acceptable range.

### Table 40: Cronbach’s alpha values

<table>
<thead>
<tr>
<th></th>
<th>Questions</th>
<th>Number of items</th>
<th>Alpha value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC</td>
<td>General areas of concerns</td>
<td>Q01-Q16</td>
<td>16</td>
</tr>
<tr>
<td>TB</td>
<td>Disciplinary self-efficacy</td>
<td>Q17-Q20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Instructional self-efficacy</td>
<td>Q21-Q23</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Assessment practice self-efficacy</td>
<td>Q24-Q28</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Learning environment self-efficacy</td>
<td>Q29-Q35</td>
<td>7</td>
</tr>
<tr>
<td>TK</td>
<td>Content knowledge</td>
<td>Q36-Q43</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Pedagogical knowledge</td>
<td>Q44-Q50</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Pedagogical content knowledge</td>
<td>Q51-Q54</td>
<td>4</td>
</tr>
</tbody>
</table>

With respect to external validity, a large randomly selected sample ($N = 300$) was drawn from the entire population and a response rate of 64.3% from the sample was considered acceptable for a survey (Ladik, Carrillat, & Solomon, 2007, p. 266). This ensured that the
potential threats associated with the generalisation of research findings to the entire population were minimised. The content and construct validity issues were also addressed by using a standard questionnaire that had also been assessed by a team of experts and test-piloted before use. The researcher had faith in the standard of the instrument and therefore considered it unnecessary to conduct factor and item analyses (Pietersen & Maree, 2015c, pp. 216, 218-219. Therefore, the instrument was assumed to be valid and reliable.

4.7. SUMMARY OF CHAPTER

The aim of this chapter was to present and discuss survey results based on the inputs of one hundred and ninety three (193) student teachers who were randomly selected from three year groups of the 2-5-2 teacher programme in Zimbabwe. A one-off survey questionnaire was administered to three hundred (300) respondents and the response rate was 64.3%. More than 53.8% of the respondents were over thirty year old and close to 73% of them were female.

A brief discussion on how the data was collected, organised and presented was provided and the emphasis was on the explanation and justification of the quantitative data analysis processes that were employed. Quantitative data analysis was viewed as a process by which numerical data was used to describe and predict the variation of teaching practice related concerns of first, second and third year student teachers using statistical data methods. Data was analysed using both descriptive statistics and inferential analysis.

Descriptive statistics were used to summarise and explain the large numeral data from the questionnaires in a simplified format. In describing the data, the mean, median and modal scores; and standard deviation were some of the measures of central tendency that were calculated and used to provide insight in to the concerns expressed by student teachers during their stint on teaching practice. Much of the discussion was based on mean scores because they provided a more comprehensive and understandable picture than the other measures. The other measures were used to confirm and support the findings deduced from the mean scores. The rationale for the inclusion of other measures was to minimise the distortion that extreme values might have had on mean scores. In addition to the discussion of the measures of central tendency, visual displays of the results such as tables, graphs, and figures were
used to enrich the findings.

The discussion of the results focused on three areas of concerns experienced by student teachers during teaching practice, namely, general areas of concerns, teacher beliefs and teacher knowledge. In response to the issues that stressed student teachers the most, among fear of failing teaching practice, instructional design, classroom management, workload, and lesson delivery; fear of failing teaching practicum and being assessed topped the list of general areas of concerns during teaching practice. Respondents were also asked to rate their self-efficacy on classroom discipline, instructional ability, assessment competencies; and creation and maintenance of conducive learning environment. Among these, student teachers were less efficacious with learner discipline followed by assessment of learners, creation of appropriate learning environment and finally instructional practices. From these results, the researcher concluded that the low self-efficacy beliefs that student teachers had on classroom management, meant that they would generally put less effort, set very low targets, and would give up easily when confronted with issues related to classroom management. Respondents were also asked to rate their competencies in the disciplinary content knowledge and pedagogical content knowledge in the learning areas they were teaching. The results revealed that student teachers had more challenges with disciplinary content knowledge and pedagogical content knowledge in Agriculture, Mathematics and Science than in languages and content subjects. In all three areas of concerns experienced by student teachers, differences were noted in and between year groups’ mean, median and modal scores. In order to understand the differences between the year groups’ statistics and make some generalisations based on the selected sample, inferential statistics was employed.

An investigation was conducted into how the pre-service teachers’ concerns were different across the first, second and third year groups using both parametric and non-parametric analyses. More emphasis was placed on parametric analyses mainly because of the robustness of MANOVA and ANOVA that were used to compare differences in statistical scores (Field, 2013, pp. 444, 625). Non-parametric analyses were also used to confirm the findings from parametric analyses. Furthermore, non-parametric analyses was used because the data had been measured using a Likert scale and had yielded ordinal data whose differences were ordered and ranked (Huck, 2004, p. 492; Maree & Pieterse, 2015a, p. 167). Results from MANOVA revealed that there were significant differences within and between year groups for the three dependent variables in the study. As follow-up to
MANOVA, ANOVA was used to test whether there were any differences among the three year groups for GC, TB and TK. The ANOVA for TB revealed that teacher beliefs on classroom discipline, instructional ability, assessment competencies; and creation and maintenance of conducive learning environment did not change much during teaching practice phases over three years. Similar test for GC and TK showed that one pair of statistical means for GC and TK were different. As a result, the alternative hypotheses were accepted that stated that the mean scores of general area of concerns (GC) and teacher knowledge (TK) are “not equal” between first year, second year and third year student teachers during the period they are on teaching practice. In addition, post hoc tests for one-way ANOVA were run to establish precisely where the statistical means were different among the year groups. The results for GC indicated that the level of concerns for year one and three were almost the same; and the second year scores were different from the other groups. A similar test for TK indicated that there were significant differences in the statistical means between first, second and third year groups, and between first and third year groups; and the differences in the mean scores between year two and year three groups were negligible. Non-parametric analyses conducted using Kruskal-Wallis and Mann-Whitney U tests yielded the same conclusion like the parametric analyses.

In Chapter five, qualitative data drawn from in-depth interviews with trainee teachers and college supervisors are presented and analysed using a thematic analysis.
CHAPTER FIVE

QUALITATIVE DATA PRESENTATION AND ANALYSIS

5.1. INTRODUCTION

The main focus of this chapter is to present and analyse qualitative data drawn from in-depth personal interviews with student teachers and college supervisors. The chapter explains how through the use of inductive thematic analysis, data was broken down into manageable units, coded, synthesised and analysed thematically. The aim of this study was to identify and examine pre-service teachers’ concerns during teaching practicum and to suggest strategies that could be implemented to alleviate the concerns. The focus of the qualitative phase as highlighted in this chapter aims to:

a) identify UCE pre-service teachers’ concerns during teaching practice;
b) examine how teaching practice related concerns affect the ability of UCE pre-service teachers to execute their tasks; and
c) review the forms of support that UCE pre-service teachers receive and to explore how they could be integrated with ICTs.

5.2. PRE-SERVICE TEACHERS’ CONCERNS DURING TEACHING PRACTICE

After analysing the transcriptions, eight major themes emerged from the collected data, namely; classroom management, teacher knowledge, socio-economic factors, workload, relationships, observation and assessment, support and ICT. A summary of the categories and themes that emerged from the analysis of the interviews are tabulated in the Table 41 on the next page.

The themes and categories were created in consultation with fellow researchers. It was clear that these divisions were related and in most cases there was a very thin line of partition between them; and in some cases there was an overlap. The contexts in which the above themes were used for the purposes of this study are briefly explained below. Thereafter, each
theme with its related categories will be discussed in detail.

Table 41: Themes and categories of pre-service teachers concerns’ during teaching practice

<table>
<thead>
<tr>
<th>Themes</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classroom management</td>
<td>• Classroom discipline</td>
</tr>
<tr>
<td></td>
<td>• Time</td>
</tr>
<tr>
<td>2. Teacher knowledge</td>
<td>• Content knowledge</td>
</tr>
<tr>
<td></td>
<td>• Generic pedagogical content knowledge</td>
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<td></td>
<td>• Disciplinary content knowledge</td>
</tr>
<tr>
<td></td>
<td>• Learner diversity</td>
</tr>
<tr>
<td></td>
<td>• Agriculture</td>
</tr>
<tr>
<td>3. Socio-economic factors</td>
<td>• Infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Resources</td>
</tr>
<tr>
<td></td>
<td>• Financial</td>
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<td></td>
<td>• Family responsibility</td>
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<td></td>
<td>• Deployment</td>
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<td>4. Workload</td>
<td>• Lesson preparation</td>
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<tr>
<td></td>
<td>• Teaching</td>
</tr>
<tr>
<td></td>
<td>• Marking and assignments</td>
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<td></td>
<td>• Distance learning assignments</td>
</tr>
<tr>
<td>5. Relationships</td>
<td>• Mentors</td>
</tr>
<tr>
<td></td>
<td>• Parental involvement</td>
</tr>
<tr>
<td>6. Observation and assessment</td>
<td>• Anxiety</td>
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<td></td>
<td>• Evaluation</td>
</tr>
<tr>
<td></td>
<td>• Feedback</td>
</tr>
<tr>
<td>7. Support</td>
<td>• Mentor</td>
</tr>
<tr>
<td></td>
<td>• Peer support</td>
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<td>Themes</td>
<td>Categories</td>
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<td>• Supervisor support</td>
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| 8. ICT | • Internet as a source of information  
|        | • Internet as a networking platform  
|        | • Barriers to integration of ICTs |

**Classroom management** is a term that encompasses a number of interrelated aspects such as tasks, learners, time and resources but it mainly focuses on managing learners’ behaviour and time. In general, classroom management as highlighted by Coetzee, van Niekerk & Wydeman (2008, p. 24) describes the procedures that educators use to keep learners focussed on instructional and learning activities, to ensure that learning time is productively utilised. Good classroom management ensures that learners are actively engaged so that teaching and learning time produces the expected outcomes. For the purposes of this study, classroom management was restricted to discipline and time.

**Teacher knowledge** refers to the nature of the knowledge that teachers should possess for them to effectively impart knowledge to diverse groups under different situations in the classroom. The teacher knowledge for the purposes of this study included mainly disciplinary content knowledge, curriculum knowledge and pedagogical content knowledge. This teacher knowledge also included situational knowledge which covers “varied learning situation, contexts and environments of education” (DHET, 2015a, p. 12) in which learners operate, such as poverty, gender, unemployment, HIV and Aids, learner diversity and inclusivity.

**Socio-economic factors**, refers to the influence of social and economic factors in Zimbabwe on student teachers’ practice in schools. The economic factors included the lack of resources in schools and institutions of higher education such as infrastructure (e.g., classrooms, play grounds, and toilets), finances, furniture, water and electricity, equipment, syllabi, learning aids, and reading materials, family responsibility and language.
**Workload** refers to the total amount of work that pre-service teachers were expected to do during teaching practice such as the planning of lessons, teaching, marking of scripts, writing of ‘distance’ assignments, curriculum development in the grades they were teaching and assessing learner progress in the classes they were allocated to (Ozturk, 2011, p. 7). Thus, workload in this study refers to the amount of work, measured in terms of time spent by pre-service teachers on teaching practice related activities.

**Interpersonal relationships** refer to relationship that the mentees had with the school, mentor teachers, staff and community. This theme will focus on the mentor-mentee, other teacher-mentee and parents-mentee relationships. However, much of the focus will be placed on the mentee-mentor relationship.

**Observation and assessment** concerns arise mainly out of a lack of confidence in one’s ability to execute classroom tasks in the presence of observers. Danner (2014, p. 49) and Kyriacou and Stephens (1999, p. 18) refer to this concern as ‘evaluation anxiety’. The presence of evaluators as pointed out by Malik & Ajmal (2010, pp. 20, 22-23) in the classroom created high levels of evaluation anxiety among pre-service teachers. In this study, this theme will focus on the anxiety experienced by student teachers during teaching practice assessment and feedback that student teachers received or did not receive.

**Support** refers is the assistance that student teachers received from mentors and other teachers in the school, college supervisors and peers during teaching practicum. This theme focused on three categories mainly mentor, peer and college supervisors’ support.

**ICT** entails the use of internet (and mobile) based technologies by teacher educators and student teachers as a source of information to communicate with each other and to collaborate on diverse issues in teacher education. It also included the possibility of facilitation and learning through the use of information and communication devices together with some of the barriers that would hinder their use in teacher education in Zimbabwe.

The ensuing discussion will be guided by the above mentioned themes and their respective categories. The first five themes relate mainly to the concerns that student teachers had during teaching practicum (i.e., classroom management, teacher knowledge, socio-economic factors, workload, relationships, and observation and assessment). The discussion relating
to the first six themes includes student teachers’ concerns, an explanation of their coping strategies, and an assessment on how these concerns affected their class based practice. The other two themes explain how student teachers were supported or could be supported during teaching practice. Figure 18 below provides a visual representation of pre-service teachers’ concerns during teaching practicum and forms of support.

5.2.1. Theme 1: Classroom management

Almost all the participants agreed that classroom management played an important role in keeping learners focussed on instructional and learning activities, and ensuring that learning time is productively utilised. Student teachers confirmed that classroom management was a complex process that often left them stressed. Two main categories were identified under this theme, namely, discipline and time.

Figure 18: Pre-service teachers’ concerns during teaching practice.
5.2.1.1. Classroom discipline

A majority of the participants acknowledged that classroom discipline was a major area of concern especially at the beginning of teaching practicum. The participants were hesitant to admit that they were not adequately prepared to handle disciplinary problems during their initial two terms at the college. Student teachers were more concerned about creating and maintaining a conducive learning environment with minimal disruptions. One area that trainee teachers were concerned about was the level of noise in the classroom and how best to deal with it. A majority of the student teachers experienced situations where learners were making a noise while a few experienced instances where the learners were exceptionally quiet during classroom activities. Participants were of the view that a certain level of classroom noise was acceptable for effective learning and not any of the two extremes. The extracts below reveal some of their concerns.

ST16: “Class management was a challenge at the beginning. You know the children will be introduced “This is the teacher ... he is on teaching practice” ... So, they tend not to write whatever you are giving them especially when it comes to corrections”.

ST13: “It’s difficult to teach when the learners are making noise. It will be like I am talking to myself. They won’t be listening”.

ST11: “Pupils use low voices when discussing group work. I have tried working on that. I have told them that if they are doing group work they are free to discuss”.

ST12: “the administering of corporal punishment ... It’s a sensitive subject because we are not allowed to use it ... Pupils will find what I can call loop holes ... I spend most of my time trying to make the pupils silent”.

The accounts above indicate that controlling a class can be stressful for student teachers. When asked how they managed to deal with discipline in classrooms, different approaches were cited. However, a majority of them seemed to agree that thorough lesson preparation, the efficient use of lesson time and understanding learner behaviour were critical in managing disciplinary problems in the classroom. In addition, they observed that proper classroom management enabled learners to focus on their work and reduced disciplinary problems. Some of the quotes on how they were managing their classrooms were:
ST9: “The handling of the class is now better. Because every day I spent the day with the children, I get used to them. I think I am making head way on this issue. I am still trying to learn how to handle them and my approaches are still changing”.

ST10: “The mentor also helped me and advised me to be firm with children, for example if I say “No”, they must know it’s a “No” and if I say “Yes” then it’s a “Yes”.

ST16: “Actually my mentor sat down with me and advised me to be firm when I am talking to the pupils in terms of written work or in terms of corrections”

ST12: “I usually beat discipline problems by giving them work to do. There are some who finish early before the others finish their work, so I normally give them extension work, so that I keep them busy”.

ST13: “Yeah, for classroom management … I punish the pupils”.

The above comments revealed that learning to manage a classroom is a process that takes time and support. The remarks also revealed diverse philosophies towards classroom management. The participants also acknowledged that disciplinary problems interfere with effective teaching and learning. Most of the participants confessed that although they had made strides in dealing with classroom discipline, they were still struggling with it. The citations below explain how classroom management affected their classroom practice.

ST10: “If the classroom is not well managed, the objectives will not be achieved because the children will not be listening or concentrating so the objectives of the lessons are more likely not going to be achieved”.

“The class becomes noisy and unteachable”.

CS5: “If discipline lacks, if they are not able to manage the class, it will really

CS5: ... they won’t teach to their maximum ability because it would be noisy”.

The above narratives clearly show that without proper classroom management, no meaningful teaching and learning can take place. Hence, there was a desire on the part of the student teachers to find effective ways of managing a class.
5.2.1.2. Time

A number of the participants indicated that efficient time management during lessons was imperative for the attainment of their objectives. The participants found that they could not complete their planned tasks within the allocated time because of differences in pupils’ learning styles and needs.

ST12: “I have realised that time is not enough ... Mathematics, it’s very difficult to cover the content that they give you for a week ... you can’t even find the time to give them a revision test”.

ST8: “some of the content that we teach requires more time for the pupils to understand”.

ST14: “with mixed ability it limits one’s progress ... it takes time to remediate the slow learners but at the same time I should extend the fast learners. The time and the ability to multi-task there it becomes a challenge”.

ST8: “Hot seating is one thing that takes up time ... That time period of us exchanging it’s a period gone ... but I have to cover a lesson during that 30 minute period”.

The above statements highlight some of the dilemmas that student teachers encounter in managing their work and time effectively. A few of the students came to the realisation that managing time was not just a matter of working harder, but being organised and prioritising their work. On further probing on how they managed to deal with time management, participants explained some of the strategies they had adopted to maximise their time during lessons or to increase their teaching time. Some of these suggestions are reaffirmed in the excerpts below:

ST14: “The mentors are doing a great job because they correct us here and there ... advise us on how to manage time”.

ST8: “when it comes to interrelated topics ... For example the topic on health, I touch the health in ES, health in Home Economics and maybe health in Social Studies and mix it up so for the advantage of me not having to re-scheming and re-teaching or even re-planning the same concepts”.
To manage their time effectively, student teachers had to come up with their own rules that included good planning and completing the most important sections first. Discussion with the student teachers also revealed that they seem to have understood the importance of proper time management. Most of them realised that poor time management had serious consequences for their work as the following extracts illustrate.

ST7: “Most of the time if you sharing a classroom with someone, some lessons are affected of which you may end up postponing or not doing some of the lessons”. “In the end, you tell yourself that you have to re-scheme as well so that it goes hand in hand with your plans. The problem is that we have to scheme in advance and you have to teach on a day to day basis”.

ST8: “There is also sharing of classroom which means there is limited time to teach in classroom and you teach half of the time in a classroom and the other half outside”.

The above expression does show that student teachers were able to identify some of the consequences of poor time management.

5.2.2. Theme 2: Teacher knowledge

Participants disclosed their incompetency in some of the eleven learning areas that teachers are expected to teach at primary school level. They acknowledged that learning to teach at primary school level was a daunting task for them in terms of teacher knowledge. Five main categories connected to teacher knowledge emerged, namely, content knowledge, generic pedagogy, subject pedagogy, curriculum knowledge, situational knowledge, and agriculture. Agriculture was given a special status among the subjects in the primary school curriculum because it was introduced during the study.

5.2.2.1. Content knowledge

Nearly all the participants acknowledged that there was at least one learning area that they were not confident with in terms of content. In some cases, student teachers were exposed to the subject matter for the first time during their teaching practice at schools and they were expected to teach it. The extracts on the next page highlight some of the pre-service teachers’
concerns relating to content knowledge.

ST11: “I had problems with ... not knowing what to teach. I just had a rough idea, the content was just touching on the surface”.

ST3: “Environmental Science is very difficult to teach”.

ST10: “Music and PE these were the most challenging ones”.

ST12: “One of them are complaining of the grade I was given ...I sometimes failed to deliver the lessons properly because of poor content”.

ST8: “it was kind of hard getting the content”.

ST9: “I can deliver a lesson but the content may not be enough for the pupils just because I have nowhere else to refer to”.

The issues mentioned above clearly illustrate the lack of thorough preparation of student teachers in the 2-5-2 programme in terms of content knowledge in some of the learning areas in the primary school curriculum.

Participants used a variety of coping strategies to address their content knowledge inadequacies and the main one was from colleagues in the host schools. The quotes below illustrate some of their coping strategies relating to content knowledge.

ST15: “So, I would have to resort to asking the mentor”.

ST16: “I research some of the things I teach using the Internet”.

ST8: “It required me to research a lot more”.

ST9: “Sometimes we can meet and discuss the topic that we are teaching. From there I can get some of the things that I think are necessary for my lesson”.

Student teachers had to come up with strategies for dealing with their shallow content knowledge in some of the learning areas by getting support from mentors and peers and through self-study.

Lack of content knowledge was noted as having serious consequences for both the student teacher and learners. Selected extracts of their views on the impact of a lack of content knowledge were:
ST8: “you need to research and research more. You have sleepless nights researching”.

ST10: “It affects my quality of content that I prepare in my lessons and the methodologies as well”.

ST2: “yes, after delivering the lessons you feel like know what I think, it wasn’t ok. Maybe I just destroyed the child’s future. He did not understand me. Maybe what I have taught them it will bring negative results”.

These accounts show that a lack of content knowledge negatively affected student teachers’ confidence and quality of teaching and learning. Furthermore, the utterances show some of the student teachers’ dilemmas as they tried to master content knowledge while simultaneously learning other basic skills such as lesson planning, classroom management and the art of teaching.

5.2.2.2. Generic pedagogical knowledge

Participants noted that for them to be effective in the classroom, they needed to have a certain level of generic pedagogical content knowledge in addition to the disciplinary content knowledge. The majority of the participants asserted that as beginner teachers, they were expected to have the capacity to analyse and synthesise the curriculum as well. Some of the student teachers’ concerns on generic pedagogical content knowledge are expressed in the excerpts below.

ST10: “We were not taught enough about scheming and planning. The syllabus interpretation we were not taught as much as well. So, it was very difficult to scheme for the first time in all the subjects”.

ST8: “The problem is that we have to scheme in advance and you have to teach on a day to day basis”.

CS2: “the way we expect our students to draw schemes of work and lesson plans. It’s not really the same as the practice in schools. So in that regard the mentors will not be in a position to assist our students in preparing for their lessons”.

ST8: “So, when I take the research from Internet, I had to break it down to the
level of the kids”.
“I have a problem with the use of English as a medium of instruction”.

ST12: “she uses teacher centred methods or lecture methods. Asked why she prefers those methods, she said the child centred methods that we are being taught at college, they are time wasting”.

ST17: “Yes we have been taught but the problem is that we have not practiced enough ... our stream is too big because it was even difficult when we were going for micro-teaching for all us to have an opportunity to teach prior to deployment”.

ST24 “I am not really sure especially the first day I will stand in front of children ... the way they are going to react. I am also worried about my ability to delivery lessons”.

The comments above also revealed that student teachers were not confident in their interpretation of curriculum documents and planning of lessons. It was evident that they had a ‘shaky’ foundation in terms of general pedagogical knowledge and skills.

Contributions by the participants confirmed that student teachers had developed survival skills to deal with their inadequacies in generic pedagogical content knowledge. The citations below reveal some of these coping strategies.

ST16: “Honestly, the first weeks I did not like standing for 30 minutes in front of 44 pupils looking at me trying to explain and feeling that I am failing to put this thing right but now I think I am managing”.

ST22: “I am still consulting my former teachers and other students who are out there on teaching practice”.

ST12: “also the legibility of my hand writing I am working to improving it. Since practice makes perfect I am working on improving it”.

ST10: “As for the scheming and planning, the mentors helped us. Peers also helped us. We borrowed their scheme books and it gave us ideas on how to draft ours. “In the case of scheming and planning ... the TP Department has conducted workshops that involve students, mentors and Heads of schools to try and sensitise them”.

CS2:
Nearly all the participants noted the importance of having good generic pedagogical skills. However, the lack of it was identified as being the cause for a number of setbacks. The following citations shed light on the impact of having weak general pedagogical skills.

**ST9:** “I need more help when it comes to introductions because if you misfire during the introduction the whole lesson will not proceed as expected”.

**ST12:** “I have realised that pupils learn by imitation and reinforcement ... since my coming to this class, their hand writings has changed for the worst. So, that’s why the mentor is continually blaming me. So, I think this thing has affected the pupils negatively.

**ST8:** “It becomes difficult to go back re-teaching some of the things and it becomes impossible for one to go hand in hand with the scheme of work”.

From the narratives above, it was clear that most student teachers appreciated that, in addition to having content knowledge, they also needed to have an in-depth knowledge of how to teach the learning areas.

### 5.2.2.3. Pedagogical content knowledge

Participants noted that in addition to having content knowledge and generic pedagogy, pre-service teachers are expected to have a certain level of pedagogical content knowledge for them to function effectively. The extracts below illustrate some of their concerns with pedagogical content knowledge. The quotations below confirmed the existence of pedagogical content knowledge concerns.

**ST16:** “In my first month I had challenges in Maths. I could introduce a topic and I could tell that the method that I had used was inappropriate ... the concept that I had taught was not understood or the children did not get it well. So it was a challenge and my mentor ended up taking it over some of the lessons”.

**ST10:** “In Music and PE in ECD ... when we were taught these subjects at college ... the subjects are grouped ... under Expressive Arts cluster... So, I had difficulties in teaching those subjects ... how one can you plan
it, how one can you teach it, how one can you handle Music lesson or PE lesson”.

“There are also challenges in teaching Environmental Science as some of the topics are difficult to teach e.g. landforms and energy and fuels”.

Just as in the case of general pedagogy, they expressed concerns with pedagogical content knowledge, but explained that their competencies improved with time. They explained how they addressed their concerns relating to pedagogical content knowledge through the use of strategies such as thorough preparation and consulting their mentors and peers. The following extracts demonstrate how they aimed to address their PCK concerns:

ST16: “With the teaching of Maths I had to study two days or a day before my lesson very hard and then talk to my mentor if she could assist me in one or two questions”.

ST13: “Yeah, maybe when introducing a lesson … I find it difficult in all the subjects especially Maths. It needs a lot of demonstrations. Yes, I did get some help from the mentor. She corrects me and shows me how I must do it”.

ST10: “Peers also helped us. We borrowed their old scheme books and it gave us idea on how to draft ours … The mentors also helped us … they helped us on how to handle Music and PE”.

ST15: “We have resorted to having to look in the Internet. We would Google some of the information to get the level of the content for the children”.

The above statements highlight the importance of support from mentors and peers at the same school during the preparation of learning activities. Self-study and the searching of information from the internet were also cited as coping strategies.

The lack of pedagogical content knowledge among student teachers in the core subjects seemed to have made the mentors reluctant to share them with student teachers. The extracts on the next page show how some of the mentors did not want the student teachers to teach the core subjects.
CS5: “the mentors do ... most of them especially in the upper grades, grades 5, 6, 7 don’t like student teachers to teach major subjects like Maths and maybe sometimes English. So, they have little practice on those areas”.

“She was not very much willing to let me teach Mathematics ... For you to be given the chance to teach you had to prove to her that you can deliver to her expectations so that the pupils won’t suffer or the performance won’t go down”.

“mentors themselves have a habit of wanting to take over lessons like Mathematics and English since they are examinable. So our students do seem not to be having enough practice in those subjects saying “My learners will fail”.

It was unfortunate that some of the student teachers were denied the opportunity to fully experiment with theories and content they had learnt during on campus lessons under the pretext that they were not competent enough. Teaching practicum is supposed to a period where student teachers are given the chance to integrate theory and practice.

5.2.2.4. Learner diversity

A number of the participants confirmed that learner diversity was indeed a source of concern for them. There was a general acceptance among the participants that the learners in their classes were diverse because of the different cultural and socio-economic backgrounds. In addition, the inclusion of learners with special needs in the main stream education had significantly increased the levels of knowledge and skills they were expected to have in order to cater for the different learning needs and styles of their learners. A number of the trainee teachers expressed their frustrations in their inability to assist children with learning disabilities or to communicate with the learners in their mother tongue in lower sections of the primary school as per language policy.

ST6: “some pupils in grade 5 are failing to copy a date from the board”.

ST14: “they are mixed ability classes. Whereby there are slow learners and fast learners. ... So to attend to each one’s need it becomes a challenge”.

“Maybe with this age group you find that there are some children who
ST1: may spend the whole day crying. And so, there are one or two things that you need to do to make that child smile”.

ST1: “there are some situations whereby there are some children ... who are disabled maybe mentally ... And then you realise that your mentor is not really sure of how to deal with that child”.

ST7: “We have very little knowledge on how to handle learners with learning disabilities. For us to fully develop and help them we need extra knowledge to take care of them”.

The above issues show that most of the classes have learners with learning disabilities and student teachers could not assist them due to a lack of knowledge and skills. Indeed, a majority of the student teachers asserted that they were not well prepared in certain aspects of inclusion education as demanded by the Education Act of Zimbabwe. Participants accepted that teaching a multilingual class was a challenging issue. The majority of the participants admitted that they do not have the conversational skills to teach all learners in their class using their home languages especially at ECD level. As for the management of mixed ability classes, most of them admitted their lack of knowledge on strategies to use in mixed ability classes. A number of coping strategies to address some of these issues related to learner diversity are highlighted in the extracts below.

ST14: “With a mixed ability class like the one I have, we have mentors who assist us. So, where there are slow learners, someone concentrates on the slow learners whilst the other one is introducing or extending the fast learners”.

ST14: “with mixed ability it limits one’s progress ... it takes time to remediate the slow learners but at the same time I should extend the fast learners”.

ST6: “the child is failing to copy. And we have discussed that issue and the solution is to refer those pupils to special classes”.

The above student teachers’ reactions show how it can be very difficult to assist learners with learning disabilities without proper training. A majority of the student teachers intimated that they lacked situational knowledge to properly manage diversity and inclusivity in their classrooms. The excerpts on the next page explain the how their lack of situational knowledge effected their practice.
ST7: “there is the issue of lack of expertise and competencies to handle children with disabilities ... we need to have the knowledge on how to assist such children rather than watching or doing nothing”.

ST16: “this other student teacher who was having a challenge in teaching Ndebele ... So she cannot pronounce some of the words correctly ... so she was concerned that especially the grade twos she was teaching would misunderstand her”.

The above accounts highlight some of the frustrations of teaching learners whom they cannot assist.

5.2.2.5. Agriculture

The majority of the participants expressed concerns relating to the teaching of Agriculture at primary schools. Even though a few of the student teachers had done Agriculture as a subject at secondary school level, they also expressed concerns relating to teaching of the subject at primary school level. The participants also expressed their concerns as to why the college was taking so long to introduce the subject in its teacher education curriculum. Agriculture had been introduced as a subject in the primary school curriculum at the beginning of 2014 and eighteen months later, the college had not responded to the needs in the school system. Even though the college had given a directive that student teachers should not teach Agriculture as yet, the situation on the ground was different. Schools expected student teachers to teach the subject with or without resources or staff development workshops. Participants’ views on the introduction of Agriculture in schools are given in the following citations.

CS6: “Even the current intake that is there Intake 15, they don’t do Agriculture but come April they will be released into schools without the preparation. But schools are already teaching the subject so really it’s a grave concern and I don’t know how it can be addressed”.

ST15: “The other problem is that on the Agriculture side is that there is no timetable that has been put in place. So we are relying on gaps. Where
we are supposed to teach Art we will put Agriculture there. So, as a result
children are not taught Art”.

ST8: “it’s somewhat difficult because when a subject is coming in and there
is no one well versed in it. Everyone is scratching their heads trying to
figure out this and that”.

ST12: “As for me I don’t have any worry especially when it comes to content.
I was teaching Agriculture at a secondary school. Right, the main
concern that I have ... will be the breaking of the content into small
chunks ... we have to bring that knowledge of the content to the level of
the pupils”.

ST9: “We raised the issue with the school and they said, we also we need a
workshop because it’s a new subject. We don’t have the teaching skills
of teaching Agriculture because we haven’t taught it”.

ST15: “she does have some problems with Agriculture but uses her knowledge
in ES. So every time when she does the practical lessons with the children
I also get involved just to see how she teaches for future reference”.

These comments show the impact of introducing a learning area into the school curriculum
without proper planning. Both the school and teacher education systems need to prepare for
such curriculum changes.

5.2.3. Theme 3: Socio-economic factors

The results from the interviews seem to suggest that socio-economic situation in Zimbabwe
had a negative influence on the performance of student teachers during their teaching
practice in schools. Participants lamented the state of infrastructure in most schools, critical
shortage of resources, the lack of funding for students during training, and the current model
of deployment of student teachers during teaching practice. Five categories were identified
under this theme. These were infrastructure, resources, financial, family responsibility and
deployment.

5.2.3.1. Infrastructure

Nearly all the participants mentioned infrastructure in most schools as a source of concern
for them during teaching practicum. In most schools, classrooms were either inadequate,
dilapidated or sub-standard. The situation was particularly critical at ECD level. The majority of primary schools in urban areas had introduced double session schooling commonly called hot seating as a strategy for managing high enrolments with the limited infrastructure in schools. Most of participants felt that the government should intervene because schools were not in a position to solve the situation on their own. In the extracts below, the participants expressed their concerns on the lack of infrastructure in schools.

ST10: “The college is saying that at ECD level (Pre-school) hot seating should not be done for ECD. Yet on the ground there are no classrooms. They are also saying that one teacher should have twenty pupils. Of which on the ground you cannot find twenty pupils in a class.

ST14: “It’s challenging”.

“With learning areas sometimes there are challenges especially in rural areas. The infrastructure is poor ... the buildings are not enough.

CS1: “You will find that one grade will be sharing a classroom”.

“For instance the accommodation for the mother-infant toddler programme children these are the very young ranging from two weeks old to under three years actually ... there is not adequate infrastructure to accommodate these if ever there is it is not up to standard”.

The above statements by pre-service teachers during teaching practice in schools are a reflection of the socio-economic environment in the country. The school community cannot be divorced from the events in the greater community where it is located. Both the learners and staff at schools are part of the greater community and witness and experience the turmoil of an economic collapse.

When asked how they were coping with a lack of infrastructure in schools, they painstakingly expressed their inability to change the status quo. The excerpts below are some of the participants’ remarks with a human face.

ST8: “Some of them are difficult to solve especially the sharing part. There is very little I can do about because pupils have to go in and out of the classroom. The learners are many and they have to go to school”.
“we just improvise ... so there are belt boards under the trees where we write the work and what have you ... and then the next session you go into the classroom”.

“If it is raining we share the classroom. Others will be at the back and while others will be on the desks. We must to wait for the teacher who is supposed to be in class to finish their teaching first. And when we do our teaching we sort of whisper because we are not supposed to be disturbing the other teacher”.

The above expressions show that dealing with a lack of infrastructure in school was difficult for student teachers. The participants explained how the lack of infrastructure affected their practice in the classroom. A lack of infrastructure in schools was mentioned as one of the factors that contributed to overcrowding in schools, poor classroom management and ineffective lesson delivery in general. The following quotes explain how a lack of infrastructure in schools creates challenges in schools.

“Most of the time if you sharing a classroom with someone, some lessons are affected of which you may end up postponing or not doing some of the lessons”.

“it’s kind of difficult especially with the sharing of classrooms. You are not able to do what is stipulated”.

“You have to make sure that you teach more lessons in the classroom and they have written at least five subjects per day”.

“So, if they are more than twenty [ECD learners], you cannot assess them individually during the twenty minutes. You end leaving others and catering others. Even the management. It’s difficult to manage effectively more than twenty pupils”.

“hot seating is a big concern because they have to share a room with another teacher and you have to have your own portion where you put your charts and you have no independence in that classroom”.

The above comments showed that the lack of infrastructure negatively affected student teachers’ professional growth, lesson delivery and ultimately the achievement of their goals.
5.2.3.2. Resources

Nearly all the participants lamented the lack of resources such as textbooks, learning aids and manuals in schools and elaborated on how it affected their classroom delivery. In some cases the student teachers improvised or asked the administration or the parents for assistance. Student teachers also pointed out that their success during teaching practice depended to some extent on how well the school was resourced. The citations below illustrate some of the concerns that student teachers had due to lack of resources.

CS5: “lack of resources especially for the practical subjects. In Home Economics we hardly have anything even if we ask children ... you get 4 out of 37 pupils coming with the materials”.

ST6: “Social Studies, RME, Home Economics, there are no text books. There are only teachers’ books. So, it becomes very difficult to teach those subjects with no textbooks”.

ST8 “each lesson has to have its own learning aid ... So, it could be seven lessons per day and each has to have a learning aid”.

ST15: “The teaching of Aids and Life Skills is a major concern to student teachers. The reason being that there are no actually textbooks which we can refer to. We only rely on the syllabus”.

CS4: “You get to a school and somebody has schemed and there is no reference to the syllabus and they will tell you that the school does not have a syllabus and other resource materials generally especially in terms of reference books”.

ST9 “Yeah, when it comes to practicals, it’s still a challenge because right now there are no textbooks and we rely on the internet and worse there is no Wi-Fi in the school”.

CS2: “not all the students are given material support, so when they have to make learning aids ... some schools don’t really bother to try and give the relevant support especially to student teachers”.

The above narratives on the lack of teaching and learning resources in schools were a major concern for student teachers whose performance on teaching practicum depended on their resourcefulness and use of appropriate learning media. When the participants were asked to
explain how they were coping with a lack of resources, they had this to say:

**ST14**  “On the resources it’s difficult because the only way I can act is to tell the mentor and the mentor comes up with a solution or she takes up the request to the administration”.

**ST13**:  “We improvise ... we might look for insects ... or take pictures from other student teachers”.

**ST15**:  “We have really struggled ... sometimes we have asked children to contribute a few Rands maybe three Rands to just go and buy although we have been discouraged from doing that.”.

  “With regard to material resources, at times they have to go to the shops in town ... picking cardboard boxes and the like so that they can make learning media”.

Student teachers had to rely on the old saying “necessity is the mother of invention” to cope with the demands of teaching practicum. Most of the student teachers would pick up anything they found that would be beneficial to them in class. Both the college supervisors and student teachers were fully aware that the glaring inadequacies in schools were a cause of concern for student teachers’ effectiveness in class, their own assessment during observation and maintenance of discipline. The excerpts below explain how lack of resources affected their classroom delivery.

**ST7**:  “the effectiveness of your lesson lies on the availability of materials. You need to have enough media and materials for the lesson to be effective”.

**ST11**:  “The shortage of textbooks limits the quality of my teaching because there will be not enough material to use when teaching and assessing”.

  “You have to look for them [learning aids] on your own because mentors don’t use media. So, as a student teacher you have to teach every lesson with some form of media”.

**ST15**:  “Lack of resources affects my teaching ability ... you have to teach something from a syllabus it’s not too detailed and you wish you could see what activities you could give ... You end up having to guess some of the things which you have to give”. 

180
CS5: “adequacy of resources will impact badly on his teaching for instance text books where you have the whole group is sharing one text book and where pupils buy their own exercise books ... They are writing on paper”.

Teaching with limited resources was a challenge for most of the student teachers since it led to a loss of classroom control as learners scramble for learning materials.

5.2.3.3. Financial

The participants asserted that financial concerns were an issue for nearly all the year groups. However, all the first years who were interviewed prior to their teaching practice were particularly concerned about their financial standing. They were mostly concerned about their inability to pay for rent, electricity, water and the cost of starting a new home. The citations below show some the concerns that student teachers highlighted.

ST24: “Those who are going outside Bulawayo are worried about accommodation, rent, electricity and transport. Some maybe living a distance from the school, so they will be transport to get to school”.

ST17: “The major one are probably finances, true for some of us who are going out in rural areas”.

ST22: “This time we have to fend for ourselves because we will be staying away from our homes”.

ST23: “The allowance that we get is not enough to cover our expenses while we are on TP. We have to pay fees and buy materials with that allowance mainly”.

