TOWARDS STRENGTHENING PEDAGOGIC KNOWLEDGE IN A TEACHER EDUCATION PROGRAMME: A CASE OF POST GRADUATE CERTIFICATE IN EDUCATION

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TO WHOM IT MAY CONCERN

This is to state that the Master's dissertation (text only): 'Towards strengthening pedagogical knowledge…' by Mr. R Z Moliko (student number:) of the Central University of Technology in the Free State, South Africa, has been language edited by me, according to the tenets of academic discourse.

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DECLARATION OF INDEPENDENT WORK

I, Ramotale Zacharia Moliko, identity number   and student number   , do hereby declare that this research project titled:

TOWARDS STRENGTHENING PEDAGOGIC KNOWLEDGE IN A TEACHER EDUCATION PROGRAMME: A CASE OF PGCE

Submitted to the Central University of Technology, Free State for the Degree Magister TECHNOLOGIAE, EDUCATIONIS is my own independent work. It has not previously been submitted for any degree or examination at any other institution.

Signed: …   Date… June 2017.

2

DEDICATION

In honour of my late father, Matswake Francis Moliko, who despite his little education, worked tirelessly to ensure that I have a profession. To my late sister, Ntshitile Jermina whose untimely death left me devastated, I dedicate this study.

3

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4

LIST OF ACRONYMS

B.Ed.   : Bachelor of Education

CHE   : Council for Higher Education

DBE   : Department of Basic Education

DBS   : Disclosure and Barring Service

DCSF   : Department for Children, Schools and Families

DHET   : Department of Higher Education and Training

EBC   : Educational Broadcasting Corporation

ETDP-SETA : Education, Training and Development Practices - Sector Education and Training Authority

GCSE   : General Certificate of Secondary Education

HEQF   : Higher Education Qualifications Framework

ISPFTED   : Integrated Strategic Planning Framework for Teacher Education and Development

NOI   : Narrative Orientated Inquiry

NQF   : National Qualifications Framework

PCK   : Pedagogic Content Knowledge

PGCE   : Post Graduate Certificate in Education

SACE   : South African Council for Educators

SADTU   : South African Democratic Teachers Union

SAQA   : South African Qualifications Authority

SBL   : School-based learning

TCK   : Teacher Content Knowledge

TPACK   : Technological pedagogical content knowledge

TPK   : Teacher Pedagogic Knowledge

UBL   : University-based learning

UK   : United Kingdom

UK NARIC   : National Recognition Information Centre for the United Kingdom

ZPD   : Zone of Proximal Development.

ABSTRACT

A Postgraduate Certificate in Education (PGCE) appeals to many aspirant teachers who hold bachelor's degrees in other fields. Over the years, this has resulted in an increase in the number of PGCE students in the Faculty of Humanities at the Central University of Technology in the Free State. The challenge of finding appropriate strategies to provide these students with the relevant pedagogic knowledge that they need subsequently has also increased. This challenge and other related issues motivated my decision to undertake this study which seeks to explore the extent to which PGCE as a teacher education programme provides students with adequate pedagogic knowledge.

The theoretical framework for this study was drawn from the works of two theorists who wrote from a social constructivist, as well as a social pragmatism perspective. Considered first was Lev Vygotsky's (1962) social learning theory, and second was John Dewey's social pragmatism.

Data were collected over a period of six months with intervals of one month in between. The researcher collected data by observing lesson presentations and conducting interviews which were also supported with an analysis of documents used by PGCE students. The literature review, strongly supported the study, as it was evident that the subject of pedagogical knowledge has been well researched over a period of time. On the other hand, the literature survey showed that there was a gap in the research of PGCE as there were fewer articles and documents related to the topic.

Furthermore, data were captured through the use of a digital voice recorder which was used to record interviews with the respondents. In addition, each respondent's interview was uploaded onto a computer and labelled as a file. The respondents' replies were thereafter transcribed into text on a personal computer and saved as a word document. The documents information from the transcripts was organized into themes and analysed. Documents from PGCE students' teaching practice were analysed by means of a rubric and the findings were documented. Finally, the

researcher observed the students while they were teaching in their classes with the aid of an observation schedule; exercising an uncontrolled observation.

In conclusion, the findings of this study suggest that PGCE students have become better teachers   after the pedagogical intervention they have received. What emerged in the development of this study shows a strong correlation between what was initially intended and what actually took place. Finally, the findings indicate that there is a need to improve both learner and teacher language proficiency in the medium of instruction. It was also found that PGCE students lacked proficiency in the implementation of extra- and co-curricular activities.

INDEX

CHAPTER ONE: INTRODUCTION AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This chapter introduces the topic and gives a background to this study by providing an overview of the reviewed literature and the problem statement. Paradigms and methodologies guiding the study are explained and the research objectives and the purpose are highlighted. The research tools and strategies are described. The sample and population are explained.

1.2 BACKGROUND

A Postgraduate Certificate in Education (PGCE) appeals to many aspirant teachers who hold bachelor's degrees such as Bachelor of Commerce, Bachelor of Science, Bachelor of Commerce in accounting as well as those who have various Diplomas that make them suitable for teacher training. Over the years, this has resulted in an increase in the number of PGCE students in the Faculty of Humanities at the Central University of Technology (CUT) in the Free State and with this increase has come the challenge of finding appropriate strategies to provide these students with the relevant pedagogic knowledge needed for their teaching careers. This challenge and other related issues motivated my decision to undertake this study which seeks to determine the extent to which the PGCE as a teacher education programme provides students with adequate pedagogic knowledge.

Teacher education and teacher development are always at the centre of the teaching profession. Thus, the Department of Education (2011) resolved at the teacher development summit held in Johannesburg in 2009, that a new, strengthened, integrated plan for teacher education and development be prepared.

This resolution resulted in the development of the Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED) which was earmarked for implementation from 2011 to 2025. According to ISPFTED (2011), high achieving learners would be attracted to become teachers through advocacy

14

programmes and recruitment campaigns that promote the personal and social value of the teaching profession, as well as increasing access to bursary schemes for those who would like to become teachers. These statements re-confirmed government's awareness that teacher development was in crisis and that there was a need to come up with new strategies to improve the situation. Pedagogic knowledge and pedagogic practice cannot be ignored if one aims to develop teachers holistically.

1.3 LITERATURE REVIEW

Foulds (2002) identified the urgent need for school-based development of unqualified and under-qualified teachers if they are to change their practices significantly. Dreyer (2011) also suggests that as teacher education programmes are usually aligned to national schooling systems, it is important to look at teacher education programmes against the background of the schooling system and the higher education landscape.

Likewise, the South African Democratic Teachers Union (SADTU) has called for a national strategy and a plan for teacher development since 1994 (Davids, 2009). A reason for this call was the fact that before 1994, the majority of teachers were unqualified or under-qualified. Even amongst qualified teachers, there were questions about the quality of their pre-service training, which was often delivered by poorly resourced Bantu-style education or embodied in a conservative pedagogy.

Furthermore, research findings, such as those by Robinson (2002), also reflect some of the debates that emerged among educators in South Africa, as the reforms moved from conceptualisation to implementation, particularly in relation to pedagogy and professionalism. These findings suggest that many educators lack essential content knowledge.

In addition, Goldhaber and Hannaway (2011) state that teacher quality is the most important school-based factor influencing learner achievement. Having one effective as opposed to one ineffective teacher can make a difference of more than a year's growth in a learner's achievement. Having many effective teachers can make an

improvement in the learner learning style and attitude for a learner's entire schooling experience.

A recent study by Swart and Greyling (2011) revealed that in the critical education classroom, which was defined by Project South (2007) as a space where activists, scholars and students co-create knowledge of working towards social transformation, teachers realised that they did not have all the answers. This statement called for a critical look at the application of pedagogical knowledge in lessons taught by PGCE students, who showed gaps in knowledge as observed by lecturers who evaluated students during teaching practice sessions.

Traditionally, a teacher had to be a master in his/her field, and if they did not have answers to questions that arose from the classroom, it suggested that they did not have adequate knowledge of the skills and different methodologies involved in teaching. Swart and Greyling (2011) state that the teacher as an agent of change needs to be able to raise the critical consciousness of learners in order to empower them to become active, critical citizens. These views from the literature by the aforementioned authors prompted me to investigate the pedagogy of PGCE as a teacher education programme in depth.

Loewenberg, Thames and Phelps (2008) argue that an understanding of subject content is important for teaching. Yet what constitutes understanding of content is only loosely defined. Loewenberg et al. (2008) further state that, although the term pedagogical content knowledge is widely used, its potential has only been thinly developed. This calls for a renewed approach by the Department of Education and higher education in intensifying teacher training strategies to ensure the development of sound pedagogic knowledge in PGCE students.

Further, Rangraje, Van der Merwe and Urbani (2005) point out that staff development is essential for the reinforcement of personal teaching efficacy beliefs. Rangraje et al. (2005) opine that self-development of teachers should receive primary attention. Teachers should take responsibility for their own and their learners' performance. Pedagogic knowledge essentially has a direct link to teaching efficacy; thus, a teacher with good pedagogic knowledge should be efficacious in his/her teaching.

16

Another study by Ure (2010) presented a review of research of teacher education and developed a model of teacher development that encompasses five domains of knowledge. The model provides a curriculum and pedagogical framework for initial teacher education that links together the theoretical, practical and professional elements of teaching and learning. In this model, cohorts of approximately 25 teacher candidates were placed individually with supervisory classroom teachers. Teaching fellows and clinical specialists consulted with teacher candidates and their supervisors and then conducted seminars for their cohorts in the neighbouring schools. This approach could be used as a solution towards strengthening PGCE students' pedagogical knowledge by placing them with experienced supervisors or mentor teachers.

1.4 PROBLEM STATEMENT

Over the last decades the context in which teacher development has been implemented has changed due to many factors, such as the closure of teacher training colleges, changes in education policy, the introduction of different education ministries in the present dispensation (a Ministry for Higher Education and a Ministry for Basic Education) as well as the growing interference of the government in higher education.

The overarching problem that this study seeks to address is the seeming lack of knowledge about the relationship between the curriculum of PGCE and its pedagogy in preparing students to enter practice. This problem may be subdivided into the following five subsidiary problems. Firstly, the PGCE programme does not appear to prepare students adequately to teach effectively in a school situation. Secondly, PGCE students do not seem to relate pedagogy to practice and this situation has remained largely unexplored. Thirdly, there is an assumption that research on the relationship between the pedagogy of PGCE and how students who qualify with PGCE practice is inadequate. Fourthly, many novice teachers, despite having recognized qualifications and meeting the National Qualification Framework standards, are presumed to struggle to teach effectively when they enter the job market. This assumption is shared by Hendry (2009) who purports that mentor support is

17

inconsistent in schools and often leaves trainees without satisfactory role models. According to Hendry (2009), the lack of satisfactory role models highlights the need for more experienced higher education staff to consider the level of understanding that trainees may hold, to address the above assumptions and to ensure that needs created by cultural and linguistic diversity are met consistently throughout the training year. Fifthly, a one-year PGCE programme compared to the four-year B.Ed. programme appears to be too short to prepare students to teach effectively.

In addition, Hofmeyr and Draper (2015) suggest that improving the quality of initial teacher education (ITE) is urgent and essential. Otherwise expanding provision will only reproduce more poor-quality teachers with inadequate subject and pedagogical knowledge and limited teaching experience, which leaves them ill-prepared for the challenges of classroom teaching.

1.5 RESEARCH QUESTIONS

The current study was driven by these key research questions:

Main research question

- How do different disciplines in the PGCE course help students to translate theory into practice?

Sub research question

- What are the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons?

- How does the PGCE curriculum influence the pedagogical aspects of the course?

- To what extent does the pedagogy of PGCE provide the required skills for students to be ready for the job market?

1.6 MAIN OBJECTIVES

The fundamental aims and objectives of this study are to:

- Examine the pedagogy of PGCE;

- Explore personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons;
- Investigate the influence of the PGCE curriculum on the pedagogical aspects of the course; and
- Investigate the relationship between the pedagogy of PGCE and the student's readiness for the job market.

1.7 PURPOSE

The purpose of this study is to examine the existing PGCE programmes with a view to understanding how students are trained and to assess the quality of the pedagogical knowledge of such students.

1.8 PROPOSITIONS

The following assumptions guide this study:
- The pedagogy of PGCE provides students with the ability to translate theory into practice when presenting lessons.
- PGCE students face personal and professional challenges of incorporating pedagogic knowledge into practice when they present lessons.
- The current PGCE curriculum influences the pedagogical aspects of the course in peculiar ways.
- The PGCE curriculum provides students with the required skills for them to be ready for the job market.

1.9 RESEARCH DESIGN

1.9.1 Paradigms and methodology

This study is premised in a constructivist research paradigm and is grounded in the theories of philosophers, such as Lev Vygotsky (1962) and John Dewey (1960). Constructivism is a theory based on observation and scientific study about how people learn. Furthermore, social constructivism is an interpretive framework whereby

19

individuals seek to understand their world and develop their own particular meanings that correspond to their experience (Creswell, 2013). Creswell (2013) posits that the goal of research in social constructivism is to rely as much as possible on the participants' views of the situation. However, constructivism is often misconstrued as a learning theory that compels students to repeat what has already been done by others without taking initiative or showing creativity. The truth is that constructivism taps into and triggers the student's innate curiosity about the world and how things work.

Similarly, EBC (2004) further argues that students do not reinvent the wheel, but rather attempt to understand how it turns, and how it functions. Students, through constructivism, become engaged by applying their existing knowledge and real-world experience, learning to hypothesise, testing their theories, and ultimately drawing conclusions from their findings. In support of EBC (2004) is Merriam and Bierema (2014) who argue that constructivism is less a theory of learning than a collection of perspectives, all of which share the common assumption that learning is how people make sense of their experience; it is the construction of meaning from experience. Merriam and Bierema (2014) see constructivism as foundational to the understanding of much of adult learning theory and practice.

On the other hand, Andrews (2012) avers that social constructionism originated as an attempt to come to terms with the nature of reality as it emerged some time ago and has its origins in sociology. According to Andrews (2012) social constructionism has been associated with the post-modern era in qualitative research. Andrews (2012) further states that social constructionism accepts that there is an objective reality. It is concerned with how knowledge is constructed and understood. In addition, Andrews (2012) argues that social constructionism is an epistemological and not an ontological perspective. Consequently, criticisms and misunderstanding arise when this central fact is misinterpreted. This is most evident in debates and criticisms surrounding realism and relativism. Furthermore, social constructionism places great emphasis on everyday interactions between people and how they use language to construct their reality. It considers the social practices people engage in as the focus of enquiry.

Similarly, Kim (2001) views constructivism as laying emphasis on the importance of culture and context in understanding what occurs in society and constructing knowledge based on this understanding. This view of constructivism is closely associated with many contemporary theories, most notably the developmental theories of Vygotsky and Bruner as well as Bandura's social cognitive theory (Schunk, 2000).

Certain unique assumptions revolving around reality, knowledge, and learning define social constructivism. It is important to know the premises that underlie understanding of models of instruction that are rooted in the perspectives of social constructivists. For instance, Kukla (2000) is of the view that social constructivists view reality as a phenomenon constructed through human activity. Humans are assumed to collectively invent the properties of the world. Additionally, for them, reality cannot be discovered since it is assumed to be non-existent prior to its social invention. Some authors (Ernest, 1999; Gredler, 1997; Prawat & Floden, 1994) agree that, to social constructivists, knowledge is also a human product, and is socially and culturally constructed because Individuals create meaning through their interactions with each other and with the environment they live in. Learning as a social process does not occur only within an individual, nor is it a passive development of behaviors shaped by external forces (McMahon, 1997). Thus meaningful learning is a by-product of individuals' engagement in social activities.

Henning (2011) indicates that knowledge is constructed not only by observable phenomena, but also by descriptions of people's intentions, beliefs, values and reasons, meaning-making and self-understanding. Because interpretivist knowledge is dispersed and distributed, the researcher has to look at different places and things in order to understand a phenomenon. Henning (2011) further states that the type of knowledge frameworks that drive society become key role players in the interpretive project. These role players are also known as the society's discourses.

This study is guided by an interpretive research paradigm that emphasises experience and interpretation and is also qualitative in nature. About qualitative research, Silverman (2004) argues that all sociologists have as data are stories. Some of these stories come from other people; some come from sociologists themselves, while others come from the sociologists' interactions with their counterparts. What matters

21

is to understand how and where the stories are produced, which sort of stories they are and how they could be put to honest use in theorizing about social life.

Likewise, this study also pays attention to stories drawn from people involved with the PGCE programme to reveal the actual truth about its contribution to the pedagogic development of students. Cozby (2006) contends that observational methods can be classified as primarily quantitative or qualitative. According to Cozby (2006), qualitative approaches focus on people behaving in natural settings and describing them in their own words, while quantitative research tends to focus on specific behaviours that can be easily quantified. Qualitative oriented academics tend to collect in-depth and rich data from few research subjects (individuals) in confined settings. Quantitative investigations usually include larger samples. Qualitative research focuses on a phenomenon that occurs in natural settings and data are typically analysed without the use of statistics. Cozby (2006) further indicates that qualitative research always takes place in the field or wherever the participants normally conduct their activities and is thus often referred to as field research. It is for this reason that a qualitative research design is followed to answer the question:
"Do PGCE students have the ability to incorporate pedagogical knowledge in their teaching?"

Denzin and Lincoln (2004) aver that qualitative researchers use a wide range of interconnected methods to get a better understanding of the subject matter at hand.
I used this paradigm to explore the participants' experiences and the environment in which they conducted their daily teaching activities, with a view to understanding and potentially generating a theory from data collected. In addition, I used this approach as it is broad and context bound whilst it occurred in natural settings

The most substantial issue is that qualitative research produces holistic understandings of rich, contextual, and generally unstructured, non-numeric data (Mason, 2002) by engaging in conversations with the research participants in a natural setting (Creswell, 2009).

As the title of this study suggests I used the case study approach of which the defining feature is its focus on 'how' and 'why' questions (Myers, 2009) and which, for this

reason, is appropriate for descriptive and exploratory studies (Mouton, 2001). A case study can focus on describing process (es), individual or group behaviour in its total setting, and/or the sequence of events in which the behaviour occurs.

In most instances the decisions that the researcher makes result in the case study protocol that helps to ensure uniformity in research projects where data are collected in multiple locations over an extended period (Maimbo & Pervan, 2005). The following sections present the theoretical foundations for these key decisions together with the application to the author's research project. Be that as it may, interpretive-oriented researchers aver that reality is a combination of human subjective experiences of their external world. They may thus embrace an inter-subjective epistemology and ontological premise that views reality as a socially constructed phenomenon. Willis (1995) propounds the notion that interpretivists are anti-foundationalists, who believe in multiple correct routes or methods to knowledge acquisition. For him, the interpretive tradition does not possess a singular 'correct' or 'incorrect' theory. Instead, they should be judged according to how 'interesting' they are to the researcher as well as those involved in the same areas. They attempt to derive their constructs from the field by an in-depth examination of the phenomenon of interest. Gephart (1999: [online]) argues that interpretivists assume that knowledge and meaning are acts of interpretation, hence there is no objective knowledge which is independent of thinking, reasoning humans. Myers (2009) argues that the premise of interpretive researchers is that access to reality (whether given or socially constructed) is only through social constructions such as language, consciousness and shared meanings (online). Interpretive paradigm is underpinned by observation and interpretation, thus to observe is to collect information about events, while to interpret is to make meaning of that information by drawing inferences or by judging the match between the information and some abstract pattern (Aikenhead, 1997: [online]). Phenomena are understood through the meanings that people assign to them (Deetz, 1996)

Henning (2011) adds that unstructured observation, open interviewing, idiographic descriptions and qualitative data analysis are all ways to capture insider knowledge that is an integral part of an interpretivist methodology. These methodologies however, are all executed in a principled way. Modified experimental research may take place

as well. Inquiry, however, is always undertaken in natural settings to collect substantial situational information.

Leedy and Ormrod (2005) emphasise that, in planning a research design, it is extremely important for the researcher not only to choose a viable research problem, but also to consider the kinds of data that the investigation of a problem would require, as well as a feasible means of collecting and interpreting data. Bassey (2001) supports this by saying that qualitative research focuses on the complexities of the various aspects of the school and schooling, and takes into consideration the different objective experiences and subjective perspectives. As a result, qualitative research is capable of accommodating and accounting for the differences and complexities that are involved in social settings, such as universities. This research is premised on qualitative data. This approach is preferred because it describes and analyses people's individual and collective social actions, beliefs, thoughts and perceptions. The approach should also focus on classifying and constructing qualitative models to explain what is observed. Nevertheless, this approach is not without challenges, since the information obtained cannot be generalized to other people or other settings. It is also difficult to make quantitative predictions from a qualitative study. Furthermore, it is difficult to test hypotheses with too many participants (Chandler, 2016). The credibility of the study might also be negatively affected because of administrators and commissioners of programmes. It takes more time to collect data for a qualitative study than it takes for quantitative one. Equally, data analysis for a qualitative study takes a long time to complete. Another weakness is that results are easily influenced by the researcher's biases.

The strengths of a qualitative study seem to outweigh its weaknesses. One of the reasons is that data are based on the participants' own categories of meaning. It is also useful for studying a small number of cases in detail. A qualitative study is valuable when describing complicated circumstances, as it provides individual case information. With the qualitative approach it is easy to conduct cross-case comparisons and analyses.

This facilitates an understanding of the processes that led to specific outcomes, trading generalisability and comparability for internal validity and contextual and evaluative

24

understanding. Questions to ask yourself are: What will you actually do in conducting this study? What approaches, and techniques will you use to collect and analyze your data, and how do these constitute an integrated strategy?

1.9.2 Sampling

Various approaches to sampling could be broken up into probability and non-probability sampling (Evans and Rooney 2011). These techniques are such termed because the researcher specifies the likelihood that a participant would be selected from a specific population. By selecting a sample by means of probability techniques (making a connection), the researcher is confident that his/her sample is representative of the population. At the lowest probable level, a researcher's selection procedure could be replicated by other researchers to obtain similar sample sizes. According to Trochin (2006), a researcher samples with a specific purpose in mind when employing purposive sampling. The researcher would have one or more specific predefined groups he/she would like to investigate.

In addition, Trochin (2006) further states that purposive sampling could be useful for situations where one needs to reach a targeted sample quickly and where sampling for proportionality is not the primary concern. With a purposive sample, the researcher is likely to get the opinions of his/her target population, but is also likely to overburden subgroups in his or her population that are more readily accessible. Some of the sampling strategies used in qualitative research are maximum variation sampling, stratified purposeful sampling, and snowball sampling. Qualitative research usually involves smaller sample sizes than quantitative research.

Rossouw (2003) suggests that a stratified sampling design is often used to ensure greater representativeness, especially where a heterogeneous population contains small minorities and the researcher wants to ensure that these minorities are also represented. The choice of the variables used to make this division depends on the characteristics that the researcher has considered relevant. This is therefore probably the preferred way of dealing with a sample in the PGCE programme.

Against the above discussion, purposive sampling was selected and used in this study wherein fifteen (15) PGCE students from both the Bloemfontein and Welkom

campuses of CUT were interviewed, observed and their teaching practice documents analysed. The population of this study comprised a hundred and fifty (150) students in an institution of higher learning in South Africa (CUT), which fulfils the task of teacher training and presents PGCE programmes.

Purposive sampling is a sampling technique which allows the researcher to rely on his/her own judgment when choosing members of the population to participate in the study. Moreover, purposive sampling is a non-probability sampling method whereby elements selected for the sample are chosen by the judgment of the researcher. The advantages of purposive sampling (judgment sampling) are as follows:

1. Purposive sampling is one of the most cost-effective and time-effective sampling methods available;

2. Purposive sampling may be the only appropriate method available if there are only limited number of primary data sources who can contribute to the study;

3. This sampling technique can be effective in exploring anthropological situations where the discovery of meaning can benefit from an intuitive approach.

The disadvantages of purposive sampling (judgment sampling) are as follows:

1. Vulnerability to errors in judgment by researcher;

2. Low level of reliability and high levels of bias; and

3. Inability to generalize research findings

A purposive sample is a non-representative subset of some larger population, and is constructed to serve a very specific need or purpose. A researcher may have a specific group in mind, such as high level business executives. It may not be possible to specify the population -- they would not all be known, and access will be difficult. The researcher will attempt to zero in on the target group, interviewing whomever is available.

The main goal of purposive sampling in this study was to focus on particular characteristics of a population that were of interest, which would best enable me to answer my research questions. On the contrary the sample studied was not necessarily representative of the population, but since I am pursuing a

26

qualitative methods research design, this was not considered to be a weakness. Rather, it was a choice, based on the purpose of which varied depending on the type of purposing sampling technique used. In this instance I used, homogeneous sampling, since the participants were selected based on similar characteristics which were of particular interest to me.

1.10 DATA COLLECTION

Creswell (2013) postulates that once the researcher chooses the sites or people, decisions need to be made about the most relevant data collection approaches. Creswell emphasises that the researcher will collect data from more than one source in order to make the findings of the study credible and valid. I therefore followed Creswell's example and used more than one approach to collect data.   Data for this study were collected from a sample drawn from PGCE students at both the Welkom and Bloemfontein campuses of CUT, using a qualitative approach. Hancock (2002) indicates that the collection of qualitative data usually involves direct interaction with individuals on a one-to-one basis or in a group setting. For this reason, the main instruments of data collection were one-to-one interviews, focus groups and observation because they allowed for direct interaction to take place. I considered using interview, document analysis and observation as data collection instruments because they allowed me to draw valid meaning from qualitative data. Above all, I used these methods because they are practical, communicable, and non-self-deluding since they are scientific in the best sense of the word.

Figure 1.1 Illustration of data collection activities
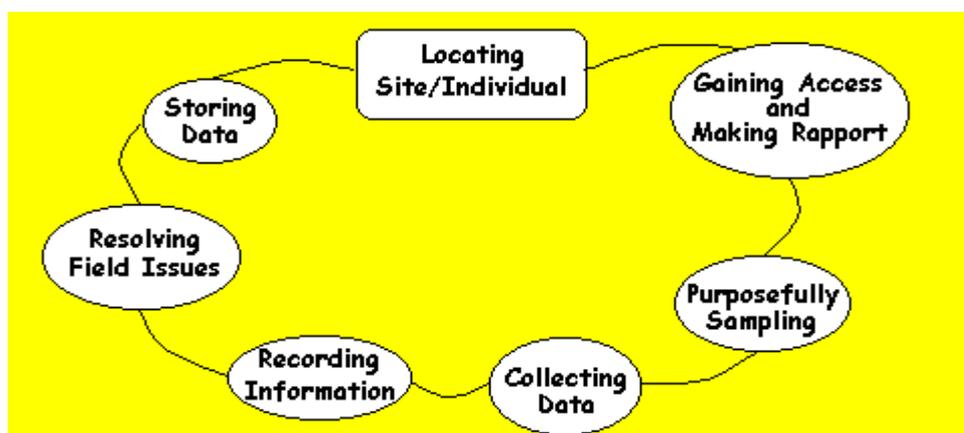
Adapted from Creswell (2013)

27

1.11 DATA COLLECTION INSTRUMENTS

Interviews, document analysis and observation were used to collect data from the participants at identified places. Seers (2011) indicated that qualitative data are forms of information gathered in a non-numeric form, and he lists interview transcripts, field notes (notes taken in the field being studied), video, audio recordings, images and documents (reports, meeting minutes, e-mails) as common examples of such data. Such data usually involve people and their activities: signs, symbols, artefacts and other objects people fill with a particular quality or emotion about their meaning. The most common forms of qualitative data are what people have said or done. Interviews, document analysis and audio recordings have been used to collect data from the participants who have been drawn from a population of PGCE students from both campuses of CUT.

1.11.1 Document analysis

Silverman (2004) asserts that a significant amount of contemporary fieldwork takes place in literate societies and in organizational or other settings, in which documents are written, read, stored and circulated. Therefore, documents such as teacher training policies, subject policies, study guides, curriculum statements and assessment guidelines of the institution were analysed to determine if their content was ideal and adequate for teacher training in the PGCE, as well as determining how they could be improved.

1.11.2 Interviews

Willig and Stainton-Rogers (2010) indicate that when research participants are asked to talk about their experiences or to explore some aspects of their life, they inevitably use a narrative mode of organisation. Participants usually provide accounts that inevitably take on a story structure. Unstructured and semi-structured interviews particularly encourage a narrative mode of discourse. Consequently, these narratives warrant study in their own right and this has led to the recent emergence of the

28

approach to research called Narrative Orientated Inquiry (NOI). NOI stresses that narrative is not merely a distinct form of qualitative data analysis, but that it is a methodological approach in its own right which requires appreciation of the subtle paradigm, assumption involved and a method of data collection called the narrative interview. Leedy and Ormrod (2014) concur, "Face- to face interviews have the distinct advantage of enabling the researcher to establish rapport with potential participants and therefore gain their cooperation".

Mason (2012) asserts that one may wish to follow the narrative or sequence provided by the interviewee. Whether one follows this approach, one is likely to make certain kinds of epistemological assumptions about the interaction between the researcher and the participants, which suggests that semi-structured interviews are appropriate. Depending on who is to be interviewed, such an interview could be structured, semi-structured or unstructured.

Evans and Rooney (2011) maintain that interviews could be very expensive and time consuming and they require trained interviewers. However, an interview provides for human contact, thus developing a relationship with the participants. The individual, face-to-face verbal interchange technique is most popular. It can also assume the face-to-face group interview format. In this study interviews have been conducted with principals and mentor teachers where PGCE graduates have been employed to determine whether they are successful as novice teachers and how their pedagogic knowledge could be improved. In cases where an interview was not possible, a document analysis was made.

1.11.3 Observation

Evans and Rooney (2011) show that the most obvious way to collect data is to observe people and record their behaviour. This constitutes the basis of observational research. Hancock (2002) argues that not all data collection approaches require direct interaction with people. Observation is a technique that could be used when data collected through other means may be of limited value or difficult to validate.

In this study I considered two types of observations: narrative observation and naturalistic observation. Cozy (2009) states that a researcher employing narrative observation may want to study everything about a setting. However, this may not be possible, simply because the specific setting and questions one might ask about it may be very complex. Thus, researchers often limit the scope of their observations to behaviours that are relevant to the central issues of the study. To this effect Cozby (2009) refers to Cialdini's interest in social influence in settings, such as car dealerships. In this case, Cialdini might have focused only on sales techniques and ignored such things as management practices and relationships among salespersons. For the purpose of this study, I focused on pedagogy and pedagogic knowledge and disregarded other issues within the PGCE programme.

Furthermore, Cozby (2009) states that naturalistic observation is sometimes called fieldwork or simply field observation. In a naturalistic observation study the researcher makes observations in a natural setting (the field) over an extended period, using a variety of techniques to collect information. Cozby (2009) further says that observational methods could be classified as primarily quantitative or qualitative. Qualitative research approaches focus on people in natural settings through describing "reality" in own terms while quantitative researchers focus on particular behaviours that could be easily quantified. Qualitative researchers collect in-depth and information-rich data on few individuals in limited settings. Quantitative-oriented investigations, however, involve larger research samples. For this reason, PGCE graduates were observed while teaching in real classroom settings.

1.11.4 Audio recordings

Heath, Hindmarsh and Luff (2010) maintain that visual media, photography, film and more recently video provide unprecedented opportunities for social science research. Video, for example, is a cheap and reliable technology that enables us to record naturally occurring activities as they arise in ordinary habitats, such as home, the workplace or the classroom. These records can be subjected to detailed scrutiny and be repeatedly analysed, thus enabling access to the fine details of conduct and interaction that were previously unavailable in more traditional scientific methods.

In this study, audio recordings of participants were made, while they were teaching in schools where possible, to keep up-to-date records with a view to making an informed analysis of the data. The advantage of this is that audio recordings can be listened to repeatedly to verify facts and make correct interpretations.

1.12 DATA ANALYSIS

In a recent publication Henning (2011) uses an example of a popular method of data analysis namely, grounded theory analysis. In this instance, there would have to be methodology – method concord in which the analysis shows the procedures needed to employ this type of analysis; grounded theory requires that the analysis is extended to more sophisticated levels of abstraction; to conceptualise an understanding of the data leads to the eventual substantive theory. Henning (2011) further believes that in working with qualitative data, a researcher has many options on how to convert the 'raw' data into final patterns of meaning. Leedy and Ormrod (2014) posit:

> The final result is a general description of the phenomenon as seen through the eyes of people who have experienced it firsthand. The focus is on common themes in the experience but also with consideration of diversity in individuals and settings studied.

In addition, Henning (2011) stresses that qualitative content analysis is the preferred choice of novice researchers, because it is easy to access, working on the level of meaning. Unfortunately, it is also a method of analysis that may lead to superficial and naively realistic findings because it captures what is presumed to be the 'real world' in a straightforward, direct and often formulaic way and as a result, the data are not integrated.

Hancock (2002) argues that the basic process of analyzing quantitative data and qualitative data is the same. The first step is labelling or coding every item of information so that the researcher can recognize differences and similarities between the items. Taking the cue from Hancock (2002) I have for this study, coded all information and sought to find differences between the items preparation for the presentation of the results.

I have also adopted the following data analysis process to analyze qualitative data as described by Nieuwenhuis (2007). First, gathered data were divided into meaningful analytical units. These analytical units were given unique identifying codes. I then combined related codes into themes or categories. Each category was allocated an identification name, using words from the transcribed text. Analysed data were structured by identifying how each category was connected to other categories. This was done by writing up a verbatim transcription of data that showed direct links between categories.

Data were interpreted by explaining why things are the way they are. This was done by putting into perspective analysed data with the theory derived from the literature. As such, I substantiated analysed data with the existing body of knowledge. This process enabled me to draw findings and make conclusions. The conclusions were based on corroborated findings that were reported in relation to the theoretical framework attained in the literature review to illustrate possible new insights or perceptions.

1.13 PRESENTING DATA

According to Hancock (2002), qualitative data have several features which should be taken into consideration when planning the presentation of findings. She further states that data are subjective, descriptive, holistic and copious, thus making it difficult to know where or how to start. For this study I looked at the themes and categories which emerged and used these to structure the results section of the research report.

1.14 EXPECTED OUTCOMES

The expectations are that this study will contribute to the existing knowledge about teacher training in PGCE programmes. It will also propose, with recommendations, how to strengthen the application of content and pedagogic knowledge in the PGCE students' lessons.

1.15 ETHICAL CONSIDERATIONS

Spasford and Jupp (2006) indicate that research ethics have become an area of great concern at many universities and among research funders, requiring that research receives ethical approval before it is carried out. In addition, many universities prescribe that all student research should be subject to ethical approval, as well as the research of staff, non-funded as well as funded. Research ethics however, needs to be addressed throughout the entire lifespan of a research project. Ethical clearance for this study was granted by the Free State Department of Education. For ethical reasons none of the participants is referred to by name and only by geographical location and the level of operation or implementation. Schools in which PGCE students were placed have been referred to only by their grading, for example, primary school, high school, university or college.

1.16 SIGNIFICANCE OF THE STUDY

This research will hopefully contribute to the ongoing debate on the application of content and pedagogic knowledge in PGCE programmes and may assist in providing suggestions to improve teacher training in institutions of higher learning. It also suggests alternative means of strengthening pedagogic knowledge in PGCE programmes.

1.17 LIMITATIONS OF THE STUDY

Limitations to this study are that its findings and suggestions cannot be generalised across all teacher training programmes, as their required pedagogic knowledge may differ, as well as the differences in the duration of the programme. As a result, the findings of the study can also not be generalised to other institutions of higher learning across the country.

1.18 DELIMITATION OF STUDY

This study focuses exclusively on PGCE programmes in an institution of higher learning in the Free State, so as to make data gathering and its interpretation more

33

manageable.

1.19 CONCLUSION

This chapter introduced and provided a background to the study. It also mentioned the related literature to this study, whilst giving a brief overview of the problem statement and the main objectives of the study, as well as the propositions made by this study. The research design and its paradigms have been highlighted and the sampling data collection and its related instruments have been noted. Chapter Two will focus on reviewing relevant literature on the study constructs.

1.20 CHAPTER LAYOUT AND TIMEFRAME OF STUDY

Chapter one deals with the introduction and the background to the research problem. It provides a detailed plan for this study which includes the context of the research, a short literature review, the research questions, aims and objectives and finally the research design and methodology. Chapter Two focuses on the review of the related literature which includes an overview of Vygotsky's constructivism theory and Dewey's social pragmatism. Chapter Three describes the research design used in the study and gives details of the research instruments used to collect data for this study. Chapter Four contains the analysis of data and presents the results of this study which revealed the extent to which PGCE as a teacher education programme provides students with the necessary pedagogic knowledge. Chapter Five discusses the PGCE students' views on the way they incorporate general pedagogical knowledge into lessons. It also explores the way the PGCE student teachers incorporate pedagogical knowledge into lessons at school and investigates the extent to which PGCE programmes influence the pedagogical knowledge of the students and provides a conclusion. These results were derived from interviews, document analysis and observation of PGCE students.

34

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter locates the literature in the broader context of pedagogical knowledge and the pedagogy of PGCE. It also identifies the connection between this study and previous studies on similar research topics. This chapter is divided into two parts, the first of which concerns the policy of PGCE (part one), with the second being a review of the literature related to pedagogy and PGCE (part two).

It is generally argued that teachers cannot teach what they do not themselves know and/or fully understand. Pedagogic knowledge is closely linked to content knowledge, because it is assumed that even though one might know the content, one still needs to have the appropriate teaching methods to impart that knowledge. The review of the literature in this study was conducted with the aim of identifying those sources that would help to strengthen the existing PGCE programmes, with a view to improving the standard and quality of the pedagogical knowledge of students. The aim of this study is to investigate the relationship between the pedagogy of PGCE and the student's readiness for the job market in order to propose suggestions that will help students to integrate pedagogic knowledge in their teaching and learning and to help them contribute meaningfully to the presentation of effective lessons in the classroom. Therefore, this chapter reviews some of the literature on pedagogical and content knowledge, with the objective of gaining a better understanding of the theoretical framework that underpins teacher education programmes.