CS5: “inconsistency of electricity supply is a problem especially when they have to do their schemes and planning ... the next morning you may find they are not up to date with their schemes because ZESA was out”.

The above accounts show how economic problems influence the training of new teachers. With the government failing to pay civil servants timeously, the payment of a stipend for student teachers was not a critical issue. To survive under the harsh economic situations, student teachers developed a number of strategies to address their financial woes. Some would stay with friends or relatives, choose schools that offer accommodation or that were
close to their homes, and engage in informal business after school. Although some of the student teachers had managed to address a few concerns, the majority of the participants still claimed that their financial concerns still remained unsolved. Some of the student teachers pleaded with some of the schools that had staff houses to assist them financially by for example, paying for water and electricity. Some of their survival strategies are expressed in the extracts below.

**ST22:** “Although we are getting an allowance it is little and it does not cover all our expenses on teaching practice”.

**CS3:** “I have seen that some school cater for their welfare in terms of accommodation where possible and in terms of food at times ... At times where incentives are still there, they will provide them with incentive”.

The participants confirmed that the economic melt-down in Zimbabwe had also had an impact on them. They were finding it difficult to survive under the harsh economic climate. Some of their views on how socio-economic factors were affecting their practice are cited in the following extracts.

**ST17:** “For instance, if we are not financially stable, the media may not be sufficient or sub-standard. That will not be good for the kids”.

**CS3:** “we have seen students moving out of the classroom to come to the college pursuing financial issues. Saying I have financial problem”.

**ST9:** “Of cause they are getting something in terms of money ... So, if they are asked to pay for electricity bills that may hinder them from buying what they are expected to buy such as media”.

The lack of adequate financial support from the government and relatives posed major challenges for the student teachers as they were torn between physiological and academic needs.

*5.2.3.4. Deployment*

The majority of the participants were concerned about the schools where they had been or were going to be deployed for teaching practice. In most cases the schools were far away
from their homes and families. Married participants emphasised the importance of couples staying together as they were particularly concerned about relations with their spouses and children. With the meagre allowances that student teachers received monthly, they could not afford to travel and spend time with their spouses. Furthermore, participants felt that the area of the deployment of student teachers during teaching practicum was rather restrictive because of the Zimbabwean language policy. The extracts below highlight some of the concerns that confronted student teachers before and during teaching practice.

ST23: “Many of them are worried about accommodation ... some of them are married here in Bulawayo and they will be deployed say in Zvishavane and they will be worried that their family, kids and husbands will remain behind”.

ST8: “we are also human beings ... We are needed at home for this and that. These things demand your time ... as much as we need to manage our time, it becomes a bit difficult”.

CS6: “the other one is pregnancy, it’s a social concern and you find that they still have to keep their families. And when they fall pregnant and they want to go on maternity leave, they are only allowed two weeks of maternity leave”.

These narratives by student teachers confirmed that their places of deployment led to financial, academic and emotional concerns. In order to survive the frustration of being deployed far away from their homes and in non-functional schools, student teachers developed a number of strategies that minimised the strain on their marital relationships and the effects of being deployed far away from home. The extracts below explain some of their coping strategies.

ST17: “the spousal separation ... I will always try and make a timetable of come back home”.

CS5: “What the college has done is that it has become so critical ... the choice of schools where it sends its student teachers to. Some of the schools are useless. They are not good enough to send our student teacher: to support, to teach and to mentor. So we have got rid of those schools and
we have tried to send our student teachers to good schools”.

The statements above highlight some of the coping strategies that pre-service teachers adopted to cope with being deployed in places far away from their families or in dysfunctional schools. While students had a choice to select schools for their deployment, their choice was limited to areas around Bulawayo. Student teachers were mainly concerned about the emotional stress of leaving their family behind. In the citations below student teachers explain how deployment related concerns affected their work in the classroom.

ST17: “The issue of spousal … people tend to be very emotional when the partners are away … Emotions may end up affecting execution … the execution of my lessons”.

CS5: “And also their marriages suffer, you leave your spouse behind. Somebody may snatch the spouse so that type of mind-set… You need to have the right kind of mind-set in order to teach … The other concern is the language barrier. Those that are sent to areas where they don’t have the indigenous language it becomes a problem in teaching a vernacular language subject”.

CS6: “the student cannot teach well because they will be forced to use English but the language policy says use L1 mainly for lower grades. So, before the student starts he is already not sure of how to overcome that problem”.

The citations above highlight out some of the effects of being deployed in certain places and how it affected their classroom practice.

5.2.4. Theme 4: Workload

Nearly all participants indicated that they felt overwhelmed by their workload during teaching practicum. Most of them had to spend long hours preparing, teaching, marking and assessing, doing their distance learning assignments and participating in co-curricular activities. Three categories were identified under this theme. These were lesson preparation, teaching; and marking and assignments.
A majority of the participants acknowledged that daily lesson planning was a major concern. The participants felt that the unannounced visits by supervisors and daily observations by mentors usually increased their anxiety levels and workload in terms of lesson preparation. Participants found the daily drawing up of detailed lesson plans and making of learning aids for each lesson overwhelmed them as it consumed a greater chunk of their afternoons, evenings and weekends. In addition, they were also expected as student teachers to prepare schemes for eleven subjects at the beginning of each term. The citations below revealed some of these concerns.

CS3: “there is scheming and planning and they consider it to be too much work that needs to be done ... they are always under pressure”.

ST8: “It’s good to plan what you have to teach on daily basis. It good to evaluate what you have taught but when you consider the number of subjects you are planning for ... every lesson that you teach there has to be a learning aid, not just a learning aid but one that brings reality to the pupils and when you have limited time for doing that.”

ST17: “Will I be able to produce a lesson that will benefit the kids? That’s my real worry but preparation ... Yeah, maybe I may not have prepared adequately”.

ST11: “There is also a difficulty of being switched from one class to another. If a teacher is absent from school, student teachers are supposed to go and teach that class ... First you have to plan for that grade class that you are going to teach because you haven’t schemed for it”.

The above statements show that student teachers were overwhelmed by the volume of work during teaching practice. Even though some of the student teachers like third years had been in the field for some time, they still experienced problems with workload emanating from daily lesson planning. Participants pointed out that they had developed a number of strategies to manage their workload. For example, participants planned together with peers, shared learning material and resources with peers, planned and taught interrelated topics in different learning areas at the same time, and prioritised their activities. A majority of the student teachers regularly carried their work home to lessen their workload. The excerpts on the next
page highlight some of the coping strategies for a heavy workload from lesson planning.

ST1: “when I have planned my lesson and I can give my peers and say can you please read this plan for me”.

ST14: “Well, we adjust as a student. During the day you deal with school work”.

ST8: “I tend to touch everything in the interrelated topics. For example, the topic on health, I touch the health in ES, health in Home Economics and maybe health in Social Studies and mix it up so for the advantage of me not having to re-scheming and re-teaching or even re-planning the same concepts”.

ST11: “The only solution is sleep less hours. So, on teaching practice there is no time to sleep”.

The expressions above show that managing teaching practicum was not easy for the student teachers. Most of them had to extend their working hours in order to cope the following day. The workload arising from researching and lesson planning seemed to be stretching the student teachers to their breaking point. The following extracts confirm their dilemma.

ST8: “you need to research and research more. You have sleepless nights researching. And you need to find your information from the internet and not everyone has a laptop and not everyone has access to the internet”.

CS6: “if they are not very prepared it means they may lack confidence. Right, so lack of confidence will mean that they may not execute their duties as expected”.

All the student teachers were concerned about keeping up to date schemes and lesson plans because failure to do so meant an automatic fail.

5.2.4.2. Teaching workload

The participants were of the opinion that although the actual execution of lessons took relatively less time compared to planning and marking, teaching a lesson was filled with emotion and stress mainly because of numerous activities that a teacher has do during
lessons. The citations below confirm some of their concerns.

**ST11:** “There is a lot of work on TP as we are supposed to teach pupils and at the same time we do assignments ... we don’t have time to research and we are supposed to leave school after four so there will be no time for research”.

**CS5:** “And the other concern ... are the large classes. The classes are large forty to forty-five, you cannot give individual attention”.

**ST15:** “Yeah, the weakness they have pointed out is that I talk a lot. They say I dominate the lesson and I have been told that so many times and I have tried to overcome it ... and I have also asked my mentor to help me out”.

**ST24:** “I am also worried about my ability to delivery lessons. I am not really sure if the college has prepared me adequately for the task ahead. I will see when I begin to teach whether the college has prepared me enough”.

**ST17:** “As a new teacher, I can say there is never enough practice during teaching practice”.

**ST4:** “I was supposed to teach all the lessons across including her lessons”.

**ST9:** “The major concerns that I have experienced is how to handle a class. Because when we arrived we had orientation on how to handle a class or how to handle a lesson”

**ST11:** “The high teaching load ... there is a lot work”.

The above narratives show that teaching workload was a cause of concern for some of the student teachers. Although the actual teaching time was less than planning and marking, it was accompanied by stressful conditions for student teachers and which often left them ‘drained’. In order to lessen their teaching related stress like handling a lesson, some of the student teachers developed some strategies. For example, in an Art lesson where the situation may go out of hand when using paints, one of the participants had to engage their peers for a coping strategy. Some of these strategies are cited below.

**ST1:** “Maybe you are painting. You may not teach them to paint on your own ... one may splash paint and the other one would splash as well ... when you have asked someone to come to assist you, the person can also look
at your lesson how you have done it and give your ideas”.

ST15: “They say I dominate the lesson and I have been told that so many times and I have tried to overcome it ... I have also asked my mentor to help me out”.

ST24: “Maybe I will not be able to teach well at the beginning but as time goes on ... as I get used I will be able to teach. I think I will improve with time”.

Most of the participants were overwhelmed with work to such an extent that they had reached a conclusion that they were never going to be able complete their workload. To them, the workload kept on growing no matter how much they tried.

ST11: “There is too much pressure. Wow, it affects a lot in terms of teaching. It becomes hard to teach but I always try my best to produce quality work”.

ST1: “maybe due to lack of confidence you are thinking maybe I am doing the wrong thing and if at least you could see it from somebody and I think it could help”.

Even though student teachers had a reduced load compared with other teachers, the daily planning and assessment by the mentor, placed a lot of pressure on them which compromised the quality of their work.

5.2.4.3. Marking and assignments workload

Participants pointed out that they had some written work every day which they were expected to mark before the next lesson. The volume of marking in large classes and the requirement to conduct detailed marking was heavy for many of them. In the extracts below, student teachers express their views on the disadvantages of having a heavy workload. For them, when the school day ended, it seemed as if the day had just begun.

ST4: “I realise that at the end of the day, pupils had dismissed but there were piles of books that needed to be marked”.

ST11: “There are too many pupils in a class, so it makes it difficult to teach and
mark fifty compositions”.

ST3: “It was difficult because the Deputy Head was always in his office and I will be forced to teach his subjects and mark them also. Yet I am only required to teach maybe half of the subjects like 5 subjects. So, it will be difficult for me to do all that work on my own”.

ST23: “If you find a mentor who will be studying, so he or she will always be away and you will be forced to mark all the books”.

ST14: “Maybe sometimes it can be the pressure of work ... Whereby the assignments need to be attended to plus the school duties”.

ST15: “We are given so many assignments and yet we are supposed to be classroom practitioners where we have to do a lot of marking, do the planning of the next lesson ... for tomorrow and all that but we are given more assignments. As it is next week we have 3 assignments that we have to submit and it’s very difficult”.

The statements above highlight the pressure that student teachers had to endure in balancing their college and school work. With most of the learning areas having written work, student teachers were pressurised to mark learners’ work before the next lesson and this was exacerbated by the demand for quality work by both the mentors and college supervisors. Students acknowledged that they were using a number of strategies to reduce their marking load. Some of these strategies included peer marking, shoulder marking, marking with their mentor, and working late into the night and weekends to ensure that all the marking was completed in time for the next lesson. The excerpts below show some of the coping strategies used by student teachers to manage their marking load.

ST14: “Well, we adjust as a student. During the day you deal with school work” and later on during the evenings you deal with your assignments or college work”.

ST4: “I knew that the mentor was not going to be there again. I had no choice, I had to mark the books until sunset sometimes”.

ST15: “If I am under pressure with my marking and I have to go and do extracurricular activities with the children I will find she would have marked most of my books for the things that I would have taught”.

189
These expressions indicate that student teachers had managed to devise some coping and managerial strategies to deal with the marking workload. Due to the pressure of teaching the load, some of the student teachers were accused of using unorthodox means to survive the onslaught of teaching practice workload. One of the supervisors had this to say:

CS3: “Some of the survival strategies used by student teachers are legal and some are illegal. You find some student teachers now trying to reduce their work by reducing the amount of work that they give to learners”.

The above comment highlights some of the short cuts that student teachers used to reduce the burden of marking load especially in instances where classes were large or learners were apathetic.

5.2.5. Theme 5: Interpersonal relationships

Participants agreed that problems between student teachers and stakeholders in the host schools occasionally cropped up, but they could be overcame. Two categories were identified under this theme, namely mentors and parental involvement were identified under this theme. Under relationships, a majority of the student teachers were mainly concerned about the mentor-mentee relations and student teachers’ relationship with other teachers in the host school.

5.2.5.1. Relationships with mentors

The personal accounts based on the participants’ experiences showed that mentors played a very significant role during teaching practice in teacher education programmes like the 2-5-2 programme in Zimbabwe where student teachers spent more time on teaching practice than at college. However, the extended period on teaching practice increased the chances and levels of friction between the mentors and mentees significantly. Most of the student teachers were concerned about their relationship with their mentor. The extracts below relate to some of the areas of conflict with their mentors.

ST11: “Sometimes the responsibilities are shifted to student teachers such as
marking, sporting activities and preparing media”.

ST10: “Sometimes the mentor likes you to teach according to her plan or her own methods and not yours”.

ST15: “Sometimes you are told “Just leave the Art for the time being, can we just cover Agriculture because it does not have a slot on the timetable”.

ST13: “Sometimes they don’t allow us to teach some subjects like Art and Music because they say it’s waste of time to teach those subjects. They only concentrate on major one”.

ST8: “As much as they would like us to teach PE and Music etc. at the end of the day pupils do not write PE. They don’t write Music but they are examined in the subjects that are core like Mathematics, English”.

ST24: “My first worry is the mentor that I am going to work under. I am not sure of how he or she is going to react to the way I am going to teach since it will be my first time to teach and the way I am going to conduct the lessons I have never taught before”.

ST12: “Yeah, sometimes the mentor if you haven’t prepared enough content that for the lesson, sometimes you may get embarrassed in front of the children. She may stop you in front of the pupils”.

ST4: “As a coach I would have done all the drills in preparation for the match and then come the final day, I am told that student teachers are not going. Then my mentor will cheeped in and said you have used him, you have taken him from my class as early as 11 o’clock, now you are leaving him behind. Take him with you”.

The accounts above show that student teachers were under a lot of pressure to prove that they were equally capable of teaching like their mentors and how they sometimes had to endure humiliation and abuse by other teachers. Some of the student teachers’ concerns related to general issues in their host schools and the extracts below highlight a variety of these issues.

ST6: “in some schools maybe shortage of teachers that are qualified teachers. We end up having another student under the mentorship of an unqualified teacher at times. In some instances we end up being under semi-skilled
trained ECD mentor”.

CS5: “some are of them are given mentors who are Headmasters or who are Deputy Heads or who are TICs”.

CS5: “And the other concern is lack of mentoring. Sometimes the mentors are out, most of them are studying part-time ... the mentor takes off time to go and do his studies or attend to other things”.

ST11: “There is also a difficulty of being switched from one class to another. If a teacher is absent from school, student teachers are supposed to go and teach that class for that day even if they don’t teach it”.

CS3: “There were variations between the school expectations and college expectations”.

These narratives above show that sometimes mentor-mentee relationships are riddled with inter-personal conflicts and student teachers have to devise strategies to deal with these challenges. Some of the student teachers, who had sour relations with either their mentors or educators in the host school, had developed mechanisms of managing their relationships. Some of them were able to identify the source of the problems and rectified it; some sought help from peers; some just took it as part of their work and none of them asked for a change although they were aware of such a provision. The extracts below show some of their coping strategies.

ST8 “I had to work it out with the mentor. She was not very much willing to let me teach Mathematics”.

ST23: “As for the mentors I will try and humble myself and do as he or she says. If you don’t have a good relationship with your mentor, it will be really difficult ... so I have to abide by his or her rules and humble myself”.

ST13: “I just do my work only. And it’s neither here or there. I do what I am supposed to do. I think you just do your work and then ignore her”.

ST12: “I have decided to remain dormant because I have realised that each and every time that I have to deliver a lesson ... I have to consult the mentor so that I avoid the embarrassment before the pupils”.

CS5: “So we have called in the mentors, then we run a workshop, hear their concerns and we say our concerns ... and in that workshop we do include
... call in some students and hear their concerns as well and in so doing we share ideas and come out with solutions”.

ST10: “From the college side, if you have a problem with mentor or school they will transfer you from that school. Sometimes they advise us to practice patience because by the end of they will be able to accommodate anyone”.

ST11: “they are not allowed to teach some of the subjects for example Maths because they don’t have the necessary experience. So they have communicated to the college about it”.

The statements above show that it is not always easy for student teachers to negotiate or resolve the bad blood between them and their mentors. In some of the cases where the mentor-mentee relationship was dysfunctional, student teachers felt that they were the ones who suffered most as it affected them psychologically and also their practice. A lack of communication, different work ethic and clash of personalities were provided as some of the causes for poor relationships. Most of the student teachers, except for one, blamed their mentors for the sour relations. The citations below illustrate some of the influences of sour relations between a student teacher and teachers in the host school.

ST13: “It [attitude of mentors] affects me because I will be stressed. So, I can’t teach properly. I won’t be smiling to pupils whilst stressed”.

ST4: “I think the school Head has a role to play in terms of protecting students because some of the mentors are abusive to students and you are left with no choice but to keep quiet because sometimes when you tell the Head that the mentor is doing this and that, you are told Just go back to class”.

ST4: “I won’t assist you because you reported me to the Head” but I was trying to save myself because the situation was bad.”

ST12: “sometimes you realise that there are some certain areas which need the use of L1 ... Then you need to translate it to mother tongue then you are stopped by the mentor and says use English but the funny part of it is when the mentors are teaching they mix Ndebele and English”.

CS5: “And another concern is when they are given extra duties within the station and they are always sent out to sporting activities, to that kind of
meeting and it takes away their teaching time and they are not able to cover what they had planned for that day”.

Some of the treatment that student teachers were subjected to during teaching practice was disheartening and a blow to good professional practices. Student teachers deserve respect, honour, leniency and support and ridicule and isolation.

5.2.5.2. Parental involvement

Participants confirmed that parental involvement in their child’s education was critical especially at ECD level. It was the non-involvement of parents in their children’s learning that was a source of concern for some of the student teachers. The citations below revealed some of their concerns.

**ST1:** “there are some meetings whereby parents have to come and attend. Parents are not forth coming”.

**ST6:** “For us to get the age group 0 to 3 it becomes difficult. Most of us had to run around and look for the kids in the suburbs ... The kids are there but the parents cannot afford. They will be saying that the kids are too young”.

**ST5:** “Parents are part and parcel of the ECD centre ... However, it has been a great challenge for me to convince the parents to participate in the centre duties and some of them did not turn up”.

**ST15:** “We have been told not to over burden the parents who already have to pay school fees”.

**ST5:** “parents they don’t understand the programme” [ECD].

**ST6:** “many parents here in Zimbabwe they are not yet versed on this ECD programme. So, it is very difficult for most parents to send 0 to 3 year old pupils to school”.

The above reactions by some of the participants revealed that some of the student teachers were frustrated by the lack of parental involvement in the children’s school work especially from among low-income communities. Even though some parents were not involved in their children’s school activities, student teachers had to devise strategies to address their situation.
ST1: “Now you realise that as a student now you have to fund that project”.

ST5: “So with my little allowance I had to buy some manila from industrial sites and other materials to boost up the in-door play centre. And the little I got from the parents who cooperated we bought some things for the shop area, and the parents provided some of the things”.

ST6: “I ended up taking my kid and my neighbour’s. For my neighbour, he had to pay half and I paid half for that term and taking the kid to school each and every day for the sake of the course”.

ST7: “We had a meeting with the parents and the owner of the school”.

The above comments show that parental involvement for the welfare of their children is important even if there are financial constraints. Parental involvement should not be limited to financial support only, but should also include the development of the learner and support for teachers in instilling good behaviour. The results also indicate the positive effects of parental involvement. Some of the participants pointed out that the lack of parental involvement had a negative impact on their teaching practice assessment and achievement of their lesson objectives.

ST1: “Parents are not forth coming and that practicum it contributes certain marks to our assessment when the lecturers come”.

ST15: “So, some of the things we have done although when we get to our evaluation we had problems because we would have schemed for it but it won’t be covered. Even in our plans we would have written it but it is very difficult to really meet the lesson objectives”.

The comments above show why parental involvement in the supervision of their children’s work is critical and the need for greater school-parents collaboration and partnership.

5.2.6. Theme 6: Observation and assessment

A majority of the student teachers accepted that observation and assessment are integral processes to evaluate their professional growth as teachers through the identification of aspects of their practice that needed further improvement and reinforcement of their strong points. Student teachers appreciated the fact that mentoring, feedback, and support can only
be effective if they are implemented simultaneously with results from lesson observations. Student teachers expressed their concerns at the subjective nature in which the whole process of observation and assessment was conducted and how it was open to abuse. Many of them associated lesson observations with high levels of stress. Three categories were identified under observation and assessment, namely, anxiety, evaluation, and feedback.

5.2.6.1. Assessment anxiety

Participants accepted, painfully that teaching practice had to have an aspect of assessment. Regrettably, many of the student teachers bracketed observation and assessment with stress. This possibly explains why some of them were reluctant to welcome supervisors’ into their classrooms. Student teachers in second and third year of the course accepted that a certain level of stress was what they needed for their professional growth. Some of the student teachers’ reactions are captured in the citations below.

ST22: “The fear of teaching, it’s my first time. I have never taught before”.

ST1: “The environment is quite tense. It’s quite tense because at times you don’t know whether you are doing it right or you are not doing it right”.

ST10: “It was my first time, I was also confused, I was afraid so I did not do well ... I was not sure about myself but as time went on I got used to observation and assessment”.

ST24: So, I am not really sure especially the first day I will stand in front of children … the way they are going to react”.

ST8: “When the lecturers come, you wish they should not have come. That’s the truth, although it’s a good thing. But the fact is that you will fear to be assessed but it is one’s ticket to a diploma”.

The above accounts show that it is always stressful for pre-service teachers to be observed and assessors need to be aware of it if they hope to assist students to grow professionally. This possibly explains why most student teachers felt that it was difficult to be comfortable with observation and assessment. There was always a lingering feeling that maybe they were not good enough to become teachers. However, with support from supervisors and the exposure to the classroom situations, they were able to absorb the anxiety as the following excerpts’ illustrate.
CS1: “before we are send them out there we give them that encouragement, we make them know that when we get there we are not different persons we are still the same lecturer that they know and maybe we give them hints here and there”.

ST10: “I was not sure about myself but as time went on I got used to observation and assessment”.

ST3: “they advise me that if lecturers visit your school, they will tell you ukuthi when they come you should not panic or run around for advice. You should just give them your lesson plans as they are because if you panic that’s where you fail”.

The above statements reveal the importance of supervisors and mentors in alleviating assessment anxiety. Both have an important roles to play in calming student teachers before and after an observation. Both student teachers and supervisors indicated that assessment anxiety could produce unfavourable results. The extracts below support this claim.

CS1: “At times student teachers’ performance can be retarded as a result of this, so there will be some regression in performance on the part of the student teacher and if the student teacher and if the student teacher is not positively motivated”.

ST8: “If they are coming more times it will only be good if they are coming to give you a mark but it will increase the levels of stress. You won’t sleep and you will be busy trying to make things right”.

The above issues show some of the potential damage that assessment anxiety could cause to the self-efficacy of student teachers. The results also explain why some of the students did not appreciate supervisors’ support since it was always laced with assessment anxiety.

5.2.6.2. Assessment during teaching practice

Student teachers were equally concerned with the way they were assessed during teaching practicum. They were mainly concerned with the accuracy of their ratings and their final mark for teaching practice. However, the fear of failure during teaching practice was their
major concern as the extracts below reveal.

ST1: “At times you have a lecturer coming and then you have done more or less similar things but the way you are assessed is totally different”.

ST3: “In assessment by the lecturers when they came his term, she first assessed someone in grade five, they gave that person 66% and then she came to my class she gave me 67 and then she went to the last person she gave her 61. She then went back to the one who is teaching grade 5 and then asked for a new crit and then she changed her mark to 69”.

ST3: “This is the lesson that I want to give you”. They will say “No, give me the other one” which you will have not prepared the learning aids and they will give you less marks”.

ST10: “Normally it’s the assessment issues that I am concerned about”.

ST3: “they won’t tell us ukuthi they are at college or which school they are going to. They don’t tell us. I think they should tell us ukuthi the external assessors are now at the college but they don’t tell us. You just see the external assessor at your door whist you are teaching and those external assessors they don’t talk to anyone”.

ST4: “some of the lecturers are not friendly to us when they are coming for assessment”.

CS1: “Maybe sometimes especially the ECD students I have often found that they are not at ease if they are supervised by lecturers from the general programme. I don’t know whether it is in their minds that these are not specialists in the field”.

The above expressions indicate that teaching practice assessment, can be biased. Participants acknowledged the importance of observation and assessment, but they generally found it difficult to accept the supervisors’ evaluation due to the subjectivity of the process. However, they found solace in that it is part and parcel of their professional growth. At least their practice was being evaluated even though under difficult conditions.

ST8: “When the lecturers come, you wish they should not have come. That’s the truth, although it’s a good thing. But the fact is that you will fear to be
assessed but it is one’s ticket to a diploma. If they are coming more times it will only be good if they are coming to give you a mark”.

ST8  “from my peers because sometimes they advise me that if lecturers visit your school, they will tell you ukuthi when they come you should not panic or run around for advice. You should just give them your lesson plans as they are because if you panic that’s where you fail”.

The above accounts indicate the benefits of being assessed as a student teacher. However, some of the student teachers felt that the assessment by supervisors was not always objective and fair. Some of them even confirmed that they were unfairly treated during some of the supervisors’ visits. The worst thing that some of the participants anticipated was failing their teaching practice. The extracts below confirm their concerns.

ST8:  “if they were are found with without lesson plans for that day they were automatically give you a zero”.

ST3:  “but when they come some lecturers if you give him or her a lesson ... They will say “No, give me the other one” which you will have not prepared the learning aids and they will give you less marks”.

ST4:  “Since I am not a strong person, I thought I had already failed this course. I remember when the mentor was not there I was supposed to teach all the lessons across including her lessons”.

The above comments show that assessment anxiety is a problems for many student teachers’ confidence and assessors should be aware of its impact.

5.2.6.3. Lesson observation feedback

Most of the participants acknowledged that they normally value the advice that provided after a lesson observation. The participants felt that the feedback was most beneficial when it was timely, clear, specific, sensitive to the needs of the student teacher, and communicated in a friendly atmosphere. Student teachers felt more comfortable sharing their weaknesses and receiving feedback from their peers than from mentors or supervisors. The extracts on the next page show some of the feedback they received and some of the concerns they experienced with some of feedback.
ST1: “Schools may open in May and the lecturer will come in July. Your problem will only be rectified when they have come in July and in these months you have done all those mistakes”.

ST10: “Normally when they come for assessment they point out some areas of strengths and weakness as well”.

ST3: “When they come here for teaching practice, they don’t give us much support ... in fact they don’t tell us when they would have finished assessing you. Some of them they do tell you the problem ukuthi where did you went wrong but they would just go to the Head and report as if you are like very very lazy”.

ST10: “From the mentor, they provide feedback after every observation or assessment. They gave us tips and provide resources to use in the classroom ... They assist us on tips on how to work with learners as well”.

ST4: “Some of the lecturers are not friendly to us when they are coming for assessment”.

The above statements show how student teachers perceive assessors’ feedback after lesson observations. Some of the students were not happy with the quality of feedback they received after lesson observation especially from the college supervisors. Sometimes the feedback came late, was not given at all or not specific. However, were often relieved by the daily feedback from their mentors. Some of the feedback was handy as cited in the extracts below.

ST1: “I think this is what you were supposed to do. You did it quite well but I think you could have put maximum effort here and there so that your lesson is even much more interesting”.

ST8: “I think you need to deal with this child in such and such a manner. If you do it this way or that way. Just try it out and see what happens”.

CS6: “At the end you will have a post teaching conference again. The idea there is to try and then talk to the student and try and assist in terms of wherever they might have had problems during the lesson and also reinforce on strong points”.
The above remarks show how important it is to provide timely and comprehensive feedback and how it ultimately enhanced their self-efficacy. However, a few of the participants felt let down by some of the assessors who failed to provide feedback after lesson observations. They expected feedback but it was withheld as some the extracts below explain.

ST3: “those external assessors they don’t talk to anyone”.

ST7: “they don’t tell us when they would have finished assessing you. Some of them they do tell you the problem where did I went wrong”.

The above comments show that verbal feedback given during post-lesson discussions should be specific and communicated in such a manner that pre-service teachers could open up and share their concerns with their mentors or college supervisors without fear of being penalised. This results also show that feedback or verbal persuasion is crucial in the professional development of pre-service teachers’ self-efficacy provided it is administered appropriately and timely.

5.2.7. Theme 7: Support

A majority of student teachers appreciated the psychological, material and professional support they received during teaching practice. They indicated that their success during teaching practicum, improvement of their self-efficacy beliefs and practice were a direct result of the support they received. The participants identified three key groups of people who supported them during their teaching practice in schools, namely, mentors, peers and supervisors. Hence, the three categories that were identified under support were based on the roles played by these groups. The results below show how each of the support groups offered assistance, direction, and encouragement for them to manage their practicum concerns.

5.2.7.1. Mentor support

A majority of the student teachers agreed that the mentor was the most helpful one in terms of support during teaching practice. It would seem that most of the mentors were their guides, facilitators, and role models in addition to being providers of material and moral support that enabled the students to grow professionally. The excerpts on the next page explained how
mentors addressed the teaching practice related concerns.

ST16: “when I am having challenges she normally sit down with me and corrects me in terms of lesson deliveries ... She always checks my lesson plans everyday ... to see if the objectives I have listed are going in agreement with the lesson plans of the day”.

ST11: “It’s quite easy for her to correct me if I do something wrong than lecturers because I don’t see the lecturers all the time and they don’t assist me all the time and the mentor assesses me on each and every lesson that I teach”.

ST15: “Yeah, my mentor really supports me in a lot of issues especially on the planning part of a lesson. If I am not very sure of about my planning, I go to her. She will assist me most of the time”.

ST15: “Sometimes when the children do not understand what I have taught them, she will step in diplomatically. She would not embarrass me in front of the kids, so she will say ... can I also add on this” and she will tell them. If I have missed a point or something else, she will correct me but she will not do it in front of children

ST13: “If I am under pressure with my marking and I have to go and do extracurricular activities with the children I will find she would have marked most of my books for the things that I would have taught”.

ST12: “I think the support that I get form the mentor is the one that I think is the most helpful because it is more practical”.

ST9: “He shows me how to work on those documents and how to teach some of the subjects ... of cause we were taught some of those things but I should have a variety of ways of teaching a single subject”.

ST23: “I think the mentor will be more helpful ... the mentor will be the only person who will be there and who knows the pupils”.

The above comments confirm that mentors are strategically positioned to assist student teachers during teaching practice. A majority of the student teachers claimed that mentors were the most influential person in their life during teaching practicum.
5.2.7.2. Peer support

Both the supervisors and the mentees saw the value of sharing good practice among peers as a strategy for developing student teachers’ expertise and skills in various areas of their practice. Some of these support activities with peers included study groups, co-planning, sharing of ideas, and observing one another’s lessons. However, the use of observation of one another’s lessons was restricted to certain schools who valued the use of peer support among trainee teachers. The extracts below illustrate some of the peer support that was used to address some of the teaching practice related concerns.

ST15: “I am always with one of my peers and when we go for lunch we are always together. So, we discuss some of the issues we have”.

ST9: “If I am having some difficulties when I am planning a lesson. I can consult them so that they can give me some advice on how to handle the lesson or how to introduce a lesson ... We exchange ideas”.

ST13: “I think from my peers, because they understand my concerns and maybe they will be in the same situation. Yeah, it’s easy to open up to my peers ... I prefer my peers because some of the mentors are very strict. So, it will be difficult to approach them”.

ST16: “We used to discuss first before we wrote our plans although most of them were teaching grade 2. I am the only one here teaching grade 1. We used to share the ideas on how to plan”.

CS4: “Yeah, student usually cooperate with each other and they share information, they share ideas. And now maybe with the use of technology it’s even easier”.

Although peers were not as influential in the professional development as mentors, student teachers appreciated their role. Many of the student teachers were comfortable with the use of peer support mainly for two reasons. Firstly, the atmosphere in which the observations or discussions were held encouraged both risk taking and self-reflection activities. Secondly, the collaborative activities reduced some of their concerns and provided them with the much needed support for their professional development.
5.2.7.3. Supervisor support

The participants agreed that supervisors still had an important role to play during teaching practice even though their support was not readily available like that of mentors or peers. Even though some of the student teachers had concerns, they were not keen to elicit getting supervisors’ support. The citations below explain how the supervisorial roles of the college tutors helped to address teaching practice related concerns.

ST6: “They are coming but the frequency of their coming here I think is not enough as I see it because our programme is 2-5-2 meaning that we do not have enough time with our lecturers I would be expecting them to regularly coming to assist us just like our mentors. They are our mentors as well”.

ST10: “Normally when they come for assessment they point out some areas of strengths and weakness as well”.

CS1: “As a supervisor … I do conduct on the spot training at times and in some of the instances I make referrals to colleagues who will be performing well or above average … and again in some instances the student teacher is summoned to college for further assistance”.

CS5: “Sometimes we give them support. We just sit in and not write a crit and just jot in some points and at the end of the lesson, you assist the student teacher without any marks but with just comments to assist the student teacher”.

While supervisors’ support was held in high esteem, it was considered very weak by most student teachers. Both student teachers and supervisors felt that the roles of supervisors were to assess the work of student teachers, identify areas of weakness, challenge their belief system, and assist them in developing a capacity to overcome their concerns. Furthermore, supervisors had the responsibility for orientating mentors on the college’s expectation on the supervision of student teachers as some of the mentors were still novices in their mentoring roles. Hence, the need to strengthen the supervisors’ support by using the latest advances in technology.
5.2.8. Theme 8: Information and Communication Technology

Both the supervisors and student teachers noted the importance of ICTs in strengthening the sharing of information and their potential to address some of the concerns of trainees during teaching practice. The majority of the participants acknowledged that they were using ICTs for communicating, researching or preparing their lessons and assignments. Participants were able to identify ICTs as a vehicle for social networking with their relatives and peers. In addition, student teachers acknowledged that the internet had the potential to: change how they learn and teach; increase the volume and quality of their sharing; and change how they were supported during teaching practice. Furthermore, participants also noted that even though ICTs would strengthen student teacher support, there were some barriers to their use in Zimbabwe. Three categories on the use of ICTs in Zimbabwean teacher education were identified. These were internet as a source of information, internet as a networking platform and barriers to the use of ICTs.

5.2.8.1. Internet as a networking platform

The majority of the participants indicated that they were involved in at least one social media platform with their peers and relatives. However, only a handful of the students were using it to elicit support from their college supervisors as many of them felt that social media had no place in teacher education or its time had not yet arrived. The citations below support these claims.

ST8: “We created a group whereby if I have any information that needs to be communicated, I just put it in the group and everyone has access to it”.

ST9: “In our main study that is ES, we formed a group on Whatsapp where if we had an issue to discuss, we just post it there and our peers would respond to our questions. I think it can also happen even if we are out here on teaching practice ... maybe the college may also open a web page so that we can post the difficulties that we face and hear what others are saying”.

ST10: “We are using Whatsapp ... it’s the cheapest form of communication. Like when I want to consult CDS, I can Whatsapp my tutor or even sent him or
her my points through Whatsapp”.

ST13: “I am always on Whatsapp ... every day. I find some of the suggestions helpful. For example, when introducing a lesson, you should not ask questions every time. Sometimes you can dramatise, or use a song”.

CS3: “most of them are connected to Whatsapp and that could be an ideal platform where we create groups for example communication groups and we simply throw messages and assignments and students can have open discussions on Whatsapp”.

CS4: “Not as such but maybe just an encouragement to the students to embrace IT because it is what will make their open and distance learning much easier because wherever you are, you can learn if you are into ICT”.

CS5: “We need to create an e-learning platform for the students so that they are not only taught in a lecture room but they can be taught wherever they are and the distance doesn’t matter anymore. We need also to create an e-learning where there is feedback”.

CS6: “And even given the rate at which these social networks are catching on in our lives we can even use them for assessment. In other words they can actually do their assignment and pass it on and you can actually correct and mark and actually send it back via this way”.

CS3: “I think it’s a dimension that runs away from the olden day kind of school and as ICT obvious we need to blend with what is happening today and take away people from that technophobia kind of setup and say lets us bring them to the technology age and see how technology can be used”.

The above comments show that most of the student teachers were confident and excited with using the latest technology for their studies. Most of the supervisors were more concerned about maintaining social distance from their students. They were a bit sceptical on the role of social networking activities in teacher education. Furthermore, supervisors were of the opinion that if they communicated with their students electronically via social media, their students would lose their respect for them. However, there are numerous advantages to the use of social media which are obvious. Despite this, some of the student teachers were excited about the fact that learning to teach in the future will become a social activity.
For a majority of the participants the internet had become an important and most popular source of information for research, distance learning assignments and for their lesson preparation during teaching practice. With limited access to the internet, a shortage of recent books and journals in the college library or schools, the participants felt that they had no option but to use the internet as a source of information as the citations below indicate.

ST8: “They are so helpful in the fact that some of these things that one needs you can research on ... even on our assignments as well. You can find them on the internet”.

ST14: “These phones they help us. Some of the concepts that are taught we just meet them in the syllabus and we do not have textbooks. Most of the time we rely on the Internet, so it becomes very helpful”.

ST9: “Maybe as I highlighted when we first met, the college can open a website where it will try to update student teachers with some of the things on teaching practice. I think it would be easier for us to cope with the challenges that we face”.

ST11: “I think lecturers should send our assignments through internet and they should also send notes maybe ... the work which we have not covered but should have covered. And if we have problems we should also use the net or use the phones to ask lecturers to clarify some of the things”.

CS1: “Maybe if it were possible, if a website could be linked to teaching practice and hints that would encourage student teachers to open up”.

“We are also envisioning a situation where we will move towards some elements of e-learning. Where maybe through the Internet we can supervise their projects. We can send their assignments and we can also receive those assignments. But we are not yet there”.

CS5: “You can create “I like” page and “I dislike” page even on Facebook or even hosting it on the website. I wish if we can have the website fully operational but I sent it back to IT”.

The above accounts showed that the internet has become the main source of information for most of the student in preparation of their lesson and doing assignment. However, only a
few of them were exploiting ICT as a communicating or networking tool.