2.2 PART I: POLICY ON PGCE

2.2.1 Background to Postgraduate Certificate in Education

The South African Government (2014) indicates that South Africa participated in the United Nations Educational, Scientific and Cultural Organisation summit held in Nagoya from 10 to 12 November 2014. From this summit it emerged that education at all levels in South Africa remains a top priority of government. In South Africa the Department of Higher Education and Training (DHET) is responsible for post-school education and training at universities, colleges and adult education centres. This

department has since 1994 built a single post-school education and training system, which aims to overcome the structural challenges that characterised apartheid education previously. It is believed that these structural challenges would be overcome by expanding access to education and training opportunities and increasing equity, as well as achieving high levels of excellence and innovation.

For access to education and training to be increase there was a need for increase in financing as well. The Zenex foundation (2013) found that with sufficient financing arrangements in place, the challenge for the Department of Basic Education was to work out which strategies would unlock the capacity of schools to deliver quality. In its 2003 review of financing structures, the Department of Basic Education noted that there were schools that performed well, despite the fact that they suffered deplorable physical conditions, that learners came from poor households, and that educators had average qualifications. For the Department of Basic Education, problems lie less with policy and more with the lack of capacity to implement changes at classroom and school level. This apparently led to the implementation of the policy which allowed candidates who had the desired content knowledge to study towards a PGCE.

The PGCE in South Africa was informed by the Norms and Standards for Educators (2000) which was the result of a lengthy policy research and development process. It was the first formal policy on academic qualifications for educators and it made an attempt to bring a particular sector of higher education qualifications in line with the National Qualifications Framework (NQF) and the national school curriculum. This policy was developed through a process of consultation involving the Council on Higher Education (CHE), the Department of Higher Education and Training (DHET), the Department of Basic Education (DBE), public universities and private higher education providers offering teacher education qualifications, the South African Council for Educators (SACE), the Education ETDP-SETA and teacher unions. This consultative process served as the standard-setting process for teacher education qualifications, as discussed with the CHE. The following are types of learning associated with the acquisition, integration and application of knowledge for teaching purposes: Disciplinary Learning; Pedagogical Learning; Practical Learning; Fundamental Learning; and Situational Learning (SA Government Gazette, 2010:1)

In the (SA Government Gazette, 2010:1) the minimum requirements for teacher education qualifications (MRTEQ), Disciplinary Learning refers to disciplinary or subject matter knowledge, and can be divided into two parts within the teaching curriculum. The first is the study of education and its foundations. This includes, but was not limited to the philosophy, psychology, politics, economics, sociology and history of education, together with the study of specific specialised subject matter relevant to academic disciplines underpinning teaching subjects or specialisations.

Secondly, according to the South African Government Gazette (2010:1), pedagogical learning incorporates general pedagogical knowledge. This encompasses the knowledge of learners, learning, the curriculum and general instructional and assessment strategies, and specialised pedagogical content knowledge. The last cited covers issues around knowing how to represent the concepts, methods and rules of a discipline. Such knowledge helps diverse learners create appropriate learning opportunities how they could evaluate their progress. Such practical learning blends theoretical and practical knowledge. Practical learning includes a practice-bias through using discursive resources to analyse practices across contexts by drawing from case studies, video records, lesson observations and others. The intent is to theorise practice and foreground learning in practice. Learning in practice involves teaching in authentic and simulated classroom environments. Such learning is described in contemporary academic circles as Work Integrated Learning (WIL). It is learning occurring in specific workplaces. aspects of learning that are derived from practice, include observing and reflecting on lessons conducted by others within the community of practice. Examples that we could discern focus on preparing, teaching and an integral condition for the development of tacit pedagogical knowledge an essential ingredient of learning to teach.

The South African Government Gazette (2010:1) stipulates that the minimum admission requirement into a PGCE is an appropriate diploma or bachelor's degree. An appropriate diploma or degree should include sufficient disciplinary learning in appropriate academic fields to enable the development of teaching specialisation or/and subjects as specified for each school phase.
The Draft Policy on Minimum Requirements for Teacher Education Qualifications (2010) indicated that the purpose of PGCE is to provide an alternative route to the

teaching and learning career focus for graduates or diplomats who were not professionally qualified as teachers. It accredits teaching qualifications that offer an undergraduate degree or a diploma. It further offers entry-level initial professional preparation for graduates and diplomates who wish to develop focused knowledge and skills as classroom teachers in a chosen phase or subject. For this purpose, the qualification requires a specific depth and specialisation of knowledge, together with practical skills and workplace experience to enable successful students to enter teaching and apply their learning as beginner teachers in schools in varying contexts.

2.2.2 Minimum admission requirements for entry into a PGCE programme

Bansilal, Webb and James (2015) posit that policy sets the minimum admission requirement as an appropriate bachelor's degree or diploma. Graduates entering the programme with a view to obtaining an initial professional qualification should have studied appropriate fields of learning in their degree or diploma qualifications that allow specialisation in the required number of subjects as specified for each school phase. Specialisation for teaching Senior Phase subjects requires that the underpinning discipline(s) for the particular field of learning must have been taken at first-year university level at least. In addition, specialisation in a Further Education and Training (FET) subject requires that at least the underpinning discipline of the associated field of study must have been taken at second-year university level. Many South African universities have designed their own PGCE programmes, using the MRTEQ as guiding documents (Bansilal et al., 2015).

2.3 PGCE IN SOUTH AFRICAN UNIVERSITIES

2.3.1 PGCE at the University of Pretoria

In line with the policy, admission requirements at the University of Pretoria (UP)(2016) are similar to those at all other universities in South Africa. The duration of study for this programme is one year and it consists of a university-based learning (UBL) component, as well as a school-based learning (SBL) component. The UBL component is presented in the format of learning workshops during which students construct practical teaching from the theory they learnt to their peers. For the purpose

of the SBL component, students are placed in two partnership schools with different compositions or levels for eight weeks each (a total of sixteen weeks), during which they engage in teaching practice while they are supported and assessed by qualified mentor teachers and university lecturers. The choices in compiling the study package have to be approved by the package coordinator before registration.

Admission requirements at UP are a bachelor's degree or appropriate DHET approved diploma and the successful completion of a SAQA accredited language course or first-year module for home language or beginner speakers of an indigenous African language. It is compulsory that a student should have successfully completed a computer, academic literacy and information management courses or equivalent modules in a first degree (University of Pretoria, 2016).

The UP has, as additional requirements for Foundation Phase Teaching, English passed at first-year level, as well as Psychology and/or Education passed at second-year degree level. Another stipulation is that any other official language besides English must have been passed at first-year degree level. According to UP policy, preference is given to candidates who have passed with above average academic performance in their prior degree or diploma.

The teacher education programmes of the Faculty of Education at UP have been approved and accredited by the Department of Education. Owing to the fact that the faculty places emphasis on the development of skills and competencies, class attendance is compulsory for all student teachers for the full duration of the training period specified by South African Qualifications Authority (SAQA).

Programme delivery consists of a university-based learning (UBL) component and a school-based learning (SBL) component. The UBL component is presented in the format of mentor (lecturers).

2.3.2 PGCE at North West University

 North West University (NWU) (2015) says PGCE serves as a professional capping qualification for candidates who have completed a relevant 360- or 480-credit

bachelor's degree and who wish to enter the teaching profession. Students who have obtained the PGCE with its focused vision on classroom practice, will be able to fulfil all the contextual roles and competencies of an effective educator. With this certificate, an educator may teach from grades seven to twelve. The minimum duration of study is one year and the maximum duration is two years.

According to NWU (2015), admission requirements to enrol for this qualification at this institution are an undergraduate university degree with two recognised school subjects or a recognised qualification of 360 credits at NQF level six, which includes at least two recognised school subjects. Applicants must also be able to take two methodology subjects in order to obtain the qualification. The curriculum for the qualification is structured in one of the following ways: a recognised school subject at level three, plus a recognised school subject at level one; or a recognised school subject at level two, plus a recognised school subject at level two.

In the event of a choice between methodologies for academic subjects already obtained for a prior qualification, the applicant may select the two subjects that were obtained at the highest level. In the case of languages, the relevant language subject may be at year-level three.

As an exception, applicants who wish to take Life Sciences as methodology need to present one of the following subjects: Botany, Zoology or Physiology on level three and another on level two for admission to PGCE.

Curriculum outcomes at NWU suggest that after the completion of the programme, students should be able to develop and demonstrate a deep knowledge and understanding of education theory and practice, as well as being able to integrate education theory and practice with applied competence.

Secondly, the students should demonstrate and assess the knowledge base that underpins the planning, development and implementation of learning programmes in the Senior and FET phases and act as assessor and learning facilitator.

Thirdly, they should develop and demonstrate skills, attitudes and values to become responsible, independent and contributing members of the professional educational community in a diverse and changing national and international context.

Lastly, the students should develop and demonstrate critical, creative and reflective problem-solving skills within an educational and societal context.

2.4 PGCE IN AN INTERNATIONAL CONTEXT

2.4.1 PGCE in the United Kingdom

The Department of Education in the United Kingdom encourages applications from all sections of the community because for them, it is vital that the teaching profession fully reflects their diverse and pluralistic society (University of Oxford: 2016).

For entry to the PGCE course, applicants must have a degree awarded by a university in the United Kingdom or other institution empowered to make such awards, or recognised equivalent qualifications, including qualifications obtained in other countries. The Department of Education in the United Kingdom does not require a class of degree but looks for a strong academic background in the subject the applicant wishes to teach (University of Oxford:2016).

According to the University of Oxford, applicants wishing to teach a subject in schools would normally be expected to have studied that subject, or a very closely related one, to undergraduate degree level of at least fifty percent content of that degree. However, applicants graduating in other subjects are not automatically rejected, but are considered, depending on the nature of the degree and the subject in question.

All applicants must have obtained a GCSE (Grade C or above) in English Language and Mathematics (or their equivalent), before commencing the course. Universities in the United Kingdom do not offer their own equivalent test in English and Mathematics, but will accept other qualifications if they are satisfied that they are equivalent.

If the applicant holds qualifications from other countries, he/she could check with the National Recognition Information Centre for the United Kingdom (UK NARIC) whether the qualifications he/she holds are regarded as equivalent to those required for entry to the PGCE. UK NARIC is the National Agency for the Department for Education and is the only official information provider on the comparability of international qualifications. In selecting candidates for interviews, decisions will be informed by academic qualifications, a personal statement, previous relevant experience and the candidate's references. Candidates selected for interviews are interviewed in person before acceptance.

It is a government requirement in the United Kingdom that all trainees should have the health and physical capacity to teach and do not put children and young people at risk. If one is offered a place in the PGCE course, one will be asked to complete a self-disclosure fitness questionnaire. These medical questionnaires are checked by Occupational Health professionals.

Policy in the United Kingdom emphasises that all trainee teachers in England and Wales must undergo appropriate background checks before beginning a PGCE. These include an enhanced disclosure from the Disclosure and Barring Service (DBS) for all entrants and checks from similar bodies for those who have spent time living out of the country (University of Oxford: 2016).

In the United Kingdom, contrary to the South African situation, the government has a policy on background checks on PGCE students. It is a requirement by the state that providers of initial teacher education are responsible for ascertaining that they do not admit candidates to their courses who are not suitable for working with children. Particularly, they must ensure that all entrants have been subject to a Disclosure and Barring Service (DBS) check and/or any other appropriate background checks. Since the DBS does not have, at present, access to overseas criminal records, the DBS process only provides information about criminal convictions in the UK. Therefore, providers must obtain certificates of good conduct and/or references in respect of trainees who have spent time living overseas. This is reflected in the admission requirements at the Oxford University.

All PGCE students are asked to complete an application for a DBS check and their acceptance to the course is subject to the receipt of a satisfactory disclosure, in line with the Department of Education Disclosure and Barring Service.

Another sound practice from the UK is that students who have spent time living overseas are contacted by the PGCE Office and assisted with applying to appropriate authorities in the countries where they have been resident for certificates of good conduct and/or references as appropriate.

According to the Oxford University admission requirements, all students offered a space in a PGCE teacher training course are required to have obtained an Enhanced Certificate from the DBS. In the event of criminal disclosures, the PGCE applicant is rejected   and   banned from working with children under the Protection of Children Act (1999) and the Criminal Justice and Court Services Act (2000). PGCE applicants are rejected for offences or behaviour which are violence-, sexual-, or drug-related; in accordance with the Department for Children, Schools and Families (DCSF) guidance document: Preventing Unsuitable People from Working with Children and Young Persons.

When   other types of offences are disclosed, the anonymous details are considered by the Chair of the Partnership Committee. Where necessary, advice is sought from the Personnel Department of the Local Authority. Subject to these deliberations, the applicant is accepted or rejected. Where a DBS Disclosure provides new information that the applicant had not disclosed earlier in the application process, the new matters revealed are discussed with the applicant before making any final decision. Where a DBS Disclosure results in a rejection, the matter is discussed beforehand with the applicant by the PGCE Course Manager.

2.4.2 PGCE in Australia

University of Southern Queensland (2014) states that students who successfully complete the PGCE should have made significant progress in the process of acquiring advanced knowledge and understanding of key issues and trends within contemporary education and/or of a specialised area of education.

University of Southern Queensland (2014) further shows that graduates should be able to demonstrate capabilities and dispositions for locating and accessing knowledge of relevant theory and practice. Graduates should also have the ability to critically evaluate and build knowledge. Furthermore, they should interpret and apply knowledge to the solution of significant problems while effectively communicating knowledge and identifying and participating in relevant communities of practice.

The PGCE program in Australia aims to develop in its graduates the capabilities and dispositions to work as engaged professional educators in knowledge-building communities.   The PGCE program further aims to develop in its graduates the capabilities and dispositions to work as engaged professional educators in contemporary knowledge building communities. Students who successfully complete the PGCE should have made significant progress in the process of acquiring advanced knowledge and understanding of key issues and trends within contemporary education or of a specialised area of education (University of Queensland, 2014).

Applicants who intend to study towards PGCE should ensure that they have the necessary computer and Internet access before applying since most courses in the PGCE program are offered entirely online and have specific requirements for frequent and ongoing Internet access. The normal requirement for entry to the PGCE program is a three-year bachelor degree (or equivalent) from a recognised university.

University of Southern Queensland (2014) suggests that applicants who do not meet the requirements for normal entry may apply for alternative entry if they believe that they can demonstrate that they have qualifications or experience that might be considered equivalent to those required for normal entry to a PGCE program.

Furthermore, applicants from a non-English speaking background are required to satisfy English language requirements. If an applicant does not meet the English language requirements he/she may apply to study a university-approved English language program.

44

2.4.3 PGCE in New Zealand

University of Canterbury (2015) shows that the PGCE is designed to give teachers, counsellors and other educational professionals the opportunity to improve their professional practice and examine critically significant issues in education. This certificate in the New Zealand context can be a pathway to the Master of Education or Postgraduate Diploma in Education

In New Zealand postgraduate certificates and diplomas require a relevant bachelor's degree. If an applicant gained its qualifications overseas, these qualifications will need to be assessed to ensure that they are of an equivalent standard. Applicants must be approved as a candidate for the PGCE by the Dean of Education. In addition, Applicants must be:

- qualified for any appropriate degree in New Zealand with two 300-level courses in Education, or
- qualified for any appropriate degree in New Zealand and have either completed a minimum one-year teacher training course or have experience as a teacher, educator or counsellor, or

The relevance and standard of undergraduate studies and any subsequent professional work experience are the main criteria of approval.

2.5 Qualification structure and duration of PGCE in global context

Edwards (2015) shows that initial teacher education programmes, such as the PGCE in South Africa were undergoing significant changes with the introduction of a new policy regime. The study by Edwards briefly outlined the policy changes that have been advanced for teacher education programmes in South Africa. It also examined productive pedagogies as a conceptual framework to underpin such a restructured programme. This study then proposed that multiple representations could serve as a productive pedagogy of enactment in the science classroom, because they engage the student with higher-order thinking skills. In addition, they connect them with the world beyond the classroom in a supportive environment, and value differences by affording students multiple opportunities to develop a deep understanding of concepts.

45

Some examples are given and the broader implications for classroom practice are discussed.

In agreement with policy, Verbeek (2014) presents three lines of argument to suggest that it is indeed possible to train Foundation Phase teachers in the relatively short period of one year, if they have the graduate attributes identified previously. The first argument relates to what PGCE students are and the fact that initial teacher education is part of a continuum of professional development; the second relates to a distinction between education and training; and the third relates to the nature of the PGCE practicum.

Verbeek (2014) argues that the potential contribution of the PGCE (Foundation Phase) has not been sufficiently recognised by the teaching profession. Prejudice from within the profession about the length of the PGCE (FP) programme appears to result from preconceived ideas about how people learn to teach; what teacher training (as opposed to education) should involve; and whether relevant content knowledge is adequately provided by undergraduate degrees at all South African universities.

Verbeek (2014) further indicates that there is a need to open discussions about what a newly qualified Foundation Phase teacher should be able to know and do. The short time period available for the postgraduate certificate, provides an important challenge and a valuable opportunity for teacher educators to identify what is essential. This may provide important insights for other initial teacher development qualifications, such as PGCE for the further education and training phase as well.

2.6 PART 2: REVIEW OF THE LITERATURE

2.6.1 Knowledge structure versus pedagogic structure

Moore, Arnot, Beck and Daniels (2006) attempt to answer questions related to peadagogical and content knowledge. They ask whether knowledge structure restricts pedagogic structure. Furthermore, they question whether knowledge structure places any onus on the way that the "what is to be learnt" is written and taught. Lastly, they ask whether these internal characteristics of knowledge structures place limits on their curricular offspring. Moore et al. (2006) however state that pedagogic structures have distributive potential, but ask whether knowledge structures come with already encoded distributive potential, thus placing structural limits on pedagogic form. The literature chosen therefore, seeks to answer such questions as interrogated by Tran and Lawson (2007), who respond by saying that high quality pedagogical knowledge is crucial for students, especially for teacher education students, because it could assist them in their current learning and in that of future students.

Tran and Lawson's (2007) study of teacher education students combined qualitative and quantitative research methods to investigate three main research questions. to determine what pedagogic knowledge students have regarding   teachers' use of questions - student pedagogical knowledge (SPK); and to explore how well-developed SPK is and lastly, to see whether students use SPK in planning for teaching. Tran and Lawson (2007) found that students do have SPK about teachers' use of questions which involve a wide range of motivational, cognitive and meta-cognitive activities in teaching and learning. There is evidence that students use their SPK in a simulated teaching situation. However, the extent of knowledge used depends on the situations students are involved in, on the types and the quality of the SPK, as well as the availability of external probing.

2.6.2 Pedagogical content knowledge

Foulds (2002) argues that there is a need for school-based development for unqualified and under-qualified teachers if they are to change their practices significantly. Dreyer (2011) extends the idea, suggesting that as teacher education programmes are usually aligned to the school education system of countries, it is

47

important to look at student-teacher programmes against the background of their high school education systems and the higher education landscape. This augurs well with a statement made by the South African Democratic Teachers Union (SADTU) at a teacher development around-table held in 2009, where it was indicated that teacher unions have been calling for a national strategy and plan for teacher development since 1994. The main reason for this is the fact that before 1994, a substantial majority of teachers were unqualified or under-qualified. Even amongst qualified teachers there were questions raised about the quality of pre-service training, often delivered by poorly resourced Bantu-style education or embodied in a very conservative pedagogy. Research findings such as those of Robinson (2002) support some of the debates that have emerged amongst educators in South Africa, as the reforms have moved from conceptualisation to implementation, particularly in relation to pedagogy and professionalism. This suggests that many educators lack essential content knowledge.