5.2.8.3. **Barriers to the integration of ICTs**

While the integration of ICTs in teacher education was a noteworthy idea, participants pointed out a number of barriers to their use to support student teachers in Zimbabwe during their internship in schools. The participants cited affordability, accessibility, connectivity, competence, technophobia as the major barriers that hinder the effective use of ICTs at UCE. The results showed that a sizeable number of the participants had no internet facilities at their schools or experienced challenges accessing internet at their schools. Student teachers cited bureaucratic procedures in accessing internet resources at their schools. At college, negative attitudes towards the use of ICTs by supervisors, a lack of ICT knowledge and skills, and a lack of equipment were seen the main inhibitors to the use of ICTs by both student teachers and supervisors. The quotes below substantiate these claims.

**ST8:** “The internet access is only within the administration block ... But the problem is that you need a laptop for that. You need your own things because the school has limited resources”.

**ST9:** “Our Whatsapp group is an active one but currently I am not participating because the phone that I was using I don’t have it now. I am using a simple Nokia phone and it does not have Whatsapp”.

**CS6:** “You know that people are always resistant to change and the main reason is that because some people are not comfortable ... But actually once they are brought on board they need a lot of persuasion ... so that they see the benefits”.

**CS3** “Personally at the moment I am not comfortable because with Facebook I view it from its social perspective, that seriousness is compromised and business minded is compromised”.

**ST8:** “Unfortunately, it’s not allowed for us to use in the classroom because people just tend to abuse it or it is associated with social networking”.

**CS3:** “The challenge is the issue of social distance now will be compromised ... we want to open up avenues of communication. Students have their Facebook and communication platform and it was working and I had
access to whatever they were chatting here or there at some point and another”.

CS3: “There are challenges obviously to do with that social distance that the Ministry will always talk about and will emphasise it here and there. But we now need to come in and say how do we take advantage of technology without compromising on certain parameters that the ministry that wants”.

CS4: “I have noted there is slow progress towards IT as evidenced by the people who still want to go the ICT lab for basic things but we are saying the college has put computers in their offices”.

ST12: “No, I am not in any group. I don’t even communicate with others using email. We usually visit one another if we have problems or even phoning sometimes”.

The above citations show that despite the theoretical benefits of using ICT during teaching practicum, there are still some financial, governance and infrastructural impediments.

5.3. SUMMARY OF CHAPTER

The main focus of this chapter was on the analysis of qualitative data drawn from in-depth interviews with twenty-four student teachers and six college supervisors. A thematic analysis was used in which themes emerged from the participants’ accounts. Eight themes emerged from the interviews, namely classroom management, teacher knowledge, socio-economic factors, workload, relationships, observation and assessment, and support and ICT.

Results from the interviews revealed that classroom management was one of the major concerns identified by student teachers. Participants felt that they had not been adequately equipped with strategies to manage classroom management in order to maintain learner discipline. However, with the help of mentors and through trial and error, they were able to adopt their own management styles like being firm and preparing their lessons adequately. The major impact of indiscipline was time wasting.

Most of the participants felt that the current model of training in the 2-5-2 programme does not provide them with adequate time to be equipped with all the necessary teacher knowledge
they need as teachers. Some elements of pedagogical content knowledge such as lesson planning, and teaching methods were cited as being weak during the first months of teaching practice. Timely interventions in the form of staff development workshops by schools and the college respectively seemed to have helped student teachers. Nearly all the students identified at least one subject where their content knowledge was weak. Student teachers were also concerned about their lack of skills to assist learners with learning disabilities. Support from mentors and peers proved useful in addressing some of these issues. The internet was also used extensively as a source of information for content and teaching methods.

Both supervisors and student teachers accepted that the socio-economic environment in Zimbabwe had affected their activities. The sharing of classrooms in most primary schools had made it very difficult to teach and assess learners’ progress. Lack of resources in schools also affected their practice and assessment negatively during lesson observation by supervisors. Socially, their deployment to far off places strained their family relations. For many who did not have other sources of income, it was very difficult to survive.

Student teachers felt that their workload during teaching practice was generally high, especially daily planning, evaluation of lessons, marking and completing distance learning assignments. In order to cope with the workload, most of them remained after school to complete their marking, evaluate their lesson plans and plan for the next lessons. Due to the pressure of work, most student teachers were forced to reduce their social activities.

Relationships with stakeholders in the school were a tricky issue, as most student teachers did not want to cross the path of their mentors for the sake of harmony in the classroom. They were willing to accept the directions and guidance of their mentors even though in some cases they felt stifled. Many of the student teachers realised that being mentored required them to be patient, humble and to have a teachable spirit.

The participants acknowledged that lesson observation and assessment played an important role in their professional development in that it provided them with opportunities to receive feedback, reflect and improve their instructional practice. Evaluation of student teachers’ practice during teaching practice was also received as a means of measuring their competencies in preparing, teaching and assessing the effectiveness of their lessons.
However, some sentiments were raised on the fairness and objectivity of the assessment process. Participants accepted that it was always stressful to be assessed.

Student teachers acknowledged that the support they received from their mentors was most helpful, because they were readily available and willing to provide advice. Peer support was acknowledged as the friendliest, as it was generally provided in a cordial manner. College supervisors’ support was considered the weakest, because the supervisors rarely visited them and the few times they visited, their main focus was on assessment and not support. The supervisors’ support was further weakened by their rush during their visits to schools. Unsurprisingly, the supervisors’ support was also considered the most stressful because their visits were assessment-focused.

A number of the participants were excited about using ICTs and followed recent developments of ICTs in teacher education. Proportionally, student teachers were more excited about ICTs than teacher educators. However, nearly all the participants agreed that there was great potential in embracing ICTs as a strategy to support student teachers during teaching practice. Participants were able to identify several areas where ICTs could be used in facilitation and learning in teacher education. Most of the supervisors were reluctant to participate in social networks with their student teachers, because of the lack of seriousness associated with them. Additionally, the supervisors wanted to maintain their social distance. Major barriers to the utilisation of ICTs were internet connectivity, accessibility to internet facilities and a lack of gadgets to connect to internet.

Chapter Six focuses on the integration of results from the two phases to produce the final report. Findings from the qualitative and quantitative datasets will be intermeshed with each other without loss of their quality and nature. The discussion will also be enriched by the inclusion of literature from other similar studies.
CHAPTER SIX

QUANTITATIVE AND QUALITATIVE DATA INTEGRATION, INTERPRETATION AND DISCUSSION

6.1. INTRODUCTION

While the focus of attention of the last two chapters was on the presentation and analysis of the results, this chapter will primarily focus on the integration and interpretation of the two data finding sets into a coherent whole. In mixed methods research design, integration is an important process of inter-meshing quantitative and qualitative methods while at the same time maintaining the characteristics of their data. Hence, in this concurrent mixed methods study, integration was understood as a process in which quantitative and qualitative datasets were brought together for comparison and analysis. Interpretation of results entails assigning meaning to the results taking into account the research questions, and existing literature. Therefore, integration and interpretation of results involved drawing conclusions from what was learned by combining the findings from the two datasets. To achieve this, quantitative data from questionnaires and qualitative data from in-depth interviews were transformed, compared, combined, and interpreted.

The chapter began with a concise description of how quantitative and qualitative data analyses were independently conducted in the previous two chapters. In chapter four, quantitative data from the questionnaires was summarised in tabular form, presented graphically form and analysed using statistical methods. Similarly, responses from the interviewees were categorised into themes and presented descriptively in chapter five. An overview of how the quantitative and qualitative datasets were mixed and interpreted was also given. The nucleus of this chapter is the interpretation and discussion of the research findings guided by the research questions. The discussion centres on student teachers’ concerns during teaching practice, variation of student teachers’ concerns over the three-year period, impact of student teachers’ concerns on classroom practice, survival strategies employed by student teachers during teaching practice, and the support student teachers received during teaching practice.
6.2. PARTICIPANTS IN THE STUDY

From a population of 1610 pre-service teachers and 113 college supervisors, a sample of 30 participants was purposively selected for the qualitative phase of the study. A further 300 students were randomly selected amongst the three year groups and were requested to complete a closed-ended questionnaire. Table 42 and Table 43 below illustrate the distribution of the student teachers’ sample according to the research design, year and programme and that of college supervisors respectively.

Table 42: Sample statistics for student teachers

<table>
<thead>
<tr>
<th>Year</th>
<th>Sample for quantitative study (randomly selected)</th>
<th>Sample for qualitative study (purposely selected)</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ECD</td>
<td>GP</td>
<td>ECD</td>
</tr>
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</tr>
<tr>
<td>3</td>
<td>27</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>71</strong></td>
<td><strong>122</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Table 43: Sample statistics for supervisor

<table>
<thead>
<tr>
<th>Department/Programme</th>
<th>ECD</th>
<th>GP</th>
<th>ICT</th>
<th>TP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

There was no gender balance in the selected sample for student teachers as Graph 24 (composite bar graph) on the next page shows. With an overall ratio of approximately 2.62 females to one male, this shows a skewed distribution towards women.

This situation is not unusual, since recent studies in the sub-region and in some parts of the world have shown that there are more female teachers (especially at primary school level) than men. This seems to confirm the notion that teaching is an overwhelmingly female profession (Kelleher et al., 2011, p. 1; Mareva, Gonye & Rubaya, 2013, pp. 503-504). A recent study in Dominica, Lesotho, Samoa, Sri Lanka and India also revealed that many schools are still skewed towards women (Kelleher et al., 2011, p. iii). Furthermore, Kelleher
et al., (2011, pp. 3-4) found that in some countries within the sub-Saharan African region like Botswana, Namibia, Lesotho, South Africa and Seychelles, the majority of teachers in primary schools were women.

Graph 24: Composite bar chart for gender information

The Gauteng Department of Education in South African gave a ratio of about approximately 3 female educators for every male educator. Some of the reasons put forward for this feminisation of the teaching profession as highlighted by Kelleher et al., (2011, pp. 10-14) were deep ingrained gender stereotypes in these countries and unattractive salaries in education. The second reason may be more appropriate to Zimbabwe, given the current economic situation where the government is struggling to pay its civil servants living salaries and allowances. For example, Thornycroft (2015) reported that the Zimbabwean civil servants had not been paid their December salary and annual bonuses. The sample for supervisors was skewed towards men: there were 4 male and 2 female supervisors out of six.

6.3. DATA COLLECTION AND ANALYSIS OF THE DATASETS

The two datasets were initially collected and analysed independently using analytic analysis most suitable for each research design. Quantitative data was collected using a closed-ended questionnaire, presented and interpreted using statistical methods (Creswell & Plano-Clark, 201). Qualitative data was collected using in-depth individual interviews and analysed thematically. The thematic analysis involved summarising participants’ contributions into
codes, categories and themes (Nieuwenhuis, 2015b, p. 100).

6.4. DATA INTEGRATION AND INTERPRETATION PROCESS

Data integration and interpretation stage is the final and most important process in a mixed methods research design (Creswell, 2014, p. 223; Creswell & Plano-Clark, 2007, pp. 65, 118). It brings together quantitative and qualitative data results that would have been separately analysed. There are many models in literature on how to integrate and interpret results in a concurrent mixed methods design. Creswell and Plano-Clark’s (2011, pp. 215-216) framework for data analysis for a concurrent mixed methods research design was adopted and adapted for this study. The process involved the following steps:

- Collecting the quantitative and qualitative data concurrently.
- Independently analysing the quantitative and qualitative data using the most suitable analytic approach.
- Specifying the dimensions by which to compare the results from the two datasets.
- Specifying what information would be compared across the dimensions.
- Completing the refined analysis.
- Representing the comparisons.
- Interpreting how the merged data would respond to research questions.
- Summarising findings and recommendations.

The first two steps in the process above were completed in the previous two chapters (Chapter Four and Chapter Five) where data was collected and analysed separately using appropriate analytic approaches. The last step in the process will be completed in this chapter and Chapter Seven. The above process is diagrammatically represented in Figure 19 on the next page.

Given that the foci of the quantitative and qualitative phases were not exactly the same, their common dimensions were used to compare and relate the findings from the two datasets. The dimensions that overlapped for the two datasets were the concerns that pre-service teachers experienced during teaching practice and the variation of the concerns over the three-year period. Creswell and Plano-Clark (2011, p. 233) suggested three options for
comparing and relating quantitative and qualitative findings in a concurrent mixed methods research design: side-by-side comparison; joint display comparisons; and data transformation of the results. The researcher mainly used data transformation in which themes in the qualitative data were counted and compared with the quantitative dataset (Creswell & Plano-Clark, 2011, p. 233).

Figure 19: Data integration and interpretation

Adapted: Creswell and Plano-Clark (2011, pp. 79, 118)

The other approach was to discuss the results concurrently for example by reporting the quantitative statistical results followed by qualitative quotes or themes to confirm or refute the quantitative results. In short, integration of the datasets in this study took the form of comparing, contrasting, and drawing one type of conclusion from the other. Part of the qualitative data dealing with concerns of student teachers during teaching practice were transformed into quantifiable data by counting the occurrence of the themes in the qualitative...
data and comparing the transformed dataset with the quantitative dataset. A rubric was designed to capture the statistics of the concerns of the student teachers. This enabled the researcher to tabulate the themes so that the two datasets could be compared relatively easily. Similarly, the variations of student teachers’ concerns from quantitative findings were compared with qualitative findings. Quantitative and qualitative findings were further discussed in relation to similar findings from literature. Certain portions of the qualitative data that could not be directly compared with quantitative data were quantized and contextualised in comparison to relevant literature.

6.5. INTERPRETATION AND DISCUSSION OF THE RESEARCH FINDINGS

The purpose of this study was to identify and examine pre-service teachers’ concerns relating to their teaching practicum internship at schools in Zimbabwe and to suggest forms of support that could be implemented to assist them to manage their concerns effectively, and the merged results provided responses to these issues. The interpretation and discussion of the research findings were primarily guided by research questions and existing literature on student teachers’ concerns during teaching practice was included to validate or invalidate the findings.

6.5.1. Concerns of pre-service student teachers

- What are pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe?

The primary purpose of this study was to identify concerns that pre-service teachers experienced during teaching practice. Both qualitative and quantitative data revealed a variety of concerns that Zimbabwean pre-service teachers faced during teaching practicum. Qualitative data provided a deep analysis of each of the concerns while quantitative data provided rough estimates of the severity of the concerns. Table 44 on the next page provides a summary of quantitative and qualitative concerns experienced by student teachers during teaching practice.
Table 44: Theme table for the merged data

<table>
<thead>
<tr>
<th></th>
<th>Main categories (Quantitative results)</th>
<th>Main categories (Quantised results)</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>• Fear of failing the practicum</td>
<td>• Fear of failing teaching practice (10.28%)</td>
</tr>
<tr>
<td>ii.</td>
<td>• Being assessed (e.g. by my supervisor or mentor)</td>
<td>• Workload (marking, daily lesson planning, teaching &amp; writing of distance learning assignments) (7.17%)</td>
</tr>
<tr>
<td>iii.</td>
<td>• Striking a balance between the practicum and personal commitments</td>
<td>• Classroom management, discipline &amp; time management (6.23%)</td>
</tr>
<tr>
<td>iv.</td>
<td>• Lack of content in a learning area.</td>
<td>• Resources for teaching (4.98%)</td>
</tr>
<tr>
<td>v.</td>
<td>• Coping with the overall teaching workload (lesson planning, marking)</td>
<td>• Scheming &amp; planning (6.23%)</td>
</tr>
<tr>
<td>vi.</td>
<td>• Managing practicum-related assignments</td>
<td>• Mentor relations (6.23%)</td>
</tr>
<tr>
<td>vii.</td>
<td>• Helping learners with learning difficulties</td>
<td>• Pedagogical &amp; content knowledge for Agriculture (5.92%)</td>
</tr>
<tr>
<td>viii.</td>
<td>• Enforcing discipline and helping learners with behavioural problems</td>
<td>• Relations with staff in host school (4.98%)</td>
</tr>
<tr>
<td>ix.</td>
<td>• Managing time</td>
<td>• Infrastructure &amp; crowdedness (4.67%)</td>
</tr>
<tr>
<td>x.</td>
<td>• Writing detailed lesson plans</td>
<td>• Monthly allowance (4.67%)</td>
</tr>
<tr>
<td>xi.</td>
<td>• Selecting appropriate content for my lessons</td>
<td>• Internet access &amp; devices (4.36%)</td>
</tr>
<tr>
<td>xii.</td>
<td>• Preparing resources for my lessons (e.g., transparencies, worksheets)</td>
<td>• Deployment &amp; family separation (4.36%)</td>
</tr>
<tr>
<td>xiii.</td>
<td>• Delivering the lesson</td>
<td>• Standing in front of the class/stage fright (4.05%)</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>xiv.</td>
<td>• Managing the group work and/or individual seatwork.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chance to teach core subjects and minor subjects (3.74%)</td>
<td></td>
</tr>
<tr>
<td>xv.</td>
<td>• Marking pupils’ written work and giving feedback to learners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Learner diversity, disability and language of instruction (3.43%)</td>
<td></td>
</tr>
<tr>
<td>xvi.</td>
<td>• I have sufficient knowledge about science and agricultural science.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Pedagogical &amp; content knowledge of core and some of minor subjects (3.43%)</td>
<td></td>
</tr>
<tr>
<td>xvii.</td>
<td>• Establishing rapport with learners.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Use of media &amp; its availability (3.43%)</td>
<td></td>
</tr>
<tr>
<td>xviii.</td>
<td>• I have various ways and strategies of developing my understanding of science and agricultural science.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lesson delivery (3.12%)</td>
<td></td>
</tr>
<tr>
<td>xix.</td>
<td>• I know how to select effective teaching approaches to guide learner thinking and learning in mathematics.</td>
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<tr>
<td></td>
<td>• Relations with supervisors (2.80%)</td>
<td></td>
</tr>
<tr>
<td>xx.</td>
<td>• I know how to select effective teaching approaches to guide learner thinking and learning in science.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Accommodation &amp; transport (2.18%)</td>
<td></td>
</tr>
<tr>
<td>xxi.</td>
<td>• I have sufficient knowledge about mathematics.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Link between theory and practice (1.56%)</td>
<td></td>
</tr>
<tr>
<td>xxii.</td>
<td>• I have various ways and strategies of developing my understanding of mathematics.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Involvement of parents (1.56%)</td>
<td></td>
</tr>
<tr>
<td>xxiii.</td>
<td>• How much can you do to get through to the most difficult learners?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Personal health (0.62%)</td>
<td></td>
</tr>
<tr>
<td>xxiv.</td>
<td>• How well can you establish a classroom management system with each group of learners in your class?</td>
<td></td>
</tr>
<tr>
<td>xxv.</td>
<td>• How much can you do to calm a learner who is disruptive or noisy in your class?</td>
<td></td>
</tr>
</tbody>
</table>
The quantitative results show the top six themes from three factors (namely general concerns, teacher belief and teacher knowledge) that were under investigation and the quantised results show the qualitative results ranked according to the participants’ concerns. There was general agreement in the forms of concerns between quantitative and qualitative results. However, qualitative results produced wider and richer categories of concerns than the quantitative results. Hence, the six themes from the qualitative study were used to guide the discussion: classroom management; teacher knowledge; socio-economic factors; workload; interpersonal relationships; and assessment. On the whole, these groups of concerns that were identified in this study were not unique to Zimbabwe, as there are some resemblances to other studies in literature.

6.5.1.1. Concerns related to classroom management

From Table 44 above, the results from the quantitative and qualitative datasets indicated that classroom management was one of the main concerns that student teachers experienced during teaching practicum. This finding agrees with Chambers and Hardy’s (2005, p. 3) and Oliver and Reschly’s (2007, p. 1) observation that classroom management is one of the major concerns of pre-service teachers during teaching practice. Oliver and Reschly (2007, p. 1) was of the opinion that although good classroom management practices were important in creating an enabling environment for quality teaching and learning, they do not guarantee effective teaching. The importance of a conducive learning environment was also underlined by Garibay (2015, p. 3), who asserts that the learning atmosphere in a classroom affects the level and quality of engagement of learners during lessons and ultimately their academic performance. In other words, meaningful teaching and learning can not take place in poorly managed classrooms.

Effective classroom management practices were difficult for many student teachers to imitate or model because classrooms are complex, multi-dimensional and highly unpredictable places. Kayici (2009, p. 1216) and OECD (2009, p. 226) acknowledged that classroom disciplinary climate is complex and multifaceted because it involves numerous interdependent and intricate features from the classroom and the community. Student teachers in this study experienced challenges in enforcing discipline and supporting learners with behavioural problems, managing group work and classroom management, how to get through to disruptive or difficult learners, and how to establish a management system for
each group of learners. Furthermore, the study established that good classroom management skills go beyond just maintaining firm control over a class, but also include the creation of a classroom environment (including the physical conditions in the classroom) where different categories of learners are free to participate and learn (Kayici, 2009, p. 1216). In addition, a good physical environment improved teaching and learning and it also enriched participation and interaction amongst learners. A majority of the participants, who were interviewed, agreed that effective learning could only take place in a well-managed classroom. Although student teachers found classroom management challenging, they had developed their own coping strategies.

The findings from the study also revealed that classroom management was very stressful in addition to being complex and difficult for student teachers. Similar findings were noted by Goh and Matthews (2011, p. 92) in Malaysia, Malik and Ajmal (2010, p. 19-21) in Pakistan, Mawer (1995, p. 14) and Mousavi (2007, p. 36) in United Kingdom, Dibapile (2012, p. 59) in Botswana, Kiggundu and Nayimuli (2009, pp. 350, 354) in South Africa, Mtika (2008, pp. 192-194) in Malawi and Mapfumo et al., (2012, pp. 159) in Zimbabwe where student teachers indicated that classroom management was stressful. Classroom management was also cited as being stressful by Jensen, Sandoval-Hernandez, Knoll and Gonzalez (2012, p. 50) in 23 countries that included Australia, Austria, Belgium, Brazil, Bulgaria, Denmark, Estonia, and Ireland as a source of concern for student teachers during teaching practicum. More specifically, Jensen et al., (2012, p. 50) found that newly qualified teachers were mostly concerned about learner discipline and behavioural problems.

Findings from the study revealed that student teachers were also concerned about noise levels especially when the mentors were not in the classrooms and the use of cell phones. While certain levels of noise are acceptable for meaningful learning, certain levels of noise are an indication of loss of control by teachers (Cohen, Manion, Morrison & Wyse, 2010, p. 357). Thus, effective learning is ideal in a situation where there is controlled noise and not where learners are silent as or uncontrollably noisy. This is consistent with recent research on effective classroom enviroments that allow for cooperative learning (Al-Amarat, 2011, p. 37) where the sharing of ideas is encouraged and some level of noise is acceptable. Disruptive behaviour such as talking or answering cell phones in classrooms were also cited by Kiggundu and Nayimuli (2009, p. 354) and Mapfumo et al., (2012, pp. 159) especially in schools where student teachers had been introduced to learners as student teachers.
Mapfumo et al., (2012, pp. 159) also noted that female student teachers had more disciplinary challenges with boys than girls. This is understandable because boys are generally more physically aggressive (to other learners and teachers) than girls (Rahman & Nahar, 2013, p. 459). None of the female participants in this study mentioned any differences in disciplinary behaviours between boys and girls. However, differences in levels of concerns were noted among the year groups. The majority of the participants acknowledged that managing a class was more stressful when they were in their first year and part of the second year. A majority of the student teachers in this study cited talking, hyperactivity and not paying attention as their greatest challenges.

Findings from the study showed that student teachers were not adequately prepared to manage disciplinary problems in diverse classrooms. Research by Kayici (2009, p. 1215) and Al-Amarat (2011, pp. 37-38) found that most of the classroom disciplinary problems emanate from a lack of teachers’ management skills. While some of the causes of learner misbehaviour were beyond the student teachers’ control as some of them arose from their social backgrounds and learners’ mental ability, good classroom management skills and practices were within their domain of control. A lack of knowledge and skills on the part of student teachers to use differentiated instruction created disciplinary problems in the classroom. Student teachers found that it was critical for them to plan their lessons adequately by taking learners’ learning styles, their diverse interests and varied backgrounds into account. For example, when student teachers used teacher-centred methods of teaching, learners easily became bored and distracted leading to disruptive behaviour (Al-Amarat, 2011, p. 38). Hence the need to equip student teachers with knowledge and skills on how to plan their teaching and to deal with behavioural problems.

Findings from the study also showed that some learners brought cell phones to school even if their parents or the schools did not allow them to do so. What annoyed some of the student teachers was that the school authorities returned learners’ cell phones after they had been confiscated without any form of punishment or reprimand even though the schools’ policies prohibited such devices.

Disruptive behaviour by learners was not only a source of concern for student teachers but for all teachers and principals in schools. Earlier research conducted by Nhundu (1999, pp. 267) noted that principals of schools were stressed by learners’ disruptive behaviour and
their lack of concern for their school work. Given that student teachers had less authority than principals, it was obvious that learners’ disruptive behaviour in classes and lack of concern for their work created higher stress levels among student teachers as they were the ones who were in contact with the learners in the first place.

Time was noted as an important commodity in teaching and learning; and student teachers acknowledged that they were concerned about how to efficiently use the time allocated to them. Similar observations were noted by Murray-Harvey et al., (1999, p. 33) and Jacobs (2016, p. 171) where pre-service teachers were concerned about time management. Failing to complete planned tasks and completing planned tasks before the period ended created challenging environments for student teachers in this study. Equally so, having free time at the end of the lesson created chaos as learners would start chatting, playing or fighting. Similarly, persistently failing to accomplish planned tasks on time generated stress among student teachers as they felt that it was an indication of weak lesson planning skills, poor implementation strategies (Cakmak, 2009, p. 396), and/ or poor classroom control (Kayici, 2009, p. 1216). This showed the need for student teachers to plan their work strategically so that even if some of the learners finished earlier, they would have additional tasks to complete. According to Cohen et al., (2010, p. 362) task-centred approaches are imperative to ensure that the learners are constructively engaged in the completion of tasks.

Findings from the study also revealed that learning time was always lost when student teachers were trying to restore order after classroom disruptions or trying to settle down learners. Similar sentiments were also cited by OECD (2009, p. 227) where close to one third of the teachers reported that their learners’ disruptions would cut into their teaching time. Student teachers in the study were also finding it difficult to manage their lessons effectively with some of them failing to complete their planned tasks within the allocated time because of differences in pupils’ learning styles and needs.

6.5.1.2. Concerns relating to teacher knowledge

Learning to teach at primary school is a complicated process that is premised upon the student teachers’ acquisition, integration and application of diverse kinds of teacher knowledge and practices. Findings from the study revealed that teacher knowledge was a major concern during teaching practicum although some researchers like Chireshe and
Shumba (2011, p. 116) and Mapfumo et al., (2012, p. 159) from Zimbabwe did not cite it as a major challenge. However, Chireshe and Shumba (2011, p. 116) cited the inability of student teachers to cater for learners with special needs. Teacher knowledge in this study was viewed as all forms of knowledges that teachers are expected to have to be effective teaching practitioners. This knowledge includes fundamental learning, disciplinary learning, pedagogical learning, situational learning and practical learning (DHET, 2015a, p. 16; DHET, 2015b, p. 12).

Findings from the study indicated that most student teachers were generally concerned about their depth and breadth of content and pedagogical knowledge. Research by Mawer (1995, p. 12) found that the majority of the students of physical education in the United Kingdom were concerned about the content of the activities they were expected to teach. Knowledge concerns were also cited by student teachers from Malaysia (Goh & Matthews, 2011, p. 92) and South Africa (Mudzielwana & Maphosa, 2014, pp. 398-399). For example, Mudzielwana and Maphosa (2014, pp. 398-399) found that student teachers were anxious about making mistakes because of their inadequate content. These studies show the importance of student teachers having an in-depth knowledge of the content they are expected to teach. In simple terms, student teachers must be content matter specialists of the subjects they teach.

Furthermore, student teachers found that lesson planning and delivery and the selection of appropriate teaching methods were a challenge for some of the learning areas. In this study, students were concerned about drawing up detailed schemes and lesson plans and selecting appropriate methods and learning media. In other words, they needed pedagogical knowledge in addition to the content knowledge for each of the learning areas they were teaching. Malik and Ajmal (2010, p. 21), Mawer (1995, p. 14; Shulman, 1986, p. 9) and Murray-Harvey et al., (1999, p. 36) noted that some of the Pakistani, British, and Australian students respectively were concerned about writing detailed lesson plans and selecting appropriate content for their lessons. Lesson delivery was also cited as an area of concern particularly where the lessons failed to follow the intended plan or where learners posed challenging questions (Malik & Ajmal, 2010, p. 21). Collectively, this implied that students needed a grounded knowledge of the content they teach including the teaching methodology of the learning areas.
Apart from their own concerns with the learning areas they had been prepared to teach from college, student teachers were faced with a situation where they were expected to teach Agriculture; a subject they did not have content and pedagogical content knowledge to teach. Most of their mentors were equally ignorant about teaching the new learning area as they had not received in-service training in the subject. Research on curriculum change in schools has clearly shown that unless such transformation is accompanied by the professional development of teachers, there will be implementation gaps (Singh, 2011, p. 373). Nieuwoudt and Nieuwoudt (2016, p. 356) also highlighted the need to support teachers to implement a new curriculum. The support could be in the form of teacher and learner support materials, support for teachers and contextual support. However, with limited resources in Zimbabwean schools, student teachers were unable to plan or implement the new curriculum effectively. The situation was complicated by contradicting messages that student teachers received from schools and UCE. At the time when the study was conducted, the Ministry of Education had not provided guidelines on how the new subject would be integrated into the already crowded curriculum except for providing an outline of the syllabus. Class teachers had to use their own discretion on how and when they would teach the new subject; a sure sign that the learning area would not be taught.

Student teachers acknowledged that they experienced challenges working with learners with learning disabilities as they were not sufficiently prepared for inclusive education. This finding is consistent with observations by Pugach (2013, p. 557) that sometimes teacher education programmes failed to prepare student teachers for inclusive teaching and student teachers were unable to manage learners with disabilities or to create learning environments that took into account diverse learning styles and the abilities of all learners in a class.

6.5.1.3. Concerns related to socio-economic factors

Findings from the interviews revealed that the socio-economic problems in Zimbabwe were a source of concern for student teachers and their supervisors. Previous studies have also shown that the socio-economic and cultural context in the community where the school is located have some influence on the practice of students during teaching practice (Chireshe & Shumba, 2011, p. 116; Jensen et al., 2012, p. 29; Mapfumo et al., 2012, pp. 160-161; Rajput & Walia, 2002, p. 1). In South Africa, Atmore, van Niekerk and Ashley-Cooper
(2012, pp. 9, 18-21) found that socio-economic factors and the apartheid legacy had undermined the quality of education, health care, social services and the nutrition of learners. The socio-economic challenges that Zimbabwe was facing had brought with it untold suffering to schools and student teachers included and student teachers were concerned about a lack of learning space, teaching and learning resources such as textbooks, learning aids and manuals and civil servants’ morale. Schools were only able to provide chalk, but forced student teachers to buy learning media at their own expense. Similar fiindings were cited by Celik (2008, pp. 101, 103), Jensen et al., (2012, p. 29) and Mapfumo et al., (2012, p. 160) where student teachers were deployed in poor schools and they had to buy their own teaching materials. Similarly, learners from low socio-economic backgrounds relied on the few learner resource materials provided by the school and were not able to buy their own learning materials.

Most of the student teachers who were teaching Grade R faced challenges finding appropriate teaching and learning materials. Schools were failing to provide them with resources and most guardians were not interested in their children’s learning. Unlike their counterparts who were teaching upper grades, Grade R programmes in most schools had not gathered enough resources from previous years as it was a new innovation in Zimbabwean primary school curriculum. Previously, Grade R was optional and most learners were attending private nursery schools. Only a few private nursery schools in low density suburbs were properly equipped and staffed. Most Grade R centres in high density suburbs had no resources, poorly funded and majority of teachers were not qualified. Almost similar findings were noted in South Africa, where Grade R was recently formalised and most ECD centres are not registered, are underfunded and learners are taught by unqualified teachers (Atmore, van Niekerk & Ashley-Cooper, 2012, pp. 9, 18-21; Kotze, 2015, p. 15). Most schools where the student teachers in this study were teaching did not have proper play areas or equipment. The Grade R situation was worsened by school administrators who were not familiar with the Grade R programme and expectations. Some of the administrators saw no point of having Grade R in the schooling system and were not fully convinced why they should support them since Grade R learners only come to school to eat and play. The argument that student teachers had was that the play in Grade R essentially helps learners to develop psycho-motor skills. In addition, and with regard to psychological skills, Grade R pupils learn how to socialise through play. Both the psycho-motor and the social skills are crucial when they started their formal schooling. A quality reception year in the school
environment was critical for learners’ transition from home to formal learning.

The Zimbabwean government acknowledged that it had not done much to address schools’ infrastructural development for a long time. Manayiti (2015), a correspondent for the Newsday online newspaper, reported that Zimbabwe had a shortfall of 2056 schools as of the 2013 audit and the figure had shot up as of 2016. The large enrolment in most schools had over stretched facilities in most schools. Classes were over-crowded and schools were forced to ‘hot seat’; a system where two schools share facilities and resources in one school. This set-up created administrative challenges for principals and stress for teachers who had to share classrooms. Some of the lessons had to be taught under trees exposed to weather elements and sometimes some of the classes had to be cancelled because of bad weather (Chinowaita, 2016). The Minster of Primary and Secondary Education, acknowledged that the government was unable to build such infrastructure on its own and was calling on churches and private companies to complement the efforts of The Infrastructure Bank of Zimbabwe to finance the building of some of the schools (Chinowaita, 2016). Even though the Zimbabwean government has issued tenders to build schools countrywide, it would be difficult to construct these schools given that the country is almost bankrupt.

In addition to the lack of infrastructure and resources in the schools, student teachers acknowledged that the economic situation in Zimbabwe was hurting them financially. An earlier study by Chireshe and Shumba’s (2011, p. 116) found that the financial status of Zimbabwean student teachers during teaching practicum was very depressing. Machingambi et al., (2014, pp. 18, 22) also acknowledged that the level of remuneration and incentives were major sources of stress for teachers and college supervisors. The small allowance that student teachers were receiving was not adequate to cover for their living expenses like accommodation, transport, electricity, water, food, and learning materials. Zimbabwe’s economic situation in 2016 remains critical with no tangible solution in sight. First year students who were going out on teaching practice were particularly concerned about how they would survive on a tight budget.

The location where the student teachers were deployed for teaching practice was also an area of concern. In most cases, the area was far away from their home areas and some had problems communicating with the learners in their mother tongue in lower sections of the primary school as per language policy. The Zimbabwean Education Act (1987, p. 225)
stipulated that the indigenous language in an area should be used as media for instruction up to grade three level in areas where they are commonly spoken and understood. The Act further stipulated that at grade four and above, English shall be the medium of instruction only if Shona or isiNdebele was given the same status as English in the curriculum. Because of these restrictions, some of the supervisors felt that the area of the deployment for student teachers during teaching practicum was rather restrictive.

In addition to the language problems, student teachers who were deployed in rural areas were concerned about basic services, infrastructure and resources in rural schools. Teachers’ accommodation in some of these communities were sub-standard and the transport vehicles to these communities were unreliable and sometimes dangerous as some of them were not road worthy. Furthermore, most roads to these rural communities were in a very poor state of disrepair and only a few operators were plying these routes and charging exorbitant fares. Previous studies in Zimbabwe by Nhundu (1999, p. 267) and Zvavahera (2015, p. 2) noted that most rural schools failed to retain or recruit qualified teachers because of poor accommodation, lack of electricity, unavailability of clean water, unreliable transport systems and a lack of social services like clinics, banks, library and shops. Similar sentiments were also echoed by Chinowaita (2016), a reporter for the Daily News when he interviewed the President of the Rural Teachers Union of Zimbabwe Mr Obert Masaraure. Most teachers in rural areas were reportedly less experienced and qualified than their urban counterparts and were suffering in silence together with their learners. This meant that the quality of mentoring and support that student teachers in rural areas received was weaker than their counterparts in urban areas. The absence of social services like libraries and internet cafes also made it difficult for student teachers to study, conduct research for their assignments and prepare for their lesson plans. Lack of electricity also made it very difficult for student teachers to mark, plan and study at night. Student teachers deployed to Bulawayo experienced financial challenges as they had look for rented accommodation close to their schools to reduce their transport costs.

6.5.1.4. Concerns related to workload during teaching practice

Findings from this study suggested that student teachers were overwhelmed by the workload during teaching practice even though they had a reduced teaching load compared to qualified
teachers. Student teachers were expected to plan daily, prepare learning aids, mark and record learner performance, conduct research projects and write distance learning assignments. This is consistent with Pitton’s (2006, p. 3) findings that beginning teachers are normally overwhelmed by multiple tasks of having to adjust to new space, dealing with diverse needs of learners and the daily preparation of lessons. Heavy workload during teaching practicum has been cited as an area of concern for students during teaching practice in previous studies (Chireshe & Shumba, 2011, p. 116; Malik & Ajmal, 2010, p. 19-20; Mapfumo et al., 2012, pp. 159, 164; Mousavi, 2007, p. 36). These studies confirm that teaching practice workload is a concern to student teachers and it needs to be addressed even though it has been there since time immemorial.

Some student teachers in this study acknowledged that teaching practicum could be nerve-racking and they often felt like quitting because of the workload. Similarly, student teachers in Nigeria, Turkey and South Africa had sleepless nights going through heaps of paper work and preparing lessons (Danner, 2014, p. 7; Malik & Ajmal, 2010, p. 20; Heeralal & Bayaga, 2011, p. 103). In this study, student teachers also felt that the supervisors’ unannounced visits and mentors’ daily observations increased their workload; as they had to produce detailed lesson plans and provide evidence of informative marking. Lesson planning consumed most of the student teachers’ afternoons and evenings during the school term while school vacations were dedicated to preparing schemes of work. Kyriacou and Stephens (1999, p. 19) found that student teachers needed more time to plan and prepare, find and develop curriculum materials, understand the content to be taught, design and administer the task and mark the written work compared to experienced teachers who would have developed survival skills. Similarly, Jensen et al., (2012, pp. 82, 88) observed that student teachers spent more time than expert teachers doing similar tasks. This is to be expected given the experience edge of expert teachers. In the same vein, Malik and Ajmal (2010, p. 20), Nakpodia (2011, p. 36) and Mousavi (2007, pp. 35-36) argued that student teachers had increased workloads and responsibilities during teaching practicum as they are expected to draw up plans daily, teach at least half the full load of qualified teachers, mark and participate fully in co-curricular activities. Apart from the teaching responsibilities, student teachers were also expected to complete distance learning assignments, conduct research, and attend vacation school at college. These additional tasks substantially increased their levels of stress as they had to meet set deadlines. These findings were also consistent with Celik (2008, p. 101) and Kiggundu and Nayimuli’s (2009, p. 19) findings where student teachers had extra
responsibilities like planning, teaching and evaluating lessons. Thus from student teachers’ accounts and previous studies, the researcher concluded that teaching practicum was a stressful experiences for primary school pre-service teachers.

Findings from both quantitative and qualitative data showed that student teachers were overwhelmed by the amount of work they had to do to such an extent that even their social life was severely affected. Most of the student teachers involved in this study were above 30 years of age and were therefore classified as mature students. Campbell and Uusimaki (2006, p. 2) found that mature aged student teachers had double life loads to take care of; they had family and educational responsibilities. However, Ogonor and Badmus (2006, p. 7) argued that double life load was not only for mature aged learners but for all student teachers. They based their arguments on the fact that every student teacher had a social and academic life, a view also supported by Celik’s (2008, pp. 101, 105) who observed that student teachers had to balance teaching practicum and family commitments sensibly. Therefore, for the majority of the student teachers in this study, teaching practicum affected their social life negatively.