It is important that one should have a sound understanding of pedagogy. According to Horsthemke, Siyakwazi, Walton and Wlhuter (2013) pedagogy is what teachers do; it is informed by theory and enacted by practice. Curriculum, on the other hand, often refers to the formal academic programme provided by a school as reflected in subjects on the time-table. It might also refer to a particular course of instruction or a syllabus (Hoadley & Jansen, 2009). Bringing pedagogy in perspective, a publication by Smith (2012) opined that a focus on teaching as a specialist role is best understood in other ways. Pedagogy needs to be explored through the thinking and practice of those educators who look to accompany learners, care for and about them, and bring learning into life. Teaching, according to Smith (2012), is just one aspect of the educator's practice. Smith (2012) also explores some of the issues facing the development of pedagogical thinking.

The Glossary of Education Reform (2015) defines curriculum as the lessons and academic content taught in a school or in a specific course or programme. As stated by the Glossary of Education Reform, dictionaries often define curriculum as the courses offered by a school, but it has been found to be rarely used in such a general sense in schools. A broad definition by educator's regard curriculum as knowledge, skills and competencies students are expected to learn; and these include the learning

48

standards or learning objectives they are expected to meet; the units and lessons that teachers teach; resources given to students, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. An individual teacher would have his or her own curriculum which would be specific to the learning standards, lessons and assignments, as well as materials used to organise and teach a course.

2.6.3 Teacher quality

Goldhaber and Hannaway (2011) indicate that teacher quality is one of the most important schooling factors influencing learner achievement. Goldhaber and Hannaway (2011) found that having one very effective versus one very ineffective teacher can make a difference of more than a year's growth in a learner's achievement. In respect of having an ineffective teacher and an effective one, having multiple effective teachers versus multiple ineffective teachers could make or break a learner's entire schooling experience.

Swart (2011) argues that in the critical education classroom, which was defined by Project South (2007) as a space where activists, scholars and students co-create knowledge for working towards social transformation, teachers realise that they do not have all the answers. This statement calls for a critical look at the application of pedagogical knowledge in lessons by PGCE students, because it appears as if they have shortcomings when they teach at their schools. This was one of the observations made by some university lecturers when they evaluated students at schools in Botshabelo and Mangaung during teaching practice.

Traditionally, a teacher had to be a master in his/her field, and if they had no answers to questions that arose in the classroom, this suggested that they did not have adequate knowledge of the skills and different methodologies involved in teaching. Swart (2011) further states that the teacher as an agent of change needs to be able to raise the critical consciousness of learners to empower them to become active critical citizens.

49

Recently, the department of Education (2011) announced that the Teacher Development summit held in Johannesburg in 2009 resolved that a new, strengthened, integrated plan for teacher education and development be prepared. This resolution resulted in the development of the Integrated Strategic Planning Framework for Teacher Education and Development 2011-2025 (ISPEFTED). According to ISPFTED (2011), high achieving learners should be encouraged to become teachers through advocacy programmes and recruitment campaigns that promote the personal and social value of the teaching profession, while increasing the access to bursary schemes for those who wish to become teachers. From these statements government has also been aware of the fact that teacher development is in a crisis and there is a need to devise new strategies to improve the situation. Pedagogic practice cannot be ignored if one wants develop teachers holistically.

2.6.4 Teacher knowledge

Koehler (2011) referred to Shulman's (1986) idea of pedagogical content knowledge by explaining advanced thinking about teacher knowledge. Koehler (2011) explained that Shulman (1986) emphasised teachers' subject knowledge and pedagogy as mutually exclusive domains in research concerned within these domains. The practical implication was the production of teacher education programmes with a focus on either subject matter or pedagogy. To address this disjunction, Shulman considered the relationship between the two by introducing the notion of PCK (Pedagogical Content Knowledge) defined as knowledge that includes knowing what teaching approaches fit the content. Likewise, it was viewed as necessary to know how elements of the content could be arranged for better teaching. Such knowledge is essentially at variance with the disciplinary expert knowledge and the general pedagogical knowledge shared by teachers across disciplines.

From a teaching perspective, PCK is concerned with the representation and formulation of concepts, pedagogical techniques, and knowledge of what makes concepts difficult or easy to learn. It is thus important to know the knowledge of students' prior knowledge and theories of epistemology. PCK also involves a knowledge of teaching strategies that incorporate appropriate conceptual representations to address learner difficulties and misconceptions. This assists in

50

fostering meaningful understanding. Also included is knowledge of what the students bring to the learning milieu. Such knowledge can either be facilitative or dysfunctional for the learning tasks at hand. Included herein are their strategies, prior conceptions, as well as misconceptions they are likely to have about a domain and the potential misapplications of prior knowledge (Shulman, 1986; 1987).

Eames, Williams, Hume and Lockley (2012) state that one of the factors which enable teachers to be effective is their rich pedagogical content knowledge (PCK). Novice teachers need support to develop this PCK and recent research in the field has proposed a conceptual tool known as "content representations", or CoRes, as a model for helping novice teachers in the development of PCK. This study by Eames et al. (2012) brings together science and technology experts in content and pedagogy, early career secondary teachers, and researchers to design a CoRe to assist the development of teacher PCK. The study then researched the early career teachers' use of the CoRe in their planning and delivery of a unit in their classrooms to examine the effect of the CoRe on teaching and learning, and on the development of the teachers' PCK.

Loewenberg, Thames and Phelps (2008) explain that most people would agree that an understanding of content matters for teaching. Yet, what constitutes understanding of the content is loosely defined. Loewenberg et al. (2008) further state that although the term pedagogical content knowledge is widely used, its potential has been only thinly developed. This called for a rigorous approach by the Department of Education and that of Higher Education in intensifying teacher training strategies that would ensure that appropriate and relevant pedagogic knowledge be instilled in PGCE students.

Rangraje, Van der Merwe and Urbani (2005) recommend that for the purpose of reinforcement of Personal Teaching Efficacy beliefs, staff development is essential. The personal and self-development of teachers should receive pertinent attention. Teachers should take responsibility for their own and their learners' performance. Pedagogic knowledge obviously has a direct link to teaching efficacy; thus, a teacher with good pedagogic knowledge should always be efficacious.

Ure (2010) describes the formulation of a teacher development model that encompasses five domains of knowledge. The model provides a curriculum and pedagogical framework for initial teacher education that links together the theoretical, practical and professional elements of teaching and learning. In this model cohorts of approximately twenty-five teacher candidates were placed individually with supervisory classroom teachers. Teaching fellows and clinical specialists consulted with teacher candidates and their supervisors and conducted seminars for their cohort in the neighbouring schools. This approach might be used as a solution towards strengthening PGCE students' pedagogical knowledge by placing them with experienced supervisors or mentor teachers.

Foulds (2002) stressed an urgent need for school-based development for unqualified and under-qualified teachers if they are to change their practices significantly. Furthermore, Dreyer (2011) suggested that as teacher education programmes are usually aligned to the basic education system of countries, it is important to look at teacher programmes against the background of their high school education systems and the higher education landscape.

A study by Ning (2009:131-144) uses the following metaphor: "To give students a cup of water, a teacher should first have a bucket of water" to convey the importance of teachers' knowledge in teaching. The results of this study by Ning (2009) suggest firstly, that high school teachers' PCK was not sufficient to meet the needs of the then curriculum reform and found that the teachers were not adequately prepared for the new curriculum because of their lack of understanding of the principles, standards, and objectives of that curriculum. Secondly, those teachers needed to expand their repertoire of teaching strategies and their knowledge of the new added contents in the syllabus; and thirdly, there was a gap between the teachers' PCK and their classroom practice. That is to say, the quality and quantity of the teachers' needed to be improved. Regarding quantity, they needed to learn more about the new curriculum, its perceptions and to become familiar with the new added contents in textbooks. With regard to the quality aspect, they needed to understand the essence of the new added contents and improve their knowledge of teaching methods.

Burgess (2006) argues that the development of teacher knowledge is dynamic, rather than fixed and static. Burgess positions research on teachers' knowledge in the classroom and states that it has the potential to be able to account for knowledge growth. A teacher's knowledge continues to grow while they are teaching (Manouchehri, 1997) and some research has been conducted to investigate this knowledge growth (e.g., Sherin, 2002). Sherin's research focused on the teachers' content knowledge (both subject knowledge and pedagogical content knowledge), with evidence gathered about the teachers' roles in discussion of mathematical concepts, the way the teachers presented curriculum materials and the teachers' responses to students' questions and ideas. Burgess (2006) made an analysis, and found that it was apparent that in some cases, the teachers' content knowledge changed during the course of the lessons.

Ning (2009) further states that it was sensed at the beginning of the curriculum reform that teachers may lack sufficient PCK. This was the very reason that programmes for teacher training is done. It is done to provide student teachers with this PCK. According to Ning (2009), the problem is that even with the training programmes, the shortcomings discovered by the curriculum experts still exist.

Ning (2009) questions whether, in the current turbulent period of the Mathematics curriculum reform, our teachers still have the courage to say that they have the "bucket of water". Even though the bucket of water is there, is it nutritious enough to fulfil the multiple requirements of the new curriculum? Or is there any sustenance missing? Researchers have to face these fundamental problems when investigating the effects of the current mathematics curriculum reform. Undoubtedly, the question raised by Ning does not apply to mathematics only, but to many other subjects within the South African school system.

Verloop, Van Driel and Meijer (2001) posit that as the research on teachers' knowledge and beliefs became more prominent, it is important to identify the place of teacher knowledge in the total knowledge base of teaching. According to Verloop et al. this meant that the conception of the "knowledge base of teaching" had to surpass restricted definitions such as "behavioural prescriptions based on effectiveness studies". Verloop et al. (2001) went on to define the knowledge base of teaching as all

53

profession-related insights that are potentially relevant to the teacher's activities. These insights can, for example, pertain to formal theories (such as the classical theories from research on teaching), but can also pertain to information about the knowledge and beliefs of expert teachers which has emerged from more recent research.

Ning (2009) is convinced that the mathematics teacher's bucket of water involves a great diversity of knowledge, among which, considering the weight of its influence on Mathematics curriculum reform, teachers' content knowledge, knowledge of the curriculum standard, and pedagogical content knowledge are of high importance. Based on this consideration, the study analysed a group of high school teachers' pedagogical content knowledge (PCK) after their participation in the new Mathematics curriculum reform to determine their real understanding of the new curriculum and investigated the influence of the new curriculum on their practice. The results of this study by Ning suggested that high school teachers' PCK was not sufficient to meet the need of current curriculum reform. First, Ning (2009) found that the teachers were not adequately prepared for the new curriculum because of their lack of understanding of the principles, standards, and objectives of the new curriculum. Second, these teachers needed to expand their repertoire of teaching strategies and their knowledge of the new added contents in the syllabus; and lastly, there was a gap between the teachers' PCK and their classroom practice.

Guerriero (2014) affirms Ning's study by indicating that conceptualising teacher knowledge is a complex issue that involves understanding key underlying phenomena such as the process of teaching and learning, the concept of knowledge, as well as the way teachers' knowledge is put into action in the classroom.

2.6.5 The intersection of content and pedagogy

Solis (2009) describes the professional learning of teachers as an on-going process of knowledge building and skills development in effective teaching practice. In the context of a diverse society, it is the process through which teachers in high minority schools master both content and diverse student pedagogy.

Solis (2009) further argues that the concept of pedagogical content knowledge is not new, but the term gained renewed emphasis with Shulman (1986), a teacher education researcher, who was interested in expanding and improving knowledge on teaching and teacher preparation that, in his view, ignored questions dealing with the content of the lessons taught. Solis (2009) states that Shulman argued that developing general pedagogical skills is insufficient for preparing content teachers, as is education that stresses only content knowledge.

In Schulman's view, the key to distinguishing the knowledge base of teaching rests at the intersection of content and pedagogy (1986). Shulman's pioneering work is of great significance to this study, because it reinforces the education practitioners' commitment towards strengthening pedagogical content knowledge.

Rahman and Scaife (2008) contend that pedagogical content knowledge (PCK) is increasingly recognised as an essential component in assessing pre-qualified teachers and in establishing 'quality teaching'. PCK refers to an understanding of subject matter; an understanding of students: their abilities and interests and how they respond to diverse situations; an application of different teaching strategies; and how various types of classroom activities might be managed.

Although PCK has proved to be an important component of teacher knowledge, details of its development, depth and quality among student-teachers doing practical teaching; referred to as pre-service teachers (PSTs) has remained something of mystery, as has the capability of PSTs to adapt and employ PCK in their actual teaching. To develop a coherent understanding of the prospective teachers' construction and application of PCK, this study is a reflection on three questions. The first question the study reflects on is, to what extent are PSTs prepared in terms of PCK at the end of their teacher education programme? Secondly, how do PSTs apply their PCK during their teaching practice, and thirdly, how do PSTs reflect on their practice in relation to PCK?

Historically, the knowledge bases of teacher education has focused on the content knowledge of the teacher (Shulman, 1986; Veal & MacKinster 1999). Recently, teacher education has shifted its focus primarily to pedagogic knowledge at the

expense of content knowledge (Ball & McDiarmid, 1990). Research on pedagogy dwells on the application of general pedagogical practices in the classroom than on relevant subject matter. However, Ball and MacDiarmid, (1990) and Magnusson, Krajcik & Borko (1999) have rekindled the discussion on the importance of teachers' content knowledge in teacher education.

By introducing the concept of pedagogical content knowledge, Shulman (1986) developed a framework for teacher education. Rather than viewing teacher education from the perspective of content or pedagogy, Shulman believes that teacher education programmes should combine these two knowledge bases to prepare teachers more effectively. The use of PCK as a topic for research and discussion about the nature of an appropriate knowledge base for developing future science teachers has steadily increased since its inception.

Another study by Veal and MaKinster (2011) indicates that the topic of developing future teachers, also extends beyond science teachers and "traditional" teachers. According to these authors, earlier research by Darling-Hammond (1991) cites several studies demonstrating that teachers admitted to the teaching profession through alternative programmes, such as emergency licensure, private schools, and out-of-content assignments, have difficulty with pedagogical content knowledge and curriculum development.

This is somewhat like the admittance that the then reform initiatives in science provided a guide for some teacher educators to develop models of science teacher development. Some of these models had been specific to PCK development of pre-service science teachers (Cochran, DeRuiter & King, 1993; Cochran, King & DeRuiter, 1991; Magnusson, Krajcik & Borko, in press). The National Science Teachers Association (NSTA, 1999) developed science teacher preparation standards that highlighted the need for teachers to develop PCK. These standards were intended for use in accreditation reviews of science teacher preparation programmes for the National Council for Accreditation of Teacher Education (NCATE, 1994). Accordingly, teacher educators continue to recognise the need for an adequate model for teacher preparation.

In their earlier study Akbari and Tajik (2009) show that Gatbonton (1999) was interested in finding out what patterns of pedagogic thoughts experienced second language (L2) teachers used and whether there was consistency in such thought patterns among teachers. Using simulated recall techniques on seven experienced teachers, Gatbonton (1999) found that there were twenty-one categories of pedagogical thoughts that participants were reported using; eight of which showed the highest frequency of occurrence.

According to Akbari and Tajik (2009) the most frequently used thought category was that of Language Management, which dealt with the input students were exposed to, as well as their output. Language Management was followed by Knowledge of Students. Other important thought categories teachers reported using frequently were Procedure Check (measures taken to ensure that the lesson proceeds smoothly from the beginning to the end); Progress Review (to see whether the learners are correctly performing a task or whether they have finished it); Beliefs (teachers' ideas about language, as well as the way language is learnt or taught); Student Reaction and Behaviour (dealing with students' actions and behaviours; and Decisions (pedagogical choices made by the teachers). Akbari and Tajik (2009) became critics of Gatbonton's (1999) study, and concluded that it suffered from many methodological defects that made her categories imprecise in terms of definition, and limited in terms of application to similar contexts.

A recent study by Adams (2011) proposes that to understand pedagogy, an understanding of the ways in which professional selves are realised in relation to the policy formation process is required. To do this, positioning theory is used to describe how practice produces policy. This accepted, it seems necessary, at some point, to consider macro issues for their part in the playing out of pedagogy. Whilst the sociology of education and other areas have traditionally undertaken such work, it remains clear that policy analysis, as a mechanism by which education and indeed pedagogy might be understood, has gained considerable ground as an academic, practical and political endeavor in the last twenty-five years. Indeed, the political dimensions of policy analysis are now considerable, and much time, effort and money have been spent in both formulating methodologies by which such activity might be undertaken, as well as undertaking the activity itself.

Adams (2011) formulated some thoughts concerning the mechanisms by which interactions between agents formulate pedagogic policy. He is concerned with trying to understand pedagogy as positioning, and in so doing, argues that understanding policy requires an appreciation of the ways in which professional selves are realised as positions. Adams (2011) specifically uses positioning theory to describe how practice both 'represents' and 'produces' seemingly fixed and yet often contradictory representations of professional pedagogic beliefs.

Van Driel and Berry (2012) assert that the development of PCK goes beyond the acquisition of instructional strategies and techniques, to include an understanding of how students develop insights in specific subject matter. Van Driel and Berry (2012) further emphasise the fact that the research literature clearly demonstrates that PCK development is a complex process that is highly specific to the context, situation, and person. This implies that professional development programmes aimed at the development of teachers' PCK should be organized in ways that closely align to teachers' professional practice, including opportunities to enact certain (innovative) instructional strategies and materials and to reflect, individually and collectively, on their experiences.

The research by Van Driel and Berry (2012) also showed that providing teachers with specific input can contribute to the development of their PCK. Examples of instructional practices, either "good" or "flawed", can serve as input, as can evidence from the research literature and other resources. In this context, professional learning committees, PLCs as termed by the study, can play a very useful role in helping teachers to analyse, develop and discuss in detail, the key notions of teaching and learning a specific topic. PLCs can also contribute to the identification of a collective PCK that is a shared or common form of teachers' professional practical knowledge about teaching certain subject matter. At the same time, there should be room for individual teachers to adapt this shared knowledge and complement it with their own situations.

With their focus on physical education (PE), Marcon, Amândio, Graça and Nascimento (2012) discovered that pedagogical knowledge at the macro level resided in the inter-

disciplinarity and permeability among various school subjects. At this level, pedagogical knowledge ponders the inclusion and the role played by each subject in the curriculum structure to achieve the mission of the school system, which implies understanding the contribution of physical education to the achievement of unique learning outcomes and common educational goals.

According to Marcon et al. (2012), the prospective PE teachers in the study did not show pedagogical concerns at the macro level, though many of their teaching practice lessons were taught, for example, to school-age students in the schools of basic education. This apparent disregard for macro level pedagogical knowledge could be analysed considering each of the teaching practice forms.

The teaching practice lessons taught to colleagues, mainly at the first stages of the PE licensure programme, were fundamentally designed to transfer and apply content knowledge. Marcon et al. (2012) state that in some cases, prospective PE teachers were only able to reproduce, in an incoherent and uncritical manner, teaching and learning tasks found in didactic manuals or used previously by their own teacher educators. Moreover, these authors suggest that some teaching practice lessons presented to colleagues provided prospective PE teachers with only a relatively superficial and provided a narrow view of teaching and of the role of the PE teacher. Therefore, teaching practice lessons administered to colleagues may significantly hinder the emergence of questions relative to pedagogical knowledge at a macro-, and even meso-level.

Jang's (2010) study revealed that students' perceptions of the teacher's PCK are enhanced through workshops and reflective feedback. The PCK development of teachers was evaluated according to the judgments of the students and was not restricted to a few observations or interview data (De Jong et al., 2005; Van Driel et al., 2002). However, the study ''Assessing Students' Perceptions of College Teachers' PCK'' has some limitations. This quantitative presentation does not deeply investigate the factors behind the development of the teacher. In this study, in addition to the scale, students' qualitative data was collected in various ways, such as interviews, workshop records, and open-ended opinions of students, to determine whether the teacher's PCK had improved.

2.6.6 The importance of assessment and measurement in developing teachers' Pedagogical Content Knowledge

Godino, Ortiz, Rafael, Roa and Wilhelmi (2011) contended that assessment and measurement are important tools in developing teachers' PCK, as highlighted by Watson et al. (2008). Although the models for PCK described by Godino et al (2011) are useful for training teachers to teach statistics, their categories are still general and could be made more precise. It would be useful to develop models that provide detailed and further operative criteria that could be applied in designing procedures or materials directed at educating teachers. One such material or procedure is podcasting as highlighted by Swan and Hofer (2011).

Swan and Hofer (2011) explored the instructional affordances and constraints of podcasting in the high school classroom. In this study, they worked with eight teachers who were teaching ninth grade Economics in a south-central state of the United States (US), to determine how they integrated podcasting technology into the curriculum, so as to help their students build on their economic literacy and/or reasoning. Swan and Hofer (2011) were particularly interested in whether the teachers perceived that podcasting provided a relative advantage in teaching Economics and the extent to which the teachers demonstrated Technological Pedagogical Content Knowledge (TPACK) in their podcasting projects.

Swan and Hofer (2011) found that podcasting is a nimble technology that allows the teachers to pedagogically adapt to their individual teaching contexts with very little technological "overhead." In this way, the participants demonstrated strong technological pedagogical knowledge (TPK). None of the participants, however, articulated a strong vision of how podcasting contributed to content learning in Economics. Swan and Hofer (2011) further argue that when using some universal technologies, such as podcasting, teachers may not demonstrate strong technological content knowledge (TCK), because it simply does not exist for these types of generalised digital tools in the same way as more specialised, discipline-based tools.

60

2.6.7 The nature of pedagogic teacher-learner interactions

Beutel (2010) attested that globally, teaching has become more complex and more challenging in recent years, with new and increased demands being placed on teachers by learners, their families, governments and wider society. Teachers work with more diverse communities in times characterised by volatility, uncertainty and moral ambiguity. Societal, political, economic and cultural shifts have transformed the contexts in which teachers work, thus redefining the ways in which teachers interact with learners.

Beutel (2010) used phenomenographic methods to explore the nature of pedagogic teacher-learner interactions. The data analysis from this study reveals five different ways in which teachers experience pedagogic engagements with learners. The resultant categories of description range from information providing, with teachers viewed as transmitters of a body of knowledge through to mentoring, in which teachers are perceived as significant others in the lives of learners, with their influence extending beyond the walls of the classroom and beyond the years of schooling. Furthermore, Beutel's (2010) paper concludes by arguing that if teachers are to prepare learners for the challenges and opportunities in changing times, teacher education programmes need to consider ways to facilitate the development of mentoring capacities in new teachers.

Earlier, Carpenter, Fennema, Peterson and Carey (1988) investigated forty first-grade teachers' pedagogical content knowledge of children's solutions of addition and subtraction word problems. Most teachers could identify many of the critical distinctions between problems and the primary strategies that children use to solve different kinds of problems. However, this knowledge was not organised into a coherent network that related distinctions between problems, children's solutions, and problem difficulty. The teachers' knowledge on whether their own learners could solve different problems significantly, correlated with learner achievement.

2.6.8 The acquisition of universal knowledge in pedagogy

In his inaugural lecture, Ntshoe (2013) argued that student graduates needed to be able to go anywhere in the world and function with confidence in their skills, and knowledge. According to him, this they can do, provided they acquire universal knowledge and skills comprising principles and concepts and not just memorised facts and content which could pigeonhole them in later life. This statement would also include PGCE students as alumni of the CUT.

Van der Walt, Potgieter, Wolhuter, Higgs and Ntshoe (2010) found that teacher educators who are the very people who are supposed to provide quality training to teachers have a low research output. Van der Walt et al. (2010) also conclude that having subjected the problem of low academic performance of South African educationists to investigation from several angles, it was found that the academic educators in South Africa have contributed little research output and is indeed, not as high as that of their counterparts in other faculties and schools prior to 2007 and 2008. In these findings by Van der Walt et al. it is assumed that they would also give an indication of the type of pedagogy that these teacher educators provide to their students.

Seemingly, PGCE as a teaching qualification has become popular amongst many graduates in South Africa who have content knowledge in other disciplines. However, there seems to be a lot of skepticism about the ability of the PGCE course to train quality teachers, such as that of Louise Tickle (*The Guardian* Monday 8 July 2013:122), who writes about the views of the public concerning School Direct which she refers to as a controversial scheme introduced by Michael Gove, the Education Secretary, as part of his plan to train more teachers in schools in England.

According to Tickle (2013), the above-mentioned scheme has come under fire because of fears that it could not train enough teachers and that there may be a teacher shortage on the horizon as a result. Furthermore, worries have also been expressed about whether this sort of training lacks some of the essential grounding offered by a university-based PGCE. In her writing, Tickle reflects on debates by some graduates who indicate that they knew they wanted to be teachers, but did not want

to do a PGCE after just having done four years at university, but instead wanted to work. In a similar way, PGCE in South Africa attracts students who are keen to do their teacher training whilst they are already working.

Kara (2013) interviewed participants, some of whom said they knew about teacher training, because some of their most respected colleagues completed PGCEs while some of them came into teaching via Teach First. The participants further indicated that they did not judge their colleagues on their training but on their ability to teach and to be consummate professionals in a job that required strength and leadership.

2.7 HOW THE LITERATURE REVIEW INFLUENCES THIS STUDY

The above-mentioned literature influences this study in different ways. First, it examines how other authors explain, describe and assess pedagogical content knowledge in order to provide a background for this study. It also increased my theoretical awareness and my effort to corroborate certain assumptions and conclusions that I reached in the analysis of the data. Secondly, the literature supports the argument that there are numerous scientific studies that have been conducted on pedagogical content knowledge, as well as on the pedagogy of the PGCE. Thirdly, the literature reveals that many frameworks are used to explain the context of pedagogical content knowledge.

The exploration of the literature in this study demonstrates that the researcher has tried to gather adequate knowledge in my specific field. Furthermore, the literature study helped me to read critically and to write economically about PGCE, because it prompted me to highlight important issues relevant to the study. Most importantly, it has allowed me to map the field and position of my research within the context. The review of literature has also justified the reason for the research, whilst providing me with the knowledge of my field, thus allowing me to identify the gap which my research could fill.

2.8 THEORETICAL FRAMEWORK

The theoretical framework for this study is drawn from the works of two theorists who write from a social constructivist, as well as a social pragmatism perspective. According to Andrews (2012), social constructivism originated as an attempt to come to terms with the nature of reality. It emerged some thirty years ago and has its origins in sociology and has been associated with the post-modern era in qualitative research (Andrews, 2012). Furthermore, the terms constructivism and social constructionism tend to be used interchangeably and are subsumed under the generic term 'constructivism'. Constructivism proposes that each individual mentally constructs the world of experience through cognitive processes, while social constructionism has a social rather than an individual focus.

A social learning theory helps us to understand how people learn in social contexts and informs teachers about how to construct active learning communities. Lev Vygotsky (1962), a Russian teacher and psychologist, who stated that people learn through their interactions and communications with others. Vygotsky (1962) examines how people's social environments influence the learning process. He suggests that learning takes place through the interactions learners have with their peers, teachers, and other experts.

Teachers could create a learning environment that maximizes the learners' ability to interact with one another through discussion, collaboration, and feedback. Moreover, Vygotsky (1962) argues that culture is the primary determining factor for knowledge construction. People learn through this cultural lens by interacting with others and following the rules, skills, and abilities shaped by their culture.

The second theorist considered is John Dewey (social pragmatism), whose philosophy on education, published in *Experience and Education* (1938) is an analysis of both traditional and progressive education. Dewey (1938) postulates that where traditional education focuses upon curriculum and cultural heritage for its content, progressive education focuses on the learner's interest and impulse, unconstrained by the educator. According to Dewey (1938), neither of these systems is adequate. Traditional education consisted of a rigid regimentation, ignoring the capacities and

interests of the learner, whilst progressive education allows excessive individualism and spontaneity, which Dewey refers to as a deceptive index of freedom.

What Dewey's philosophy (1938) proposes is a carefully developed theory of experience and its relation to education whilst continuing to maintain that sound educational experience involves both continuity and interaction between the learner and what is learnt. As a result, Dewey's philosophy is that experience arises from the interaction of two principles, namely, continuity and interaction. The researcher has therefore endeavoured to establish whether there is continuity in the interaction between PGCE students and their lecturers or mentors, in as far as pedagogical knowledge is concerned.

Warde (2005) states that Dewey aims to integrate the school with society by a thoroughgoing application of the principles and practices of democracy and the processes of learning with the actual problems of life. According to Dewey, the school system should be open to all on a completely free, have equal basis, without any restrictions or segregation based on colour, race, creed, national origin, sex or social status. Group activity under self-direction and self-government would make the classroom a miniature republic where equality and consideration for all would prevail.

Furthermore, the preceding type of education would be most beneficial and with minimal social consequences. It is an education that tends to erase unjust distinctions and prejudices in society; an education striving to equip children with the qualities and capacities required to cope with the vicissitudes of a fast-changing world. Its products would be alert, balanced, critically-minded and continue to grow in intellectual and moral stature after leaving the education system (Dewey 1960).

The Progressive Education Association, inspired by Dewey's ideas, later codified his principles (Warde 2005). Initially, the conduct of the pupils would be governed by themselveson the basis of the social needs of the community. Secondly, such interests would be the motive for all work. Thirdly, teachers would inspire a desire for knowledge (and not task-masters) and serve as guides in the investigations undertaken. Fourthly, a scientific study of each pupil's development, physical, mental, social and spiritual, is regarded essential to the intelligent direction of his/her development. Fifthly, greater

attention is paid to the child's physical needs, with greater use of the out-of-doors. Sixthly, cooperation between school and home would fill all the needs of the child's development, such as music, dancing, play and other extra-curricular activities. If it is to be regarded as an effective teacher training programme, it is assumed that the PGCE would fulfil all Dewey's six guidelines.

The book, *Experience and Education* (1938) demonstrates Dewey's ideas on education in a concise statement that resulted from his observational experience with progressive schools. Written in essay format, it divides Dewey's philosophy into eight chapters that are organized so that each one presents a definitive aspect of his philosophy. This study aims to establish the link between the education provided by PGCE and the experiences that students have about pedagogy.

The online teacher resource (2016) Highlights Piaget's theory of constructivism and argues that people produce knowledge and form meaning based upon their experiences. According to this website Piaget's theory covered learning theories, teaching methods, and education reform. Two of the key components which create the construction of an individual's new knowledge are accommodation and assimilation. The authors of this site explain that assimilating causes an individual to incorporate new experiences into the old experiences and consequently   causes the individual to develop new outlooks, rethink what were once misunderstandings, and evaluate what is important, ultimately altering their perceptions. Accommodation, on the other hand, is reframing the world and new experiences into the mental capacity already present. Furthermore, Individuals conceive a particular way in which the world operates. When things do not operate within that context, they must accommodate and reframe the expectations with the outcomes.

The Online Teacher Resource (2016) indicates that apart from learning theories, Piaget's theory of constructivism addresses how learning actually occurs, not focusing on what influences learning. The role of teachers is very important. Instead of giving a lecture the teachers in constructivism function as facilitators whose role is to help the student when it comes to their own understanding. This takes away focus from the teacher and lecture and puts it upon the student and their learning. The resources and lesson plans that must be initiated for this learning theory take a very different

approach toward traditional learning as well. Instead of telling, the teacher must begin asking. Instead of answering questions that only align with their curriculum, the facilitator in this case must make it so that the student comes to the conclusions on their own instead of being told. Teachers who follow Piaget's theory of constructivism must challenge the student by making them effective critical thinkers whilst they also become mentors, consultants, and a coaches.

2.9 PHILOSOPHICAL ASSUMPTIONS

The philosophical assumption underlying this study originates from the interpretive paradigm. This implies a subjective epistemology and ontological belief that reality is socially constructed. The research strategy adopted is to conduct interviews, observations and document analysis in an institution of higher learning.

Fieldwork for this study was conducted at the sites from 2014 and correspondence was maintained with the different participants. The term paradigm was first termed by Kuhn (1962, 1970), who maintains that a research paradigm could be viewed as a lens through which we perceive phenomena as we define the nature of enquiry through an analysis of the nature of reality; how we can know the world and the methodology.

Guba (1990), as well as Creswell (2009), perceive a paradigm as a conceptual framework which constructs what we see and how we understand and which is shared by a community of scientists as a tool used to research, examine problems and find solutions to the identified problems. All cited definitions express a paradigm as a courier to approaching research, which also sets the parameters for the researcher in the process of examining phenomena.

2.10 RATIONALE FOR ADOPTING VYGOTSKY AND DEWEY'S THEORIES

Vygotsky's, (1963) social development theory is relevant to this study because the theory sets the tone for the assertions and perceptions made by different sectors to be either falsified or refuted. Vygotsky and Dewey are similar in that they both write from a social constructivist perspective but are dissimilar in certain respects.

Furthermore, Vygotsky's theory of social development is used to investigate the assumptions that PGCE as a teacher training programme can train pedagogically competent teachers or not. The assumptions made by Vygotsky's theory are found to be useful in starting an investigation about how the pedagogy of PGCE unfolds or should unfold.

An explanation of the assumptions of Vygotsky's theory by Hurst (2015) points to six assumptions it makes. According to Hurst (2015), the first assumption of Vygotsky's theory is that through both informal and formal discussions and education, adults convey to children the way their culture interprets and responds to the world. Specifically, as adults interact with children, they show the meanings they attach to objects, events and experiences. This assumption may find application in the pedagogic mentorship of PGCE students.

The second assumption of Vygotsky's theory is that thought and language becomes increasingly independent in the first few years of life. PGCE students are perceived to be at the beginning of a new life, a life of teaching and learning and would therefore have to be independent thinkers and learn the language of their new trade.

The third assumption explains that complex mental processes begin as social activities. As with children's development, probably PGCE students gradually internalise processes they use in social contexts and begin to use them independently. This internalisation process allows them to transform ideas and processes to make them uniquely their own. Vygotsky also introduces the idea that children can perform more challenging tasks when assisted by more advanced and competent individuals. In the case of PGCE, these competent individuals could be referred to as mentor teachers.

The next assumption is that challenging tasks promote maximum cognitive growth. Vygotsky describes this as the zone of proximal development, or is commonly referred to as ZPD. ZPD is the range of tasks that a child can perform with the help and guidance of others but cannot yet perform independently. This can be described as

68

the mentoring process that the PGCE students go through in order for them to reach their full potential.

The final assumption is that play allows children to stretch themselves cognitively. Play allows children to take on roles they would normally not be able to perform in real life. This assumption gives an indication that PGCE students could benefit from alternative methods of teaching and places emphasis on teaching practice as indispensable in teacher training.

Dewey's theory of experience and education is also appropriate because it encouraged me to look at the methods and strategies used in the training of PGCE students. Dewey crafted his theory of experience and its relation to education whilst continuing to say sound educational experience involves both continuity and interaction between the learner and what is learnt. This theory could be used to determine the existence of both continuity and interaction in the teaching of PGCE graduates.

Dewey's philosophy of social pragmatism further states that experience arises from the interaction of two principles, namely, continuity and interaction. These two principles will be sought to determine if they, in fact, find application and make a difference in the pedagogy of PGCE.

2.11 CONCLUSION

This chapter examined the policy that controls the implementation of PGCE in South Africa. It also made a comparison of MRTEQ policy with international policies on PGCE. The literature review in this chapter emphasized how crucial it is that PGCE students should be placed in programmes that will strengthen their pedagogical content knowledge, which will benefit primarily themselves, and secondly their own learners. The depth of the literature also signifies the importance of a renewed emphasis on pedagogic content knowledge in teacher education programmes. Chapter Three will deal with the research design and methodology.

CHAPTER THREE: RESEARCH DESIGN

3.1 INTRODUCTION

In the previous chapter the review of the literature was undertaken to explore pedagogical content knowledge and the pedagogy of PGCE. This chapter describes research design and explains the philosophical assumptions underpinning this study, as well as to introduce the research strategy and the empirical techniques applied. The chapter defines the scope and limitation of the research design and situates the research among existing research traditions in pedagogical content knowledge. Details of the collection of qualitative data through the use of strategies relevant to qualitative research are also provided in this chapter. In addition, a description of the population, sample and research tools is given.

3.2 PARADIGMS AND METHODOLOGY

This study is guided by an interpretive research paradigm that emphasises experience, interpretation and qualitative types of data. The term paradigm originates from the Greek word *paradeigma* which means *pattern* according to Thomas Kuhn (1962), as he uses it to denote a conceptual framework shared by a community of scientists, which provides them with a convenient model for examining problems and finding solutions. Kuhn (1962) defines a paradigm as an integrated cluster of substantive concepts, variables and problems, attached with corresponding methodological approaches and tools. The term paradigm refers to a research culture with a set of beliefs, values, and assumptions that a community of researchers has in common regarding the nature and conduct of research (Kuhn, 1977). A paradigm thus implies a pattern, structure and framework.

Silverman (2004) opines that all sociologists have narratives to tell. Some come from other people, some from sociologists themselves and some from their interactions with others. What matters is to understand how and where the stories are produced, which sort of narratives they are, and how sociologists can implement them in theorizing about social life.

This study therefore relied on stories drawn from people involved with the PGCE programme to divulge the truth about the contribution of the PGCE programme in the pedagogic development of students. Cozby (2006) states that observational methods can be classified as primarily quantitative or qualitative. Interviews were used to draw stories from people involved with the PGCE programme, while classroom observations were done to observe PGCE alumni in actual classroom settings.

Qualitative approaches focus on people behaving in natural settings and describing in their own words, while quantitative research tends to focus on specific behaviours that can be easily qualified. Qualitative researchers emphasize collecting in-depth information on a relatively few individuals or within a very limited setting, while quantitative investigations usually include larger samples. Furthermore, Cozby (2006) reiterates that qualitative research focuses on phenomena that occur in natural settings and data are typically analysed without the use of statistics. Qualitative research always takes place in the field or wherever the participants normally conduct their activities and is thus often referred to as field research.