Closely linked to double life load were the gender differences in the concerns levels. Although gender differences in the concerns levels was not a focal point in this study, it deserved special mention because close to 75% of the student teachers in this study were females and Danner (2014, p. 54) and Murray-Harvey, et al.’s., (1999, p. 41) findings indicated that female student teachers experienced higher levels of concerns than males. There was no conclusive evidence in this study to suggest that female student teachers had more concerns than males during teaching practice in Zimbabwe. Further investigation on this claim is required and if it is significantly true, the questions is what are the possible reasons for the gender differences in concerns among Zimbabwean pre-service teachers.

6.5.1.5. Concerns related to lesson observation and assessment

It also emerged from the study that student teachers were extremely concerned about being observed and assessed whilst teaching. Assessment anxiety has also been reported in previous studies (Jensen et al., 2012, p. 29; Malik & Ajmal (2010, pp. 19-21; Mawer, 1995, p. 12; Mudzielwana & Maphosa, 2014, p. 398; Nnenna & Olanrewaju, 2015, pp. 190-191;
Otanga & Mwangi, 2015, pp. 5-6). The main theme that characterised these studies was that students generally found it difficult to be comfortable with observation and assessment especially where supervisors were involved. This was to be expected given that college supervisors’ assessment carried more weight and influence than mentors and peers (Pitton, 2006, p. 12). As in this study, the supervisors’ marks were weighted higher than the mentors’. As a result, students in this study had more respect for supervisors than their mentors. This is consistent with Otanga and Mwangi’s (2015, pp. 5-6) observation that student teachers were concerned about being observed by supervisors while teaching, what lecturers said after observation and how supervisors reacted to unsuccessful lessons. Furthermore, Otanga & Mwangi (2015, pp. 5-6) found that on average, evaluation anxiety was the worst stressor among student teachers. Like students in this study, there was always a lingering feeling that maybe they were not good enough to become teachers and their worst fear was failing teaching practice. Student teachers were also concerned about the subjective and biased nature of how teaching practice assessment was conducted and how it was also open to abuse. Despite this, students acknowledged that teaching practice had an assessment component and it could not be done without lesson observation. However, the worrisome factor was that lesson observations are closely associated with teacher stress.

Student teachers were also concerned about the number of supervisors’ visits, assessment process and the professionalism displayed during their visitation. Student teachers in this study were of the opinion that one visit per term was too limited for them to benefit significantly from the supervisors’ visits given that in some of the visits, supervisors appeared to be in a rush to assess the next student teacher. Furthermore, student teachers were concerned about how assessment was conducted; it was sometimes biased and subjective, and conducted in an unfriendly manner by supervisors. This possibly explained why they were reluctant to welcome supervisors into their classrooms and why they complained about being treated unfairly by supervisors. Students acknowledged that it was always difficult to be at ease with lesson observation and assessment. However, student teachers in second and third year accepted that a degree of stress during lesson observation was necessary for their professional growth. Similar findings were also noted by Ngara et al., (2013, p. 132), where supervisors’ visits were infrequent, assessment was biased, awarding of marks was done prior to post-conference, and accompanied by the illegibility of supervisors’ comments. Mswazie and Gamira (2011, p. 416) also cited infrequent visits by supervisors and the assessment model used as some of the challenges faced by students.
While it may be difficult to eliminate all these challenges, there is certainly a way in which some of these concerns can be minimised.

One of the major purposes of observing student teachers teaching was to provide feedback at the end of the lesson that would further catapult student teachers’ practice to higher levels. While most of the student teachers were satisfied with the feedback they received from the supervisors and mentors, some of the students were not happy with the quality of feedback. Some of the mentors and supervisors were accused of delaying or not proving appropriate feedback (verbally or in written format) after lesson observations. In some cases, the feedback was scanty and was of no use to the student teacher’s professional development. Similar sentiments were noted by Jensen et al., (2012, p. 39) and Mapolisa and Tshabalala (2014, p. 21) who observed that most newly qualified teachers and student teachers respectively yearned for support and/or feedback, which was not forthcoming. This is an indication that most of the student teachers’ concerns are not completely addressed during teaching practice. There seems to be some residual concerns that hound young teachers into the field. Hence the need for both teacher educators and school administrators to seek ways in which these concerns can be reduced either during training or induction in schools.

Most of the students in the study were of the opinion that feedback was most helpful when it was given timely, specific, and sensitive to their needs. This resonated with Scott’s (2015, p. 183) observation that feedback is most effective when it is given immediately after a lesson observation and communicated in an atmosphere of give and take. Thus, the advantage of providing timely feedback is that it provides supervisors or mentors to quickly design and administer individualised training programme for student teachers while the experience is still fresh in their minds. More importantly, feedback should have an instructional flair in which it addresses three key questions that student teachers might have during teaching practice: ‘Where am I going?’, ‘How am I going?’, and ‘Where to next?’ (Hattie & Timperley, 2007, p. 88; Scott, 2015, p. 184); and needs of student teachers at four levels: self, task, process and self-regulation (Hattie & Timperley, 2007, p. 88). At the self-level, feedback is meant to boost the student teacher’s image (Hattie & Timperley, 2007, p. 90; Scott, 2015, p. 185). At the task level, feedback should provide information about the quality of the work performed by the individual (Hattie & Timperley (2007, p. 90; Scott, 2015, p. 184), for example, giving feedback on excellent and detailed lesson plans that a student teacher produced. A Majority of the students were commended for the quality of
their schemes of work and lesson plans, and learning media they produced. Feedback, at the process level targets the processes that go into producing the work (Hattie & Timperley, 2007, p. 90; Scott, 2015, p. 185). For instance, the way student teachers were delivering lessons or assessing learners. Most of the first year student teachers were concerned about the way they handled their first lessons. They lacked confidence and flow of thoughts in their lesson delivery. Lastly, feedback at the self-regulation level should focus on modifying the student teachers’ behaviour and impressing on them the importance of taking responsibility for their own learning (Hattie & Timperley (2007, p. 90). Students learn more when they take active responsibility for their learning and monitor their progress (Mahadi & Subramaniam, 2013, p. 570). Thus, from the above discussion we can conclude that feedback and support are effectively provided when they are integrated with results from observations.

Some of the student teachers especially from the ECD expressed concerns when they were assessed by non-subject specialist supervisors. Even some of the student teachers from the general programme felt uncomfortable when assessed in a subject area by supervisors from another subject area. Some of these concerns were legitimate as some of the college supervisors had been trained as secondary school teachers with one or two areas of specialisation and had no experience of teaching at primary school level where educators were expected to teach all learning areas in the primary school curriculum. The irony of it was that a sizeable number of the college supervisors were primary school teachers before their promotion into teacher education. Similar observations had been noted by Mtika (2008, pp. 166-167, 170) where school pre-service teachers in Malawi were not happy being supervised by lecturers from other learning areas. From the above situations it is clear that students were of the opinion that they would have benefitted more from subject specialists as they thought they were more knowledgeable in both the content and methodology of a learning area. To some extent, students had a point, as not all supervisors were in a position to give guidance and support on all the subject content knowledge and their respective methodologies. On the same issue, Murray-Harvey et al., (1999, p. 33) and Al-Issa and Al-Bulushi (2010, p. 54) found that sometimes different supervisors gave contradictory remarks to the same students which left them confused as to which of the supervisors’ recommendations to follow. Pinder (2008, p. 15) found that in cases where student teachers do not agree with assessors, they would just comply without question as a way to manage the conflict or tension, but it diminishes the likelihood that they will learn from the situation.
Teaching practicum provided an excellent opportunity for student teachers to come into contact with members of staff in the host school, parents, education officials and learners. Most importantly, teaching practice was a time when student teachers were practically socialised into the profession through their interaction with key stakeholders in the field (Gujjar et al., 2010, p. 339; Nakpodia, 2011, p. 33; Mtika, 2008, pp. 161, 211). However, the placement of student teachers in schools has its own relational challenges with members of staff in the host schools. Most of the relational concerns that emerged from this study were between student teachers and their mentors. In addition to mentor-mentee concerns, some second and third year student teachers were also concerned about their relationships with other teachers in their school, parents and ancillary staff.

There are many factors that affect mentor-mentee relationships during teaching practice. As noted earlier on, the relationship between mentors and mentees is sometimes complicated by differences in perspectives, expectations, personality, and a lack of the clarity of roles (Rakicioglu-Soylemez & Eroz-Tuga, 2014, p. 146). In addition to these factors, Merriweather and Morgan (2013, pp. 1, 10) included cross-cultural mentoring factors like culture, race, gender, sexual orientation as some of the factors that can come into play in cross-cultural mentoring. Although these factors may not be exhaustive, they brought to light the various dimensions that affect mentoring of student teachers during teaching practicum. Cultural dimensions were considered critical in this study because the study was undertaken in a Zimbabwean region with cultural diversity and language differences were most likely to impact on mentoring. The influence of culture to mentoring was also reiterated by Palmer and Rosser-Mims (2010, p. 388) who felt that mentoring across the cultural divide was a “delicate dance that juxtaposes group norms and societal pressures and expectations with individual personality characteristics”. This angle of thought brought another understanding of mentoring concerns where culture and language differences may negatively influence student teachers’. Thus, the researcher concluded that some of the relational concerns that Zimbabwean student teachers experienced during teaching practice may have sprouted out of cross-cultural factors.

In addition to the influence of the cultural dimension to student teachers’ mentoring during their internship in schools, there was the problem of the age difference between mentors and
Mentor-mentee relationships are sometimes tricky in situations where mentees have the same age as their mentor or older (Campbell & Uusimaki, 2006, p. 2). The question of the ideal age difference between mentor and mentee cropped up several times during the interviews as some of the student teachers were older or almost the same age as their mentors. While many of the mentors are generally older than their mentees, research does show that the age of the mentor does not really matter. Research by Fokiene et al., (2013, p. 7) and Hussain (2009, p. 5), showed that many people (including some in teacher education) hold on to a picture of a mentor as a person who is an old, grey-haired individual with vast experience in a field. It ought not to be so in this age of technology where young, experienced and knowledgeable young people have excelled in technological fields. What matters most in mentoring is whether the mentor has experience, knowledge, and skills to support professional development of student teachers (Fokiene et al., 2013, pp. 7, 53; Hussain, 2009, p. 8). Some of the mature student teachers in this study were genuinely concerned about the age difference between them and their mentors. They would have preferred mentors who were older, which is understandable considering their socio and cultural backgrounds. Their viewpoint could have been influenced by their cultural and social beliefs where mentoring is viewed as a relationship between a novice and young person and a much older, experienced and wiser person (Sawrikar, Griffiths & Muir, 2008, p. 40).

Findings from this study revealed that receiving instructions from younger mentors was generally difficult for some of the student teachers mainly because of their cultural backgrounds. Recently, Merriweather and Morgan (2013, pp. 1, 10) found that the number of cases where young mentors and older mentees were paired together were on the increase and they identified three main challenging behaviours that affected mentor-mentee interactions: communication, respect, and ambiguous roles. For example, mentors found it difficult to communicate their dissatisfaction while the mentees found it difficult to request for assistance. This scenario exemplifies the power relations in a non-traditional intergenerational mentorship; a clash between societal norms and academic culture. Within the societal norms, power and control are in the hands of the old, mature and knowledgeable people while within academia, power rests with the knowledgeable irrespective of their age. The age demographics in chapter five showed a considerably high proportion of mature student teachers, an indication of a possible source of friction between mature student teachers and younger mentors.
The findings from the study revealed that the quality of mentors in schools was a concern for both student teachers and supervisors. Like in most teacher education programmes, mentors were the most influential persons in the life of student teachers during teaching practicum (Kasperbauer & Roberts, 2007, p. 32; Pitton, 2006, p. 8). Mentors played an important role in that they kept student teachers engaged by providing a closer and frequent supervision, feedback and support for student teachers. Despite this, not all mentor-mentee combinations were a perfect match as most of them had a ‘dark side’, most of which was precipitated by a lack of understanding of the mentor and mentee roles. Both student teachers and supervisors confirmed that some of the mentors were newly qualified teachers, principals, deputy principals and unqualified teachers; situations that Teaching Practices Department (TPD) resented. While the responsibility of pairing mentor and mentee rested with schools, TPD occasionally intervened when they were alerted of such cases. It was not easy to continuously monitor this requirement in all schools, so they had to rely ‘on the grapevine’. As a result of these disparities, some of the students had very good mentors who knew how to guide and support student teachers on nearly every aspect of their teaching. On the other hand, some of the student teachers were teaching without any form of support. Some of the mentors were not even aware of the college’s expectations during teaching practice as they kept on telling their mentees to implement whatever they were taught at college. Some of the student teachers acknowledged that they or some of their peers had been mentored by unqualified teachers.

The numbers of untrained teachers were higher at Grade R level. Almost similar findings were noted in South Africa, where some of the Grade R centres were not registered and learners were taught by unqualified teachers (Atmore, van Niekerk & Ashley-Cooper, 2012, pp. 9, 18-21; Kotze, 2015, p. 15). Some of the ECD student teachers in this study even questioned the expertise of some of the mentors who had been trained as pre-school teachers. Their main argument was that infant education and ECD, although related, covered different age groups. Regrettably, some of the student teachers in this study had an experience where they were briefly supervised by an unqualified teacher from whom they did not learn much. Some of the learners in nursery schools were still taught by assistant teachers who are not professionally qualified. These findings clearly show that there is a need to professionalise this sector of primary school education.

Findings from the study also revealed that qualified and experienced mentors were not
necessarily good mentors. While experienced teachers were able to display good practice that contributed to the smooth running of classroom procedures and lesson delivery, expert teachers sometimes failed to offer support and guidance to student teachers who required critical reflection and wholesome feedback to improve their practice. Pitton (2006, p. 11) also made reference to mentors who talk about aspects of effective teaching and professionalism yet they fail to display those qualities themselves. In the absence of formal mentor preparation programmes, accreditation and the acknowledgement of the vital role played by mentors in the professional development of student teachers, the effectiveness of teaching practicum in Zimbabwe may be weakened. Musingafi and Mafumbate (2014, p. 38) reported that most of the mentors in Zimbabwe were not trained. Where there are no formal mentoring training programmes, untrained mentors end up using outdated methods from their own experience when they were student teachers in schools (Dunning, 2012, p. 49). Therefore, mentoring of student teachers during teaching practice cannot be left to chance. Teachers colleges are equally responsible for student teachers’ learning in schools and they cannot surrender it into the hands of mentors in schools. There is a need for UCE to embrace the tele-mentoring; the electronic version of mentoring as an alternative training and support for student teachers during teaching practice. Alternatively, UCE should drive to strengthen mentorship programmes in schools so that whoever mentors their student teacher should understand their role.

Findings from the study also showed that not all mentors fully understood their roles in schools. While their main roles and responsibilities as mentors were to coach, be a supporter, a critic, and an instructor (Guise, 2013, p. 65; Maphosa, Shumba & Shumba, 2007, p. 297), some mentors saw the presence of student teachers in their class in a different light. So, what exactly were the student teachers looking for in their mentors? Student teachers in this study expected mentors to be involved in shared goal setting, joint planning, feedback on planning prior to lesson, scheduling meetings, and written or verbal feedback on lessons. These findings were consistent with Starkey and Rawlins (2011, pp. 11-12) study in New Zealand, where student teachers expected guidance and support from mentors. However, findings from this study have shown that not all mentors understood their roles and responsibilities, as some of the mentors failed to provide guidance, support and feedback to their mentees. For example, some of the mentors in this study were accused of abusing student teachers by taking them as relief teachers or messengers whom they assign their duties, while for instance, they do their own private work or take a back seat. These findings are not new but
consistent with Kiggundu and Nayimuli’s (2009, pp. 352-353) and Maphosa, et al’s. (2007, p. 301) findings where mentors and teachers at the host school openly abused their authority by sending either learners or student teachers on personal errands during lessons. In Pakistan, Malik and Ajmal (2010, p. 22) found that student teachers who were left alone in classes experienced high levels of anxiety as some of them did not know how to manage the learners in the absence of the mentor. Rakicioglu-Soylemez and Eroz-Tuga (2014, p. 154) also observed that some of the student teachers in Turkey were concerned about the manner in which some of the mentors gave feedback after lesson observations. Some of the mentors in this study were accused of being reluctant to provide feedback and would provide feedback long after the lesson observation and student teachers could hardly remember what transpired during that particular lesson. Some of their immediate concerns would go unattended. Mentors have a duty to calm down their mentees and pledge their support to circumvent their challenges and place them on a successful trail. Student teachers also have a critical role to play for their own their professional growth. They should be open and honest about their situations to their mentors if they expect quality support and guidance in practice.

Some of the student teachers were even humiliated in front of learners. Kiggundu and Nayimuli (2009, pp. 352-353) also mentioned similar cases where student teachers were either stopped in the middle of a lesson and the lesson taken over by the mentor or shouted at in front of learners. Such mentor behaviour, increased anxiety levels of student teachers, demeaned their status, and eroded their self-confidence. Sometimes, student teachers felt as if they were not part of the class or were not given full control of the lessons. Heeralal and Bayaga (2011, p. 103) also laments the exclusion of student teachers from meaningful engagement with learners under the pretext that there was no time to experiment with learning theories introduced during on campus lectures. Similarly, Kyriacou and Stephens (1999, p. 22) noted that student teachers thought they were “not being regarded as the real teacher” because of the roles they were assigned like being a non-participant observer, being given incidental roles, uncertainty on whether to imitate the behaviours of the “real teachers” or not and mentor stealing the show. For example, some of the student teachers in this study were not happy when they were mainly allocated to teach non-examinable subjects like Art.

One of the main purposes of teaching practicum was to provide pre-service teachers with opportunities to apply theories taught during on campus courses in the classroom with the support and guidance of their mentors. However, research findings from literature indicated
that sometimes there are wide gaps between classroom practice and educational theories from on-campus courses (Gordon, 2007, p. xi). For example, Kabilan and Izzaham (2008, p. 91) noted that Malaysian learners expected teachers to do most of the talking and they resisted student teachers who attempted to use the deductive approach. Findings from this study revealed that indeed gaps existed between the theoretical principles of teaching in the teacher education curriculum and the actual classroom practices. Some of the mentors in this study refused to give student teachers an opportunity to apply theories they had learnt at college in the classroom. For example, student teachers were deprived of the opportunity to use learner centred approaches under the guise that such methods waste time.

Similarly, Mtika (2008, pp. 151, 155-157) found that learners and mentors preferred teacher-centred to learner-centred approaches. Findings from this study also revealed that student teachers were denied the opportunity of teaching certain learning areas especially the core subjects under the pretext that they were not good enough or they would lower the pass rate. In the same vein, other student teachers were also denied the opportunity of teaching non-examination subjects like Art, Music, and Physical Education by mentors as they consider them to be a waste of time, and their time slots were allocated to examinable subjects like Mathematics, languages and Environmental Sciences. From this one can conclude that the implementation of the primary school curriculum was examination driven, a situation that Mtika (2008, p. 189) noted with the Malawian secondary schools as well. The heart of teaching practice is to provide student teachers with a platform where they can perfect their teaching skills; there is no better place of getting that experience than in the classroom. According to Kwo (1999, pp. 307-308), one of the roles of practicum is to provide students with an opportunity to try out something new, make mistakes and to grow from them.

The concern for the link between theory and practice was not solely for student teachers. Even supervisors expressed concerns of how to assist student teachers to bridge the educational theory/practice divide of teaching. Gordon (2007, p. xii) also acknowledged the dilemma that confronts supervisors as they respond to student teachers’ concerns on the unbridgeable gap between theory and practice. One of the supervisors acknowledged that the 2-5-2 model of training does not afford them ample time to equip student teachers with a strong theoretical foundation. Due to time constraints, supervisors found that it was not easy to fully explain some of the theories that student teachers required during teaching practice. Earlier, Ching (2014, p. 281) claimed that linking theory and practice was aslo a
major concern among teachers educators in China. Unlike some teacher education programmes, where student teachers expressed the concern of too much theory and very little practice (Berg & Smith, 2014, p. 32; Darling-Hammond, 2010, p. 40), the 2-5-2 programme was the opposite as it had too much practice and insufficient theory. As a result, some of the student teachers experienced problems trying to apply some of the theories in the classroom. Thus, their practice was weakened as they were unable to identify the relevance of the theories they had learnt during on-campus courses in the classroom to their teaching practice experiences. They were not sure of where, when, why and how to apply the theories and some of the mentors were not sure of UCE’s expectations. In this regard, Gordon (2007, p. xi) postulates that many of the student teachers lack the understanding of the relationship that should exist between educational theory and the practice of teaching. However with proper scaffolds, teaching practicum provides that opportune time for student teachers to bridge learning theories learnt during on-campus lectures with practice, even if it means making mistakes in the process.

One of the main roles and responsibilities of mentors was to provide guidance and support that accelerates student teachers’ practice into expert teachers. One of skills that mentors have to impress on their mentees as they become expert teachers is the art of planning their teaching and lessons (du Toit, 2016, p. 141). Lesson planning is the heart of effective teaching; it serves as a guide in terms of what learners need to learn, how it will be done and how it will be assessed (du Toit, 2016, p. 141). Therefore, without proper planning, no meaningful learning can take place. Findings from both the quantitative and qualitative results in the last two chapters respectively revealed that lesson planning was a major concern for student teachers especially during the first year of their teaching practice. The time spent by student teachers struggling with lesson planning was a concern and it clearly showed some weaknesses in both the college and school support system for student teachers on planning. Hence the need for UCE and schools to work collaboratively in helping student teachers to use trial and error methods or mentors and supervisors using the sink or swim strategy. Therefore, teachers who become mentors for UCE student teachers should be trained in the teacher training expectations and requirements of UCE if they are to provide meaningful support. Malik and Ajmal (2010, p. 21), and Kyriacou and Stephens (1999, p. 28) found that weak mentor support on certain college requirements such as the drawing up of detailed schemes of work and lesson plans in a format that the college expected and preparation of learning aids were stressful to student teachers. For example, the format of
planning that schools were using was different from what UCE expected student teachers to use during teaching practice. As a result, sometimes student teachers had to use trial and error methods that involved having to redesign the schemes of work or lesson plans due to over- or under-planning.

Some of the student teachers were concerned about the manner in which they were introduced to learners by principals and/or mentors. Most of the student teachers felt when they were introduced as student teachers, they lost dignity and control over learners in class. As a result, some of the student teachers were of the opinion that learners listened to mentors more than they did to them which made them feel like strangers or intruders in ‘their’ classroom. Similarly, Kiggundu and Nayimuli (2009, pp. 352, 356-357) noted that some of the student teachers were affected psychologically by a lack of courteous introductions and induction when they first arrived at the schools. This severely impacted the student teachers’ confidence, effectiveness and attitude towards the teaching profession. Ogonor and Badmus (2006, p. 8) held similar views and further accentuated the importance of induction and orientation to employee effectiveness in new environments. On this note, Tudela (2014, p. 159) recommends that student teachers be introduced and treated like all other teachers. Apart from their introductory concerns, some of the student teachers were excluded from some school activities like staff meetings either physically or by means of language barriers, and yet they were expected to implement some of the resolutions (Kiggundu & Nayimuli, 2009, pp. 351, 354, 357). While it may be difficult to change the politics in the schools, the UCE teaching practice coordinator should take bold decisions to avoid deploying student teachers in such schools. Exclusion of student teachers from any school activities undermines the student teachers’ dignity, and hinders student teachers’ professional growth (Kiggundu & Nayimuli, 2009, p. 357). Furthermore, it defeats the very purpose of teaching practice; to provide an opportunity to students to learn how to teach, gain the roles and behaviours of teachers and acquire teaching skills in a classroom setup (Kiggundu, 2007, p. 99; Kildan et al., 2013, p. 57). In other words, teaching practice provides students with a perfect example of how to become a teacher. Some of the concerns could easily be resolved if the relationship between stakeholders in teacher education is strengthened by conducting periodic workshops to iron out some of the thorny issues, making updates on any changes and induct new mentors. While UCE has been holding such workshops, more could be done if finances permit.
Findings from this study showed that mentoring or being mentored was a personal and complex journey of professional development for both student teachers and mentors. It would seem that fruitful professional growth was achieved where mentors and mentees committed themselves to their own professional growth. For example, Zeichner (2005, pp. 117-118) recounted how he was appointed as a mentor early in his professional life without support from either the responsible university or his own school. He had to seek support from more experienced colleagues at his school and teacher educators at a nearby university on his own. At least UCE should be in a position to provide guidelines to schools on who could become a mentor. For example, UCE could specify the minimum number of years of teaching experience for mentors or make it mandatory for newly appointed mentors to attend in-service training workshops that the college will conduct in schools. Given that most newly qualified teachers require support of their own during the first three years of fulltime teaching (Pitton, 2006, p. 3), it is critical that support be made available for first time mentors. It is difficult for newly qualified teachers to mentor student teachers when they are still struggling with their own practice. One of the student teachers realised the weakness of her own mentor and she would occasionally seek help from other teachers. While such an approach is encouraged for their professional growth, it can be a source of friction between mentors and other teachers in the school if it is not handled properly. There should be transparency in the support student teachers receive from other teachers. Therefore, student teachers are urged to consult their mentors before implementing suggestions from other teachers or else it would create friction between the two teachers and between them and their mentor. Alternatively, co-mentoring should be encouraged in schools as a way of inducting new mentors to mentoring.

The research findings also indicated that some of the student teachers were concerned about parental non-involvement in their children’s studies, especially at ECD level. Parental involvement in their children’s work is very important and their demands on teachers vary from country to country and from community to community. While some parents are content with work done by most teachers, some parents placed excessive demands on the teachers. For example, Berg and Smith (2014, p. 31) found that student teachers were concerned about the high parental expectations on their children to pass with flying colours in national examinations. Furthermore, a sizeable number of Malaysian parents believed teaching was an easy job and many of them looked down on teaching as a profession (Berg & Smith, 2014, p. 32). Findings in this study revealed that most ECD centres were under-resourced and
schools expected parents to support teachers at these nursery centres with resources such as toys, paper, games and equipment for the play centres. However, most parents seem indifferent to their children’s school work and schools’ request for their involvement. Nhundu (1999, pp. 266) also reported that dealing with parents was one of the most stressful factors reported by teachers and principals. This Zimbabwean scenario was the opposite of what Zeichner (2005, p. 118) observed in the United States where student teachers were concerned about the daily presence of parents in schools. The difference in attitudes between the two countries could partly be attributed to culturally, societal, economic and educational influences. Given the socio-economic situation in Zimbabwe, parents were unable to honour their financial obligations and they would stay away from school activities.

Some of the ECD student teachers would occasionally receive complaints from parents on why they were not giving their children homework like all the other children in school. Even some of the principals were not supportive in terms of materials needed by the Grade R teachers. Interview accounts from some of the student teachers revealed that some of the principals regarded Grade R as an extra grade in the schooling system that further increased the stress levels of and stretched the meagre resources of schools. Lack of awareness on the role of Grade R in the curriculum at schools and surrounding communities were cited as the main reasons for such attitudes. The critics were probably not aware that the reception year was meant to introduce children to formal learning through play (Umalusi, 2010, pp. 6-7).

6.5.2. Variation of student teachers’ concerns

- To what extent are pre-service teachers’ concerns different across the first, second and third year levels?

From the concerns presented above, it seems that the student teachers had not as yet progressed through all three phases in Fuller’s (1969, p. 218) model of concerns: pre-teaching phase, an early teaching phase and a late teaching phase, or Fuller and Bown’s (1975, p. 37) model of concerns: survival or self-concerns, teaching situation or task concerns and pupils or impact concerns.

Results from one-way MANOVA (with $p < 0.05$) revealed that there were significant differences among the three year groups for the three dependent variables in the study:
general area concerns (GC), teacher beliefs (TB) and teacher knowledge (TK). In other words, there was not enough evidence to conclude that student teachers’ concerns levels remained constant throughout the three-year period. A follow-up to MANOVA, ANOVA was used to test whether there were any differences among the three year groups for GC, TB and TK. The ANOVA for TB revealed that teacher beliefs on classroom discipline, instructional ability, assessment competencies; and creation and maintenance of a conducive learning environment did not change much during teaching practice over the three year period. This was understandable given that in all the three year groups, student teachers in the personal interviews also confirmed that they had challenges with classroom discipline, the creation of a conducive learning environment, instructional ability and assessment competencies. In other words, for this group of concerns, they remained high. There was not much improvement with time.

A similar test for GC and TK showed that at one pair of statistical means for GC and TK among the three year groups were different. The results for GC indicated that the level of concerns for year one and three were almost the same; and the second year scores were significantly lower than the other two year groups. What this meant in simple terms was that GC for first and third year groups were almost the same but higher than the second year. This meant that for general concerns, which included fear of failing teaching practice, instructional design, classroom management, workload, and lesson delivery, the levels started high, become lower during second year and increased again in year three. A possible explanation for this variation is that year one student teachers are stressed more than year two student teachers because in year one, student teachers were generally concerned about standing in front of learners mainly because of a lack of confidence, content knowledge and pedagogical content knowledge. Similarly, third year student teachers experienced higher levels of stress than second years because in third year the main focus was on the finalisation of teaching practice assessment; which generates a lot of anxiety. This was also confirmed by the qualitative phase results where fear of failing teaching practicum was one of the main areas of concern. What this implied was that, although first and third year student teachers seemed to have the same level of concerns; their concerns were driven by different factors. As has already been noted, positive changes in self-efficacy are a result of powerful disruptions to pre-existing belief systems of an individual (Bandura, 1997, p. 82). Such disruptions can occur when pre-service teachers’ beliefs are challenged and corrected during teaching lesson observation and assessment. These findings seem to suggest that practicum
sessions in schools could be the most appropriate time to develop students’ self-efficacy.

A similar ANOVA test for TK indicated that there were significant differences in the statistical means between first year and second year groups, and between first year and third year groups. First year levels concerns for TK were significantly higher than the other two year groups with minor differences between year two and year three student teachers’ groups. Teacher knowledge beliefs included aspects on disciplinary content knowledge in all the learning areas in the primary school curriculum, pedagogical knowledge and pedagogical content knowledge. Again, this trend in TK was understandable considering the fact that practice makes perfect. Generally with more practice, the level of concerns is expected to become lower (Oh, 2010, pp. 64-65; Woodcock, 2011, p. 30).

The quantitative findings seem to pitch first year and third year student teachers’ concerns at the same level, however, in-depth interviews with first year student teachers revealed the contrary. Analysis of first year student teachers concerns revealed that their concerns could be described as hazy and general in nature of what actually took place in class. They were more concerned about accommodation during teaching practice, deployment, leaving their families, standing in front of the classroom for the first time, handling learners, mentors they were assigned to, feelings of inadequacy in terms of content and pedagogical skills. These findings are consistent with Karimi and Ahmad (2013, p. 198), Mahroelian and Forozia (2012, p. 304), Tubaishat and Lansari (2011, p. 210), Cooper and He (2012, p. 99), Fuller (1969, p. 219) and Fuller and Bown’s (1975, p. 37-38) findings that pre-service teachers’ concerns at this stage are normally blurred and hard to categorise. The majority of these concerns were not linked to classroom practice and the researcher felt that the first year student teachers had over-gauged their view about teaching practice concerns. This approach is consistent with Creswell and Plano-Clark’s (2011, p. 233) suggestion on solving discrepant findings where one has to put more faith in one of the datasets. The other alternative was to go back into the field and collect more data. It was not possible to go back into the field because of the time lapse between the data collection and data analyses of the datasets. Therefore, the only logical reason for the discrepancies between the first year student teachers’ experiences in the quantitative and qualitative datasets might be that the perceptions that were given in the questionnaires were based on stories they had heard from the field or their own imagination on what they were expecting in the classroom (Fuller, 1969, p. 219). On the other hand, second and third year student teachers’ accounts were
based on their own experience in the classroom and not just what they had heard from their peers in earlier intakes about teaching practice.

From quantitative findings, second and third year student teachers’ concerns were noted to be almost the same for teacher beliefs and teacher knowledge, and different for general concerns where third year student teachers seem to be slightly more concerned. One would have expected the concerns for third year student teachers to be lower than those of second year student teachers since they had been in the field for a longer period (Woolfolk-Hoy and Spero, 2005, p. 351). This may possibly imply the presence of some other extenuating circumstances at the time when the study was conducted. The study was conducted when the third years were expecting external examiners for the finalisation of their teaching practice. At that particular time, the main focus of third year student teachers was on passing their teaching practice. Given that failing teaching practice had been ranked top on average among the general area of concerns for all year groups, this possibly explains why third year student teachers’ stress levels were slightly higher during this time of their course. The in-depth interviews did not elicit much on the differences between the second and third year student teachers. Of interest to the researcher was their levels of concern which seemed to be at the second level of Fuller’s (1969, pp. 220-221) and Fuller and Brown’s (1975, p. 39) model of concerns. A majority of the second and third year student teachers appeared to be at the second level of concern with only a very small proportion of them having reached the third level. At this stage, student teachers’ foremost concern will be on the self as a professional (Stair et al., 2012, p. 153). This was consistent with the current findings where student teachers were concerned about their abilities in the classroom like their knowledge of subject matter and how best to transmit it to their learners, lesson presentation, classroom management and coping with the pressure of being evaluated by supervisors (Fuller, 1969, pp. 220-221; Fuller & Bown, 1975, p. 39). Furthermore, student teachers at this stage are concerned about the support they receive from the school community and college supervisors, and their general outlook as professionals. Most of the findings that emerged indicated that second and third year student teachers were at this level.

The findings from the qualitative phase also revealed that only a small proportion of the student teachers managed to reach the third or impact phase, where student teachers’ concerns shifted from self to that of their learners’ academic and emotional learner needs (Fuller, 1969, p. 221; Fuller & Bown, 1975, p. 39). In simple terms, student teachers were
mainly concerned about their practice and behaviour instead of their impact on pupils’ learning. This implied that the student teachers were concerned about their abilities to understand learner capabilities, state learner objectives, assess learner gains and conduct self-evaluation in view of learner gains (Fuller, 1969, p. 221). While nearly all student teachers experienced some form of concerns regarding their knowledge and skills as student teachers during teaching practicum, it is generally hoped that the levels of concern would decrease during training (Danner, 2014, pp. 50-51; Zagami, 2010, p. 70). However, in some cases such concerns persist and create high levels of stress that could eventually drive them out of the profession (Malik & Ajmal, 2010, p. 17). This is where proper support after graduation is needed to enable these teachers to reach the third phase.

The above findings on the variation of student teachers’ concerns show some consistency with previous studies and the trend of concerns has some implications on the forms of support that student teachers require at each phase of their teaching practicum. These results agree to some extent with Woodcock’s (2011, pp. 29-30) findings that suggest that there are no major changes in the levels of concerns for primary school pre-service teachers during teaching practice. However, the researcher would like to suggest that although there are no major changes in student teachers’ concerns during teaching practice, some of the levels of concerns fluctuate with time and sometimes they are driven by several factors. The discussion above on variations of student teachers’ concerns is of importance to teacher educators and mentors as it provides critical clues on what forms of support student teachers require at each phase of their teaching practice. From the above discussion, the researcher was able to conclude that student teachers require continuous support for Teacher Beliefs (TB), first and third year groups require more support for General area Concerns (GC) than second year student teachers and first year student teachers require more support for Teacher Knowledge (TK) than the other year groups.

6.5.3. Impact of student teachers’ concerns

- How do the concerns that pre-service teachers have affect their ability to execute their tasks in the classroom?

The in-depth interviews with the participants revealed that each group of pre-service teachers’ concerns had an impact on their classroom practice, learners’ performance and
their own professional development. The discussion on the impact of student teachers’ concerns was guided by the main themes, namely classroom management, teacher knowledge, socio-economic factors, workload, relationships, and observation and assessment.

6.5.3.1. Impact of classroom management on the execution of classroom tasks

Findings from this study clearly revealed that the classroom management style does have an impact on delivery in the classroom and ultimately on the academic achievement of the class. The participants acknowledged that they were concerned about disciplinary problems in their classes and how it interfered with teaching and learning. Participants all agreed that disciplinary problems in class had negative impacts on teaching and learning. Similar sentiments were noted by Garibay (2015, p. 3), Kayici (2009, pp. 1215, 1217) and Temitayo, Nayaya and Lukman (2013, p. 7) who found that learners’ disruptive behaviour did not only affect the concerned learner’s performance, but also the performance of other learners in class. In other words, disruptive behaviour disturbs the whole class as it takes some time to restore order in class. Furthermore, Korpershoek, Harms, de Boer, van Kuijk and Doolaad (2014, p. 3) and Nakpodia (2010, p. 144) claim that effective teaching and learning can never take place in poorly managed classrooms. If learners are disruptive and disrespectful to student teachers, then this is a sure sign that pupils will struggle to learn and teachers will also struggle to teach.

From the interviews it is was clear that classroom management undermines the effectiveness of teaching and learning. For example, if a learner talks incessantly when a student teacher is talking, physically attacks another learner or their cell phone rings, everyone’s attention (including the teacher) is drawn to the activity. Teachers are then forced to intervene and the incident may lead to a loss in teaching time, unnecessary tension and teacher stress. In such cases, student teachers are forced to spend some of the class time dealing with classroom management issues instead of facilitating learning. Similar disruptive behaviour like chatting and playing games during lessons were found to be stressful and annoying to student teachers. This shows that when a classroom is poorly managed, no meaningful teaching and learning can take place. In other words, effective teaching is inseparable from good classroom management practices. Teachers have the power to create conditions that can
enhance both teaching and learning. Therefore, it is critical for student teachers to create conducive learning environments as they enable learners to focus on their work, reduce disciplinary problems and improve learners’ academic performance.

Managing time was another critical component of class management that was identified in this study. Similar findings were noted by Kiggundu and Nayimuli (2009, p. 354) where student teachers seem not to have enough time to engage learners in group activities. Similarly, findings from this study indicated that student teachers experienced challenges managing time when teaching Mathematics and lessons that included groupwork. This possibly explains why Kiggundu and Nayimuli (2009, p. 354) and Mtika (2008, p. 189) observed that mentors sometimes felt that student teachers’ methods waste time; as mentors were more interested in completing the syllabi. Failure by student teachers to complete planned tasks on time meant that learners would not perform well in assessment tasks. Similarly, removing group work from some of the lessons denied learners of the opportunity to engage with each other in discussions. Some of mentors were accused of converting periods meant for non-core subjects like Music, Art and Physical Education for core subjects like English, Mathematics, Home Language and Environmental Science. This reduction of teaching time for non-examination subjects also denied student teachers and learners of vital skills and experiences of teaching and learning these subjects. One of the main purposes of teaching practice is to provide student teachers with an opportunity to learn how to teach, gain the roles and behaviours of teachers and acquire teaching skills of all the learning areas in the curriculum (Kiggundu, 2007, p. 99; Kıldan et al., 2013, p. 57). Therefore, student teachers should be given all the support and opportunity to teach all learning areas in the primary school curriculum during teaching practice.