Bassey (2001) asserts that qualitative research focuses on the complexities of the various aspects of the school and schooling, and takes into consideration the different objective experiences and subjective perspectives. As a result, qualitative research is capable of accommodating and accounting for the various differences and complexities that are involved in social settings, such as at universities.

This research is premised on qualitative research design. This approach is preferred because it describes and analyses people's individual and collective social actions, beliefs, thoughts and perceptions. It is therefore logical and self-explanatory why a qualitative research design is followed to answer the research question: Do PGCE students have the ability to incorporate pedagogical knowledge into their teaching? The preferred approach also focused on classifying and constructing qualitative models to explain what was observed.

Terre Blanche and Durrheim (1999; 2014:295) explain that the research process has three major dimensions, namely: ontology, epistemology and methodology. According to Terre Blanche and Durkheim (1999), a research paradigm is an all-encompassing

71

system of interrelated practice and thinking that defines the nature of enquiry along these three dimensions.

3.2.1 Interpretivism

Edirisingha (2012) asserts that Interpretivists avoid rigid structural frameworks such as in positivist research and adopt a more personal and flexible research structures, which are receptive to capturing meanings in human interaction and make sense of what is perceived as reality. Edirisingha (2012) further states that Interpretivists believe in the interdependence and mutual interaction of the researcher and his informants. The interpretivist researcher enters the field with some sort of prior insight of the research context but assumes that this is insufficient in developing a fixed research design due to complex, multiple and unpredictable nature of what is perceived as reality. According to Edirisingha (2012), the researcher remains open to new knowledge throughout the study and lets it develop with the help of informants. Furthermore, Edirisingha (2012) shows that the use of such an emergent and collaborative approach is consistent with the interpretivist belief that humans have the ability to adapt, and that no one can gain prior knowledge of time and context bound social realities.

Therefore, the goal of interpretivist research is to understand and interpret the meanings in human behaviour rather than to generalise and predict causes and effects (Neuman, 2000; Hudson and Ozanne, 1988). For an interpretivist researcher it is important to understand motives, meanings, reasons and other subjective experiences which are time and context bound (Hudson & Ozanne, 1988; Neuman, 2000).

According to Willis (1995), interpretevist are anti-foundationalists who believe that there is no single correct route or particular method to knowledge. Walsham (1993) argues that in the interpretive tradition there are no 'correct' or 'incorrect' theories. Instead, they should be judged according to how 'interesting' they are to the researcher, as well as to those involved in the same areas. They attempt to derive their constructs from the field by an in-depth examination of the phenomenon of interest.

72

Gephart (1999) argues that interpretevist assume that knowledge and meaning are acts of interpretation; thus, there is no objective knowledge which is independent of thinking, reasoning by human beings. Myers (2009), on the other hand, asserts that the premise of interpretive researchers is that access to reality (whether given or socially constructed) is only through social constructions, such as language, consciousness and shared meanings.

An interpretive paradigm is underpinned by observation and interpretation; therefore, to observe is to collect information about events, while to interpret is to make meaning of that information by drawing inferences or by judging the match between the information and some abstract pattern (Aikenhead, 1997). Through observation the researcher attempts to understand phenomena through the meanings that people assign to them (Deetz, 1996). In this study I collected information about the PGCE program through observations and made meaning of this information by drawing inferences and judged the match between this information and some patterns that emerged.

Henning (2011) adds that the interpretive researcher realises that observation is fallible and has error and that all theory is revisable. Thus, the aim of research should not be to prove, but to disprove.

Henning (2011) further states that knowledge is constructed not only by observable phenomena, but also by descriptions of people's intentions, beliefs, values and reasons, meaning making and self-understanding. Interpretivist knowledge, is dispersed and distributed.

I used different data collection instruments in order to understand pedagogic knowledge in the PGCE programme. Henning (2011) continues to show that the type of knowledge frameworks that drive society, also known as its discourses, become key role players in the interpretive project.

3.3 SAMPLING

Purposive sampling is used in this study. Trochin (2006) describes sampling as the process of selecting units (e.g., people, organisations) from a population of interest, so that by studying the sample, researchers may fairly generalise their results back to the population from which they were chosen. Cohen and Crabtree (2006) define sampling as the process of systematically selecting that which will be examined during the course of a study.

Kumar (2011) contends that as the main aim in qualitative enquiry is to explore diversity, sample size and sampling strategy do not play a significant role in the selection of a sample. If selected carefully, diversity could be extensively and accurately described on the basis of information obtained even from one individual.

According to Evans and Rooney (2011), the various approaches to sampling can be broken down into two groups, namely probability and non-probability sampling. These techniques are termed probability sampling techniques because the researcher specifies the probability that a participant will be selected from a population. By obtaining the sample with probability techniques, the researcher is confident that his/her sample is representative of the population. At the very least, a researcher's selection procedure could be replicated by others to obtain similar samples.

According to Trochim (2006), researchers usually have one or more specific predefined groups that they are seeking. He further states that purposive sampling is very useful for situations where the researcher needs to reach a targeted sample quickly, and where sampling for proportionality is not the primary concern. With a purposive sample, the researcher is likely to get the opinions of his or her target population, but is also likely to overweigh subgroups in his or her population that are more readily accessible. Some of the sampling strategies used in qualitative research are maximum variation sampling, stratified purposeful sampling, and snowball sampling. Qualitative research usually involves smaller sample sizes than quantitative research.

Rossouw (2003) suggests that a stratified sampling design is often used to ensure greater representativeness, especially where a heterogeneous population contains small minorities in order to ensure that these minorities are also represented. The choice of the variables used to make this division depends on the characteristics that the researcher considers relevant. Having explored most of the sampling strategies, purposive sampling was considered the preferred way of dealing with a sample in the PGCE programmes.

Crossman (2014) defines purposive sample, also commonly called a judgmental sample, as one that is selected based on the knowledge of a population and the purpose of the study. In a purposive sample the subjects are selected for some characteristic. For this particular study, PGCE students were chosen on the basis of their experience. Furthermore, Crossman (2014) says field researchers are often interested in studying extreme or deviant cases; that is, cases that do not fit into regular patterns of attitudes and behaviours. By studying the deviant cases, researchers often gain a better understanding of the more regular patterns of behaviour. This is where purposive sampling often takes place.

As an example, Crossman (2014) refers to a researcher who was interested in learning more about students at the top of their class and sampled those students who fell into the "top of the class" category. These students were purposively selected because they met certain characteristics. It is the same strategy that is used in this particular study.

Laerd (2012) highlights the advantages of purposive sampling and said there are a wide range of qualitative research designs that researchers can draw on. Moreover, achieving the goals of such qualitative research designs require different types of sampling strategy and sampling technique. One of the major strengths of purposive sampling, according to Laerd (2012), is the wide range of sampling techniques that can be used across such qualitative research designs; namely, purposive sampling techniques that range from homogeneous sampling through to critical case sampling, expert sampling, and more. I thus selected purposive sampling for this study.

3.3.1 Purposive sampling

Creswell (2013) indicates that three considerations go into the purposeful sampling approach in qualitative research and that these considerations differ depending on the specific approach. These are: the decision as to whom to select as participants for the study; the sampling strategy; and the size of the sample. Family Health International (2012) agrees that there is an indication that purposive sampling, is one of the most common sampling strategies, and it groups participants according to preselected criteria relevant to a particular research question. Sample sizes, which may or may not be fixed prior to data collection, depend on the resources and time available, as well as the study's objectives. Purposive sample sizes are often determined on the basis of theoretical saturation (the point in data collection when new data no longer bring additional insights into the research questions). Purposive sampling is therefore most successful when data review and analysis are done in conjunction with data collection. Ritchie, Lewis, Nicholls and Ormston (2014) also aver that the criteria used in purposive sample may be demographic characteristics, circumstances, experiences, attitudes or any kind of phenomena. The participants' demographic characteristics, their circumstances, experiences, attitudes were considered in this study. The choice of purposive sampling for this study was influenced by the review of the aims of this study and the lines of enquiry that are pursued.

3.3.2 Homogeneous sampling

Cohen and Crabtree (2006) define homogeneous sampling as the process of selecting a small, homogeneous group of subjects or units for examination and analysis. Homogeneous sampling is used when the goal of the research is to understand and describe a particular group in depth. It is for this reason that homogeneous sampling was used to describe and understand the PGCE graduates.

3.3.3 Quota sampling

A recent study by Family Health International (2012:5) shows that quota sampling, sometimes considered a type of purposive sampling, is also common. In quota sampling, the researcher decides while designing the study how many people with

which characteristics to include as participants. Characteristics might include age, place of residence, gender, class, profession, marital status, the use of a particular contraceptive method, HIV status, and so forth. The criteria which researchers choose allow them to focus on people they think would be most likely to experience, know about, or have insights into the research topic.

According to Family Health International (2012), researchers go into the community and as they use recruitment strategies appropriate to the location, culture, and study population, they find people who fit these criteria. Researchers recruit until they meet the prescribed quotas. This is the strategy employed by me in this study, wherein PGCE students were selected on the basis of their professional qualifications, institutions and geographical positions.

Marshall (1996) regards a judgment sample, also known as purposeful sample, as the most common sampling technique. In a purposeful sample the researcher actively selects the most productive sample to answer the research question. This could involve developing a framework of the variables that might influence an individual's contribution and would be based on the researcher's practical knowledge of the research area, the available literature and evidence from the study itself. This is a more intellectual strategy than the simple demographic stratification of epidemiological studies, though age, gender and social class might be important variables.

Marshall (1996) further states that if the subjects are known to the researcher, they may be stratified according to known public attitudes or beliefs. It may be advantageous to study a broad range of subjects (maximum variation sample), outliers (deviant sample), subjects who have specific experiences (critical case sample), or subjects with special expertise (key informant sample). Subjects may be able to recommend useful potential candidates for study (snowball sample). During the interpretation of the data it is important to consider subjects who support emerging explanations and, perhaps more importantly, subjects who disagree (confirming and disconfirming samples).

The size of the sample is determined by the optimum number necessary to enable valid inferences to be made about the population. The larger the sample size, the

smaller the chance of a random sampling error, but since the sampling error is inversely proportional to the square root of the sample size, there is usually little to be gained from studying very large samples. The optimum sample size depends upon the parameters of the phenomenon under study; for example, the rarity of the event or the expected size of differences in outcome between the intervention and control groups. I considered this suggestion by Marshall and reduced the sample to make it more manageable.

The population of this study consists of graduates from an institution of higher learning in South Africa, which fulfils the task of teacher training and provides PGCE programmes. The sample was drawn from this institution of higher learning in the Free State, South Africa. Purposive sampling was used wherein 15 PGCE students from both Bloemfontein and Welkom campuses of a university of technology were interviewed, observed whilst teaching, and a document analysis done.

3.4 DATA COLLECTION

Semi-structured interviews, observation, and document analysis were chosen as the appropriate tools to collect data for this study. Data were collected from a sample drawn from PGCE students at both the Welkom and Bloemfontein campuses of a university of technology. An earlier study by Hancock (2002) shows that qualitative approaches to data collection usually involve direct interaction with individuals on a one-to-one basis or in a group setting. It is for this reason that the main methods of data collection such as individual interviews, focus groups and observation are used. I also considered the use of data collection methods that would allow one to draw valid meaning from qualitative data. These are methods of analysis that a researcher could use, that are practical, communicable, and non-self-deluding; in short, scientific in the best sense of the word.

3.5 DATA COLLECTION INSTRUMENTS

Creswell (2003) puts the data-collecting procedures into four categories, namely: observations, interviews, documents, and audio-visual materials. Creswell (2003) also provides a table of the four methods, the options found within each method, as well as

the advantages of each method. The limitations of each method are also given. Taking the cue from Creswell, data collection instruments, such as interviews, document analysis and observation are used to collect data for this particular study. Seers (2011) observes that qualitative data are forms of information gathered in a non-numeric form and lists interview transcripts, field notes (notes taken in the field being studied) video, audio recordings, images and documents (reports, meeting minutes, e-mails) as common examples of such data. There are also images of types of qualitative data, highlighted by Seers (2011). Such data usually involve people and their activities, signs, symbols, artefacts and other objects they imbue with meaning. The most common forms of qualitative data are what people have said or done.

Mouton (2014) argues that individuals or groups in social research are aware that they are objects of investigation. Depending on the nature of the particular data source and the manner in which it is collected, they become aware of this situation when they take part in the research and they tend to react to it. This phenomenon is called reactivity. According to Mouton, reactivity is an important variable, depending on the nature of the data source. While guarding against the impact of reactivity, interviews, document analysis and observations were used to collect data from the participants who were drawn from a population of PGCE students from two campuses of the same university of technology. Cohen, Manion and Morrison (2011) list a number of types of interviews. However, this particular study uses standardized open-ended interviews. It is classified as standardised because the exact wording and sequence of questions is determined in advance. All interviewees are asked the same basic questions in the same order. This type of interview was preferred because in it, the participants answer the same questions, thus increasing the compatibility of the participants. It also reduces the interviewer effects and bias when several interviewers are used. Finally, it makes data analysis simple as responses can be directly compared and easily aggregated. In this type of interview many short questions can be asked in a short time.

79

3.5.1. Document Analysis

Silverman (2004) writes that a significant amount of contemporary fieldwork takes place in literate societies, in organisational or other settings in which documents are written, read, stored and circulated. Documents including teaching practice portfolios, portfolios for micro lessons, and study guides of CUT were analysed to determine if their content was ideal and adequate for teacher training in PGCE, as well as to determine how they could be improved.

Bowen (2009) refers to document analysis as a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic. Furthermore, analysing documents incorporates coding content into themes, similar to how focus groups or interview transcripts are analysed. A rubric can also be used to grade or score a document.

There are three primary types of documents. First are public records which refer to the official, ongoing records of an organisation's activities. Examples of public records include: student transcripts, mission statements, annual reports, policy manuals, student handbooks, strategic plans, and syllabi. Second are personal documents which refer to first-person accounts of an individual's actions, experiences, and beliefs. Examples of personal documents include: calendars, e-mails, scrapbooks, blogs, duty logs, incident reports, reflections/journals, and newspapers. Third, is there physical evidence? These are physical objects found within the study setting (often called artefacts). Examples include flyers, posters, agendas, handbooks, and training materials. Against this backdrop document analysis was chosen, based on the variety of factors that it incorporates in its application. I looked through PGCE student's portfolios for physical evidence of activities that they have been involved in during the course of their training.

3.5.2 Interviews

In the beginning of the interview, I introduced myself, explained the purpose of the study, and put the participant at ease by going through the consent form with them. The interview session was audio-recorded; having obtained the participant's

permission, the equipment was tested to ensure it was working properly. My main responsibility was to listen and observe as I guided the participant through a conversation, until all of the important issues on the interview schedule had been explored.

The National Center for Postsecondary Improvement (2003) indicates that a researcher could start the interview in several ways. As an example, one could take a physical or verbal tour and ask major questions about important places along the way (Spradley, 1979:86). One could also ask about a typical class, school day, the major teaching tactics, or the important events in the school year. One can further ask how this school compares to others.

The National Center for Post-Secondary Improvement (NCPSI) (2003) further states that there are several ways to pursue themes and concepts, with probing questions for specifics, mainly for examples. According to the NCPSI (2003), a probe is a gesture (such as a worried look) or a quick comment to elicit an explanation about a specific occurrence. In this study there are main research questions and probes that support them.

Qualitative interviews should be fairly informal and participants should feel they are participating in a conversation or discussion, rather than in a formal question and answer situation. There is a skill involved in successful qualitative research approaches which requires careful consideration and planning. Good quality qualitative research involves:

- Thought;
- Preparation;
- The development of an interview schedule; and
- Conducting and analysing the interview data with care and consideration.

An earlier study by Willig and Stainton-Rogers (2010) reveals that when research participants are asked to talk about their experiences or to explore some aspects of their lives, they inevitably use a narrative mode of organisation. Participants will provide accounts that inevitably take on a story structure. Unstructured and semi-

structured interviews particularly encourage a narrative mode of discourse. Consequently, these narratives warrant a study in their own right and this has led to the recent emergence of the approach to research that is called Narrative Orientated Inquiry (NOI). NOI stresses that narrative is not merely a distinct form of qualitative data analysis, but that it is a methodological approach in its own right which requires an appreciation of the subtle paradigmatic assumption involved and a method of data collection called narrative interview.

Mason (2012) asserts that a researcher may wish to follow the narrative or sequence provided by the interviewee. Whichever of these apply, the researcher is likely to make certain kinds of epistemological assumptions about the interaction between him/herself as a researcher and the participants ; this suggests that semi-structured interviewing is appropriate. Furthermore, depending on who is to be interviewed, an interview could be structured, semi-structured or unstructured.

Hannan (2007) mentioned that a great deal of qualitative material comes from talking with people, whether it is through formal interviews or casual conversations. If interviews are going to tap into the depths of the reality of the situation and discover subjects' meanings and understandings, it is essential for the researcher to develop empathy with interviewees and win their confidence and be unobtrusive, in order not to impose his/her own influence on the interviewee.

The best technique to use in order to become unobtrusive is the unstructured interview wherein the researcher has some general ideas about the topics of the interview, and may have an aide memoire of points that might arise in discussion for use as prompts, if necessary. This said, the hope is that those points will emerge in the natural course of the discussion as the interviewee talks. Care is needed, therefore, to avoid leading questions or suggesting outcomes; therefore, skill is called for in discovering what the interviewee really thinks. The researcher should aim to appear natural; not someone with a special role, but one who engages with interviewees on a person-to-person basis.

As with observation, it may be that the researcher begins with a more focused study and wishes to know certain things. In this case, a structured interview might be more

appropriate. Here the researcher decides the structure of the interview and sets out with predetermined questions. As with systematic observation, this is less naturalistic. Within the interview spaces, the same techniques as above might apply, but there is clearly not as much scope for the interviewee to generate the agenda. For this reason, some researchers use semi-structured interviews which have some pre-set questions, but allow more scope for open-ended answers.

Furthermore, Hannan (2007) explains that both kinds of interview might be used in the same research. For example, the initial stage of a project might be exploratory and expansive but once certain issues have been identified, the researcher might use more focused interviews as they are still grounded in the reality of the situation.

In contrast, Evans and Rooney (2011) state that interviewing can be very expensive and time consuming, requiring trained interviewers. However, an interview gives us that human contact to develop a relationship with our participants. The most common type of interviewing is individual, face-to-face verbal interchange, but it can also take the form of face-to-face group interviewing.

Interviews were conducted with CUT PGCE graduates who are employed, to determine if graduates are successful as beginner teachers and how their pedagogic knowledge can be improved. Interviews were structured in such a way that they answered the research questions stated below:

- How do different disciplines in the PGCE course shape and help students to translate theory into practice?
- What are the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons?
- How does the PGCE curriculum influence the pedagogical aspects of the course?
- To what extent does the pedagogy of PGCE provide the required skills for students to be ready for the job market?

In this study I attempt to use in-depth interviews, which Guion, Diehl and McDonald (2013) regard as a useful qualitative data collection technique that can be used for a variety of purposes, including needs assessment; programme refinement; issue identification; and strategic planning. In-depth interviews are most appropriate for situations in which one wants to ask open-ended questions that elicit a depth of information from relatively few people (as opposed to surveys, which tend to be more quantitative and are conducted with larger numbers of people). I therefore deliberately avoided the use of a survey and opted for in-depth interviewing as a tool that would help collect rich information that can inform programme development and an evaluation of PGCE.

3.5.3 The in-depth interview

Neale (2009:197) says the in-depth interview is a generic term used to describe the type of data collection that commonly takes place in qualitative research. In this study. In-depth interviewing which involved verbal interaction between me as a researcher who has a research topic or a research question and the interviewees who have been selected because of their experience and knowledge of the issues being explored.   In-depth interviewing can therefore be defined as a qualitative research technique that involves conducting intensive individual interviews with a small number of participants to explore their perspectives on a particular idea, program, or situation. (Neale: 2009) In support of Neale (2009), Guion et al. (2013) define in-depth, qualitative interviews as excellent tools to use in planning and evaluating extension programmes because they use an open-ended, discovery-oriented method which allows the interviewer to deeply explore the participant 's feelings and perspectives on a subject. According Guion et al. (2013), this method results in rich background information that could shape further questions relevant to the topic.

As a key characteristic of in-depth interviews, the questions in this study have been worded so that participants   expound on the topic and do not simply answer "yes" or "no." Many questions in this study began with "why" or "how," which would give participants   freedom to answer the questions using their own words.

Secondly, a semi-structured format was used, which emphasises the importance of preplanning the key questions, thus allowing the interview to be conversational, with questions flowing from previous responses when possible. Thirdly, I sought understanding and interpretation, as it is important to use active listening skills to reflect upon what the speaker is saying. The interviewer tried to interpret what was being said and sought clarity and understanding throughout the interview.

Finally, I recorded responses and complemented them with written notes (i.e. field notes). Written notes include observations of both verbal and non-verbal behaviours as they occurred, while noting immediate personal reflections about the interview. Transcribing was done through the creation of a verbatim text of each interview by writing out each question and response from the audio recording. Where possible, my side notes were also included in the transcription, and properly labelled in a separate column or category (refer to the appendices for transcriptions).

Thomas, Nelson, and Silverman (2014) posit that the interview is undoubtedly the most common source of data in qualitative studies, with a person-to-person format being the most prevalent; occasionally group interviews and focus groups are conducted. Interviews range from the highly structured style, in which questions are determined before the interview, to the open-ended, conversational format. In qualitative research, the highly structured format is used primarily to gather socio-demographic information. For the most part, however, interviews are more open-ended and less structured, as alluded to by Merriam (2001). Frequently, the interviewer asks the same questions of all the participants, but the order of the questions, the exact wording, and the type of follow-up questions may vary considerably. Participants in this particular study were asked the same questions.

Being a good interviewer requires skill and experience. It has been emphasised earlier that the researcher should first establish rapport with the participants. If the participants do not trust the researcher, they will not open up and describe their true feelings, thoughts, and intentions. Complete rapport is established over time as people get to know and trust one another. An important skill in interviewing is the ability to ask questions in such a way that the participant believes that he or she can talk freely.

Ryan, Coughlan and Cronin (2009) affirm that the one-to-one interview is a commonly used data collection method in health and social research. According to Ryan et al., the individual interview is a valuable method of gaining insight into people's perceptions, understandings and experiences of a given phenomenon and can contribute to in-depth data collection. Ryan et al. (2009) assume that the interview is more than a conversational interaction between two people and requires considerable knowledge and skill on behalf of the interviewer. In addition, interviews vary in type and structure, depending on their philosophical orientation. As advised by Ryan et al. (2009), several important stages have been followed when conducting interviews for this particular study, including the nature of the questions, questioning techniques, listening and the interviewer-interviewee interactions which are crucial to obtaining a successful outcome. Similarly, ethical considerations and the protection of participants have been noted as fundamental aspects of interviewing.

3.5.4 Observation

Lemanski and Overton (2011) believe that observations are an extremely useful tool in both quantitative and qualitative research and furthermore describe the process of observation as descriptions of activities, behaviours, actions, conversations, interpersonal interactions, organisation or community processes or any other aspect of observable human experience. The data from observations consist of detailed descriptions and the context within which the observation was made.

Kawulich (2005) defines observation as the systematic description of events, behaviours, and artefacts in the social setting chosen for study. Observations enable the researcher to describe existing situations using the five senses, thus providing a written photograph of the situation under study.

Marshall (2006) states that observation is a fundamental and important method in all qualitative inquiry. It is used to discover complex interactions in natural social settings. Even in studies using in-depth interviews, observation plays an important role as the researcher notes the interviewee's body language and effect in addition to his/her words. It is, however, a method that requires a great deal from the researcher. Discomfort, uncomfortable ethical dilemmas and even danger, the difficulty of

managing a relatively unobtrusive role, and the challenge of identifying the big picture, while finely observing huge amounts of fast-moving and complex behaviour are just a few of the challenges.

Evans and Rooney (2011) state that the most obvious way to collect data is to simply watch people and record their behaviour; indeed, this is the basis of observational research. Marshall (2006) adds that observation entails the systematic noting and recording of events, behaviours, and artefacts (objects) in the social setting chosen for study. The observational record is frequently referred to as detailed field notes: non-judgmental, and concrete descriptions of what has been observed.

Hancock (2002) argues that not all data collection approaches require direct interaction with people. Observation is a technique that can be used when data collected through other means may be of limited value or difficult to validate. There are two types of observations that this study has considered, namely narrative observation and naturalistic observation.

Cozby (2009) remarks that a researcher employing narrative observation may want to study everything about a setting. However, this may not be possible, simply because the setting and questions one might ask about it are so complex. Thus, researchers must often limit the scope of their observations to behaviours that are relevant to the central issues of the study. To this effect, Cozby (2009) refers to Cialdini's interest in social influence in settings, such as car dealerships. In this case, Cialdini might focus only on sales techniques and ignore such things as management practices and relationships among salespersons.

Cozby (2009) further states that naturalistic observation is sometimes called fieldwork or simply field observation. In a naturalistic observation study, the researcher observes in a particular natural setting (the field) over an extended period of time, using a variety of techniques to collect information. Cozby (2009) continues by contending that observational methods can be classified as primarily quantitative or qualitative. Qualitative approaches focus on people behaving in natural settings and describing in their own words; quantitative research tends to focus on specific behaviours that can be easily qualified. Qualitative researchers emphasise collecting in-depth information

87

on a relatively few individuals or within a very limited setting, whereas quantitative investigations usually include larger samples. For this reason, PGCE students at the CUT, Free State were observed while they were teaching in actual classroom setting at the respective schools as well as during teaching practice.

3.5.5 Direct observation

Trochim (2006) distinguishes direct observation from participant observation in a number of ways. First, a direct observer does not typically attempt to become a participant in the context. However, the direct observer does strive to be as unobtrusive as possible, so as not to prejudice the observations. Second, direct observation suggests a more detached perspective. In this instance, the researcher is watching rather than taking part. Consequently, technology can be a useful tool in direct observation. For instance, one can videotape the phenomenon or observe from behind one-way mirrors. Third, direct observation tends to be more focused than participant observation. The researcher observes certain sampled situations or people, rather than trying to become immersed in the entire context. Finally, direct observation tends to be not longer than participant observation.

Some advantages of direct observation are that: it provides direct information about behaviours of individuals and groups; permits the evaluator to enter into and understand the situation/context; provides good opportunities for identifying unanticipated outcomes; and exists in natural, unstructured, and flexible settings (Trochim, 2006).

Kawulich (2005) agrees that participant observation has been a hallmark of both anthropological and sociological studies for many years. In recent times, the field of education has seen an increase in the number of qualitative studies that include participant observation as a way to collect information. Qualitative methods of data collection, such as interviewing, observation, and document analysis, have been included under the umbrella term of "ethnographic methods" in recent years. It is therefore appropriate that I chose these ethnographic methods for data collection in PGCE programmes.

3.6 CAPTURING OF DATA

Data were captured through the use of a digital voice recorder which was used to record interviews with the participants. Each participant's interview was uploaded onto a computer and labelled as a file. The participants' answers were thereafter transcribed into text on a personal computer and saved as a Word document. From the Word document the information from transcripts was organised into themes and analysed. Documents from the PGCE students' teaching practice were analysed by means of a rubric and the findings were documented.

Finally, I observed the students while they were teaching in their classes through the use of an observation schedule. To be exact, uncontrolled observation was done. Since it is not easy to ensure the accuracy or correctness of qualitative research, the following four aspects, namely: Credibility, Transferability, Dependability, and Confirmability were taken into consideration when conducting this study.

3.7 ETHICAL ESSUES

The ethical issue of this study was ensured through the use interviews, observations and document analysis. Triangulation was used avoid bias and to ensure valid results.

Maree (2007) and McMillan and Schumacher (2006) all agree that reliability is assured when research instruments produce similar results from the same participants   or participants when different research instruments are used. In this study class observations corroborated what the participants   had said during interviews and what was observed in the analysis of their documents.

3.7.1 Credibility

The credibility in this study was ensured by establishing that the results of the research are believable. I endeavoured to obtain quality results and not just quantity. This was done by ensuring that rich information was gathered, rather than the amount of data gathered. Some of the techniques to gauge the accuracy of the findings, such as data triangulation, triangulation through multiple analysts and member checks were used

89

to ensure credibility. In reality, the participants or readers of this study are the ones who can reasonably judge the credibility of its results.

Issues of trustworthiness had to be considered and triangulation was done through the use of interviews, observation and document analysis as data collection tools.

3.7.2 Transferability

To a certain degree this study cannot be transferred to other contexts since it deals with the pedagogy of PGCE at Central University of technology only. The reader can only note the specific details of the research situation and methods, and compare them to a similar situation with which he/she is more familiar. If the specifics are comparable, the original research is deemed more credible. It was therefore essential that I supplied a highly detailed description of my situation and methods.

3.7.3 Dependability

Dependability ensures that the research findings are consistent and could be repeated. This is measured by the standard with which the research is conducted, analysed and presented. Each process in this study is reported in detail to enable an external researcher to repeat the inquiry and achieve similar results. This also enables other researchers to understand the methods used and their effectiveness. In this study I ensured dependability by determining whether or not the findings and interpretations were supported by the data.

3.7.4 Confirmability

Confirmability in this study was ensured by first questioning how the research findings were supported by the data collected. This process established whether I have been biased during the study or not. This emanated from the assumption that qualitative research allows the researcher to bring a unique perspective to the study. An external researcher can judge whether this is the case by studying the data collected during the original inquiry. To enhance the confirmability of the initial conclusion, an audit trail

can be completed throughout the study to demonstrate how each decision was made. Triangulation was done through the use of more than two data collection instruments.

3.7.5 Ethical considerations

Spasford and Jupp (2006) indicate that research ethics have become an area of deep concern, with many universities and research funders requiring that research receives ethical approval before it is carried out. Moreover, many universities require that all student research is subject to ethical approval, as well as the research of staff, non-funded as well as funded. Research ethics however, need to be addressed throughout the whole life of a research project. Ethical clearance was sought from the Free State Department of Education. For ethical reasons, none of the participants was referred to by name, but only by geographical positioning and the level of operation or implementation. Pseudonyms were also used for the easy identification of participants.

3.8 CONCLUSION

This chapter discussed the research design used in this study and highlighted the research tools used in the capturing and storage of data. A description of the tools for data collection was also given. In addition, it provided information on the research procedure, including the ethical consideration, reliability and credibility of the study. The research design of this study helped to mitigate the omission of many key issues in qualitative research. The next chapter will deal with the presentation and analysis of the results.

CHAPTER FOUR: RESULTS OF THE STUDY

4.1 INTRODUCTION

This chapter presents and discusses the results of the study on the pedagogic knowledge of PGCE students in three different geographical locations within the Free State. These participants studied for further education, in one institution (three campuses) of higher learning, situated in the Free State Province of South Africa. This chapter also presents the findings about the PGCE students' pedagogic knowledge in relation to how they were taught and analyses documents used to teach them. This was done by identifying themes that emerged from interviews, as well as predetermined categories which were informed by the research questions in Chapter One of this study. Responses, which appeared prominently during interviews and observations with the participants, were used to provide answers.

Data emanating from different sources were used to provide information that included among other things: lesson planning; the formulation of objectives; the use of teaching and learning material; the ability to communicate; and the professional conduct of the participants. This chapter also reports the findings about the extent to which documents used in the teaching of PGCE students contributed to their pedagogic knowledge through the analysis of such documents.

4.2 FINDINGS

The following are findings on research questions:

4.2.1 Research question one

How do different disciplines in the PGCE course help students to translate theory into practice?

This question sought to explore how different disciplines in the PGCE course shaped their respective pedagogies. The question was further split into subsidiary questions.

First, students were asked to what extent they thought their qualification was relevant to the subjects they taught or wanted to teach. Secondly, students were asked what methodological challenges they experienced in their subject and how they overcame those challenges. Thirdly, they were asked how their development in teaching methods was evaluated and how this evaluation helped them.

In relation to research question one, it emerged that PGCE used mentorship to translate theory into practice. Document analysis revealed that mentorship has become an important instrument in the pedagogy of PGCE, because it affords students the opportunity to practice under the guidance of an experienced teacher, whilst also affording the teachers themselves a chance to look critically at their own teaching techniques.

When asked about the relevance of their qualification participant two said:

> *I think it has been very relevant because, initially when I started teaching I had only a degree. I had no qualification which is relevant to PGCE so could not understand certain things that one has to apply in the process of teaching so I can make an example of one situation that I got from my lecturer during the process of training for PGCE.* (See appendix H)

PGCE students could apply appropriate teaching strategies and this was emphasized by comments from mentor teachers, such as the one in Portfolio two who said: "*Facilitator linked the present knowledge with previous knowledge to arouse interest of learners; she used different methods of questions to interact with learners.*"

Responsible mentorship has not been the competence of heads of departments and post-level one teachers only, but principals were also responsible as persons with extensive experience. One such person is the principal in Portfolio four who commented as follows: *"Yes her approach and attitude assist in the effective teaching; she involves learners holistically."*

A report compiled by the mentor teacher in portfolio four suggested that some PGCE students did become assets to the schools where they were involved and could

93

influence learners positively. Testimony to this is the following comments by mentor teachers:

> *I have enjoyed working with the student teacher and the way we engage learners in class was very helpful for them. Ms. B has a passion for what she is doing. She starts her lessons with motivation messages for the learners; she is a teacher indeed. She was always present in class; she did all duties that she was supposed to do.*

Furthermore, information in the portfolios indicated that some mentor teachers offered constructive criticism on the pedagogic application of students. They also evaluated students on many lessons and helped them to improve their teaching strategies. One mentor teacher had this to say with regard to one of his protégé's lessons, in portfolio three:

> *When learners answer questions do not just thank them; indicate whether their answer is correct or incorrect. You have the internet at your disposal; download some description and pictures to keep the lesson interesting and to enhance understanding. Encourage your learners to communicate in English at all times. Thank you for doing all you can to answer questions thoroughly.*

An analysis of the students' portfolios further revealed that they accepted pedagogic mentorship and placed themselves in a position where they could access help from mentor teachers by being receptive to advice, whilst mentally preparing themselves to learn from their mentors. It has become evident that the students could also observe good practice from working relations between their lecturers from the University and their mentors at school. In portfolio five the student said:

> *One of the lecturers from school phoned and told me to prepare for my lesson evaluation. This was really nice as she told me in advance to prepare on time. The teachers were really accommodative in terms of letting us do our teaching practice.*

Most students showed increased confidence which probably emanated from their interaction with learners and their mentor teachers. The longer the students stayed at a school, the more the level of trust increased between them and the learners. The following extract from a teaching practice portfolio of participant five bears testimony to the feelings of PGCE students relating to their teaching practice:

> *The grade 10 wrote their English paper three on Thursday 6th August 2013, and before the exam some of the learners asked me to help them prepare for it. This really motivated me as the learners had faith in my teaching skills (P5).*

The participants emphasized the importance of knowing their learners by name and their individual strengths, including other things that bother them outside the classroom that have an impact on their learning. These participants went on to highlight the significance of knowing the backgrounds of the learners, both as individuals and as a group. Participant 4 said:

> *If they learn as peers as a group, it can be more interesting to them and it will stimulate that interest of wanting to learn. With larger groups it becomes difficult, because you have to deal with issues like your discipline, your control, how do you control so you must come up with strategies. You must make a thorough preparation in terms of larger groups; you find others are not paying attention to what you going to present to them or you are going to do.*

Some participants testified that PGCE helped them a lot since they learnt many things regarding teaching that they did not know previously, such as how to treat learners, including how to create an environment that is conducive to teaching and learning. The participants also gave an indication that PGCE reinforced their classroom management strategies, particularly in maintaining discipline in the classroom.

Participant 4 said it is the collective responsibility of teachers in the schools to instil discipline. First, when teachers do things as a collective and in a unified manner, it provides a sense of discipline which is very visible to learners. If they act as individuals, then it distorts and disperses that spirit of discipline because then they do not convey

the same message to learners but rather relay multiple messages, thus defeating the main of objective of cooperative planning.

The participants were emphatic about the importance of a scheme of work which was something that I had not anticipated from this particular sample (refer to appendix H). The majority of the participants mentioned the skill they had to possess in terms of knowledge acquisition, about talking and about setting the objectives of the lesson, including presenting the subject matter in such a way that it would be understood by their audience or learners.

The participants indicated that before exposure to PGCE, they lacked variety in terms of teaching and learning strategies and used a single teaching method to teach their classes. They felt that as teachers, they had to be sensitive to learners to be able to aid/support their learning process. According to these participants, PGCE had made them more sensitive to learners and helped them to position themselves as teachers, thus better   understanding the sensitive issues about their learners who bring their problems into the classroom, eventually influencing the choice of an effective teaching strategy.

They also learned about the creation of a teaching and learning environment and felt that they had gained from the intervention, thereby creating an environment that allowed them to make everyone in class feel welcome. Understanding learner behaviours consistently emerged as an important prerequisite for them to make the choice of a suitable teaching strategy. PGCE students felt that they always had to create a situation where everyone would feel welcome and everyone would feel an important part of the group. Furthermore, they felt that whilst working with individual students, they first had to take the understanding of the student into account by understanding their personal objectives.

Another critical theme was good communication skills between teachers and learners, which the participants cited as the baseline to understanding, and knowing each other. They indicated that a lack of communication could lead to confusion if they did not communicate sufficiently and clearly. They stated that PGCE had taught them that in order to be good communicators, they had to open themselves to the possibilities of a

classroom situation, because some situations may be neither anticipated nor prepared for.

I think it has been very relevant because, initially when I started teaching I had only a degree. I had no qualification which is relevant to PGCE. so could not understand certain things that one has to apply in the process of teaching so I can make an example of one situation that I got from my lecturer during the process of training for PGCE.

Participant 5 corroborated what was said the above statement by saying:

Well, pertaining the PGCE as a qualification I must indeed say, it has been helpful; because it has equipped me with the knowledge of the methods of teaching. the methods of interacting educationally with the students and actually it has also helped me in ways of understanding the behavior of students and again being able to meet the needs of the students for learning purposes. So it has given me that particular perspective that actually helps along those particular lines

Participants expressed that through the PGCE they had learnt the strategies of immediacy which were always preferred by their lecturers. This helped them to be better teachers in that they could immediately tackle problems that arose in the classroom without having been prepared for them. This ability, according to them, played an active role in leadership in the classroom. In addition, the participants emphasised the role of language as a primary tool for communication, in the absence of which, there could be serious barriers to learning.