6.5.3.2. Impact of teacher knowledge on the execution of classroom tasks

Findings from the study indicated that the lack of teacher knowledge negatively influenced student teachers’ execution of classroom tasks. One of the primary roles of teachers is to convey knowledge and skills to learners using a variety of methods (Coe, Alois, Higgins & Major, 2014, p. 2). In simple terms, teachers should have an in-depth knowledge of the content to be taught and the methods of teaching of it. The most effective teachers have a deep understanding of the disciplinary knowledge of the learning areas they teach (Banner
& Cannon, 1997, p. 7). In situations where student teachers lack the prerequisite teacher knowledge, they cannot fully accomplish their roles and responsibilities as teachers. Under normal circumstances, teachers are expected to have studied the content they teach to a greater depth than the level they teach. In turn, this will produce higher levels of confidence in the subjects they teach at a lower grade. In other words, teachers’ self-efficacy is context and content-matter specific (Cubukcu, 2008, p. 149). For instance, when teachers have a good command of their content knowledge and PCK, they would generally have high levels of confidence in their classroom practice. However, findings from the study showed that student teachers had low levels of self-efficacy in teaching some of the subjects in the primary school curriculum like Mathematics, English, Agriculture, and Environmental Science. Student teachers also had challenges handling learners with learning disabilities. This meant that student teachers had weak beliefs in their ability to teach effectively and to positively affect pupils’ learning.

Findings from the study revealed that student teachers’ weakness in teacher knowledge of some of the learning areas lowered their teachers’ beliefs and their capabilities to positively influence learners’ performance. This is consistent with McDonnough and Matkins (2010, p. 14), Riese and Reinhold’s (2010, pp. 79-80) findings that teacher self-efficacy beliefs and teacher knowledge are closely intertwined and they cooperatively affect teaching and learning, and ultimately their pupils learning outcomes. Therefore, student teachers’ lack of content knowledge and pedagogical skills eroded their confidence to apply content and skills in their lessons. For example, when the primary school curriculum was changed to include Agriculture, teachers should have upgraded their teacher knowledge before they were able to teach it confidently. This concurs with Child’s (2007, p. 264) observation that too many changes in the school curriculum leads to teacher stress, which will negatively impact teacher motivation, and confidence. The manner in which Agriculture was introduced into the curriculum was a bit chaotic and therefore stressful for teachers (including student teachers). These findings do, to some extent, confirm Riese and Reinhold’s (2010, p. 79) views that teacher knowledge are related to beliefs and vice-versa. Hence, teachers’ beliefs of teaching and learning influence classroom practice. Put simply, pre-service teachers’ beliefs and teacher knowledge are connected to their practice in the classroom. This is consistent with Luft and Roehrig’s (2007, p. 47) view that teachers’ beliefs reveal how teachers view knowledge and learning, and affects teachers’ self-efficacy and classroom practice. Hence, an understanding of pre-service teachers’ beliefs is important in designing
and supporting student teachers during their internship in schools.

One of the main aims of teaching practicum is to provide an opportunity for the student teacher to develop and put into practice teacher knowledge and acquire attitudes of a teacher (Mayes & Burges, 2010, p. 42; Kasperbauer & Roberts, 2007, p. 32). Some student teachers who were interviewed, indicated that they were denied of an opportunity to put their teacher knowledge and skills into practice. Some of the students claim that they were not given enough time to teach some of the subjects, either because they were core subjects or non-examinable subjects. Some of the mentors felt that the teaching of some of the non-examinable subjects like Physical Education, Art and Music was a waste of time and the periods were used to teach examinable subjects in the curriculum. From this one can conclude that the implementation of the primary school curriculum in some schools was examination driven. Similarly, some mentors were hesitant to give their mentees a space to teach the core subjects because they felt that they were not good enough to deliver these.

One of the main purposes of teaching practice is to provide pre-service teacher with an opportunity to link theory to classroom practice (Berg & Smith, 2014, p. 32). However, findings from the study revealed that there was a mismatch between theoretical and practical components of the teacher education course. Findings from the study seem to suggest that student teachers’ weakness in learning theories, content in some of the learning areas and pedagogical knowledge made the integration with practice difficult. Berg and Smith (2014, p. 32) noted that teacher education programmes sometimes have an unbalanced mix of theory and practice, for example too much of theory and too little practice or vice-versa. Neither of the two extremes is ideal and the key question is what is the best mix of the theory and practice? Darling-Hammond (2010, p. 40) asserts that university courses are sometimes “too theoretical” or “… too abstract and general, in ways that leave teachers bereft of specific tools to use in the classroom”. Similarly, Kagan (1992, p. 162) observed that sometimes teacher education courses may be too theoretical and may not always offer practical advice that is needed to deal with the day to day problems in class. Findings from this study showed that the 2-5-2 programme had too little theory and too much practice. Hence, some of the participants acknowledged that student teachers’ practice were not firmly grounded in theories. Also, like their Malawian counterparts, student teachers also experienced problems using learner centred approaches which had been considered appropriate during lectures; learners and mentors preferred teacher centred approaches (Mtika, 2008, pp. 151, 155-157).
In addition, student teachers expressed concerns over learners who expected teachers to do most of the talking while the learners listened quietly. This finding is consistent with Kabilan and Izzaham’s (2008, p. 91) findings where student teachers who attempted to use the deductive approaches were opposed. In South Africa, Heeralal and Bayaga (2011, p. 102) found that learners disliked the use of group work – an approach that was considered to be learner centred. All these findings prove that there are sometimes poor links between textbook theories and classroom practice in teacher education programmes. Therefore, there is a need for supervisors to continuously bridge the gap between theory and practice by capitalising on their visits to schools to inform their teaching at teachers’ colleges. Similarly, Cheng et al., (2010, p. 102) and Pinder’s (2008, p. 16) suggestion that mentors were conveniently positioned to link the student teachers’ theoretical knowledge to practice through constructive engagement, should be seriously considered.

Student teachers were also concerned about teaching learners with special needs in mainstream classes. According to the World Health Organisation, close to three percent of the world population have intellectual disabilities (Magano et al., 2015, p. 114). This translates to an average of slightly less than two in a class of 50 learners. Even though such learners make up a very small proportion of the class, they can be a handful to control. According to Magano et al., (2015, p. 129) most teachers who teach intellectually challenged learners are overwhelmed by their work and they always feel inadequate to cope with the situation. A majority of these learners were classified as having intellectual disabilities with problems like failing to recall information, illogical thinking, reading problems, disruptive behaviour and very short concentration spans. Findings from this study revealed that some of the student teachers had intellectually challenged learners in their classes whom they were unable to assist. This is consistent with Chiresh and Shumba’s (2011, p.117) finding that some of the teachers in schools felt that they had not been trained to manage children with special needs. Most student teachers in this study were unable to adequately assist this category of learners due to their lack of special education knowledge and skills. Depending on the severity of the disability of the learners, teachers of these learners need support and skills on how to assist their learners with basic skills in reading and writing. A few of the fortunate student teachers in this study were able to refer their learners to specialist teachers within their schools. However, a majority of the Zimbabwean schools do not have such facilities and their guardians are too poor to afford to send them to special schools (Magano et al., 2015, p. 113). In most cases, learners with intellectual disability drop out of school
because of perpetual frustrations of failing and being separated from their age mates.

6.5.3.3. Impact of socio-economic factors on the execution of classroom tasks

The findings that emerged from this study indicated that the socio-economic environment and the cultural context in a country or community where the school is located have adverse influences on the practice of student teachers during teaching practice. A number of researchers like Chireshe and Shumba (2011, p. 11), Jensen et al., (2012, p. 29), Mapfumo et al., (2012, pp. 160-161), Rajput & Walia (2002, p. 1) gave accounts on the adverse effects of socio-economic factors on the quality of teaching and learning in the classroom, student teachers’ performance, and learner performance. Because of the socio-economic environment that was prevailing in Zimbabwe, Chireshe and Shumba (2011, p. 117) concluded that it had negatively affected the motivation of teachers. Most of the teachers who took part in their study said they would not take up teaching as a profession if they were given a second chance. Given that the socio-politico-economic situation in Zimbabwe had not changed much at the time when the study was conducted, one could conclude that the morale of most student teachers was still low. Chireshe and Shumba (2011, pp. 116-117) found that some of the teachers felt that teacher education programmes did not adequately prepare student teachers for classroom practice because of the socio-politico-economic challenges facing Zimbabwe. Their argument stemmed from the fact that most of the teacher educators were demoralised by the same socio-politico-economic factors like all the civil servants in Zimbabwe. The same could be applied to mentors, who had to perform extra roles without compensation. Even Fraser and Watson (2014, p. 11) recommended that mentors should be appropriately compensated for the work they do and the time to do it. With both the supervisors and mentors poorly compensated and motivated, there was no zeal to go an extra mile to assist student teachers with knowledge and skills to improve their practice. Even the supervisors who were interviewed in this study acknowledged the negative influence of the socio-economic situation on their work and their students’ studies.

The findings of this study also revealed that a lack of learning space, teaching and learning resources such as textbooks, learning aids and manuals in schools negatively affected the practice of students during their internship. With the current state of infrastructure in Zimbabwean schools, schools are not safe and conducive places for quality teaching and
learning (Manayiti, 2015). Furthermore, Tuso (2014), a reporter for The Zimbabwean online newspaper pointed out that due to the critical shortage of schools, some of the learners were forced to walk long distances to get to the nearest schools and some of them had already dropped out of school. The situation was exacerbated by overcrowding in classrooms as schools tried to accommodate all learners and some had to learn under trees. Large class sizes have long been associated with low achievement of learners. According to Cakmak (2009, p. 201), there is a negative correlation between the size of the class and learner performance. In other words, when the class size increases, learner performance decreases. Similar sentiments were also expressed by Ehrenberg, Brewer, Gamoran and Willms (2001, p. 7), who went further to argue that the effect of class size is more significant at primary school level where learners are socialised into the schooling system than at secondary school.

In principle, class size affects the performance of learners with learning disabilities significantly as student teachers reduce learners’ individual attention time. Even the instructional methods will be affected as student teachers will opt for teacher-centred rather than learner-centred approaches which could stifle teaching and learning. The same applies to assessment methods. When the workload increases, student teachers will be tempted to give less written work as was the case with some of the students in this study. Ultimately, class size affects classroom management and student teachers’ effectiveness.

In addition to learning space, lack of resources was cited as one of the major challenges that student teachers experienced during their intership in schools. These findings concur, to some extent, with Machingambi et al.,’s (2014, p. 19) findings in Zimbabwe, where teaching and learning with limited resources were said to be stressful. In South Africa, Kiggundu and Nayimuli (2009, p. 355) found that student teachers had difficulty implementing the curriculum with limited learner support materials, especially when it came to giving learners homework. Efforts by some of the student teachers to photocopy some of the learner support materials were not supported as some of the school secretaries were unwilling to assist. Such problems in schools and the attitude of some of the school personnel stifles innovation and the enthusiasm of young teachers.

6.5.3.4. Impact of heavy workload on the execution of classroom tasks

It also emerged from the qualitative study that the heavy workload that student teachers
experienced during teaching practice affected them physically, emotionally and psychologically. The same was deduced from the survey results where student teachers were anxious about the heavy workload and it was taking a toll on them. These findings are not unique to this study, as they have also been cited in literature (Chireshe & Shumba, 2011, p. 116; Malik & Ajmal, 2010, p. 19-20; Mapfumo et al., 2012, pp. 159, 164; Mousavi, 2007, p. 36). For example, Chireshe and Shumba (2011, p. 116) and Mapfumo et al., (2012, pp. 159, 161, 164) cited heavy workload in Zimbabwe, Malik and Ajmal (2010, pp. 19-21) in Pakistan, Mousavi (2007, p. 36) in UK and Zagami (2010, p. 70) in Australia. Student teachers claimed that they were having sleepless nights researching, planning and marking. The amount of clerical work in preparing, and evaluating plans was excessive leading to stress. These results confirm that teaching is a highly stressful profession, and particularly for student teachers during teaching practicum (Campbell & Uusimaki, 2006, pp. 1-2). First year student teachers did not complain much as they had not started teaching, but their main concern was on the amount of work involved in scheming.

Heavy workload was blamed for the stress that student teachers encountered during teaching practice. These findings concur with Machingambi, et al.’s. (2014, p. 22) research results that attested to the influence of teachers’ workload as a major stressor. Similarly, Mapfumo et al., (2012, pp. 159-160) identified workload as a major source of stress among student teachers during teaching practice. Murray-Harvey et al., (1999, pp. 32-33), and Campbell and Uusimaki (2006, p. 2) also noted that stress affects student teacher behaviour which in turn can reduce their classroom effectiveness and learner achievement and increase learner anxiety and consequently classroom disruptions. Furthermore, Murray-Harvey et al., (1999, p. 33) noted that teaching practicum related stress had negative impacts on student teachers and suggested that teacher educators (including mentors) assist student teachers to manage their concerns as high levels of stress can lead to aggressive behaviour, late coming, work absenteeism, poor performance or early exit from the profession. Incidents of aggressive behaviour were also cited by Mapfumo et al., (2012, p. 162), where student teachers would beat learners as part of their stress management and coping strategies. In addition, Head, Hill and Maguire (1996, p. 71) concluded that “too little stress can cause apathy and boredom while frequent or excessive stress can lead to mental and physical illness, lack of sleep, poor concentration and general under-performance”. This means that moderate levels of stress are ideal as students are more likely to remain in the profession for longer periods of time.
6.5.3.5. Impact of lesson observation and assessment on the execution of classroom tasks

The observation and assessment concerns that student teachers experienced during teaching practice had a direct and indirect influence on their practice in the classroom. Being observed and assessed during teaching practice were cited as stressful activities by nearly all the students who participated in the study. This finding is consistent with the works of Celik (2008, pp. 99, 105) and Danner (2014, p. 49). Donaldson, Gooler and Scriven (2002, p. 261) found that most people fear evaluation because it is sometimes associated with “criticism, ridicule, contempt, embarrassment, loss of acceptability, loss of respect and rejection”. For most student teachers in this study, teaching practice was their first time to stand in front of a class and they were fearful of what their mentors or supervisors would think or say. Their lack of confidence made them sweat and tremble in front of learners. Sometimes, even learners could sense their fear and lack of confidence through their speech. Musingafı and Mafumbate (2014, p. 37) found similar psychological trauma among pre-service teachers during their first weeks of teaching practice. Due to their evaluation anxiety, student teachers were unable to deliver the lessons properly, and this eventually affected learners’ performance.

Concerns relating to the validity of evaluation results may relate to them challenging the supervisor’s report as being subjective, biased and not a true reflection of their abilities or what transpired during the lesson. Findings from the study also indicated that student teachers were not happy to be supervised in a lesson by none specialist supervisors. For example, some of the ECD student teachers felt that supervisors from the general programme were not adequately qualified to provide detailed professional advice relating to their practice. Mtika (2008, pp. 166-167, 170) observed similar findings in Malawi where student teachers expressed concerns when they were supervised by non-subject specialist lecturers. In both cases, student teachers felt that they would benefit more from subject specialists as they were more knowledgeable in both the content and methodology of a learning area than the other supervisors. On a similar note, Mtika (2008, pp. 59, 201-202), Murray-Harvey et al., (1999, p. 33), and Al-Issa and Al-Bulushi (2010, p. 54) found that different subject specialists sometimes gave contradictory remarks to the same students which left them confused as to which of the supervisors’ recommendations to follow. When this happens, it is clear that student teachers would not benefit from supervisors’ experiences and expertise as they would close up to any advice.
When student teachers begin closing up on advice, they may start to exhibit some signs that Bechar and Mero-Jeffe (2014, p. 364) and Donaldson et al., (2002, p. 263) termed excessive evaluation anxiety; a condition where individuals show signs of excessive fear and anxiety of being evaluated by other people. Bechar and Mero-Jeffe (2014, p. 370) improved on the list of signs exhibited by individual with excessive evaluation anxiety that had been given by Donaldson et al., (2002, p. 263):

- Conflict – Accusing evaluators of hidden agendas
- Withdrawal – Avoiding or refusing to work with evaluators
- Resistance – Stalling, protesting, or failing to use evaluation results
- Shame – Hiding weaknesses
- Anger – Killing the messenger
- Professional disparagement – Dissatisfaction with final report and “blaming culture”
- Sense of loss of control – Diffusion of responsibility

Some of these signs were noted among some of the student teachers who were interviewed. For example, one of the student teachers cited a case where a supervisor was not sure how to address her shortcoming and promised to give her feedback when she returned to college, but did not give her advice. As a result, the next supervisor who visited her penalised her for the same mistake. While it was the supervisor’s responsibility to find a solution to her concerns, the student teacher was equally at fault. Mentees have certain roles to play if they are to benefit from their relationship with the supervisors or mentors. Some of the important roles of mentees are to open up to the support provided by their mentors (Pitton, 2006, p. 8), create time to discuss their areas of concern with them (Pitton, 2006, p. 10), see themselves as learners (Pitton, 2006, p. 10), and show initiative by seeking help of their own (Zeichenr, 2005, p. 117). If the student teacher cited above was concerned about her own professional growth, there were several options that she could have pursued to address her concerns. To start with, she should have made a follow-up with the supervisor or consulted the responsible department and not waited for the next supervisor’s visit. Secondly, she could also have consulted her own peers or other teachers in the school, given that her mentor had failed to assist her. Thirdly, there are numerous web-sites with questions and answers on any topic in
the primary school curriculum, and internet cafes were within reach as her school was located in the middle of a city. As lifelong learners, student teachers should constantly engage themselves in action research to address their concerns and not wait to be spoon fed by others (Pitton, 2006, p. 10). In addition, student teachers need to be accustomed to challenges and different opinions as they are stretched beyond their comfort zone by mentors or supervisors.

6.5.3.6. Impact of interrelationships in the host school on the execution of classroom tasks

Findings from this study also indicated that the interpersonal relationship with staff members and parents in the host school had some negative influence on their classroom activities. Of these relationships in the host schools, participants agreed that mentors had more influence (both positive and negative) on their ability to execute their duties in classrooms. The same findings were noted by Mukeredzi, Mthiyane and Bertram (2015, p. 3) in which school-based mentoring was cited as the most effective in terms of support. On the negative side, some of the student teachers in this study claimed that their mentors were not always available at school. Some of the mentors would absent themselves for some days or attend to their own studies. This meant that for some of the days student teachers were left on their own without support and guidance and in most cases they were forced to teach all the learning areas. Kiggundu and Nayimuli (2009, p. 25) found that such indiscipline and attitudes among mentors affected the effectiveness of student teachers’ practice. Similarly, Mukeredzi et al., (2015, p. 3) reported that some of the mentors would absent themselves from school. Furthermore, mentor indiscipline created unnecessary disciplinary problems and tension in class for student teachers, may have affected learners’ performance, and negatively influenced learners’ and student teachers’ perceptions of the teaching profession. Thus, mentors have roles that go beyond the formal tasks in the classroom; it also includes showing work ethic traits such as commitment, responsibility, enthusiasm and efficiency (Donaldson, 2011, pp. 14-15).

Some of the student teachers felt disconnected from their host schools because of the treatment they received from some of the staff members. Some were excluded from some of the school’s activities like sporting trips and meetings. In one school, student teachers were even denied a share of food that had been donated to the school by parents. These incidents
indicate that student teachers are sometimes treated like outsiders. Student teachers felt alienated and they would even be allocated their own small table in the corner of the staff room. As a result some of them felt it was not necessary to go an extra mile in some of the extra-curricular activities. Kiggundu and Nayimuli (2009, p. 32) cited cases where student teachers would be excluded from staff meetings and yet they were expected to implement some of the resolutions. This left the student teachers feeling alienated.

The abuse was not only limited to the exclusion of student teachers from school activities, but it also extended to the allocation of the workload. Some of the mentors or teachers in schools treated student teachers like relief teachers, to whom they could assign their duties while they took a back seat. Some of the teachers would even regard student teachers as messengers who they could send around on errands. Similar cases have been cited in literature. For example, Maphosa et al., (2007, pp. 300, 303) found that a majority of the mentors did not share the workload equitably with their mentees who in most cases ended up taking the full workload. Mukeredzi et al., (2015, p. 3) also noted similar tendencies by some mentors who treated student teachers as relief teachers, thereby weakening the intentions of having school-based internships. In another study, Maphosa and Ndamba (2012, p. 79) found that some teachers who had volunteered as mentors were doing it not because of their desire to share their expertise or learn from student teachers, but to have a reduced workload. Such a mentality defeats the whole purpose of mentoring student teachers in schools. The agreement between college and schools was that student teachers’ workload should gradually be increased until they took half of the workload and under no circumstances would student teachers be expected to teach the full load or be left alone. Some of the student teachers in the study were even re-assigned to other grades whenever another teacher was absent from school. As a result of some these abuses, student teachers felt trapped and betrayed. For the sake of harmony in the class, most student teachers would suffer silently.

The attitude displayed by some of the parents towards the education of the children made their teaching very difficult. Parents seemed disinterested in their children’s school work or to support the school financially. Most parents would turn a blind eye to the situation knowing full well that schools were in crisis, and yet they expected their children to pass at the end of the year. Parental involvement studies abound, and one of the major findings is that the level of parental involvement in their children’s work generally correlates to the
academic engagement and achievement of their children (Chowa, Masa & Tucker, 2013, pp. 3-4, 16-17; Mo & Singh, 2007, pp. 1, 7). This meant that when parents supported the learning of their children, the learners would perform much better, thereby bringing satisfaction to teachers for their efforts. Hence, parents are encouraged to increase their involvement in the education of their children.

6.5.4. Survival strategies of student teachers

- **What are some of the strategies used by student teachers to survive teaching practice?**

Findings from the study revealed that student teachers had developed survival strategies to deal with some of the teaching practicum related concerns. Student teachers used a combination of the following survival skills: communication with mentors, peers and supervisors; talking to friends or family members; attending social gatherings; recreational activities; and the use of self-management skills like preparation, planning and organisational skills. Most of these were cited by Bechar and Mero-Jeffe (2014, p. 364), Donaldson *et al.* (2002, p. 263) Kyriacou’s (2001 (pp. 30-32), Malik and Ajmal’s (2010, pp. 21-22), Mapfumo *et al.*, (2012, p. 160), Murray-Harvey (1999, p. 6), Onen and Ulusoy (2015, p. 614), and Victorian Department of Education and Training (2005, pp. 10-11).

Overall, none of the student teachers in the study were satisfied with their stress management and coping skills, and they were still in the process of perfecting them. Specific coping strategies were identified for each of the themes and were discussed separately.

6.5.4.1. Survival strategies for classroom management

A number of survival strategies that student teachers used for classroom management have been cited in literature. Most of these strategies used by student teachers were based on the establishment of mutual trust between student teachers and learners, good planning of classroom activities and knowledge of the classroom environment (Vakalisa, 2016a, pp. 384-386). The strategies allowed student teachers to create a conducive atmosphere where learners were kept focused, engaged, self-motivated, disciplined and responsible. Most of these strategies were developed through the advice of their mentors and peers, trial and error,
and self-study on good classroom management practices.

Research on good classroom practices shows that classroom discipline is based on creating trust between learners and student teachers. In any normal classroom, incidents of bad behaviour are bound to occur (Vakalisa, 2016a, p. 379), but some of the methods that student teachers employed to deal with disciplinary incidents exacerbated the disruptive behaviour. According to Vakalisa (2016a, pp. 384-386) one of the most effective antidotes to bad behaviour is mutual respect between learners and teachers. Mutual respect is a far more desirable behaviour trait than fear and punishment, and it will certainly minimise the occurrence of bad behaviour in a class. Some of the student teachers had learned to use the 3fs of classroom management from their mentors, namely, firm, fair and friendly (Cohen et al., 2010, pp. 364); and in that order. Furthermore, student teachers realised that they had to consistently implement their classroom management plan to maintain harmony and reduce discontentment among learners. In addition, they also learnt that being friendly was not the same as being a friend. The social distance had to be maintained or else they run the risk of being controlled by learners.

Another strategy that student teachers used to manage classroom discipline was to understand the evolving classroom dynamics; and to utilise their learners’ learning styles and social background knowledge. In other words, student teachers were able to utilise their knowledge of pupils’ learning styles, likes and social background to understand why learners act in certain ways in class. Cohen et al., (2010, pp. 350-351) identified why learners misbehave in class and the list included reasons like boredom, inability to do the assigned work, low academic self-esteem, emotional difficulties, home background, being sociable, ignorance of rules, learner anxiety, and drugs. Most of the misconduct that were identified emanated from boredom after completing assigned tasks, lack of respect for student teachers, peer pressure, and emotional difficulties. A majority of the student teachers realised that one of the best approaches to handling classroom discipline was to prevent disruptions from occurring in the first place. They were able to handle some of the situations by adequately planning for learners’ engagement at all times. This ultimately reduced the chances of off-task learner behaviour from taking place. Other strategies that student teachers used included eye contact with the offenders, moving closer to offenders, asking the offender a question, giving help to struggling learners, and scanning the classroom environment for bad behaviour and putting an end to any misbehaviour promptly. Most of these strategies were
in agreement with Cohen, et al.’s. (2010, p. 362) suggestions on how to deal with misbehaviour in class and they also had the advantage of not disrupting classroom activities.

In addition to knowing the classroom dynamics, student teachers used their knowledge of psychology and sociology to understand learners’ misbehaviour in class. The child study project (a form of learner profile) gave student teachers a practical experience of how pupils learn best and the factors that impact their pupils’ learning. According to the Ontario Ministry of Education (2013, pp. 33, 42-44), creating learner profiles helps teachers in understanding the psychological and sociological influences on learners’ behaviour. For example, the knowledge of the learning styles of learners assisted in designing learning activities for each group of learners. Knowledge of learners’ social backgrounds assisted student teachers to understand how parents’ social class affect learners’ behaviour and performance in class, and how they can best reach out to learners. Some of the problems that manifest in the classroom may not necessarily be a direct result of deficiencies in student teachers’ knowledge or teaching expertise but influences from home. Cohen et al., (2010, pp. 349-350) attest to the fact that socio-economic factors have an influence on learners’ behaviour in class. Helping learners with behavioural problems that arise from socio-economic factors may need psychological support to address the root causes of their problems and not more punishment.

Student teachers also learnt that it was also strategic for learners to know the classroom rules in advance so that they could understand what was allowed or prohibited. Cohen et al., (2010, p. 351) suggest that ignorance of classroom rules is one of the major reasons for indiscipline in class. The consequences of breaking class rules should also be communicated to all learners so that learners know beforehand what will happen to them if they break the rules. Cohen et al., (2010, p. 346) further suggested that effective discipline is best practiced in democratic classrooms where everyone is involved in maintaining discipline. A few of the student teachers involved learners in drawing up class rules and their consequences. By using this strategy, student teachers realised that the enforcement of classroom discipline was no longer their sole responsibility but that of the whole class. In addition, they found that the implementation of this approach freed them rather than confined them. Ultimately, they experienced less classroom management stress. In other words, student teachers found an intelligent way in which to transfer the anxiety of discipline from their shoulders to that of their learners. None of the student teachers used corporal punishment as a strategy to deter
or control classroom discipline although some used other forms of punishment like detention and withdrawal of privileges. Vakalisa (2016a, p. 406) believes that detention, withdrawal of privileges, verbal punishments, and exclusion from class or group are better forms of punishment than corporal punishment. In South Africa, the use of corporal punishment is not allowed (Vakalisa, 2016a, p. 408). Similarly, the current Constitution of Zimbabwe (2013, p. 23) does not allow the use of corporal punishment as it was a violation of a person’s right to life, dignity, not to be tortured and a fair trial among other things. However, the situation on the ground suggested the contrary. Some of the mentors still believed that corporal punishment was the best strategy to maintain order. This clearly shows that there is still a need for stakeholders to discuss the use of acceptable punishment in schools to address learners’ misbehaviour.

Some of the students made mistakes when addressing disciplinary problems and they had to learn the hard way. Some tried to gain favours from the learners by being lenient to learners or pretending that they had not seen some of the misbehaviour in the class. It was a wake-up call for many of the student teachers that no acts of misconduct should be ignored. Although Cohen et al., (2010, p. 357) say it may not be beneficial to ignore minor misbehavior as teachers’ interventions may have greater disruptions than the one they intend to rectify, it is always good to show the learners that they have been noticed by using body language (for example, the teacher can shake their head to show their disapproval) while the lesson progress smoothly without further disruptions. Such minor interventions will discourage learners from indulging in similar activities which may escalate to serious disruptions. Findings from the study also revealed that student teachers should desist from accepting learners as their friends: they are the authority in the classroom, who have the control and they should always maintain a social distance in between if there are to take control of the classroom activities. Vakalisa (2016a, pp. 404-405) also affirms that teachers (including student teachers) have the power and authority to be in charge of classroom environment that is free of disruptions. The ground rules have to be clear and be fairly applied to all learners.

The interview discussions also revealed that some of the student teachers had been introduced to the art of integrating classroom management practices with instruction by their mentors. For example, some of the student teachers found that it was sometimes necessary to reorganise the seating arrangement of learners so as to re-establish a learning environment that is suitable for a particular type of learning activity. Cohen et al., (2010, p. 342) are of
the opinion that the teacher has the right to decide on the seating arrangement so as to maximize learning. Therefore, seating arrangement should be structured in such a way that minimizes disruptions and enhances learning. For instance, desks can be arranged facing each other or arch shaped to stimulate learner discussions during group work activities. For independent work, desks could be arranged in rows. While student teachers may not have the authority to change the seating arrangement without the mentor, they should discuss the problem and solution with their mentors. Student teachers also found that changing the seating arrangements of disruptive and disabled learners was also effective in maintaining discipline and learning. Another effective approach that some of the student teachers used was eye contact with the disruptive learner, placing a finger on the mouth for learners to be silent or moving closer to them while the lesson was in progress. Similar body gestures were advocated by Cohen et al., (2010, pp. 365-372) and Vakalisa (2016a, p. 399). In that way, student teachers were able to maintain order and focus on disruptive learners without interrupting the lesson.

Student teachers also revealed other classroom management strategies during interviews. These included the use of rewards and punishments. Cohen et al., (2010, pp. 365-372) provided guidelines on how best to use rewards and punishment in moulding good classroom behaviour. The group of student teachers in this study who used rewards were more successful in changing learner behaviour than the group that used punishment. Vakalisa (2016a, p. 404) argued that punishment in this day and age should only be used as a last resort. Some of the student teachers realised that learners enjoyed being praised in public (or privately), and they exploited it to achieve their goal of maintaining order in class and good learning environment. Cohen et al., (2010, p. 367) also encourages the used of rewards like praise even for the effort that learners displayed in the process of getting to their final work and not necessarily of the final work produced. In this way, both groups of learners feel valued.

Time management was the other classroom management aspect that student teachers sought to control in their practice. Student teachers acknowledged that they never had enough time to complete either the lesson activities or the weekly schemes of work within the stipulated time for certain subjects like Mathematics. To cope, some of the students created time outside the formal school hours to complete their normal school tasks and some of the research activities that involved learners. Some of the student teachers also realised that there
was always time lost in between lessons or activities and they would try to minimise it as far as possible. This is in line with Oliver and Reschly’s (2007, p. 7) finding that effective teachers always make efficient use of transition times between lessons or activities. For many of the student teachers, the journey of developing a conducive learning atmosphere was far from over; they were still searching for better and more effective strategies address classroom discipline and time management concerns.

6.5.4.2. Survival strategies for lack of teacher knowledge

The central focus of survival strategies for lack of teacher knowledge among student teachers was centred on how teacher knowledge is developed in the first place. It is an irrefutable fact that teaching is demanding and complex and that it requires specialised skills and knowledge to make significant improvements on learners’ outcomes (Department of Education and Training, 2005, p. 2; DHET, 2015b, p. 9; Zhao, 2012, pp. 68-69). For student teachers to be effective in the classroom during teaching practicum, and as future teachers who will work with knowledge on a daily basis, they certainly need to adopt strategies to continuously improve their knowledge base in this ever-changing knowledge driven society.

Student teachers, like all teachers, need to constantly update their teacher knowledge and skills in response to research findings on teaching and learning (Department of Education and Training, 2005, p. 2), especially in a knowledge driven society. In this study, teachers’ knowledge was viewed as the types of knowledge that teachers are expected to possess to enable them to teach certain learning areas effectively and confidently. Much work on teacher knowledge has been done since the pioneering works of Lee Schulman in 1980s when he suggested that teacher knowledge had seven key components; content knowledge, pedagogical content knowledge, knowledge of the curriculum, general pedagogical knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and knowledge of educational ends, purpose and values (Shulman, 1987, p. 8). Recently, DHET’s (2015a, pp. 11-12) and Zhao (2012, p. 70) suggested that the teacher knowledge structure include fundamental learning, disciplinary learning, pedagogical learning, practical learning, and situational learning. While the large portions of these types of knowledge are theoretical and campus based, teaching practice offered student teachers the opportunity to apply and integrate theory to practice in the classroom. This infusion of
theory and practice enabled student teachers in this study to learn in and from practice during their internship in schools. While teacher knowledge mainly focuses on teaching and learning, it also includes important elements of creating conducive learning spaces and solving diverse challenges that arises during teaching and learning. Therefore, teaching practice offers the best testing ground to ingrain teacher knowledge into student teachers’ practice and to access trainee teachers’ skills in class. In addition to having the prerequisite knowledge and skills to teach, teachers need to regard their job as a profession, where according to Zhao (2012, p. 70), they must embrace education as their food, perfect their knowledge structure, develop various methods of teaching and assessing the subject content, build their self-confidence and reflect critically about their practice in such a way that it brings about positive change to their practice. Thus, to some extent, teachers can be viewed as researchers as many of them continuously seek ways to improve their practice.

From the discussion above, it is clear that teaching practice is an important stage in the professional development of student teachers. Subject matter knowledge was considered as the most fundamental knowledge that student teachers ought to have to be effective teachers (Banner & Cannon, 1997, p. 7; Zhao, 2012, p 76). Furthermore, students in this study acknowledged that they needed an in-depth understanding of this type of knowledge in order to teach effectively and confidently in all the learning areas in the primary school curriculum. While they had been equipped with subject matter knowledge during campus lectures, they still felt inadequate to teach content in all the learning areas. To cope with their inadequacies in subject matter knowledge, student teachers mainly employed self-study, and mentor and peer consultations. This is in agreement with the findings of CETT (2011, pp. 2, 12) that effective teachers learn from other teachers’ work and share their experiences. Student teachers also attended vacation school, where they were equipped with more subject content knowledge as well as consult their supervisors.

The last 30 years have seen significant improvements in teacher knowledge, which encompasses pedagogical content knowledge (PCK), curriculum knowledge, general pedagogical knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and knowledge of educational aims, purpose and values. Of these forms of teacher knowledge, PCK is arguably the most significant to teaching and learning (Shulman, 1998, p. 9). According to the DHET (2015a, p. 16), the main purpose of pedagogical knowledge is to equip student teachers with skills on how to plan, present
information, effective approaches to teach a particular learning area, assess pupils’ learning outcomes and create a conducive learning environment. While UCE had provided student teachers with a theoretical foundation with a bit of practical orientation during microteaching sessions, student teachers felt that is was not adequate to prepare them for the realities in the classroom. They had no confidence that they were competent to implement whatever they had learnt in on campus lectures. Research on teacher professional development has shown that it is not just adequate for teachers to have subject content and pedagogical knowledge for its implementation in class (CETT, 2011, pp. 9, 12). Avalos (2011, p. 16) was able to isolate three key elements in beliefs and practice that assist student teachers in learning how to teach and these were: “making learning explicit, promoting learning autonomy and pursuing a performance orientation in lieu of a learning or mastery orientation”. Teachers are more likely to give a try on professional development programmes that are wholesome; in that they contain strong subject content matter and are founded on curricular and instructional strategies that will yield positive results to learners (Harwell, 2003, 4; Darling-Hammond et al., 2009, pp. 5, 9-10). In simple terms, professional development should be able to address specific student teachers’ curriculum content concerns. In the absence of support and encouragement from mentors, peers and supervisors, student teachers use teaching and learning methods from their experiences from school. For some of the student teachers, learning to teach was a solitary activity where they had to grapple in the dark for solutions to address their concerns.

Findings from literature clearly show that initial student teachers’ beliefs and background influence their subsequent teaching philosophy (Conklin, 2015, pp. 322-323). However, teachers’ beliefs are not stagnant (although they are resistant to change) but they are created and recreated through cultural and social interactions (Pajares, 1992, p. 316-327), a view that Conklin, 2015, p. 323) also supported. Social persuasions are a powerful means of changing teachers’ beliefs and practices (Bandura, 1977, p. 202; Harwell, 2003, p. 4; Mulholland & Wallace, 2001, p. 244). Similarly, Woolfolk-Hoy and Spero (2005, pp. 344, 346) speculated that teacher efficacy beliefs are malleable during teaching practicum. Furthermore, Mulholland and Wallace (2001, p. 243) found that a majority of the positive changes on the teachers’ sense of teacher efficacy occur during pre-service teaching practicum and some during the induction year. These findings show that learning to teach is a lifelong process; it does not end during teaching practice or the first few years of teaching. Therefore, teachers should continue to upgrade their teaching skills in this era of a dynamic,
technological and knowledge driven society.

According to the Victorian Department of Education, effective schools provide ongoing learning opportunities that develop skills, knowledge and dispositions of teachers (Department of Education and Training, 2005, p. 7). For Zimbabwean student teachers such opportunities are created when they are supported daily by their mentors, peers and supervisors. This was achieved by creating opportunities to learn from other staff members or peers or through self-study so that student teachers could have a rich experience of good practices of teaching. Similarly, Conklin (2015, p. 318) indicated that self-study, collaborative self-study and teacher groups could be used as effective approaches to improve teachers’ practices. Thus, one can conclude that the best way for student teachers to survive teaching practicum was for them to embrace the culture of self-study of their own practice combined with collaborative learning initiatives. However, Conklin (2015, p. 318) argues that although self-study has been found to identify the challenges of teachers’ pedagogical inadequacies, it does not invariably arm teachers with conceptual or practical pedagogical knowledge to scaffold their practice in the classroom. A possible answer to this is the creation of professional learning communities. Teachers learn better (new skills and knowledge) when they create time to share their ideas and experiences with each other, study together and assist each other to improve their practice (Harwell, 2003, p.4). This concurs with Avalos’s (2011, p. 16) conclusion that the most effective school learning is based on an institutional culture that values and encourages professional learning communities. Professional learning communities involve teachers working together in the spirit of openness and reflection, sharing of experience, skills and knowledge (Department of Education and Training, 2005, p. 9). Similarly, Barabasi (2002, p. 106) acknowledges that learning communities compete for connections with individuals in one’s professional life; because such links represent survival in a networked world. In teacher education, such links could be with mentors, teacher educators and peers (including those in other programmes). Likewise, Avalos (2011, p. 16) found that networking and collaboration among peers was exceptionally effective in school based learning with their effectiveness hinged on institutional leadership, culture and support systems. Harwell (2003, p. 2-3) also argues that the professional development of teachers in schools is context based. In other words, the school environment, its leadership and support structures determines if teachers (including student teachers) can become learners of their practice.
Drawing their inspiration from the works of Loucks-Horsley, Hewson, Love and Stiles (2003) on designing professional development for Mathematics and Science teachers, the Victorian Department of Education and Training (2005, pp. 10-11) outlined six pathways that could be used to enrich teachers’ professional knowledge; these included action research, examination of learners’ work, study groups, case discussions, peer observation, and lesson study. Of these pathways, the student teachers in the study were using study groups, case discussions, peer observation and lesson study. Peer observation and lesson plan study were the commonest. Avalos (2011, p. 16) also found that peer dialogues on materials and classroom situations provided momentum for student teachers to improve on their practice coupled with sharing of ideas, experiences from class and group projects. With peer observation, student teachers would observe each others’ lessons and then critique them. As for lesson plan study, student teachers would work collaboratively to produce schemes and/or lesson plans.

The Victorian Department of Education and Training (2005, p. 11) further proposed other learning opportunities in learning communities: structured mentoring programmes, coaching partnership, outsourcing of expert teachers, and attending of workshops. All the student teachers in the 2-5-2 programme were under the guidance of a mentor and the majority of them indicated that they attended workshops organised by the school or their cluster regularly. A few of the student teachers emphasised the importance of attending some of the workshops as they had benefitted immensely during one such workshop on the teaching of Agriculture.

6.5.4.3. Survival strategies for socio-economic challenges

Teaching in over-crowded classrooms, dilapidated structures with minimum resources can be challenging and stressful for student teachers. Such was the situation that most of the student teachers found themselves in during teaching practicum in Zimbabwean schools. Similar findings were noted by Kiggundu and Nayimuli (2009, p. 33), where student teachers were teaching in schools with limited learner support materials. To cope, student teachers said they had to photocopy some of the activities. However, not all schools had photocopiers and student teachers had to resort to writing the work on the board. Findings from the study revealed that student teachers had learnt how to improvise and work with whatever they had.
They learnt to be innovative by collecting boxes, tins and waste papers and plastics from shops for use in their classroom. These findings are consistent with those by Mapfumo et al., (2012, p. 160) where students had to make or buy learning aids for use in their lessons. It is true to say sometimes that necessity is the mother of invention.

The findings from the study also revealed that it was sometimes extremely difficult to intervene on some of the concerns that student teachers experienced during teaching practice. For example, a lack of learning space was a challenge for student teachers who were teaching in high density suburbs. They had to teach half of the subjects under trees with no proper boards and exposed to weather elements. It was only late in 2015 that the Zimbabwean government invited tenders to build schools across the country and one is left wondering how they would be able to finance such infrastructural development considering the fact that they were failing to pay civil servants on time. The situation was further compounded by the existence of targeted sanctions that some of the western governments have imposed on Zimbabwe after the land grab at the turn of the century. Most of the previous donor countries like the United Kingdom and the United States of America have withdrawn their humanitarian support to Zimbabwe in retaliation to the ZANU PF led government’s policies of victimisation and harassment of opposition party members and approaches to indigenize the economy. The IMF and the World Bank have not been forthcoming to further extend their line of credit to Zimbabwe. The look-east policy that the Zimbabwean government turned to after a cold shoulder from the western countries has not yieded the much needed relief. The country is eagerly waiting to see how China’s investment will affect the Zimbabwean economy. However, research has shown that there is no financial help that comes without strings attached or excess baggage (Rodney, 1981, pp. 149, 154, 214, 223).

On the social front, student teachers admitted that it was very difficult for them to cope. Most of them had to rely on their families or relatives for financial support. Some of the student teachers with entrepreneurial inclination had started some small income generating projects like selling airtime and sweets to supplement their income. Chireshe and Shumba (2011, p. 116) found the financial status of Zimbabwean student teachers during teaching practice very depressing. The small allowance that student teachers received from the government was not adequate to cover their living expenses like accommodation, transport, electricity, water, food, and learning materials. The economic situation in Zimbabwe remains critical and first year students were concerned about how they would survive on a tight budget.
6.5.4.4. Survival strategies for heavy workload during teaching practicum

Findings from the study indicated that student teachers had also developed coping strategies to survive the heavy workload that is normally associated with teaching practice. Teaching practice is always associated with a heavy workload especially for primary school student teachers who are expected to teach at least ten subjects in the curriculum. Malik and Ajmal (2010, pp. 19-21) found that a heavy workload was one of the major concerns faced by students during teaching practice. Some student teachers said that teaching practicum experiences could be nerve wrecking and they often felt like quitting. In order to cope, student teachers had to sleep less so as to complete their marking, planning and evaluating lessons. They occasionally remained at school to finish marking, evaluate schemes of work and lesson plans and to complete other administrative duties. They also regularly had to complete school related work at home. These findings are not unique to Zimbabwe, but they have been cited in literature. Student teachers from Nigeria, Turkey and South Africa were also cited as not having sufficient time to manage their workload. They often had sleepless nights going through heaps of paper work, preparing plans, and preparing learning aids for the next day (Danner, 2014, p. 7; Malik & Ajmal, 2010, p. 20; Heeralal & Bayaga, 2011, p. 103). However, there are some circumstantial conditions that maybe unique to Zimbabwe because of the socio-economic and political environment. For example, student teachers were stressed by the unscheduled incessant blackouts by the Zimbabwe Electricity Supply Authority (ZESA); the electricity company in Zimbabwe. Kaseke (2013, p. 13) claimed that ZESA power outages had caused a loss of study time in educational institutions. Problems of load shedding are not new to Zimbabwe, but they have become a common trend where load shedding would last from six to eighteen hours per day (Kaseke, 2013; Matendere, 2015). With such a load shedding schedule, it was difficult for student teachers to produce quality work. The alternatives to electrical lights like candles, gas and parafin lamps were considered too expensive and more dangerous.

The interviews revealed that student teachers were using a variety of strategies to manage their workload. To manage their workload, students planned and shared materials with peers, planned and taught inter-related topics in different learning areas at the same time, and prioritised their activities. For example, to reduce their marking load, some students utilised
peer marking, marking with learners, shoulder marking, and collaborative marking with their mentors. A majority of these strategies involved planning their work ahead and working collaboratively with their mentors and peers. Similar sentiments were echoed by Kyriacou, 2001 (pp. 30-32), where teachers were encouraged to use direct action and palliative techniques to cope with teacher stress. Direct action techniques are strategies that student teachers can use to reduce the sources of stress, while palliative techniques refer to the strategies that are used to reduce the feeling of the source. For example, teachers should discuss problems and express their feelings to others, plan ahead and prioritise, recognise their own weaknesses and create a social network of friends. In terms of planning, some of the student teachers would use an integrated approach in teaching certain topics or sub-topics found in the primary school curriculum. For example, the topic hygiene was found in Home Economics, Health and Life Skills, Environmental Science and Social Studies. Instead of teaching it in four different ways, they would only teach it once emphasising the major differences amongst the learning areas. Some of the student teachers who were teaching the same grade would work collaboratively in planning their work. They even shared some of the learning media among their peers or from their mentors. A few of the students avoided the danger of over committing themselves to extra-curricular activities beyond their capabilities. Some of the extra-curricular activities required them to work after school or during weekends; this reduced their planning and study time.

Student teachers also managed to reduce their marking by marking with learners, and shoulder marking where they would mark part of the work during the lesson and finish off after school. Other student teachers would mark collaboratively with their mentors or peers. Schools are also encouraged to come up with their own plans on how they can help reduce teacher workload and stress levels. Kyriacou (2001, pp. 31-32) provided strategies on how schools could reduce teacher stress. Such innovative strategies could also be extended to student teachers in Zimbabwe. Even the Department of Education (in Britain) (Department of Education, 2015, p. 4) conducted a study in 2014 to come up with strategies on how to reduce teacher workload in schools. Findings revealed that teachers would love to see a reduction in the following tasks: recording, inputting, monitoring and analysing data; marking; lesson planning; administrative work; staff meetings; reporting on learner progress; setting and reviewing pupil targets; and implementing new initiatives. While all these tasks are key in producing learner outcomes, the amount of detail that institutions expect from teachers makes the tasks laborious. A follow up survey is earmarked in 2016 to further
investigate teacher workload in schools (Department of Education, 2015, pp. 4-5). A similar study in Zimbabwe for pre-service teachers may also shed some light about their concerns during teaching practice. As for their college work, some student teachers had created study groups where they would assign each other tasks on distance learning assignments. These strategies gave them some extra time to improve the quality of their work and socialise in the process.

Findings from this study also showed that student teachers sometimes use unorthodox stress management and coping strategies to deal with workload pressures. Some student teachers were accused of giving less written work so as to reduce their marking load. Likewise, Mapfumo et al., (2012, p. 162) found that sometimes student teachers would absent themselves from school. Similarly, Murray-Harvey et al., (1999, p. 33) observed that some of the student teachers would become aggressive, come late for lessons, absent themselves or produce poor work because of the excessive workload.

6.5.4.5. Survival strategies for evaluation anxiety during teaching practice

Student teachers acknowledged that it was always frightening to be observed and assessed while teaching. There was always a lingering feeling that they were not doing something correctly even if they were on the right track. Sometimes their self-confidence was low and student teachers acknowledged that they were generally nervous to stand in front of learners during the first weeks of teaching practice mainly because of a lack of confidence, content knowledge and pedagogical content knowledge. Most of the first years felt that they were not sure of what to expect or how they would conduct themselves in front of the mentor and learners during the first weeks on teaching practice. These findings agreed to some extent with Akinsola’s (2014, p. 42), Musingafi and Mafumbate’s (2014, p. 37) and Sharma’s (2015, p. 21) observations where most student teachers were nervous and less confident at the beginning of their teaching practice particularly when their supervisors were present. With teacher education programmes like the 2-5-2, mentors are at vantage points to support student teachers on how best they can cope with assessment anxiety. This comes out of the realisation that on campus training prior to teaching practice may not always adequately equip student teachers for all contingencies they may encounter in the classroom (Sharma, 2015, p. 15). This is where the role of mentors becomes critical as they can easily advise
their student teachers and instil confidence; unlike supervisors who come once in a term (Musingafi & Mafumbate, 2014, p. 37; Maphosa & Ndamba, 2012, p. 77). Van der Linden & Koet (2012, p. 132) also attest to the fact that the role of mentors is more than just socialising student teachers into the profession, but more critically it includes a reflective role that includes attending to the student teacher’s concerns. Maphosa and Ndamba (2012, p. 77) concur and went further to include mentor and peers collegial supervision to boost student teachers’ confidence. The exposure and positive feedback that student teachers received from mentors and peers helped some of them to improve their self-confidence in front of supervisors; thereby reducing evaluation anxiety. Oppong (2013, p. 154) also reported that the positive feedback that supervisors give may boost student teachers’ self-image and confidence levels. However, the major challenge that student teachers experienced with peer collegial supervision was time constraints. There was no provision on the school timetable to accommodate peer observation unless by mutual agreement between mentors and mentees.

Findings from the study also revealed that supervisors had a critical role to play in helping student teachers to cope with their evaluation anxiety. While the primary role of supervisors was to evaluate, they also served as mentor, advocator, and supporter (Pitton, 2006, pp. 11-12). In their mentoring capacity, supervisors can create a supportive environment during which they provide ideas and encouragement on good practices of teaching. This support could be given during microteaching sessions on campus and/or their first visits of student teachers in schools. It is part of the supervisors’ duty to explain their role and expectations when they visit student teachers’ classes as evaluators. Even though student teachers need to understand that assessment is meant for their own good; it generates information that can be used diagnose their areas of weakness and guide their improvement (Maphosa & Ndamba, 2012, p. 77). Thus, teacher educators should adopt a holistic approach in addressing evaluation anxiety. It should be seen as a process to build on trust, which commences during on-campus lectures and continues during teaching practice where student teachers are given tasks to present in class. It takes time and practice for student teachers to gain the courage and confidence to stand in front of learners (and assessor) and deliver something meaningfully. The development of communication speaking skills is therefore vital and can be integrated into every methodology module in order to prepare student teachers to express themselves clearly and confidently. Therefore, student teachers should learn to embrace supervision as part of their professional growth. Some of the student teachers felt more
comfortable being observed and assessed by supervisors who incorporated pre-conference sessions before lessons. The conferences afforded student teachers opportunities to become acquainted with their supervisors, explain their teaching practice progress and what they would be teaching and gain a measure of composure before presenting a lesson. Similarly, Paker (2011, p. 216) made suggestions that student teachers’ evaluation anxiety could be reduced if constructive feedback is provided and if the assessment is based on process rather than product oriented checklists. With product oriented assessment, the assessor focuses mainly on the final product and not on the actual performance of the student in making the product. On the other hand, with process-oriented assessment, the assessor focuses mainly on the behaviours displayed by a student in performing certain tasks and not on their successes or failures. Therefore, the college should come up with tangible strategies on how they could reduce assessment anxiety during teaching practicum.

Some researchers like Avraamidou and Zembal-Saul (2002, pp. 1-2), Whitworthy, Deering, Hardy and Jones (2011, pp. 95-96) and Sithole (2011, pp. 523-524) have proposed an evaluation system that uses other tasks in addition to lesson observations. The use of teaching portfolios and/or assignments is widely used in some countries like Botswana (Sithole, 2011, pp. 523-524) and United States (Whitworthy et al., 2011, pp. 95-96). By including other forms of assessment tasks, student teachers will not be under so much stress as of now, where supervisors’ marks carry more weighting. The same could be extended to external assessors’ assessment, where one lesson observation could result in a student teacher either failing or passing to fail or pass. Using a weighted average of assessments by the mentor, supervisor, external assessor, assignment and portfolio marks would be a much fairer measurement of student teachers’ performance on teaching practice.

Despite the challenges that student teachers experienced during teaching practice, most of them acknowledged that observation and assessment were important processes for their own professional growth and they would rather get used to it. Even after graduation, subject heads, principals and other officials from the Ministry of Primary and Secondary Education will occasionally pitch up to evaluate their teaching. In addition to the support they received from mentors and supervisors, student teachers also developed their own personal stress coping strategies. Some of the student teachers cried or occasionally felt like crying and chatted with friends on social network platforms like WhatsApp and Facebook as a way of relieving some of the pressures. Others would turn to prayer before the supervisors’
observation and assessment for divine intervention. Mapfumo et al., (2012, pp. 162-163) also found that student teachers were socialising with friends and relatives, creating their own leisure activities and going to church to ease their stress. There is also widespread acceptance of the use of internet based social networking platforms in education. The strength of using ICTs lies in their flexibility as both students and supervisors can participate in the discussion at a time and place that is convenient to them as it creates learning and knowledge-building communities (Kanuka & Rourke, 2013, pp. 22-23; Dabbagh, 2005, pp. 30-31). Nearly all the student teachers contented that they would be able to survive teaching practice and were also anxiously waiting for the day when they would complete their teaching practicum.

6.5.4.6. Survival strategies for interpersonal relationships related concerns

Findings from the study indicated that student teachers came face-to-face with some of the interpersonal conflicts in schools. As part of the school community, student teachers had to understand the culture and politics of their school, and thereafter develop survival skills to deal with interpersonal relationships. The most common concerns that student teachers had expressed related to interpersonal relationships were predominantly conflicts with their mentors and, to a lesser extent, fellow teachers in their school. Some of the student teachers felt that they were wrongly matched with their mentors. Mentors were accused of being too prescriptive, withheld feedback, failed to address their concerns, and lacked commitment. In one school, students were saddened with the culture of being reassigned to classes with absent teachers irrespective of the grade they were teaching. Students found this arrangement stressful because they were expected to plan before they could teach a new class while their own work was suffering.

As a coping strategy for their interpersonal relationships, student teachers devised strategies to use for each type of concern. Some of the strategies included Kyriacou’s (2001, pp. 30-32) direct and palliative techniques, namely: keeping problems in perspective; avoiding confrontations; taking a break after work; keeping feelings under control; dealing decisively with problems; devoting time to particular tasks; discussing and expressing one’s feelings to colleagues; maintaining a healthy life style; planning strategically; and recognising one’s own weakness. Of these strategies, student teachers mainly employed avoiding
confrontations, taking a break after work discussion and expressing one’s feelings to their peers, maintaining a healthy life style, planning strategically, and recognising one’s own weakness. These tactics were strategic in that they used the avoidance and social networking strategies, where individuals avoid the source of the problem and turn to other people for help (Onen & Ulusoy, 2015, p. 614). Some of the student teachers perceived the conflicts as part of their growth in the profession and none of them requested a change of class or school, although they were aware of such a provision. Although it was tough for the student teachers to work under such conditions, they learnt to be humble and accepted the mentors’ guidance being fully aware that it would cease to exist after teaching practicum.

6.5.5. Supporting pre-service teachers

- **How can pre-service teachers be supported to deal with their teaching practice related concerns?**

One of the main objectives of the research was to investigate how student teachers were supported during teaching practice. Findings from the study revealed that student teachers were mainly supported by supervisors, mentors and peers. Berg and Smith (2014, p. 29) found that mentors, former teachers, college supervisors and close relatives provided most of the support and encouragement for student teachers in Malaysia, New Zealand and England. Only one of the student teachers in this study mentioned former teachers and none of them included close relatives for their professional growth. Friends and relatives were mainly restricted to financial and moral support. Of the support links that student teachers had, the most productive were with mentors (including other teachers in the host school), peers and college supervisors. The majority of student teachers were largely satisfied with the quality of support from mentors and peers, but not from college supervisors. Pitton (2006) described the role of a mentor as a “guide, supporter, friend, advocate, and role model” (p. 10). Approximately 75% of the participants who were interviewed claimed that their mentor was the most helpful person during teaching practice. This was expected given that mentors were the closest and most influential persons in student teachers’ teaching practice life with whom they interacted with on any issue on teaching and learning every day; mentors knew their strength and weakness; and mentors constantly provided feedbacks after lessons. While this choice seemed obvious, 25% of the student teachers preferred either peers or college supervisors as the most helpful person during teaching practice.
Interestingly, a majority of the student teachers who opted for their peers or supervisors had poor relations with their mentors. Such human behaviour is expected where relationships are shifted to the next available support system.

The findings from the study also revealed that supervisors’ support was the weakest among the three forms of student teachers support links; student teacher and peers, student teacher and mentor, and student teacher and supervisors. Most of the student teachers felt that the mandatory one supervisor visit per term was too small for them to receive any meaningful support. Most of the student teachers disclosed that supervisors’ visits were infrequent and were unannounced, and the lesson observations were normally conducted in a hurry. Supervisors accepted that it was not always easy to leave their work at college and follow up student teachers on teaching practice and the few times they went out, they wanted to maximise the opportunity. As a result, their input into their practical professional development was the least. Some of the student teachers dreaded asking their supervisors any questions or opening up their concerns for fear that they would be penalised in the event that they revealed some of their weaknesses. Pitton (2006, p. 8) even found that mentees were sometimes uncomfortable or threatened by the support they received because they viewed it as a sign of weakness or failure. This possibly explains why student teachers found it difficult to request or accept support from supervisors or mentors. Therefore, mentors and supervisors need to be aware of the fact that mentees sometimes believe that turning down a request for support from them is a sign that they are on top of the situation.

Supervising trainee teachers is a multifaceted process and one of the critical roles of a college supervisor is to identify the student teachers’ areas of weakness, challenge their belief system of their practice and assist them to develop a capacity to overcome their concerns. Many of the students felt that the support from college supervisors was very weak mainly due to their infrequent visits that hardly went beyond a single lesson as they seem to be in a hurry to see the next student. While the traditional way of supporting student teachers on teaching practice by college supervisors has largely been face-to-face, there are moves to digitalise the support services. With the advent of the internet, new avenues have been opened that provide student teachers with opportunities to collaborate with their peers and get timely support from their college supervisors from a distance (Karimi & Ahmad, 2013, p. 198; Mahroeian & Forozia, 2012, p. 304). For example, colleges can adopt tele-mentoring; the electronic version of mentoring as an alternative training and support for student teachers.
during teaching practice. Thus, learning how to teach in the twenty-first century has ushered in new roles for both the student teacher, mentor and college supervisor. One of the realities of training teachers in the 21st century is to include technology not just in teaching and learning in the classroom but more importantly as a tool to support the professional development of students outside the classroom. The United Nations through its SDGs for 2030 is advocating increased integration of ICTs in school curricula and teacher training (UNESCO, 2015, pp. 3-4). This drive by world leaders towards the creation and support of integration of ICTs including mobile learning in education systems comes from the realisation that the world has become increasingly connected, socially, educationally and economically. In order to achieve this in education, member countries like Zimbabwe would have to ensure that all learners are taught by professional qualified, motivated, and supported teachers. It will be a tall order for Zimbabwe considering its current socio-economic and political environment. It is hoped that by the year 2030, student teachers and teacher educators will be able to create different formats of content like visual, audio, 2-dimension and 3-dimension videos. To achieve the objectives of the Sustainable Development Goals (SDGs) by 2030, there is need to radically shift the mind of some of the teacher educators who are resistant to the use of ICTs in supporting student teachers during teaching practicum.

Student teachers appreciated the support they were receiving from their mentors and peers; the support from their peers was more productive and less threatening than from their supervisors or mentors. Mentors and peers were also very supportive in terms of lesson planning and providing feedback after lessons on a daily basis. Sometimes they were given old schemes and plans to peruse through before they made their own. Similarly, Musingafi and Mafumbate (2014, p. 37) and Mukeredzi et al., (2015, p. 3) found school-based mentoring more effective in terms of support before and after the lesson. The constructive criticism that was provided after the lessons enabled the student teachers to scaffold beyond their zone of proximal development. Oppong (2013, p. 154) also reported that the supervisors’ remarks can be demoralising as it may destroy the student teachers’ self-image and confidence levels.

6.6. SUMMARY OF CHAPTER

In this chapter the quantitative and qualitative datasets were integrated and interpreted. The intention for integrating the datasets was to gain a more complete picture on how concerns
faced by pre-service teachers in Zimbabwe affect the execution of their tasks in the classroom, survival skills employed by student teachers as they learn how to teach in classroom contexts, and how they could be empowered to continually develop themselves in between the infrequent visits by supervisors using the latest technological developments.

**Chapter Seven** is the conclusion of the study, where the summary of findings, recommendations, implications for practice, limitations, and the suggested framework to address pre-service teachers’ teaching practicum concerns drawn from this study are reported.
CHAPTER SEVEN

SUMMARY, FINDINGS AND RECOMMENDATIONS

7.1. INTRODUCTION

The previous chapter provided a discussion and analysis of the merged quantitative and qualitative data collected from questionnaires and in-depth interviews respectively in this mixed methods case study. Chapter Seven is the pinnacle of this mixed methods case study as it wraps up the study. The chapter commences with an overview of the research process, in which the aim and the objectives of the research are outlined. This is followed by a summary of findings that were drawn from the study, implications of the findings on teaching practice and policy, recommendations that were suggested, details of the proposed framework to address pre-service teachers’ concerns during practicum, and potential limitations of the study. The next section provides an overview of the research process by re-focusing on the aims and objectives and by providing a brief summary of the findings that emerged in response to them.

7.2. OVERVIEW OF THE RESEARCH PROCESS

The overview of the research process explains how the study was conducted starting from the introduction and background of the study in Chapter One to the summaries, findings and recommendations in Chapter Seven.

7.2.1. Introduction and background to the study

Chapter One provided a context to the study by introducing the major issues of this study. The issues included the statement of the problem, research aim, objectives and research questions, theoretical framework that guided the analysis and interpretation of this study and the methods that were used. Teaching practicum was viewed as an important component of any teacher education programme where student teachers develop their own teaching style, observe and work with other teachers, and demonstrate their teaching competency (Musingafi & Mafumbate, 2014, pp. 33-34; Sharma, 2015, pp. 15-16). Despite its critical
role, teaching practicum was seen as period where student teachers are emotionally charged, and mentally stretched as a result of depressing situations they encountered daily in their classrooms (Sharma, 2015, pp. 16-18). Recent technological developments that have been adopted and integrated into teacher education in some countries have been seen as possible solutions to support student teachers to overcome some of these concerns (Cornu, 2010, pp. 11, 16). The study was motivated by the desire to come up with strategies that could be used to support pre-service students to deal with some of their concerns during teaching practice. Hence, the aim of this mixed methods case study was to identify and examine pre-service teachers’ concerns relating to their teaching practicum internship at schools in Zimbabwe and to suggest forms of support that could be implemented to assist them to manage their concerns effectively in a digital era. The objectives of the study were to:

- examine the variation of UCE pre-service teachers’ concerns across first, second and third year levels on teaching practice;
- establish how UCE pre-service teachers’ concerns affect their classroom practice;
- identify some of the strategies used by UCE pre-service teachers to cope with teaching practicum related concerns; and
- review the forms of support that UCE pre-service teachers receive and suggest how the support that they receive could be integrated with information communication technologies.

7.2.2. Perspectives on pre-service teachers’ teaching practice experiences

In Chapter Two, literature related to pre-service teachers’ concerns was reviewed under the theme: Perspectives of pre-service teachers’ teaching practice experiences. The discussion included the theoretical framework that underpinned this study, student teachers’ beliefs and self-efficacy, and student teachers’ concerns during teaching practicum. Social constructivist and social cognitive learning theories that informed this mixed methods study were collectively used to attach meaning to the quantitative and qualitative data that was collected. These theories were able to explain how student teachers learn to teach, the psychological and emotional states student teachers experience during teaching practicum and the impact of teaching practicum related concerns on their classroom practice; and stress management and the survival skills employed during teaching practice.
Chapter Three outlined the research paradigm, design and methods. A mixed methods research paradigm was used with a concurrent triangulation design that had equal weightings for quantitative and qualitative phase. The researcher also utilised pragmatism as his philosophical worldview which firmly believes that qualitative and quantitative methods are not in contention or immiscible, but they each serve their unique purposes in a study (Cornish & Gillespie, 2009, p. 807; Ivankova et al., 2015, p. 275). The rationale for using mixed methods study was to combine complementary strengths, and non-overlapping weakness of quantitative and qualitative research methodologies in a single study (Caruth, 2013, pp. 116-117; Creswell & Plano-Clark, 2011, pp. 8-11; Creswell, 2014, pp. 4, 17; Ivankova, 2015, pp. 4-6). This produced rich and thick data on the concerns experienced by pre-service teachers during their internship, rich and in-depth analysis, and enhanced research validity beyond the sole use of either qualitative or quantitative research designs.

From a population of 1 613 student teachers and 113 supervisors, a sample of 30 participants were purposively selected for the qualitative phases and 300 respondents were randomly selected for the quantitative phase. Data collection techniques that are compliant with concurrent mixed methods design where quantitative and qualitative data were collected separately at approximately the same time or with a slight time lapse between the phases were used in the study (Ivankova, 2015, p. 20; Leedy & Ormrod, 2014, p. 270). Prior to data collection, an ethical clearance from the Nelson Mandela Metropolitan University Research Ethical Committee (Human) and other key stakeholders in the training of teachers in Zimbabwe were obtained (see Appendices A to G). Thereafter, the research instruments (comprising of a questionnaire and two interview guides) were test piloted at another institution offering the 2-5-2 programme. The main purpose of the pilot study was to identify flaws in the research instruments, improve the items, format and scales of the items before they were used in the actual collection of data, and to enhance the validity and reliability of the instruments.

A single questionnaire with closed-ended items (see Appendix K) was used to identify the levels of concerns that pre-service teachers experienced during their internship in schools. The questionnaires were issued and collected by the Teaching Practice Department on behalf of the researcher to the selected student teachers during vacation school sessions.
The study also used semi-structured interviews to collect qualitative data. One semi-structured interview was scheduled with each of the selected twenty-four (24) pre-service teachers and six (6) college supervisors. For consistency in asking the participants, the researcher used interview schedules with predetermined questions so that the same questions were asked to all participants (see Appendices L and M for interview guides). Prior arrangements were made with each participant to discuss the purpose of the study, interview modalities and ethical issues.

Chapter Three also had an overview of how the analysis and interpretation was conducted and an explanation of the validation processes that were followed to ensure trustworthiness and dependability of the research inferences.

7.2.4. **Quantitative data presentation and analysis**

The purpose of Chapter Four was to present and analyse survey results based on the inputs of 193 questionnaires that were usable out the 300 that had been sent out. Data was mainly presented in tables, charts and graphs. Tables were used in cases that required structured numeric information while charts and graphs were used in cases where there were either trends, relationships or comparisons. Quantitative data was analysed using frequencies of variables, differences between variables and statistical tests which were designed to estimate the significance of the results and the probability that the events did not occur by chance. Thus, this process involved the use of descriptive statistics where the large numerical data from the questionnaires were simplified using measures of central tendency (mean, median and modal scores; and measures of variability (range and standard deviation). Inferential statistics were also used to further examine the descriptive statistics results so that relationships that were not obvious from a glance could be made on the collected data. Inferential statistics assisted in making deductions from the collected data, testing hypothesis and relating findings to the population in the study. Multivariate Analysis Of Variance (MANOVA) and Analysis Of Variance (ANOVA) were used to assess if the means of the three categories (that is, general areas of concerns, teacher beliefs and teacher knowledge) in the questionnaire for the aforementioned year groups were statistically similar or not.
7.2.5. Qualitative data presentation and analysis

The main focus of Chapter Five was on the analysis of qualitative data from 30 in-depth interviews with twenty-four student teachers and six college supervisors. An inductive thematic analysis was used in which themes were allowed to emerge from the participants’ accounts. Eight themes emerged from the interviews, namely classroom management, teacher knowledge, socio-economic factors, workload, interpersonal relationships, observation and assessment, and support and ICT. Presentation of the research findings was organised around the above themes and their respective categories supported by quotes that were poignant and most illustrative of the findings.

7.2.6. Quantitative and qualitative data integration, interpretation and discussion

Chapter Six focussed on the integration, interpretation and discussion of the findings from quantitative and qualitative analyses. Findings from the quantitative and qualitative phases were brought together for comparison interpretation and discussion (Creswell & Plano-Clark, 2011, p. 67; Ivankova, 2015, pp. 153-159). The discussion centred on student teachers’ concerns during teaching practice, variation of student teachers’ concerns over the three-year period, impact of student teachers’ concerns on classroom practice, survival strategies employed by student teachers during teaching practice, and the support of student teachers during teaching practice in a digital era.

7.3. SUMMARY OF MAIN FINDINGS

The integration and interpretation of the quantitative and qualitative data analysis in Chapter Six led to the following findings that addressed the research questions:

- *What are pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe?*

Findings from the study showed that teaching practicum is fraught with numerous challenges. The study identified a variety of concerns that students encountered during teaching practicum, namely classroom management, teacher knowledge, socio-economic factors, workload, assessment, and interpersonal relationships.
On the classroom management theme, student teachers acknowledged that they were concerned with enforcing discipline, helping learners with behavioural problems, managing group and seat work, disciplining disruptive learners, and establishing a management system for each group of learners.

Findings on the teacher knowledge theme highlighted the importance of having in-depth knowledge of all the subjects in the primary school curriculum. Nearly all the student teachers confirmed that there was at least one learning area which they were not confident to teach either in terms of content or pedagogical knowledge or both.

For the socio-economic theme, student teachers expressed concerns at the state of infrastructure, overcrowding in classes and a lack of resources in schools for teaching and learning. Research by Cakmak (2009, p. 201) and Kiggundu and Nayimuli (2009, p. 33) also highlight the consequences of socio-economic challenges during teaching practicum.

Findings on the workload theme revealed that student teachers were overwhelmed by the amount of work they had to cover during teaching practice even though they had a reduced teaching load. Student teachers were expected to plan daily, prepare learning aids, mark and record learner performance, conduct research projects and complete distance learning assignments. This finding is consistent with Jensen et al.’s (2012, pp. 82, 88) observation that student teachers spent more time than expert teachers execute similar tasks. This is to be expected given the experience edge of expert teachers.

Findings on the assessment theme revealed that student teachers were extremely concerned about being observed and assessed during teaching practice. Their main concern was fear of failing teaching practicum, stage fright and biases associated with teaching practicum assessment. This finding agrees with Ngara et al.’s (2013, p. 132) where student teachers expressed concerns at the subjectivity and the biased nature of teaching practice assessments. The other student teachers’ concerns for this theme were the number of supervisors’ visits, professionalism displayed by some of the supervisors during visits and quality of feedback. In some cases the feedback was delayed or extremely scanty. This resonated with Scott’s (2015, p. 183) findings that feedback is most effective when it is provided immediately after lesson observation and communicated in a cordial manner.
Findings on the personal relationships theme indicated that student teachers were concerned with conflicts they had with personnel in their host schools. Most of the student teachers’ conflicts were with their mentors which were attributed predominantly to a lack of experience in mentoring students, personality differences and differences in work ethic.

- **To what extent are pre-service teachers’ concerns different across the first, second and third year levels?**

The study revealed that student teachers’ concerns during teaching practice changed mainly from personal related concerns to task related concerns during the greater part of the teaching practice. First year student teachers were mainly concerned about accommodation during teaching practice, deployment, leaving their families, standing in front of the classroom for the first time, managing learners, relationships with mentors they were assigned to, and feelings of inadequacy in teacher knowledge. These findings are consistent with those of Karimi and Ahmad (2013, p. 198) who found that students’ concerns at this stage were blurred and hard to categorise. A majority of the second and third year student teachers appeared to be at Fuller’s (1969, p. 220) second level of concern (early teaching phase) with only a very small proportion of them having reached the third level of concern (impact phase).

Findings of the study showed that the levels of concerns change with time. Results for the one-way MANOVA (with $p < 0.05$) revealed that there were significant differences among the three year groups for the three dependent variables in the quantitative phase of the study: general area concerns (GC), teacher beliefs (TB) and teacher knowledge (TK). The ANOVA test for TB revealed that classroom discipline, instructional ability, assessment competencies; and creation and maintenance of a conducive learning environment did not change much during teaching practice over the three year period. A similar test for GC (which included fear of failing teaching practice, instructional design, classroom management, workload, and lesson delivery) indicated that the level of concerns for year one and three were almost the same; and the second year scores were significantly lower than the other two year groups. ANOVA test for TK (included aspects on disciplinary content knowledge in all the learning areas in the primary school curriculum, pedagogical knowledge and pedagogical content knowledge) indicated that there were significant
differences in the statistical means between first year and second year groups, and between first year and third year groups.

- **How do the concerns that pre-service teachers have affect their ability to execute their tasks in the classroom?**

Participants generally agreed that pre-service teachers’ concerns had an impact on student teachers’ classroom practice, learners’ performance and their own professional development. Findings indicated that disruptive behaviour by learners did not only affect the perpetrator, but disturbed the entire class. This is consistent with Korpershoek, Harms, de Boer, van Kuijk and Doolaad’s (2014, p. 3) claim that effective teaching and learning can never take place in poorly managed classrooms. In short, it is vital for student teachers to create conducive learning environments as it enable learners to focus on their work, reduce disciplinary problems and improves learners’ academic performance. Some of the student teachers found that a lack of proper time management for the lesson lead to the failure to complete planned tasks on time. This meant that learners would miss out on some of the content and would subsequently not perform well in assessment tasks.

Findings from the study also revealed that the lack of teacher knowledge by student teachers negatively affected their ability to execute classroom tasks. Given that one of the main role of teachers is to convey knowledge and skills to learners using a variety of methods, student teachers who lacked the prerequisite teacher knowledge, could not accomplish this roles fully. Student teachers are expected to have fundamental learning, disciplinary learning, pedagogical learning, situational learning and practical learning (DHET, 2015a, p. 16).

The findings from the study also revealed that the socio-economic environment in Zimbabwe affected the practice of student teachers during teaching practicum negatively. It was difficult for student teachers to produce quality work when teaching under trees or in overcrowded classes with limited resources. The situation was further exacerbated by the fact that mentors and supervisors, the main form of support were also not motivated to do their work professionally due to dissatisfaction with the working conditions.

The heavy workload which student teachers experienced during teaching practicum created unnecessary stress. Teacher stress affects behaviour, which in turn could reduce classroom
effectiveness, learner achievement, increase learner anxiety and subsequently classroom disruptions. Similarly, lesson observation and assessment were stressful especially when they were conducted by college supervisors. There was always a lingering feeling among student teachers that they perhaps may not be good enough to become teachers. Similarly, conflicts with mentors affected the quality of student teachers’ lessons.

- **What are some of the strategies used by student teachers to survive teaching practice?**

During teaching practicum, student teachers were able to develop their own brand of coping and survival skills. Some of the strategies were general and some were specific to particular themes of concerns. On classroom management, most of the coping strategies used by student teachers were based on the establishment of mutual trust between student teachers and learners, good planning of classroom activities and knowledge of the classroom environment.

To cope with their inadequate teacher knowledge, student teachers employed a mixture of approaches like self-study, collaborative self-study and consultations (with mentor, college supervisors and peer). This is in agreement with the findings of CETT (2011, pp. 2, 12) who claim that effective teachers learn from other teachers’ work and share their experiences.

The findings from the study also revealed that it was extremely difficult for student teachers to devise workable coping strategies to address some of the socio-economic concerns. While they were able to improvise for some of the teaching and learning materials, they experienced challenges relating to a lack of learning space in schools.

In order to cope with of the heavy workload, student teachers had to sleep less so as to complete their marking, planning and evaluating lessons. In addition, student teachers would occasionally remain at school to complete tasks and prepare the next set of lessons or they would take the work home.

Findings on the coping strategies for assessment and inter-personal relationships were a bit challenging for the student teachers. Some of the strategies they employed involved keeping problems in perspective, avoiding confrontations, taking a break after work discussion and
expressing one’s feelings to one’s peers, maintaining a healthy lifestyle, planning strategically, and recognising one’s own weaknesses (Kyriacou, 2001, pp. 30-32). These strategies served as the source of the problem which led them to turn to other people for assistance. Some of the student teachers accepted the disagreements in good faith and as positive signs that they were growing in the profession.

- How can pre-service teachers be supported to deal with their teaching practice related concerns in a digital era?

Findings from the study showed that student teachers mainly appreciated the support they received from their mentors and peers which they felt was more productive and less threatening than the support they received from their supervisors. Supervisors’ support was considered weak mainly because of their limited interaction with students. Findings from this study also indicated that some of the support that students need during teaching practice (like improved access, quality and effectiveness of the interactions between them and supervisors) could easily be integrated with new technologies such as Facebook, Edmodo, YouTube, Skype, Blackboard and Whiteboard. Cornu (2010, pp. 11, 16) and Mutekwe (2015, p. 119) argues that the generation of digital natives expect teacher educators to adapt to new conceptualisations of learning and pedagogies where the internet and its networks are extensively used with their plethora of networking tools, knowledge, and resources. Therefore, social networking applications were considered to be important to improve the quality of support and feedback by creating a learning network.

7.4. IMPLICATIONS OF THE FINDINGS ON TEACHING PRACTICUM AND POLICY

The findings of this study have a number of important implications for pre-service teachers’ teaching practicum in Zimbabwean schools and on how student teachers should be supported in an increasingly digitalised world. This study has generated a number of implications that may be of interest to policy-makers, teacher educators, and schools. The inclusion of these implications was very important because it justified the necessity for conducting this research. Furthermore, the implications were intended to stimulate discussion on how digital pedagogy could be integrated into schools and the teacher education curriculum. The insights gained from this study might impact, in a very broad sense, the way pre-service teachers are
taught how to teach in Zimbabwe. Although not exhaustive, some potential implications of the researcher’s findings, for both policy and practice, are discussed below.

Implications of the findings for stakeholders in teacher education include the need to continue to identify strategies to address student teachers’ concerns and to enhance teacher educators’ understanding of how teachers learn to teach and learn from practice in a globalised era. The study provided evidence to stakeholders for the need to understand preservice teachers’ concerns as they are socialised into the profession and to continuously seek better strategies to address student teachers’ concerns. Given that student teachers’ concerns are an important variable that may negatively influence teachers’ behaviour, effectiveness and attrition (Dibapile, 2012, p. 59; Woodcock et al., 2012, p. 3), policy makers may be equally concerned about how to ensure that they get value for their investment among the next generation of teachers.

Another major contribution of this study was that it provided stakeholders in teacher education with the much needed empirical research on how they could strengthen the support for teachers’ professional development to meet the demands of curriculum changes and changing roles of the teachers in an increasingly globalised world. In addition, it called for the enculturation of the belief that student teachers are lifelong learners who learn through professional learning networks, communities of practice and knowledge building communities (Dabbagh, 2005, pp. 30-31; Kanuka & Rourke, 2013, pp. 22-23). Barabasi (2002, p. 106) expressed similar sentiments and asserts that learning communities are valued because they represent survival strategies in a networked world.

An awareness of the concerns experienced by student teachers during teaching practicum could be of great value to teacher educators, schools, and policy makers within the Ministry of Higher and Tertiary Education and Ministry of Primary and Secondary Education. Teacher educators could utilise student teachers’ concerns to inform their teaching, prepare for teaching practice and support student teachers during their internships in schools. Schools could also use the findings to assist student teachers during school-based training or induct newly qualified teachers. Hence, the efforts to support pre-service teachers to manage their concerns cannot be left in the hands of student teachers alone, but all stakeholders in teacher education.
Another important implication of these findings for teacher educators would be how they could prepare student teachers for teaching practicum, make the supervision process less stressful for the student teachers, reduce bias and subjectivity in observation and assessment, and provide support that addresses the concerns of student teachers. More importantly for UCE, this study highlights the need for it to redesign its teacher education curriculum and make it relevant for 21st century teachers who could manage their concerns effectively, compete and thrive in an increasingly globalised world whilst simultaneously preserving and cherishing the distinctive values, identity, culture, philosophy and thoughts of African people.

Findings on interpersonal relations between student teachers and mentors, opinions on quality of feedback, observation and assessment of their teaching, and student teachers’ freedom to independently develop their own teaching styles, all point to the weaknesses of mentor networks and training in Zimbabwe. Maybe, the time has arrived for the professionalisation of mentoring in Zimbabwean schools. The same argument that is advanced to unprofessional teachers not being permitted to teach should be extended to mentors as well. In other words, an implication of this is to ensure that all mentors are trained and possibly incentives could be implemented to motivate teachers to study for this extra course. Such an approach will enable mentors to acquire repertoires of strategies, knowledge and skills to support the professional development of student teachers.

Another important implication of this study relates to the manner in which curriculum change should be introduced into the school curriculum. This study underlines the importance of following logical steps in introducing a new curriculum or modifying the existing one. Previous research has shown that curriculum change that is not accompanied by professional development of teachers will experience implementation gaps (Singh, 2011, p. 373). The present study also revealed that the introduction of Agriculture into the primary school curriculum was chaotic. In addition, schools should be supported with relevant teaching and learning materials. Similarly, under normal circumstances, teachers’ colleges should make provision for the training of teachers prior to curriculum change in school. In the case of the introduction of Agriculture, it was not so, hence the need to have a discussion on the curriculum implementation in cases where the Ministry of Primary and Secondary Education is insists on curriculum change despite challenges.
7.5. **RECOMMENDATIONS OF THE STUDY**

In this study, the main aim was to identify and examine pre-service teachers’ concerns relating to their teaching practicum internship at schools in Zimbabwe and to suggest forms of support that could be implemented to assist them to manage their concerns effectively. In light of the findings and implications drawn from this study, the researcher advanced the following recommendations.

- **Recommendation on the concerns faced by pre-service teachers during practicum**

The first step in achieving the objectives of this study was to identify the concerns that student teachers faced during teaching practicum. Findings from this research study identified six main categories of concerns, namely classroom management, teacher knowledge, socio-economic factors, workload, assessment, and interpersonal relationships. Given the negative impact that these concerns have on classroom practice, key stakeholders in teacher education need to devise and implement practical ways of minimising the intensity, occurrence and influence of student teachers’ concerns during teaching practice. United College of Education cannot address these concerns on its own. There is a need to identify key stakeholders for each of the concerns that were identified, request for their input, revise an old policy framework or draw-up a new policy framework, implement the policy and evaluate the outcomes.

For the classroom management theme as an example, UCE needs to work with schools and student teachers to address this concern. On campus, UCE could strengthen its own content on classroom management so that student teachers are conversant with good practices of managing disciplinary problems. Similarly, mentors could also intervene since they are strategically positioned to assist student teachers to develop their own classroom management style and practices that encourage mutual respect between learners and teachers and ensure that learners are focussed on their learning tasks. The same classroom discipline should filter into entire school, and administrators should be support by dealing decisively with learners who misbehave. Where necessary, learners’ guardians could also be contacted and requested to support the school. These strategies could lower the levels of classroom management concerns significantly.
• **Recommendation from the variation of student teachers concerns**

Findings from the study indicated that student teachers’ concerns vary during teaching practicum and most of them graduate without having reached the third level of teachers’ concern. This could be used by supervisors and mentors to support student teachers appropriately during teaching practicum. Similarly, induction managers in the Ministry of Primary and Secondary Education could use the same findings to support newly qualified teachers in schools. The aim of such induction programmes should be to acculturate the newly qualified teachers into the life of lifelong learners. In the same vein, UCE could initiate online mentoring programme with their former student teachers that extend beyond graduation.

• **Recommendation on observation and assessment of teaching practice**

The research findings also indicated that student teachers are under immense stress during lesson observation and assessment particularly by college supervisors. A holistic approach is required to address student teachers’ assessment anxiety from the time they are at college until they are on teaching practice in schools. At college, more attention needs to be paid to lesson planning and lesson observation under simulated conditions prior to the deployment in schools. This will enable student teachers to familiarise themselves with lesson observation and critical feedback, and gain expertise and confidence in lesson delivery (Sharma, 2012, pp. 23-24). Assessment anxiety could also be reduced considerably if constructive feedback is provided during the post-observation conferences and the assessment is based on a process rather than a product checklist (Paker, 2011, p. 216).

• **Recommendation for the role of information communication technologies during teaching practice**

Evidence from the study showed that college supervisors’ support was the weakest among mentors, supervisors and peers. However, the recent developments in electronic communication have shown that the communication between supervisors and mentors could be strengthened through the use of ICTs (Karimi & Ahmad, 2013, p. 198; Mahroelian & Forozia, 2012, p. 304). In some countries, ICTs have made it possible for teacher education institutions to support student teachers during teaching practice through the use of web or
mobile based applications (Zagami, 2010, pp. 71, 73). There is room for UCE to unlock the power of student-centric learning with the power of technology. For example, UCE could create Edmodo accounts for both mentors and student teachers to deal with issues relating to teaching practice. UCE could also upload some of the good micro-teaching sessions online to YouTube for the benefit of other student teachers. Partnerships with mobile service providers could be established for cheaper devices or discounted tariffs for student teachers to access content or to communicate with their supervisors and peers. Even the government of Zimbabwe could make an effort to provide internet access to all government institutions.

It was also evident that ICTs could only be used to support student teachers during teaching practice on condition that both student teachers and teacher educators are comfortable with the basic ICT skills. Therefore, the barriers to the use of ICTs that were identified in the study should be addressed as most student teachers are turning to digital pedagogy (Jaipal-Jamani et al., 2015, p. 30; Mutekwe, 2015, pp. 126-130; Rajasingham, 2011, p. 1). Hence, the need for UCE to include change management to reduce college supervisors’ resistance to change that was displayed by some of the college supervisors in this study. Furthermore, institutional guidelines and policies on the use of ICTs by both student teachers and teacher educators need to be implemented so as to deal with ethical and moral issues associated with uploading and using online content or participating on online platforms.

- **Recommendation for further studies**

Since the study was conducted at only one of Zimbabwe’s teachers’ colleges, there is a need to extend the study to include more colleges offering the 2-5-2 programme. This will ensure a much clearer picture of the concerns of Zimbabwean pre-service teachers’ concerns during teaching practicum.

7.6. **PROPOSED FRAMEWORK TO ADDRESS PRE-SERVICE TEACHERS’ TEACHING PRACTICUM CONCERNS: TEACHING PRACTICUM NETWORKING**

The proposed framework to address pre-service teachers’ concerns during teaching practicum is based on the concept of networking. The current format of teaching practicum in the 2-5-2 programme in Zimbabwe where student teachers spend more time on teaching
practicum (Samkange, 2013, p. 223) and are attached to mentors, limits them from gaining sufficient support from college supervisors, and observing, collaborating, sharing and enquiring about their field based experience in different contexts. This framework was motivated by the observation that college supervisors’ support was weak, mentors were unprofessional at times, student teachers often worked in isolation, and there was a general weakness in teacher knowledge. The proposed framework (Figure 20 on page 298) is primarily drawn from the research findings in this study and related literature.

Findings of the study indicated that most of the student teachers tended to be detached from their mentors and received very little input from their peers, other educators and supervisors for most of the time. However, recent technological advances and trends in a knowledge intensive and globalised society have created opportunities for teachers (including pre-service teachers) to be networked which enable them to effectively implement the curriculum, address their teaching practicum related concerns and grow professionally.

One of the approaches of addressing student teachers’ concerns during teaching practicum is to stimulate networking among peers and other experts in teacher education by exploiting the power of ICTs including mobile technology. Online networked communities which are growing in teacher education offer exciting opportunities to support student teachers during teaching practice. Hence, there is a need for UCE to embrace some of these new technological innovations to support student teachers’ professional development during teaching practicum. Trends in some of the western countries have focussed on open societies and massive open online courses (MOOCs) that encourage unlimited access and participation in creating knowledge and the sharing of information for the common good of all (UNESCO, 1996, p. 8). Networked learning communities offer more opportunities for reflection on educational practices than the traditional approaches where learning relies heavily on mentors or college supervisors (Allaire, 2015, p. 1). In the proposed framework, learning to teach is no longer limited to the traditional one-on-one with their mentor, college supervisors and peers in the same school, but now includes a virtual component or learning that extends beyond the boundaries of the school.

The proposed framework in Figure 20 (on page 298) shows that student teachers’ support during teaching practicum can no longer be limited to college supervisors, local friends and relatives, peers in the same school, and classroom mentors and expert teachers in school (as
shown in Figure 9 on page 64), but it is now open to the global body of student teachers, friends and relatives, alumni, expert teachers and teacher educators together with social media, MOOCs and internet. Open educational resources are a norm these days and they provide an extraordinary opportunity to address critical shortage of teaching and learning in Zimbabwean schools. Thus, the proposed framework seeks to tap into the knowledge and resources of the virtual world to address student teachers’ concerns through the use of ICTs, internet and social media.

Many teacher educators and teachers have over the past few years used social networking platforms like Facebook, WhatsApp, LinkedIn, and Twitter to connect with friends and other professionals globally. Similarly, Zimbabwean student teachers from such platforms is they are integrated as part of their curriculum. Teacher educators should take advantage of the fact that most student teachers are comfortable with the latest communication technology and each of the links in Figure 20 (on the next page) provides an opportunity for student teachers to share resources and experiences in the classroom. For every concern that Zimbabwean student teachers are experiencing, there are many websites on the internet that discuss the concerns. It is up to the student teachers to locate such websites, register as participants and take advantage of other teachers’ experiences. With this approach, student teachers should be able to receive the support they need and even create new knowledge and skills through the synergy of community collaboration.
Figure 20: Proposed framework to address pre-service teachers’ teaching practicum concerns: Teaching practicum networking
7.7. LIMITATIONS OF THE STUDY

While the main objectives of the study were achieved, it was also necessary to cite some of the limitations to the study as it was not possible to control all the possible variables like time and financial constraints. The task in this concurrent mixed methods case study was to collect the two datasets simultaneously or with a short time lapse. It was not easy to administer and to collect the questionnaires, and conduct individual interviews concurrently. Similar warnings were cited by Ivankova et al., (2015, p. 275) regarding the use of triangulating mixed methods design; as it is tiresome to collect two datasets simultaneously, it is difficult to integrate datasets, and resolve issues where there are conflicting findings. It was such a tall order to organise and collect the datasets, especially the in-depth personal interviews as the student teachers were in different schools. Furthermore, the integration of the datasets was not an easy task given that the quantitative and qualitative research designs are different and the two datasets did not exactly focus on the same features in the study. At least the two main research questions of the study were addressed from both angles although with different emphases. Both quantitative and qualitative data identified the main areas of student teachers’ concerns during teaching and how these concerns change during the three-year period. The qualitative data approach yielded ‘rich thick” information on the concerns experienced by pre-service teachers during their internship in schools. Similarly, the strength of the quantitative data analysis was in its ability to reveal the variation of student teachers’ concerns over the three-year period.

Situations where there are discrepant findings are always a source of concern in mixed methods research (Creswell & Plano-Clark, 2011, p. 233). There were discrepancies in the level of concerns between the datasets for first year student teachers. A number of ways of resolving conflicting findings in mixed methods research that have been cited in literature. Two of these approaches involve going back in the field to collect more data or to place more faith in one of the data sets’ findings to resolve the conflict (Creswell & Plano-Clark, 2011, p. 233). The researcher opted for the later, because it was less costly and implementable in this study. Going back into the field would not have necessarily yielded better results as some of the student teachers had graduated and were absorbed into the education system in different parts of the country. There were no contingency plans in place to follow-up such student teachers to their new schools. In the event that the researcher had gone back into the field, he would have been forced to use other intake groups. Such a move would have introduced other variables to the study which were not there at the time of the study. This situation was caused mainly due to
the time lapse between data collection and analyses of the datasets. It would have been easier if the anomalies were detected during the time when the researcher was still in the field.

The study also adopted a case study approach in that the study was only conducted at one institution offering the 2-5-2 programme. Some of the findings that were obtained in this study may not necessarily be the same in the other colleges offering the 2-5-2 programme. Hence, the findings may only be generalised to the population of United College of Education. Since the colleges are independent, there is a possibility that they each have their approaches to teaching practicum activities. A much better picture of the Zimbabwean pre-service teachers’ concerns during teaching practice could emerge if all the colleges were involved.

Even though the return rate of 64.3% for the questionnaire was considered good, 107 questionnaires out of 300 of them (representing 35.7%) were either not returned or were partially completed. The researcher would have liked to have received a higher return rate so as to minimise non-response bias and the quality of the findings. However, findings by Rindfuss, Choe, Tsuya, Bumpass and Tamaki (2015, pp. 797-798) revealed that there is no substantial evidence of bias even from low response rates. Therefore, a higher return rate does not necessarily indicate high quality research findings. The researcher believes that the response rate would have been higher if incentives had been offered to encourage the respondents to complete and return the questionnaires given the economic standing of the respondents. Even this was debatable, Baruch and Holtom (2008, p. 1139), and Shih and Fan (2009, p. 26) concluded that incentives did not influence the response rate in surveys. However, Olsen, Abelsen and Olsen (2012, pp. 4-5) found that incentives increased the response rates especially among lower socio-economic groups. Rolstad, Adler and Ryden (2011, p. 1105) also found that incentives like gifts sometimes increased the response rate. In this study, no rewards or incentives were used to entice respondents to complete and return the questionnaires.

Another limitation that could have affected the research findings was the fact that the questionnaire that was used for the quantitative study was long, with 54 questions. Respondents may have found it difficult to complete. Fan and Yan (2010, p. 133) found that the length of a questionnaire is proportional to the response rate. While this view may be true, Hardigan, Popovici and Carvajal (2016, p. 147) found out that there was not much difference in the response rates between the long and short versions of questionnaires. Therefore, this limitation on the length of the questionnaire may not have necessarily influenced the response rate.
7.8. CONCLUSION

The study highlighted some of the benefits of studying pre-service teachers’ concerns during teaching practice. The variation of student teachers’ concerns across the three-year period in particular revealed the forms of support that are needed at every stage of the teaching practicum. Given the negative impact of student teachers’ concerns during teaching practicum, all stakeholders in teacher education need to have a relook at how they could address the concerns of student teachers during teaching practicum. Some of the key stakeholders that were mentioned in this study were college supervisors, student teachers, mentors (including other teachers), school governing bodies, guardians, University of Zimbabwe, government, non-governmental organisations, civic and religious leaders, political parties, ZESA, and internet service providers. Even though the triad in teacher education (mentor, supervisor and student teacher) remain the core, the other role players are important for the triad to function optimally. On a positive note, the coping strategies identified in this study should be viewed as practical responses to challenges in the education field and therefore deserve recognition.

As teacher education consolidates the integration of ICTs in the curriculum, teacher educators need to look outside the box and harness the power of ICTs, not just in the lecture rooms on campus but also in the field where student teachers in the 2-5-2 programme spend most of their time and where theory and practice are integrated. For this vision to be realised, teacher educators’ roles have to be transformed. One strategy is for teacher educators to embrace and create the concept of teaching practicum networking platforms where both pre-service teachers and teacher educators become part of a global learning community of learners. In that position, supervisors could harness the power of information communication technology to their advantage. With teaching practicum networking, teacher educators would be able to support pre-service teachers to manage their self-doubts, address learning barrier issues, provide scarce teaching and learning resources, and provide support in all the subjects in the curriculum. This will consequently lead to an increase in the influence and visibility of college supervisors in classrooms, even from a distance. It thus emerges from this study that if student teachers’ practicum concerns are to be addressed, all the stakeholders need to make a concerted effort to gain an understanding of these concerns and to collaboratively seek ways to address them.
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ADDENDUM

Appendix A: Ethical clearance

21 February 2014
Mr C Chitumwa / Dr L Athiemooolam
Education Faculty
NMMU

Dear Mr C Chitumwa / Dr Athiemooolam

Pre-service teachers’ concerns on teaching practicum: a mixed methods case study from Zimbabwe

Your above-entitled application for ethics approval was approved by the Faculty Research, Technology and Innovation Committee of Education (ERTIC) meeting on 13 February 2014.

We take pleasure in informing you that the application was approved by the Committee. The ethics clearance reference number is H14-EDU-CPD-001.

We wish you well with the project. Please inform your co-investigators of the outcome, and convey our best wishes.

Yours sincerely

Ms J Elliott-Gentry
Secretary: ERTIC
4278 Gwabalanda

BULAWAYO

11 November 2012

The Permanent Secretary

ATTENTION: DR. SHUMBA

Ministry of Higher and Tertiary Education

Box 275

HARARE

Dear Sir,

RE: REQUEST TO CONDUCT MY DOCTORATE STUDIES AT SOME OF YOUR TEACHERS’ COLLEGES

As the above matter refers,

I would like to conduct my studies at some of your the colleges. The major part of my project will be conducted at United College of Education in Bulawayo while JM Nkomo and Mkoba will be used to pilot my instruments. I have been offered a place to study at Nelson Mandela Metropolitan University in RSA starting February 2013 (see attachment for details). My topic for the research project will be: Pre-service teachers’ concerns on teaching practicum: A mixed methods case study from Zimbabwe.

I hope my request will be granted.

Yours faithfully,

Chemunondirwa Christopher Chitumwa
Appendix C: Permission to conduct study: Ministry of Higher and Tertiary Education

3rd January 2013

Mr. C.C. Chitumwa
C/o Nelson Mandela Metropolitan University
P.O. Box 77000
Port Elizabeth
RSA

Dear Mr. C.C. Chitumwa

REQUEST FOR PERMISSION TO CARRY OUT RESEARCH ON “PRE-SERVICE TEACHERS’ CONCERNS ON TEACHING PRACTICUM: A CASE STUDY FROM ZIMBABWE”

Reference is made to your letter, in which you request for permission to carry out an educational research on “Pre-Service Teachers’ Concerns on Teaching Practicum: A Case Study from Zimbabwe”.

Accordingly, be advised that the Head of Ministry has granted permission for you to carry out the research at the United College of Education, Mkoba Teachers College and JM Nkomo Polytechnic.

It is hoped that once completed your research will benefit the Ministry. Accordingly, it would be appreciated if you could supply the Office of the Permanent Secretary with a final copy of your study, as the findings would be relevant to the Ministry’s strategic planning process.

MJ Chirapa
for: PERMANENT SECRETARY
Appendix D: Request to conduct study: Ministry of Education, Sport, Arts & Culture

4278 Gwabalanda

BULAWAYO

11 November 2012

THE Secretary
Ministry of Education, Sport, Arts & Culture
Box CY 121
HARARE

Dear Sir/Madam,

RE: REQUEST TO CONDUCT MY STUDIES IN SOME OF YOUR SCHOOLS

As the above matter refers,

I would like to conduct my studies in some of your schools in Bulawayo. The major part of my project will be conducted at United College of Education and partly in schools with student teachers.

I have been offered a place to study at Nelson Mandela Metropolitan University in RSA starting February 2013 (see attachment for details). My topic for the research project will be: Pre-service teachers’ concerns on teaching practicum: A mixed methods case study from Zimbabwe.

I hope my request will be granted.

Yours faithfully,

Chemunondirwa Christopher Chitumwa
Appendix E: Permission to conduct study: Ministry of Education, Sport, Arts & Culture

Mr. C.C Chitumwa
4278 Gwabalanda
Luveve
Bulawayo

Dear Sir

PERMISSION TO CONDUCT YOUR STUDIES IN BULAWAYO PRIMARY SCHOOLS.

Following your request for right of entry into the Primary Schools in Bulawayo for your PhD investigations permission is hereby granted.

Further, you are expected to inform the Ministry of Education, Sport, Arts and Culture on the outcome of the research by depositing relevant documents that will benefit the nation.

Thank you

P. B Damasane (Rev)
ACTING SECRETARY FOR EDUCATION, SPORT, ARTS AND CULTURE

19 December, 2012
11 November 2012

ATTENTION: MR. S. S. MOYO
The Principal
United College of Education
Box 1156
BULAWAYO

Dear Sir,

RE: REQUEST TO CONDUCT MY DOCTORATE STUDIES AT YOUR COLLEGE

As the above matter refers,

I have been offered a place to study at Nelson Mandela Metropolitan University in RSA starting February 2013 (see attachment for details). My topic for the research project will be: Pre-service teachers’ concerns on teaching practicum: a mixed methods case study from Zimbabwe.

I am also requesting that I be attached to the Teaching Practice Department for the duration of my studies as this will give me adequate time and opportunities to interact with the student teachers.

I hope my request will be granted.

Yours faithfully,

Chemunondirwa Christopher Chitumwa
Appendix G: Permission to conduct study at United College of Education

UNITED COLLEGE OF EDUCATION

All communications to be addressed to
"The Principal"
United College of Education
P.O. Box 1156
Bulawayo, Zimbabwe

4 January 2013

TO WHOM IT MAY CONCERN

This serves to confirm that Mr. C.C Chitumwa has been granted permission to carry out his research project.

S S Moyo
Principal
Appendix H: Participant letter of information

4278 Gwabalanda
Luveve
BULAWAYO

11 November 2012

Dear Participant,

My name is Chemunondirwa Christopher Chitumwa, a post-graduate student in the Faculty of Education of Nelson Mandela Metropolitan University in Port Elizabeth, South Africa. I am conducting a research project under the supervision of Dr L. Athiemoolam as part of the requirements towards a PhD degree.

This letter serves to inform you of my research project: Pre-Service Teachers’ Concerns on Teaching Practicum: A Mixed Methods Case Study from Zimbabwe, so that you can make an informed decision concerning your participation in this study.

The aim of this research is to identify and examine pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe. Data will be collected using a questionnaire and personal interviews and you will be requested to participate in one of them. The questionnaire will take at least twenty-five minutes of your time to complete while participation in the personal interviews will require about thirty minutes of your time.

In line with the ethical guidelines of Nelson Mandela Metropolitan University Research Ethics Committee (Human), participation in this research is voluntary with full anonymity and confidentiality. You are free to withdraw from the research study at any time for any reason without penalty. Luckily, none of the participants withdrew from the study.

There will be no personal identification details requested during the completion of the questionnaire or interview. However, you will be asked use your own preferred pseudo name during the interview to ensure anonymity at all times. For easy and accurate recording of interview data, an audio-tape will be used in addition to note-taking.
If you have any questions regarding this research study, please feel free to conduct my supervisor Prof  L. Athiemoolam at +27 41 504 2367 or myself at any time at the following cell number +27 71 314 4606 or email ccchitumwa@yahoo.com.

Thank you for your time and consideration.

Yours sincerely,

Christopher Chitumwa
Appendix I: Letter of informed consent (questionnaire)

4278 Gwabalanda
Luveve
BULAWAYO

11 November 2012

Dear Participant,

The aim of this research is to identify and examine pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe.

As a participant in this study, I ………………………………………………………. understand that I will be asked to complete a questionnaire relating to my concerns as a pre-service student teacher during teaching practice.

All the information that I will provide in this study is confidential, and my identity will never be revealed to my teachers’ college, school or in the reporting of the results thereof. There are no foreseeable risks associated to participants who take part in this study; therefore, there are no costs to me in any way. I am aware that this study has been reviewed according to Nelson Mandela Metropolitan University procedures governing participation in research.

I understand that participation in this study is voluntary and I am free to withdraw from the study at any point without any penalty. I have been assured that the raw data will be kept in a secure location and destroyed two (2) years after it has been analysed. By signing below, I state that I am over eighteen (18) years of age and wish to participate in the research being conducted by Chemunondirwa Christopher Chitumwa in the Faculty of Education, Nelson Mandela Metropolitan University.

Name of participant: ……………………………………………………………
Signature of participant: ……………………………………………………………
Signed at: ………………………………………………………………………
Date: ………………………………………………………………………
Appendix J: Letter of informed consent (interviews)

4278 Gwalabanda
Luveve

BULAWAYO

11 November 2012

Dear Participant,

The aim of this research is to identify and examine pre-service teachers’ concerns relating to their teaching practice internships at schools in Zimbabwe.

As a participant in this study, I understand that I will be involved in a personal interview relating to the concerns of pre-service teachers during teaching practice in schools.

All the information that I will provide in this study is confidential, and my identity will never be to anybody or in the reporting of the results thereof. There are no foreseeable risks associated to participants who take part in this study; therefore, there are no costs to me in any way. I am aware that this study has been reviewed according to Nelson Mandela Metropolitan University procedures governing participation in research.

I understand that participation in this study is voluntary and I am free to withdraw from the study at any point for any reason without any penalty. I have also agreed to the researcher’s request to audio-tape and take notes during the interview. I have been assured that the raw data will be kept in a secure location and destroyed two (2) years after it has been analysed. By signing below, I state that I am over eighteen (18) years of age and wish to participate in the research being conducted by Chemunondirwa Christopher Chitumwa in the Faculty of Education, Nelson Mandela Metropolitan University.

Name of participant: ____________________________________________
Signature of participant: _________________________________________
Signed at: _______________________________________________________
Date: ___________________________________________________________
Appendix K: Questionnaire

This questionnaire is designed to gather information on pre-service teachers’ concerns relating to their teaching practicum internship at schools in Zimbabwe and to suggest forms of support that could be implemented to assist them to manage their concerns effectively. There are no right or wrong answers. Your answers are confidential and you are requested NOT to write your name on this questionnaire.

DEMOGRAPHIC INFORMATION
Please cross (X) in the relevant box that corresponds with your current situation.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th>18-20</th>
<th>21-23</th>
<th>24-26</th>
<th>27-29</th>
<th>+30</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Current course and year of study</th>
<th>1st year ECD</th>
<th>2nd year ECD</th>
<th>3rd year ECD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year ECD</td>
<td>1st year</td>
<td>2nd year</td>
<td>3rd year</td>
</tr>
<tr>
<td>General</td>
<td>General</td>
<td>General</td>
<td>General</td>
</tr>
</tbody>
</table>

List the subjects that you passed at ‘O’ level (plus symbol or grade) excluding Mathematics and English

Main Study Area
<table>
<thead>
<tr>
<th>Item</th>
<th>Never stressed me</th>
<th>Stressed me some</th>
<th>Stressed me most</th>
<th>Stressed me all the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fear of failing the practicum</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Coping with the overall teaching workload (lesson planning, marking)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Managing practicum-related assignments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Being assessed (e.g. by my supervisor or mentor)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Striking a balance between the practicum and personal commitments</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Writing detailed lesson plans</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Selecting appropriate content for my lessons</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Preparing resources for my lessons (e.g., transparencies, worksheets)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Establishing rapport with learners.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Delivering the lesson</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Marking pupils’ written work and giving feedback to learners</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Enforcing discipline and helping learners with behavioural problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Managing the group work and/or individual seatwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Helping learners with learning difficulties</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Managing time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. Lack of content in a learning area.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
# Pre-Service Teachers' Beliefs

Please indicate your opinion about each of the statements below. Your answers are confidential. Please cross (X) on the number that best describes your current situation.

<table>
<thead>
<tr>
<th>DISCIPLINARY SELF-EFFICACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. How much can you do to get through to the most difficult learners?</td>
</tr>
<tr>
<td>18. How much can you do to get children to follow classroom rules?</td>
</tr>
<tr>
<td>19. How much can you do to calm a learner who is disruptive or noisy in your class?</td>
</tr>
<tr>
<td>20. How well can you establish a classroom management system with each group of learners in your class?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSTRUCTIONAL SELF-EFFICACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. To what extent can you craft good questions for your learners?</td>
</tr>
<tr>
<td>22. To what extent do you involve learners in such a way that it fully supports their needs and the development of their skills and knowledge?</td>
</tr>
<tr>
<td>23. To what extent can you provide an alternative explanation or example when learners are confused?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSESSMENT PRACTICES SELF-EFFICACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. Do your assessment practices reflect the full range of learning objectives?</td>
</tr>
<tr>
<td>25. Do you provide frequent feedback to support learners’ further learning?</td>
</tr>
<tr>
<td>26. Do you use strategies to encourage self-assessment?</td>
</tr>
<tr>
<td>27. Do you use assessment information to plan or adjust your learning programme?</td>
</tr>
<tr>
<td>28. How much can you use a variety of assessment strategies</td>
</tr>
</tbody>
</table>
### LEARNING ENVIRONMENT SELF-EFFICACY

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>29. How much can you do to motivate learners who show low interest in their school work?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>30. Do you work to ensure each learner experience success through support and valuing their work?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>31. Do you encourage and support learners to take responsibility for their learning?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>32. Do you use strategies to encourage and support learners to collaborate?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>33. Do you support learners to develop investigating and problem solving skills?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>34. Is your teaching flexible and responsive to the values, needs and interests of individual learners?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
<tr>
<td>35. Do you plan your learning programme based on the learners’ prior knowledge and skills?</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree</td>
</tr>
</tbody>
</table>

### TEACHERS’ KNOWLEDGE

Please indicate your opinion about each of the following statements in reference to your experience during teaching practicum. Please cross (X) on the number that best describes your current situation.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. I have sufficient knowledge about mathematics.</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree, 6 Strongly agree</td>
</tr>
<tr>
<td>37. I have various ways and strategies of developing my understanding of mathematics.</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree, 6 Strongly agree</td>
</tr>
<tr>
<td>38. I have sufficient knowledge about languages (L1 and L2).</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree, 6 Strongly agree</td>
</tr>
<tr>
<td>39. I have various ways and strategies of developing my understanding of the languages (L1 and L2).</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree, 6 Strongly agree</td>
</tr>
<tr>
<td>40. I have sufficient knowledge about science and</td>
<td>1 Strongly disagree, 2 Disagree, 3 Somewhat disagree, 4 Somewhat agree, 5 Agree, 6 Strongly agree</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>agricultural science.</strong></td>
<td>I have various ways and strategies of developing my understanding of science and agricultural science.</td>
</tr>
<tr>
<td><strong>41.</strong></td>
<td>I have sufficient knowledge about other content subjects.</td>
</tr>
<tr>
<td><strong>42.</strong></td>
<td>I have various ways and strategies of developing my understanding of content subjects.</td>
</tr>
<tr>
<td><strong>43.</strong></td>
<td>PEDAGOGICAL KNOWLEDGE</td>
</tr>
<tr>
<td><strong>44.</strong></td>
<td>I know how to assess learner performance in a classroom.</td>
</tr>
<tr>
<td><strong>45.</strong></td>
<td>I can adapt my teaching based-upon what learners currently understand or do not understand.</td>
</tr>
<tr>
<td><strong>46.</strong></td>
<td>I can adapt my teaching style to different learners.</td>
</tr>
<tr>
<td><strong>47.</strong></td>
<td>I can assess a student’s learning in multiple ways.</td>
</tr>
<tr>
<td><strong>48.</strong></td>
<td>I can use a wide range of teaching approaches in a classroom setting (collaborative learning, direct instruction, inquiry learning, problem/project based learning etc.).</td>
</tr>
<tr>
<td><strong>49.</strong></td>
<td>I am familiar with common learner understandings and misconceptions.</td>
</tr>
<tr>
<td><strong>50.</strong></td>
<td>I know how to organize and maintain classroom management.</td>
</tr>
<tr>
<td><strong>PEDAGOGICAL CONTENT KNOWLEDGE</strong></td>
<td></td>
</tr>
<tr>
<td><strong>51.</strong></td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in mathematics.</td>
</tr>
<tr>
<td><strong>52.</strong></td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in languages.</td>
</tr>
<tr>
<td><strong>53.</strong></td>
<td>I know how to select effective teaching approaches to guide learner thinking and learning in science.</td>
</tr>
</tbody>
</table>

354
54. I know how to select effective teaching approaches to guide learner thinking and learning in content subjects.
Appendix L: Interview schedule for pre-service teachers

1. What are the major concerns that you have experienced during your teaching practice in schools? Elaborate.
2. How have you managed to deal with your teaching practicum related concerns?
3. What form of support do you get or expect from your mentor and other teachers in your school in order to address your concerns?
4. What form of support do you get or expect from your college lecturers in order to address your concerns?
5. What form of support do you get or expect from your peers in order to address your concerns?
6. Explain how teaching practice related concerns can influence pre-service teachers’ ability to execute their tasks in the classroom?
7. From the support you get from your mentor, college lecturer and peers which one of these do you find most helpful. Explain.
8. From your discussion with other student teachers, what are some of their concerns during teaching practice together with their possible solutions?
9. Information communications technologies have wildly been used in social networks, how can they be exploited to alleviate pre-service teachers’ concerns during their internship in schools?
Appendix M: Interview schedule for college supervisors

1. From your discussion with student teachers, what are the major teaching concerns that they have experienced during teaching practice? Elaborate.
2. Explain some of the strategies that the college has used or intends to use to address the teaching concerns of student teachers in schools.
3. What are some the survival strategies that student teachers have used to manage their teaching practicum related concerns in between supervisors’ visits or vacation school?
4. What form of support do you provide to student teachers during your visits to schools who express or show signs of teaching concerns?
5. What are some of the strategies used by schools (i.e. mentors, Heads and TIC) to support student teachers during teaching practice?
6. Explain how teaching practice related concerns can influence pre-service teachers’ ability to execute their tasks in the classroom?
7. Information communications technologies have wildly been used in social networks, how can they be exploited to support pre-service teachers’ concerns during their teaching practice in schools?
Appendix N: Extract of the interviews transcripts

Key
R – Researcher
ST1 – Student teacher 1
ST1 – Student teacher 3
ST1 – Student teacher 8
CS6 – College supervisor 6

Interview with ST1

R What are the major concerns that you have experienced during your teaching practice in schools? Elaborate.

ST1 Ok, firstly there are some situations whereby there are some children that will be in the school environment and those children we can maybe consider them as children who are disabled maybe mentally or so or because of their development is not within the stipulated stages that maybe normal children will have to undergo through. And then you realise that your mentor is not really sure of how to deal with that child. So you find that maybe at times it’s important that maybe mentors also have guidelines or maybe when they go for workshops they may also ask in such cases what do … or maybe they get assistance from other people. And then like for us in the ECD we have do like … there is a project that maybe we call the practicum whereby you identify a needy area within the school and then you have to make sure maybe bring that needy area to the school’s attention and the school develops. And you realise that for example they may say that the outdoor area needs to be developed and yet the school has its own project that it has already started … is undergoing. Now you realise that as a student now you have to fund that project and there are some meetings whereby parents have to come and attend. Parents are not forth coming and that practicum it contributes certain marks to our assessment when the lecturers come. So I think those are some of the concerns that I encountered am so far in this first term on TP.

R How have you managed to deal with your teaching practicum related concerns?

ST1 In some instances maybe for example in this age group that we are dealing with zero to three year olds we are just applying the knowledge that we got from college and then we will try and apply what we have learnt. And maybe at the same time we
reason with them that “In such a case I think we have to apply A, B, C, D, E.” At times it’s difficult because the mentor may not be forth coming to take your suggestions.

R What form of support do you get or expect from your mentor and other teachers in your school in order to address your concerns?

ST1 From my mentor and maybe other teachers I am expecting them to help me when I am carrying out my lessons. And also helping me identify maybe my points of weakness because they have been in the field longer, they can even give me solutions on how I can rectify those areas whereby I am weak. So, I am expecting maximum support from the mentor and teachers.

R As a follow-up question: How is your mentor supporting you?

ST1 She is supportive in the sense that when you have carried out a lesson sometimes she says, “I think this is what you were supposed to do. You did it quite well but I think you could have put maximum effort here and there so that your lesson is even much more interesting.” Even in cases whereby there are some children who need … for example there maybe extreme cases whereby those pupils might need individualised learning or need to be taken care of not with other children. Maybe with this age group you find that there are some children who may spend the whole day crying. And so, there are one or two things that you need to do to make that child smile. So, she is always helpful in that she can tell you “I think you need to deal with this child in such and such manner. If you do it this way or that way. Just try it out and see what happens.” She is somebody who is open in the sense that she can tell you that “This lesson was done but you did not do it correctly. So I think if you can redo it again or scheme it again or re-plan again.” So, at the end of the day I am really benefiting from her.

R What form of support do you get or expect from your college lecturers in order to address your concerns?

ST1 Ok, so far I can say that the support that I got from my lecturers there are some issues that the mentor was not quite sure about and when the lecturers came they clarified that, “This was supposed to be done this way and this is not supposed to be done this way.” And I can also say where I have done well, I am also getting that support. But there are also some cases where the lecturer is not quite sure I would expect immediate feedback. Like maybe the lecturer may say “When I get to college I will ask about this”. And then it dies … it is silent and then now you have to go on the
next term with that very mistake that the lecturer said I will give you feedback … it means I am carrying on with that mistake and another lecturer is also going to penalise me for that. So, I am saying there are some cases whereby the lecturers also are not sure, can I have immediate feedback.

R As follow-up question: How many times have you been observed by the lecturers and how do you feel when there is a lecturer?

ST1 Only once. The environment is quite tense. It’s quite tense because at times you don’t know whether you are doing it right or you are not doing it right. Because he or she may have their reasons for saying this is not right because of A, B, C, D, E.

R What form of support do you get or expect from your peers in order to address your concerns?

ST1 Ok, from my peers concerning teaching practice I am expecting to get maximum support from my peers in the sense that they can help me out in the cases whereby I don’t understand. We come together, we study, we remind each other of the theories that we have learnt and how we can apply them. Because at times even my peers can be present. For example, if I am doing a lesson or when I have planned my lesson and I can give my peers and say “Can you please read this plan for me”. So, I would be expecting at least that they also support me and where I am not doing it right they may help me out. And maybe where I have forgotten they can also remind that you know “This theorist says this. If you can just apply this it would work out”.

R Do you sometimes do team teaching or peer observations?

ST1 Yes we do. Like before we do our lessons … we actually plan like a day before. Like we have at the end of day we come together and plan. So we give each other our plans and in some lessons … there are some lessons whereby you need the help of the other teacher especially with this small children. Maybe you are painting. You may not teach them to paint on your own. Otherwise one may splash paint and the other one would splash as well. So, during the process when you have asked someone to come to assist you, the person can also look at your lesson how you have done it and give your ideas. So, we really do come together sometimes.

R What sort of feedback did you got from such observations?

ST1 I have got positive feedback because that feedback is ok because at least its immediate feedback. Unlike whereby you have planned a lesson and you have taught and maybe the mentor or the lecturer can say “No you have done something wrong here from the planning”. But with my peers it’s much easier because they can read
my plans and say “There is something wrong with your plans before I even have
gone to the classroom. So, I think it’s really good and I think it should be encouraged
in all schools that at least if they can just be given time to get together to read each
your schemes and plans. And do some of the corrections …. because it would help 
… because we need all the marks when you are still a student. So, those small marks 
really count.

R Explain how teaching practice related concerns can influence pre-service teachers’
ability to execute their tasks in the classroom?

ST1 Uum I think for example … here we are talking about how those concerns can have
a negative and positive effect. Ok, I think like for example, the one that I highlighted
if you have a mentor and at times she is not so sure of what she should do. So what
will she tell me? She will tell me that “We will wait for the lecturer.” And the lecturer
will come and I make the same mistake that the mentor is not so sure about and in
the process I lose out marks. So, I think that has a negative effect. It has a negative
effect. And then when we get support from my peers, it has a positive effect. When
we get support from our mentors throughout our the teaching practice, I think it has
a positive effect as well in the sense that you gain knowledge from other people, you
gain skills from other people and when you use those skills it will help you to become
a better teacher. By the time you finish your teaching practice, you will have acquired
some skills. I think thus what I can say on this.

R From the support you get from your mentor, college lecturer and peers which one of
these do you find most helpful. Explain.

ST1 It’s a difficult one but I think so far I think I would go for the college lecturer’s …
Like when we were still at college they gave us sample plans on what to do and our
lecturers also gave us the opportunity like for peer teaching. So, I think that was …
not I think but that was really helpful because now when you come here the mentor
always at times will ask “What were you taught at college? I want what you were
taught at college so that we can apply it here”. So, I would think so far I think the
college lecturer … was very helpful for me to get where I am … first to go to college
and then come here because now it’s just application of what I learnt at college. And
at the same time the mentor is also gathering some information from me. So, I think
the college lecturers … I think so far they were the most helpful ones.

R From your discussion with other student teachers, what are some of their concerns
during teaching practice together with their possible solutions?
Uum, from other student teachers, their concerns maybe … I can say at times it would be the mentors because when we have different mentors they are also people and they are different people. So, you find that somebody will be at the same school but somebody has a mentor maybe whom I can say is very very helpful and the other one doesn’t. So, I have heard my peers also talking about that. At times you have a lecturer coming and then you have done more or less similar things but the way you are assessed is totally different. Yes, so, those are the most things that I have realised that people really talk about. But maybe the mentors but we are at the same school but the support that you get is different. And that different support it contributes to the marks. Yes yes, and then this one also that at times you have done more or less the same things. It may not be exactly the same and the way you are assessed its really totally different but we have done the same things. Yes, yes to address the concerns for mentors, maybe they can encourage them to attend workshops when the workshops are called out. And maybe invite as many schools as possible because maybe some may have attended and the neighbouring school hasn’t. So at the end it causes some tensions because one mentor will say that one went for the workshop and I didn’t. So, it causes some tensions.

Information communications technologies have wildly been used in social networks, how can they be exploited to alleviate pre-service teachers’ concerns during their internship in schools?

I think, uum, the information systems or information communication technologies I think they should be highly recommended and be used because they would enable students to get immediate feedback and immediate help. Instead of you waiting for the lecturer since our lecturers like they can come once in a term. Schools may open in May and the lecturer will come in July. Your problem will only be rectified when they have come in July and in these months you have done all those mistakes. And even for the purposes of demonstrations maybe for example a lecturer may see a good lesson from one student and that lesson because of the information systems that are now there it can be put up so that all students see. But if you could … The lecturers is not saying you do exactly the same lesson but if you could try and emulate or even do something better. I think it would help because at times you get to a place and you are blank and you don’t really know where to start from. And maybe due to lack of confidence you are thinking maybe I am doing the wrong thing and if at least you could see it from somebody and I think it could help. And also even the use of
Whatsapp, there is even the use of Skype nowadays. It’s really helpful like maybe if there is a lecturer and you speak to her and say you are just going to do my lesson now would you mind if you could just see what I am doing through Skype. Something like that. I think it would really help. Yes. And even when we are on TP, they can post some things like that don’t forget to do this or you can chat as a group on this and that. These are the challenges that I face. “There is a certain student who is not responding well or the student doesn’t want to talk. What can I do?” And you exchange ideas. I think it would really make us even better teachers.

**Interview with ST3**

**R** What are the major concerns that you have experienced during your teaching practice in schools? Elaborate.

**ST3** Like when they give us those assignments handiti. So, they give us as if we are in our fourth term. And they give us all of them at once like 19 assignments at once and they expect us to hand them over before we finish our teaching practice. So, that one is very difficult for us. Yet we have to go to the college and do our research there and there is no time. Here we will be marking and teaching. And there is also CDS, we have to do the CDS. So, it’s very tough. It’s very difficult.

**R** Anything else? In the classroom.

**ST3** In the classroom, the mentor they don’t like me to teach subjects like the Environmental Science or Maths. If you are attached to the Deputy Head like myself last term, I was attached to the Deputy. It was difficult because the Deputy Head was always in his office and I will be forced to teach his subjects and mark them also. Yet I am only required to teach maybe half of the subjects like 5 subjects. So, it will be difficult for me to do all that work on my own. And if anything goes wrong they just say “It’s the student” yet he would not be in the class to advise me.

**R** As for the planning

**ST3** The planning we do the planning everyday but sometimes if the mentor is not there like I said before if you are attached to the Deputy … you have to show him your plans and say “Is it ok for me to plan like this. What are the learning media which are needed for me for this particular subject or lesson”? So, when the mentor is not there, you won’t have someone else to ask and if the Head comes and asks like “Why was she using the wrong media for a particular subject or lesson.” And when the Head asks he will say “She did not ask for help for advice” and yet he won’t be in
the classroom.

R  And as for the assessment of the pupils’ work are there any concerns there?

ST3  At this school they don’t assess grade one pupils work in term one. Maybe they do it once a term. That’s where the problem started because when I was teaching grade one, my mentor told me that “Grade ones don’t do corrections when they are in their first and second term. They start doing their corrections maybe third term. And when the Head took our books for assessment he then said “No, the corrections must be done in their second term. So, that one … it was difficult for me because it would like they will be fighting and then I will be left not knowing which is which. Because the mentor will be saying “No, I am the grade one teacher I know corrections should be done in the third term and the Head will be saying “No, corrections should be done during the second term and the remedial work as well. The Head was saying in grade one there must be remedial work and the mentor was saying in grade one there is no remedial and extension work. Yet at college they were telling us that at grade 1 they should have remedial and extension work.

R  Coming on to content, are you comfortable with teaching all the various subjects. Any concerns in terms of preparation?

ST3  I am comfortable with all the subjects. Yes, but the Environmental Science is very difficult to teach. The learning aids for Environmental Science are very difficult to produce or source. In Art also you find that at this school we only have the paint but the brushes for the pupils we don’t have. And the guava paper which we use, we don’t have. We only have the paint and the paint is not the right one … they just go and buy the cheap one.

R  How have you managed to deal with your teaching practicum related concerns?

ST3  Sometimes I … in the Environmental Science what I normally do when I plan is before I plan I go to the mentor for assistance. Like now I am teaching grade 6, so I have to go and ask ukuthi “What is the media that is needed” or sometimes I would ask the mentor maybe when I am starting a new topic and I don’t know how to start it I will ask the mentor to start the topic for me so that I will take it from there.

R  As for the issue of the assessment issue, how did you manage?

ST3  In assessment by the lecturers when they came his term, she first assessed someone in grade five, they gave that person 66% and then she came to my class she gave me 67 and then she went to the last person she gave her 61. She then went back to the one who is teaching grade 5 and then asked for a new crit and then she changed her
mark to 69. I don’t know what had happened there. And sometimes when they come for assessment … like at college they tell us you should have maybe a … you should prepare one subject with all learning media for the lecturer if … if they come you should give them that lesson. You should always one lesson per day but when they come some lecturers if you give him or her a lesson and say “This is the lesson that I want to give you”. They will say “No, give me the other one” which you will have not prepared the learning aids and they will give you less marks. Even if … the college says if they find you not having finished maybe scheming, you are supposed to be given less than 50 but some lecturers they give those people maybe 70% yet those people will not have finished scheming. And those who will have finished scheming, you find out that they will be given maybe 53%, 54% that’s not fair. And even if you go and complain at the college the lecturers will deny all those things.

R What form of support do you get or expect from your mentor and other teachers in your school in order to address your concerns?

ST3 For me, the teachers assist when I have some assignments. When I ask them, they tell me ukuthi I should write it like this like this or some of them for instance they have their own laptops that I can use. Like these days at college we don’t hand in hand written assignments, so some teachers here will assist me by typing my assignment for me and print them for me.

R What about in the classroom?

ST3 In the classroom when they come I can even ask them … maybe the grade 4 teachers ukuthi “How do I teach this”? Like my mentor is not always there sometimes. So I ask maybe the grade 4 teachers “How do I teach this topic” and they will tell me ukuthi “It is so and so” Even in remediating sometimes if I don’t know ukuthi how do I remediate these pupils I can sit down with them and they tell me “You should remediate so, so. Take these pupils who are so so and remediate like this”.

R What else do you expect from your mentor? Do you think they are doing enough or you would like them to do even more?

ST3 As for my mentor uuum, he is not doing enough since we opened he is not always in classroom. He is always in the Head’s office. So, when he comes sometimes I would have taught and then when he looks at the board he will see that I have made a mistake and he will start again to teach the lesson.

R What form of support do you get or expect from your college lecturers in order to address your concerns?
ST3: Uum, when they come here for teaching practice, they don’t give us much support. It depends they don’t … in fact they don’t tell us when they would have finished assessing you. Some of the them they do tell you the problem ukuthi where did I went wrong but they would just go to the Head and report as if you are like very very lazy. They don’t tell you they just go straight to the Head. And when it comes from the Head, telling you “What your lecturer was saying … it would be like … they would have … even if … they don’t take the Head and do … and maybe ask you ukuthi “What’s your problem?” They don’t do that. They just go and tell the Head.

R: What do you want lecturers to do? What is your expectation?

ST3: Maybe I would expect them first of all to sit down with me and tell me ukuthi “What subject do you want to teach?” and maybe give me time to look at my lesson plan. Because some of them they just come in and say “Give me a lesson” without even letting you go through your lesson plan so that you won’t mix your procedures.

R: What form of support do you get or expect from your peers in order to address your concerns?

ST3: Maybe the help that I get from my peers is we just help each other when we are doing assignments because maybe some of them they teach near the college and when they do their research, they give us their us some points to write. We exchange points in fact in writing assignments.

R: Is there any support in your teaching? Do they support you in your planning or in your class management skills or marking?

ST3: We never did that but in planning that is where we help each other.

R: What sort of help did you get from there?

ST3: Maybe like in English how we plan it is different from the other subjects. So, I used to have difficulties in planning English. But when I went to my other colleague and then she showed me ukuthi how we should plan like this. From there I was planning well.

R: Explain how teaching practice related concerns can influence pre-service teachers’ ability to execute their tasks in the classroom?

ST3: Like I have said before, like when we have our assignments it will be difficult to do them. We are only allowed to go the college once a month on a Wednesday. It’s difficult for us. And when we go to the college, we won’t be doing only one business. Maybe we will going for our CDS and we want again to research for our assignments,
so that time will be very very little time to do everything. After all, we are not allowed to leave the school before one o’clock. So, you find that we won’t have enough time to do all those things when we get to college.

R From the support you get from your mentor, college lecturer and peers which one of these do you find most helpful. Explain.

ST3 Uum, maybe from my peers because sometimes they advise me that if lecturers visit your school, they will tell you ukuthi when they come you should not panic or run around for advice. You should just give them your lesson plans as they are because if you panic that’s where you fail. If we meet at the college with my peers, we start sharing each other’s problems and discuss how we could resolve them.

R From your discussion with other student teachers, what are some of their concerns during teaching practice together with their possible solutions?

ST3 Yeah, their concerns … maybe there was maybe one time when some lecturers came at school very early. I remember there was those students they said the bus college arrived when they were still brushing their teeth at around 6 am before when some of them were still in bed when the college bus was at the school where they were teaching. So, even if they wanted to prepare for the lessons, it was not possible because the lecturers were already there and if they were are found with without lesson plans for that day they were automatically give you a zero.

R Anything else from other students?

ST3 Maybe another one was of someone assessed like I was saying before ukuthi if the lecturer starts to assess you they require all the documents … if they are assessing us you must put all your documents on the table … you give the lecturer all your documents. So when the lecturer assessed the first student and he did not give the lecturer the module file and when the lecturer went to the next student, the student gave the lecturer the module file and when he finished assessing that student, the lecturer then went back to first student and said “Why didn’t you give me your module file?” but it’s their duty to see ukuthi you have given them all the documents.

R Information communications technologies have wildly been used in social networks, how can they be exploited to alleviate pre-service teachers’ concerns during their internship in schools?

ST3 We even have problems when researching for information because the college there are few computers connected to the internet. Even if we get there on time, they will be another intake on campus. You will find someone seated there and if they sit, they
take almost 2 hours and you can leave college without even researching for the information that one needs.

R   Why use the internet only when there is a library at college?
ST3 Yes, for researching, we research on the internet because they say most of the books that are in the library are outdated, so we should use the internet.

R   What do you normally search for on internet and how do you normally do it?
ST3 We just type the question on www.ask.com as it is and we get some points from there.

R   Is there anything else you would like to add?
ST3 I don’t think there is anything. Maybe as go to our final term next term on TP when the external assessors will be coming, they won’t tell us ukuthi they are at college or which school they are going to. They don’t tell us. I think they should tell us ukuthi the external assessors are now at the college but they don’t tell us. You just see the external assessor at your door whist you are teaching and those external assessors they don’t talk to anyone. I don’t know if it’s their policy or their rule that they must not talk to us. Last year there was Intake 12 who was here and she said that when the external assessors was now going, she did not say good bye to her. In fact … but she said thank you grade 5 and good bye as if she was not there in the classroom.

Interview with ST8

R   What are the major concerns that you have experienced during your teaching practice in schools? Elaborate.
ST8 The major concerns that I have experienced so far is that what we learnt at college is kind of different to what we find in schools. I had problems with linking theory with practice especially not knowing what to teach. I just had a rough idea, the content was just touching on the surface. It required me to research a lot more. Let’s say you are planning for a subject tomorrow, you are not planning for one subject. You may be planning for maybe 5 subjects and the 5 subjects I am planning for need research. And the research needs to be valid enough for the pupils to understand. So, when I take the research from Internet, I had to break it down to the level of the kids. So, it was kind of hard getting the content. And when it comes to the scheming part, sometimes there was the tendency of over-scheming or under-scheming. It is sometimes difficult when you come into a new class, you don’t know where they are coming from. You are given a class and in the second term and they have already covered first term and you are coming
into a new class with its own difficulties. Now, when you are scheming, you are looking at topics that can be taught in the second term. But actually the teacher can tell you that I had not covered some of the work for the first term. So I had to cover the work but the schemes have to go have go hand in hand with the plans. There is also the case of me having to scheme enough for the children to understand and know what I am supposed to teach them and at the same time for me to have direction of what I am teaching. And when it comes to planning … the day to day planning is something else, first there are 5 subjects and in those subjects there may be 2 lessons per day and I have to plan two 30 minutes lessons. Some lessons do not actually require two periods. So, it is kind of difficult to end up not teaching the other 30 minutes but I have to scheme for them and I have to plan for them because they are in on the timetable.

The other concern relates to time management. As I said when you are planning for something, you plan for 30 minutes but some of the content that we teach requires more time for the pupils to understand. My scheme will be telling me that I must cover the content from this week to that week but it can happen that the children would not have understood that particular topic. So, I have to go back and re-teach it. It becomes difficult to go back re-teaching some of the things and it becomes impossible for one to go hand in hand with the scheme of work. In the end, you tell yourself that you have to re-scheme as well so that it goes hand in hand with your plans. The problem is that we have to scheme in advance and you have to teach on a day to day basis.

The other concern is sharing of classes. We have this system of hot seating. Hot seating is one thing that takes up time. We have to take the pupils out of class by 12 o’clock and the other class comes in. That time period of us exchanging it’s a period gone. There is almost 30 minutes gone but I have to cover a lesson during that 30 minute period. So, sharing of classrooms is one problem that is affecting us. These are the major concerns.

Do you have any concerns in terms of the content that you are expected to teach?

Yes, each lesson has to have its own learning aid. There are five lessons or rather there could be five subjects divided into two periods lessons. So, it could be seven lessons per day and each has to have a learning aid. Now, I have to plan something that is enticing to children to keep them interested seven times. It becomes difficult for me to be that innovative daily. You end up repeating some of the things and it becomes repetitive.

How have you managed to deal with your teaching practicum related concerns?

Some of them are difficult to solve especially the sharing part. There is very little I can do about because pupils have to go in and out of the classroom. The learners are many and they have to go to school.
But as for the content part the best thing that I have come up with is that most times I tend to plan my lessons after school … there and there I have to plan. I will take into account what the learners would have learnt and what they have understood. Whatever content has remained I move it to the next one or when it comes to interrelated topics I tend to touch everything in the interrelated topics. For example the topic on health, I touch the health in ES, health in Home Economics and maybe health in Social Studies and mix it up so for the advantage of me not having to re-scheming and re-teaching or even re-planning the same concepts.

R  How have you managed to deal with time management?

ST8  That one is difficult … it’s a mammoth task concerning the fact that I am sharing a class with a mentor. There is conflict of interest here. My interest will be to teach all the subjects in the curriculum while the mentor’s interest is to teach what is examinable. So, time management is kind of difficult because I would like to manage my time so that I can teach PE and Music but our society makes us want to teach for examinations. That is required by the Ministry. As much as they would like us to teach PE and Music etc. at the end of the day pupils do not write PE. They don’t write Music but they are examined in the subjects that are core like Mathematics, English etc. So, to manage time efficiently, it’s very difficult. But I have tried to come up with my own strategies to create time. For example with the remediation work, extension work that is there where pupils have to be remediated and pupils have to be extended, I just make time available maybe after school if they are coming in the morning or in the afternoon. I just tell them that we will have extra lessons for either 30 minutes longer or an hour longer. That will extend our time and it will also help them.

R  Are there any challenges in teaching the core subjects?

No, so far I haven’t faced those challenges. My mentor is guiding me so that I can teach all subjects. This time they introduced a system whereby I teach five subjects this week and another the following week. So, we are exchanging on a weekly basis. This means I have to scheme all the subjects in the curriculum and teach all of them during a particular term.

R  What form of support do you get or expect from your mentor and other teachers in your school in order to address your concerns?

ST8  I am getting a lot from my mentor. One, she is supportive. She is one person who is direct. If I make a mistake, she sits me down and tells me where I have made the mistake and shows me the way on how to go about the mistake and how I should improve from there. When I came here I did not know how to stand in front of a class and I had no
confidence in my practice. She has been helpful in demonstrating some of the lessons for me. When she had demonstrated the lessons I learnt how to go about on each and every lesson. Even on a personal note, she is very supportive. Is there any other area where you think she could be of help?

ST8 So far I am happy with the quality of support that I am getting from my mentor. I am fine and I have no complains or mishaps with her.

R What form of support do you get or expect from your college lecturers in order to address your concerns?

ST8 College lecturers are available to us at any time when you need them. However, we don’t have time for them because I am here from seven to four and the lecturer is supposed to be knocking off at 4 pm. Now, I can’t communicate after hours about my school work. I can only communicate with them within the stipulated time. The time I am given to communicate with them is so little.

R What sort of support do you get when they come for assessment?

ST8 The fact that they assess you and afterwards they tell you where you have made a mistake, where you should improve and where you did well, that is one good thing about assessment. They tend to see where you are lacking and where you are strong and then they encourage you on the strong points and they tell you to work on the weaker points. In terms of assessment it is a very good idea.

R How do you rate the support that you get during these assessment sessions?

ST8 The problem with assessment and observation is that they stress you because they reveal whom you are. They will disclose if you are a good teacher or what type of teacher you will become. When the lecturers come, you wish they should not have come. That’s the truth, although it’s a good thing. But the fact is that you will fear to be assessed but it is one’s ticket to a diploma. If they are coming more times it will only be good if they are coming to give you a mark but it will increase the levels of stress. You won’t sleep and you will be busy trying to make things right.

R What form of support do you get or expect from your peers in order to address your concerns?

ST8 I learnt a lot especially from the other intakes because we experience more or less the same situations … are looking at the fact that when we come into schools we are not yet familiar with a lot of teaching. But if you find another intake in the school, one can get help. You can ask “How did you plan this? How did you teach that? How did you approach this when you were here? They are able to help you especially with documentation. For example, when we came here, we did not know how to fill in those
files. They would tell us “fill in this, fill in that, fill that” you know. “You use this material like this.” They encourage you.

R Explain how teaching practice related concerns can influence pre-service teachers’ ability to execute their tasks in the classroom?

ST8 Yeah, it’s kind of difficult especially with the sharing of classrooms. You are not able to do what is stipulated at … you are given a time period and with that time period you must have done with so many things. So that time period … with the sharing of classroom, it becomes difficult. And at the same time the type of content that you bring to class. As I said, you need to research and research more. You have sleepless nights researching. And you need to find your information from the internet and not everyone has a laptop and not everyone has access to the internet. And the time I have access to the internet is here at school where I am also needed to be in the classroom most of the times and after class I need to relax and plan my work. Planning and researching at the same time becomes difficult. So, and at the end of the day the things are more like difficult and unattainable

R From the support you get from your mentor, college lecturer and peers which one of these do you find most helpful. Explain.

ST8 Yeah, the first two, I have two… I have the mentor … I have a good relationship with the mentor … teaching practice isn’t that difficult because you know where to go when you need this. You know how to go about this. The peers … I remember when I was looking for information on a reading record book. I didn’t know how to approach it. I had to go to my other peers “Please help me with this please help me with that.” We are able to discuss it with the others … made each other understand … you know what “Approach it this way, approach it that way. So with me it’s the mentor and the other peers. It’s much more helpful.

R From your discussion with other student teachers, what are some of their concerns during teaching practice together with their possible solutions?

ST8 The issue of none examinable subjects in schools. You will find that the main attention or focus was on examinable subjects. And you find as a student teacher … from college you are supposed to teach all the subjects including the non-examinable subjects like Music and Art. The challenge was on the time space, the time you were given to teach them. Yes it will be showing there on the school timetable but when you are right in the classroom with the mentor, the focus is on core subjects… she wants to achieve targets … the issue of targets and some incentives attached to the targets. Basically that was the main challenge. I had to work it out with the mentor. She was not very much willing to
let me teach Mathematics … mostly Mathematics because it was the school policy that Maths and English … those were supposed be 100 per cent. For you to be given the chance to teach you had to prove to her that you can deliver to her expectations so that the pupils won’t suffer or the performance won’t go down and the target won’t go down. So, I had to make sure I teach to her satisfactory.

R Information communications technologies have wildly been used in social networks, how can they be exploited to alleviate pre-service teachers’ concerns during their internship in schools?

ST8 They are so helpful in the fact that some of these things that one needs you can research on … even on our assignments as well. You can find them on the internet. So, it can be helpful if only we can be able to access it in a manner whereby we are all able to have the laptops and the tablets as well as the dongles. Because it is difficult for me to pay money … put there and then start to research on a work or project that needs a variety of information. If I have that, it’s very accessible, easily accessible, cheap to use as well as communicate. Communication becomes very easy among us and maybe with the lecturers. For instance we were discussing last time and there was this issue of getting information from college … instead of us going to college asking for that … going to college looking for that. We can miss some of the information from college without knowing it but if it is made available on a website by the college … where everything is stored there and every new information is just being stored there … like “come for CDS at this hour, date and time.” We know when and where to go to … “Come for this and that”; we know where to go to. The internet is very much helpful. All we need to do is to be able to access it.

R Do you ever use Whatsapp with your peers and for what purpose?

ST8 We do, we have created a group for all of us here who are from UCE. We created a group whereby if I have any information that needs to be communicated, I just put it in the group and everyone has access to it. From the communication, one will know what is needed maybe tomorrow or the next day or even from college. Whenever I hear something, I just post it there. So, Whatsapp is one thing that is very helpful. Regrettably, it’s not allowed for us to use in the classroom because people just tend to abuse it or it is associated with social networking but it’s one way of disseminating information faster. Because chat groups helps … not only with us here but with others people from other school … other student teachers from other schools. We can ask on how they approach such a situation … on how they can handle such a situation. It’s very, very helpful.

R Is your group an internet or Whatsapp group?
ST8 It’s a group on Whatsapp. Because Whatsapp because almost everyone has it and it is fast … within two seconds, the information is already there. As for internet as I said, the accessible of internet is low because the phones that we might be using may not be able to carry such information because you may need to download a lot of stuff. But not everyone has that kind of phone that can be able to load that website or something.

R Anything that you feel can be relevant?

ST8 Yes, we have computers here at school … we were talking about this use of ICT at school. As much as we would want to believe that they are there I have the feeling that more could be done to bring the information to the pupils as well. As for me I can teach computers to pupils but the pupils cannot learn computers by it sitting in the computer room. I use a compute on a daily basis for the things that we do, it might be easy for pupils to go and research on something on the internet as well. But I think the use of ICT is at a limited rate for pupils in this school.

R Are the computers connected to internet?

ST8 No, they are not connected to internet. They are just stand alone computers for one to learn how to type. The internet access is only within the administration block and anyone can have access. Even if I want to access some information I turn on my Wi-Fi and logon. It’s available in the school. We can actual do our research on the internet. But the problem is that you need a laptop for that. You need your own things because the school has limited resources.

R Are there any other things you would like to add?

ST8 Not much but maybe to summarise some of the things that we may have talked about. The other problems that my peers of mine face … I think it is the same things that I face as well. The fact that as much as we need time to teach, we are also human beings … The amount of information that … the amount of things that we do… they are many things especially the day to day planning, the evaluations, the research. The college expects us to work on all these. We are needed at home for this and that. These things demand your time … as much as we need to manage our time, it becomes a bit difficult.

R The ministry of Education introduced Agriculture at the beginning of the year for grades 4, 5, 6 and 7? How have other student teachers manage to teach the subject given that they were not trained for it?

ST8 That is the unfortunate part, we did not learn it and we were strictly advised not to take it as of now although we might help here and there. We may help here and there but because we were never taught or went for a workshop, it’s difficult to teach it. It was introduced when we were coming in but other teachers went for a workshop for it. Yes,
they were taught some of the things that are there. As for us at school, we were never taught. It was never introduced to us in any way. So, we were advised not to take it up on a permanent basis but just to help here and there and also learn from what we are seeing. But it’s somewhat difficult because when a subject is coming in and there is no one well versed in it. Everyone is scratching their heads trying to figure out this and that. All I can say is that as student we are here to learn. We will just follow up and learn as well as they are teaching. We just learn from what they are doing.

R What are some of their concerns during teaching practice together with their possible solutions?

ST8 The issue that has been bothering many is us planning daily. It’s good to plan what you have to teach on a daily basis. It is good to evaluate what you have taught but when you consider the number of subjects you are planning for and you consider that each and every lesson that you teach there has to be a learning aid, not just a learning aid but one that brings reality to the pupils and when you have limited time for doing that. Those are the major concerns that other students have been raising usually.

Interview with CS6

R From your discussion with student teachers, what are the major teaching concerns that they have experienced during teaching practice? Elaborate.

CS6 During teaching practice or before teaching practice, the main concern has to do with whether they will be able to cope with the demands of teaching practice. That is their major concern, they are not really sure of what they will be doing in most cases. So that one normally we see it right through out teaching practice up to almost towards final assessment. They are not really sure, so that’s the major concern. They are not totally confident. I think the problem mainly is grounded in the preparation for TP. It’s not adequate, I don’t think its adequate. For the two terms we have for them doesn’t suffice for hands in terms of microteaching so that they have the actual classroom experience with the children before they go out. That one is missing. Some attempts are being made but with limited time it’s very difficult to really give them what we hope we can actual arm them for the coming job.

R As a follow-up question, early last year the Ministry of Education introduced Agriculture into the curriculum and are there any concerns raised by student teachers being expected to teach the new subject?

CS6 Yeah, I think there is a big concern. Actually it came from the students themselves
when they went out especially the last group Intake 14 who went in May last year in May 2014. They had not been prepared for that because in colleges we had not introduced Agriculture as part of the curriculum. There is talk about it, we even prepared some draft syllabi but it has gone to DTE but no discussion has been done yet. So that one is still a problem. Even the current intake that is there Intake 15, they don’t do Agriculture but come April they will be released into schools without the preparation. But schools are already teaching the subject so really it’s a grave concern and I don’t know how it can be addressed.

R Explain some of the strategies that the college has used or intends to use to address the teaching concerns of student teachers in schools.

CS6 The issue of preparedness, the college has started already tried to have some formal induction into teaching practice for students in terms of microteaching. We bus students to schools but it was possible with smaller intakes as from 13 going backwards up to around Intake 10. After we acquired some transport, some buses around 2012 now students are bussed to schools in groups. There is slot on the timetable for microteaching on specific days for different groups so they go out. But now that one, there is a bigger challenge. The intakes are growing and that one will not feasible with the current intake 15. So the college is re-strategising to see what can be done. They are even thinking of bringing pupils to college. So TP Department has been tasked to look into it and see on modalities which can actually allow students to have the feel of the classroom before they leave. But it’s a very big challenge, it’s really a challenge. But there is also a programme where students sort of participate as some kind of teachers where actually they are brought together as a whole intake in some kind of workshop where they will be inducted into various modalities of scheming different subjects. How to plan lessons in different subjects. That’s done before they leave for their TP. And again sometimes we recall them even after a term or two to college. That’s has been a feature for the past two intakes that have gone out Intake 13 and Intake 14. They have been recalled for about a day or two at college to try and synchronise with what is being done in schools and our expectations whether the two are matching.

R There has been remarks that there are different types of schemes of work among different subject areas is there any way the college is trying to bring them together?

CS6 This is what I was saying that some kinds of workshops are held just before they leave for TP concerning all departments. They will be coming as one as one in the
hall where different subjects present the how scheming is done. How lesson planning is done and everybody will be there in terms of various subject areas. The TP Department will be coordinating the function. The whole purpose is for the student to see that there should be a common trend throughout all the subjects. Actually even Syllabus A which actually normally does this scheming and planning is housed in the Syllabus A Area – Professional Studies. Right, they will also be coordinating these activities and at the end of the day students are given handouts on how scheming and how lesson planning is done in various subject areas and they put them into a file which they use as tool which they can use when they are out there. So something is being done really.

R What are some the survival strategies that student teachers have used to manage their teaching practicum related concerns in between supervisors’ visits or vacation school?

CS6 Yeah, but these are some of the survival skills, things that are used to overcome the concerns. Sometimes they come back to the various subject departments when they face personal challenges. And also even when we go out ourselves, we are open for consultation from the students so that the problems are rectified there and there. But also there is a facility where these students can liaise through the TP Office to raise issues of concern and even we don’t wait for that ourselves. Even lecturers when they note that there is a problem in terms of scheming, planning in various areas they recommend the student to come to the college so that they could be assisted or aided by the department or the subject area which is of concern to them so that issues are rectified. So students on their part are free to come and the college also makes an effort through supervisors as they go out to note any areas of concern so that the students are re-called. If you note, actually it’s a directive from the TP Office if you note any errors happening in terms of any of these documents, normally lecturers seize them and bring them to college as a way of forcing the student to come and follow up. Sometimes the student does not come even if they recommend them to come and get assistance. As a way of forcing them to come, lecturers seize the documents and bring them to the TP Department and the students has to follow up. And normally these documents … as the lecturer or supervisors came to the documents they write a report about the documents and wherever the student was found wanting. So as the what … because students when they come for those documents, sometimes they will lie and not actually tell the truth of what has been a
problem with the documents? So the report will be there to also assist and then TP Department will then send the student to the department which is of concern and the issues will be rectified.

R What form of support do you provide to student teachers during your visits to schools who express or show signs of teaching concerns?

CS6 Normally we are supposed to have a pre some kind of pre-teaching conference with the student where we raise issues of our expectations and so forth. And the student also raises issues of concern. Because sometimes they might have limitations in terms of learning aids whatever the like and the like. And after that the student will teach and you try and then do your job and at the end you will have a post teaching conference again. The idea there is to try and then talk to the student and try and assist in terms of wherever they might have had problems during the lesson and also reinforce on strong points students were able to do … whatever they were able to do well, you also note that. So that students can continue to do the right thing. And then also we are open for consultations as we are out there students can come up with their concerns because we give them time. Sometimes after our supervisions we call them as a group and we attend to their concerns. Normally these guys have a group leader. So, then we ask them if they have problems as a group. And then they normally open up. And again we also have something, the college has something called community project, where the students are supposed to do something on the community and try and integrate themselves with the community in which the school operates. So that is another way of trying to also find out from them whatever they have been doing, what successes they have been achieving, what challenges they are facing and so forth with communities as well in which they work. So really as supervisors we are open to consultants and normally we also go with some supportive documents in terms of handouts, in terms of assignments that we might also need to guide them. Because normally they have distance assignments when they are out there. Yeah, so sometimes they come up with issues which need clarification from the lecturers concerned. Now this time it won’t be the supervisor that is the lecturer when they are out there because they do assignments whereas they are out there, so then they need our assistance when they are out there.

R What are some of the strategies used by schools (i.e. mentors, Heads and TIC) to support student teachers during teaching practice?

CS6 Uum, these guys are also partners in with us in the training of students, so whatever
the students might find wanting, normally the first port of call is the mentor. And if the student can’t help, normally it will be the TIC or even the Deputy Head and the Head before they can communicate with the college. So really they are also trainers these guys in the schools. So they normally give students all round support in terms of even guidance in terms of expertise, in terms of the subject they are teaching. And also in terms of materials that they may need to make learning aids and also for teaching like chalk like whatever and the like. So we expect them to be supportive to our students and try make them equal to the tasks at hand. Now and again workshops are conducted where mentors are actually made aware of their duties. It may be done at college, where they come to college, the mentors or they are done in their clusters in the schools there. Because we are aware that some of them will be new teachers who suddenly find themselves as mentors. So they might not actually have the skills to perform that function, so there is need for them to be inducted into that role. Because their role is very crucial. As I said before, they are partners with us in the training of these teachers. There is no way we can achieve our objectives if they are not there because most of the time they are with them in the schools there.

R Explain how teaching practice related concerns can influence pre-service teachers’ ability to execute their tasks in the classroom?

CS6 Concerns like preparedness, if they are not very prepared it means they may lack confidence. Right, so lack of confidence will mean that they may not execute their duties as expected, one. Secondly, the issue of materials they are also very necessary. So these have to be provided. Where they are not provided where students can’t improvise it becomes a problem because they cannot execute their duties well. Because its primary level, they have to teach with learning aids because the students are at that level of concrete learning and so forth. So really that concern would affect their performance. The other concern might be that of not being sure of what … in terms of scheming in terms of planning and so forth. Surely that will come up when they are teaching because they could be over scheming or under scheming. So really their coverage of the content might be skewed somehow either way. Maybe they are doing too much and the students won’t be getting much or they might be doing too little so it means they won’t cover the syllabus. Mind you these guys are out there for two years, for almost two years which is about five terms which is almost two years. So really they have to do it right otherwise there will be a problem with the materials they will be giving to students.
Information communications technologies have wildly been used in social networks, how can they be exploited to support pre-service teachers’ concerns during their teaching practice in schools?

Ok, it’s mainly for communication I think. The issues which might then need to be communicated with the college, with the supervisors can be done easily through social networks like Whatsapp, Facebook and so forth. So in other words even the passing on of … whatever we want to communicate with them in terms of handouts, in terms of modules probably, they can be passed on through social networks. It becomes easier and faster. And even given the rate at which these social networks are catching on in our lives we can even use them for assessment. In other words they can actually do their assignment and pass it on and you can actually correct and mark and actually send it back via this way. Almost every student has a phone. But what we don’t know is the issue of whether these phones operate as smart phones. So that might be a challenge with some students not being able to afford to acquire these gadgets. At times they might not be able to afford but with most students I think they can but some may not have. But once everyone has them it will be easier that way. Any way students are also benefiting now. They can access the Internet to acquire as much knowledge as possible. And they can research using the cell phones and social media.

As follow up, what is the college doing anything about UCE website?

We already have one. It’s already there. Whether it is being used or not is something else. But it was launched sometime beginning of last year 2014. It’s there. You can actually access it’s there. But actually in terms of usage, that is something else. The issue of putting a lot of materials on it is something else. Even some of the lecturer notes, even assignment you can still put them up on the website and they can have access to them when they are on TP. Yeah, I think it will be a good idea but its work in progress. We are moving towards that.

What is your view on the use of social networks in college work? Will you be free to participate on a social network with your students?

We are already doing that anyway in terms of supervision of CDS. They ask whatever they want. It’s very cheap any way like Whatsapp but obviously they is danger always of whatever is discussed security wise … of whatever and to keep the social distance in between. You can still keep the distance but the platform is used to pass information. I think so. I don’t see why one that would make you lose respect.
I don’t see but I think it would come very handy. For sure as you know you are more senior, you are the supervisor, you are the lecturer, you know every checks and balances to try and keep your distance so that you still maintain your respect. But still on the part of communication I think these are very handy.

R The reason why I asked the question was that some lecturers have said social networks like Facebook have no place in teacher education.

CS6 You know that people are always resistant to change and the main reason is that because some people are not comfortable. They are not prepared themselves to use these gadgets. But actually once they are brought on board, they need a lot of persuasion … some form of induction into these so that they see the benefits. Otherwise … you know new things are scarly everywhere. It’s the fear of the unknown. You don’t know where you are going to. But actually I think we would draw a lot of benefits from the use of these things. Every time you know, initially when new things are brought in, people resist. It’s natural.

R Any other thing which you feel you can add? I think the main questions have been addressed. Is there anything else that you would like to add?

CS6 Yeah, it’s the challenges which colleges meet in terms of big numbers… because of the numbers which are coming up. It’s really scarly and again in terms of our college the area of deployment it’s a bit restrictive. The authorities are worried about the distances because they have monetary implications to their operations. So normally they … that really create problems for students like now with the language policy of this country where the medium of instruction used in lower grades is the mother tongue. Already we are encountering problems where students are deployed in areas where they can’t actually teach using L1 to lower classes. So that becomes a challenge. I don’t know how they are going to overcome that because we faced that situation more than sixty or eighty student of ours who were supposed to be elsewhere. They could not go because of the problem of the problem of deployment. They found themselves in an area where they could not use their L1. So this becomes a very big concern for the student. One, the student cannot teach well because they will be forced to use English but the language policy says use L1 mainly for lower grades. So, before the student starts he is already not sure of how to overcome that problem.

R This also relates to the issue of ECD where an ECD student has to spend at least a term in a kindergarten where the age group is from zero to five years but many
concerns from students is that many parents do not want to send their kids in this age group but there are policies at college that stipulate the minimum number of learners. What is the college doing to address some of these concerns?

CS6 What is happening is that there is this programme called MITP – Mother Infant Toddler Programme something like that. Right, even if you have two or three in that age group or even one. You can still go out, you do an outreach programmes. You go to the mothers. You organise with the clinic nearby where these people come. Because the zero thing is the child even in the womb. You talk to the mother about it the child and whatever the like. That’s what the zero comes in. So students still have that opportunity to organise … the school organise with the clinic and the MITP centre. So that the student has a link with the mothers. And then he can actually … they liaise with them from their homes whilst they identifies or she identifies with them in the clinic. Then they can take their addresses. Then later on they can interact with them from their homes. So, that will increase the number … sort of enrolment in quotes. I know that it’s very challenging. The understanding that in this scenario MITP … the mothers are supposed even to come to the schools so that they liaise with the students but as you said the mothers may not be willing to do that. So, the easiest way is to go through the clinics.