The participants also highlighted the challenge of teaching in a second language, saying that they first had to understand and master the language themselves before they could successfully teach learners the language and the vocabulary of a particular subject. They indicated that language was the only way in which they could interact with the learners, and that they could be understood only when they communicated through the use of correct language that was relevant to the subject matter.

According to the participants, teaching and learning media was another important theme. They drew attention to the fact that e-learning resources engage learners in terms of accessing some of the websites, which would encourage more learning because learners would then be able explore and obtain information on their own. The majority of the participants   also pointed out that they were not well conversant with e-learning resources themselves, but would still encourage learners to access these sites for learning, since learners are always fascinated by electronic gadgets. They highlighted the fact that as teachers, they could manage to attract the attention of their learners through the use of electronic equipment, which would definitely enhance their learners' concentration and thus, their education.

Many participants signalled that as the world is changing, so is technology. As technology improves, so are the learning preferences of the learners. According to the participants, these changes improve the behaviour of the learners for the better. These participants also attested to the fact that they observed that learners want to watch television, want to browse the internet, and no longer want to be involved with numerous text books which they find boring and pedantic.

The participants felt that the teaching and learning medium, such as colorful posters, overhead projectors and Power Point stimulate learning when it actually attracts the attention and interest of learners to want to explore further and learn more. For the PGCE students, using technological media would enhance their teaching because they resonated well with the learning preferences of the type of learners they have.

Interviewed students also gave testimony to the fact that they were given constructive criticism by lecturers and mentors. This was corroborated by participant 1, when he said:

> *I can make an example of one situation that I got from my lecturer during the process of training for PGCE. Fact that when you are in class and you happen to ask the student a question, make sure you do not answer the question; let the student answer the questions. I never knew that before; I felt that I will ask the students a question and if they do not respond immediately, I give them the answer and continue. The training I got from PGCE allowed me to give them a*

98

chance to think about the question I asked them...and one concludes that they do not know and decides to answer the question myself and I should not ask those questions if I am going to answer.

4.2.2 Research question two

What are the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons?

This question sought to investigate the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons. It had the following subsidiary questions: first it sought to explore the extent of training that has been provided to help the students in the formulation of lesson objectives. Second was how teachers could integrate and use resources to stimulate learning. Third was what pedagogic support was provided to students in the formulation of objectives in their subject. Lastly was how a teacher might work with individual pupils, groups, whole classes and larger groups.

From observation there were challenges regarding teaching and learning support materials, because the participants mainly used the learning materials provided, without employing their own initiative. This said, it was revealed that the participant did not require support from a mentor teacher in planning, since they could work on their own with some guidance some novice teachers would need.

Number one, was that of having to write notes because some of the learners you can't just eh teach them without giving them summaries or writing notes,

Participant 1 said: *Using chalkboard is one of the things, and fortunately we had some of the room where we got a projector, data projector so we made use of them as well as the internet.*

Participant 2 said:

I think one of the most critical challenges that I came across was the challenge that I have with students, generally, I think it is a general problem with student of which is the language interpretation, try to explain everything to the student because most of the students do not have, eh , the language of instruction is not their mother tongue and it becomes a serious challenge to them as in terms of terminology used in the subject matters but then I found out that this thing of word wall that one needs to use when you are presenting, you will write the difficult words or words you think are the jargon of the subject matter and might be difficult for student to understand, write them on the board or you just paste them in the front and you go through them with the student before you continue or as you continue the lesson and you come to the showing them they need to open page for the explanation.

4.2.3 Research question three

How does the PGCE curriculum influence the pedagogical aspects of the course? This question was further extended into the following subsidiary questions. First it was meant to discover why PGCE students should have be good communicators as teachers. Secondly it inquired about how the students kept up to date with up with the vocabulary of their subject and finally what the role of language in teaching was, including their opinions about the impact of language in their subject was.

In response to this question, the Minimum Requirements for Teacher Education Qualifications (MRTEQ) (2011) document influenced the pedagogy of PGCE the most. An analysis of MRTEQ (2011) revealed that the purpose of the Advanced Diploma in Teaching (ADT) is to accredit a professional teaching programme that enhances an undergraduate degree or an approved diploma. ADT is the name that was replaced by PGCE with effect from 2011, as suggested by the MRTEQ (2011). The Advanced Diploma in teaching qualification offers entry-level, initial professional preparation for graduates and diplomates who wished to develop focused knowledge and skills as classroom teachers in a chosen phase(s) and/or subject(s).

For the purpose of teaching a particular phase or subject, the qualification requires a specific depth and specialisation of knowledge, together with practical skills and workplace experience to enable successful students to apply their learning as beginner teachers in schools in varying contexts. Upon analyzing the teaching practice portfolios of PGCE students it was revealed that PGCE was, in fact, in line with the prescriptions of the MRTEQ. Despite being approved and gazzetted, many universities have not yet designed and set up the infrastructure to offer qualification types as decreed by the MRTEQ, including name changes as suggested. The Post Graduate Certificate in Education (PGCE) for example, should henceforth be known as the Advanced Diploma in Teaching (ADT).

Consistent with the demands of the MRTEQ, the minimum admission requirement for PGCE was an appropriate diploma or bachelor's degree. Although this was not listed as one of the interview questions, it emerged as a theme from the responses of the interview participants. The majority attested that they did have appropriate degrees or diplomas. An appropriate diploma or degree, according to the MRTEQ (2011) document, includes sufficient disciplinary learning in appropriate academic fields to enable the development of the teaching specialisation phases and/or subjects as specified for each school phase. Furthermore, to justify the alignment of PGCE with the MRTEQ (2011) document, the majority of the participants indicated that their pedagogy was most influenced by education and general subject didactics.

The MRTEQ (2011) document refers to a general requirement for the knowledge mix in PGCE, which states that in relation to disciplinary learning, thirty-two credits must be allocated to the study of education and its foundations. Furthermore, if a student does not cover sufficient disciplinary subject matter in such a student's prior degree or diploma, the student must be required to study and complete additional subject-oriented modules, before the qualification may be awarded. The MRTEQ (2011) emphasises that at least forty-eight credits must be allocated to pedagogical learning; forty credits to specialised pedagogical learning; and eight credits to general pedagogical learning.

Contrary to the fact that a total of thirty-two credits must be allocated to practical learning, of which twenty-four credits must be allocated to school-based work

101

integrated learning (WIL), including supervised and assessed teaching practice, the majority of students did teaching practice for only six weeks (school-based WIL). This included supervised and assessed teaching practice, as opposed to a minimum of eight weeks and a maximum of twelve weeks which the student teachers should have spent in formally supervised and assessed school-based practice during the one-year duration of the diploma. At least four of these weeks should be consecutive. The PGCE programmes at the sampled institution seemed to fall short of this requirement, as evidence in the participants' portfolios reflected only six weeks of school-based practice. In a part-time or distance mode programme, students may be in schools for longer periods; for example, if they are employed as professionally unqualified teachers. However, the same amount of supervised assessed school-based practice is required, for which there was no evidence reflected.

Teaching practice came through as one of the ways in which PGCE curriculum influenced the pedagogical aspects. Evidence from the teaching practice portfolios showed the provision of extensive class discussion, interaction and the presentation of multiple perspectives by PGCE students, while cooperating with the existing structures of the school. The teaching practice portfolio is structured in such a way that it motivates students to learn how to identify and articulate the instructional goals of the programme. As part of the package, the objectives of teaching practice or school-based learning are included, although there were some inconsistencies since other portfolios did not have them. These probably served as appropriate reminders to students about why they have to be involved in teaching practice.

From class observations it was discovered that participants developed a teaching philosophy which could be revealed mainly through the following aspects. First, the participants believed that a class should be teacher-centered and less interactive. This was particularly obvious in the time they spent talking without involving their learners. However, these participants proved to be competent teachers because they was above average in some of the criteria set in the observation schedule. They generally displayed good teaching competencies.

102

4.2.4 Research question four

To what extent does the pedagogy of PGCE provide the required skills for students to be ready for the job market?

The subsidiary questions related to the above question aimed at examining the collective roles of teachers in a school, which minimum set of competencies were required of newly qualified teachers, what the student's opinion was about themselves as educators as an assessor, and finally the extent to which PGCE modules offered skills that could be useful for extra-curricular activities.

The pedagogy of PGCE entailed helping students to formulate lesson objectives, they displayed thoughtful and insightful teaching competence by setting objectives that were subject-specific while reflecting the knowledge, skills and disposition of the subject discipline. With regard to the conceptualisation of the lessons, the students presented thoughtfully conceptualised and scaffolded lessons. Observation showed that gained disciplinary knowledge, since they showed thorough and advanced planning of the coherent units of a worthwhile lesson.

The participants displayed the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly, while actively developing the learners' subject or learning area literacy in his lessons. As teachers, they displayed professional conduct, dressed appropriately, had authority over their learners and encouraged mutual respect.

The students' classroom management, knowledge of the content and command of the language complemented their good instruction, although a few challenges were observed. These challenges, however, were not sufficiently serious as to derail the presentation of the lessons.

Lesson presentations by PGCE were effective and efficient because learners could follow the teacher's instructions and do things on their own without the intervention of the teacher. One of the participants, participant 2 guided learners to work

103

independently, appearing more pragmatic in her approach. The participant presented her lesson in an efficient manner, keeping to the time allocated for the lesson.

From teaching practice portfolios, it was found that programme instructional materials included evidence of teaching best practices as they related to multimedia techniques. This could be best demonstrated by the exemplar teaching practice lesson plan that were included in the portfolio. These lesson plan could direct the students with regard to the use of different teaching methods.

Programme instructional materials included evidence that students were required to complete at least some assignments and numerous lessons. To this effect, all the portfolios analysed, revealed that students had completed at least two assignments. There was also evidence of extensive teaching of concepts, and comparisons of methods, through the planning, teaching and observation of numerous lessons. All of the portfolios showed evidence of monitoring and advice by mentor teachers. In fact, the mentor teachers did not only shower the students with praise, but they also criticised them constructively.

In Portfolio 1, the mentor teacher said:

> *The lesson plans were correctly completed and presented in a way that attract the attention of learners. Also she is creative and did most of the things in a satisfactory manner. Her teaching skill is satisfactory for a beginner and chose the relevant activities for assessment, and gave feedback to the learners. She has vast knowledge of the subject.*

There was evidence that the majority of the PGCE students identified and dealt with the administrative tasks in the classroom, through the application of the principles and theories learnt whilst they were at university. This was corroborated by the comments of a mentor teacher in portfolio one who further said: "*She has learnt to manage the learners in a classroom. She has interest in learners. She is confident and has a positive attitude.*"

Most students provided weekly reports in their portfolios. Some students gave an indication that they enjoyed their stay in schools and could relate well to the school

community. Some students provided detailed documentation of all the events that took place during their period of teaching practice. These documents could serve as important indicators of what needs to be done by both lecturers and students to reinforce teaching practice.

Documentary evidence from the PGCE students' teaching practice portfolios also indicated that they observed numerous lessons over a period of six weeks, under the guidance of experienced mentor teachers. The experienced teachers proved to be valuable sources of information to novice teachers. For an example, in Portfolio Four, the student had the following to say about her observation time:

> *This week I spent more time with Mme M (Physical Science Teacher Gr 10-12) in order to see different approaches to teach Physical Science. Mme M is also assisting me and giving me a few pointers on how to improve active teaching and learning.*

The majority of mentor teachers indicated that PGCE students presented lessons in a manner that helped learners to become interested and also that the students were creative and moved from the known to the unknown when teaching. Many students observed and presented numerous lessons which were justified by the number of lessons as recorded in their teaching practice portfolios.

There was evidence from portfolios that students gave a good account of themselves in this regard. The other important revelation that emerged was that the majority of students were consistent with regard to the schools they chose for their teaching practice, as well as the mentor teacher.

This resulted in some of the students building strong relationships with both the school and the mentor teacher, thereby ensuring the continuity of the mentoring processes. Some mentor teachers had this to say: Portfolio 5.

Lesson plan was set out very good. Student has a strong voice and personality. Very good at checking if the learners are still following. Can see she prepared well, but still need to get confident with teaching the subject; this is the first lesson. I am looking

forward to the next one. Student is already showing more confidence than last term when she visited our class.

A number of themes emerged from interviews. The first is what the participants indicated that they acquired classroom management skills and became aware of how this skill relates to learner behaviour. The majority of participants attest to the fact that PGCE as a teacher education programme has helped them with the skill of understanding the behaviour of learners, and has been able to meet their needs as students for learning purposes. In addition, it has helped them to find ways to seek and understand the diverse backgrounds of their learners in order for them, as teachers, to be able to make an impact on their learning.

The skill of lesson planning and preparation was also developed and the majority of participants specified that they have been taught how to formulate lesson objectives when planning and preparing for class teaching. Despite indicating that it was not simple to plan and be able to strategise before going to class, they testified that they could plan for class activities, and individual and group activities, whilst identifying the appropriate teaching methods.

Roles of teachers also emerged as one of the themes. The participants responded that in order for them to be able to teach and produce good results, they ought to have learners who can express themselves without fear of being wrong. To achieve this, they have to play a pastoral role. They also have to instill discipline as a collective and act in a unified manner which provide them with the security of knowing that they are not acting alone, but as part of a coherent unit that seeks to achieve a common goal.

According to the participants, the roles of teachers in a school are also related to working with parents and the community. The participants also acknowledged that collectively they play the role of parents and respect the diversity of their learners, with the understanding that they have to play a certain pastoral role within their learners' lives. The participants did not elaborate further on the other roles of teachers.

Lifelong learning also came out as another theme. The majority of participants indicated that PGCE had made them realize that as educators, they have undertaken

106

to engage in life-long learning. They reiterated the fact that they have to collaborate with other professionals, such as lecturers, other teachers and specialists in their subjects. The majority of the participants said that they keep up to date by doing research because they have to know what is happening in the subjects so that they can teach learners about things and issues happening currently.

The participants also felt that if they do not engage in research, they may end up teaching outdated learning content. They strongly believed that reading newspapers, magazines, journals and watching television broadens their scope in as far as teaching is concerned.

4.3 CONCLUSION

This chapter presented the results of the study. This was done by reading what the participants said as a text and what was revealed by both class observations and document analysis. Data collection instruments that were used allowed me to gain first-hand experience of the participants' teaching and learning environments. Data also indicated to the extent, to which the PGCE as a teacher education programme influenced the pedagogy of its students. Collected data also revealed the benefits of pedagogic mentorship in a teacher education programme by highlighting the activities of the participants while they were at schools. Data further showed the role played by mentor teachers in the strengthening of the participants' pedagogic practice. Chapter five interprets and concludes the results of this study.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

This chapter is devoted to discussing the PGCE students' views on the way they incorporate general pedagogical knowledge into lessons. This study also explores the way the PGCE student teachers incorporate pedagogical knowledge into lessons at school and investigates the extent to which PGCE programmes influence the pedagogical knowledge of the students.

Data in this chapter were processed and interpreted in response to the problems posed in chapter one of this study. Four main objectives drove the collection of the data and the subsequent data analysis. Firstly, it was to examine the PGCE student teachers' view of the way they incorporate general pedagogical knowledge into lessons. Secondly, it was to explore the way the PGCE student teachers incorporate pedagogical knowledge into lessons at school. Thirdly, it was to investigate which PGCE programmes influence the pedagogical knowledge of the PGCE students the most. Fourthly, it was to examine how the PGCE curriculum addresses the pedagogical aspects of the course.

5.2 RESEARCH FINDINGS

The following are findings of this study which focus on the extent to which PGCE as a teacher education programme provides students with pedagogic knowledge. The research findings are presented in response to four research questions, namely: how the different disciplines in the PGCE course help students to translate theory into practice; the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons; how the PGCE curriculum influences the pedagogical aspects of the course; and to what extent does the pedagogy of PGCE provide the required skills for students to be ready for the job market.

5.2.1 Research question one: How do different disciplines in the PGCE course help students to translate theory into practice?

From data collected on the PGCE student teachers' views of the way they incorporate general pedagogical knowledge into lessons, it is evident that the students could translate theory into practice because the majority of them proved to be competent teachers as they were above average in most of the criteria set in the observation schedule.

The majority of the participants acquired a teaching philosophy that was revealed as they taught in schools. Two approaches were revealed, namely teacher centeredness and learner centeredness. Some participants' lessons seemed to be teacher-centred and less interactive, while others were learner centred and more interactive.   The teacher-centred students spent more time talking without involving their learners, while those who were learner centred involved learners most of the time. However, the majority of these participants proved to be skilled teachers as it was observed in real teaching situations.

Most participants displayed thoughtful, insightful teaching competencies by setting objectives that were subject-specific, while reflecting the knowledge, skills and disposition of the subject discipline. This competence was possibly strengthened by the content knowledge they already possessed when they enrolled for PGCE. Furthermore, they conceptualised lessons that were thoughtfully planned and scaffolded. This meant that the PGCE students possessed the knowledge to plan worthwhile lessons that enabled them to teach effectively and achieve the objectives of each lesson. This can be attributed to the general subject didactics and school based learning as modules that provided students with this knowledge.

It became apparent that the majority of the participants had acquired adequate content knowledge from their respective disciplines; consequently, they could master the content of lessons they taught. Most participants displayed a thorough and advanced planning of coherent units of worthwhile lessons. This was made possible by the use of a standardised lesson planning template which minimised the chances of making a mistake. This gave an indication that disciplinary knowledge provides students with

the leverage to easily understand the pedagogical knowledge required to teach certain topics. Specific subject didactics was found to have helped the students to master this category.

5.2.2 Research question two: What are the personal and professional challenges faced by PGCE students in the incorporation of pedagogic knowledge into lessons?

PGCE students were found to have challenges regarding the use of teaching and learning support materials because the majority of the participants used mainly the learning materials provided, without taking their own initiative. This included the technical aspects of chalkboard work and a chalkboard summary. Observations and evaluations during micro-teaching lessons corroborated interviews and class observation by showing that students could make teaching and learning media by themselves but lacked the skill to incorporate these into their teaching.

During 2014 PGCE students were observed during three micro-lessons where they used the chalkboard, a poster and a three-dimensional model in their teaching. The majority of the students brought appropriate models and posters, but could not use them effectively in the end. The majority could also not successfully make a chalkboard summary that reinforced the use of the chosen teaching media. This is an indication of how the PGCE as a teacher training programme falls short of fully providing students with the skill of becoming efficient and capable teachers.

In general, all lessons observed in some classrooms indicated a lack of skill in the implementation of certain components of teaching which could facilitate excellent practices in teaching and learning. The participants mostly adopted the combination of a question and answer technique, as well as lecture methods of teaching. Observations revealed that learner involvement was minimal, as most of the students were to a greater extent teacher-centred in their approach.

As was the case with observation, the use of varied teaching strategies also emerged from the interview responses, but PGCE students were found to have limited knowledge in this area as the participants used a single strategy. Furthermore, the

110

syllabus for modules, such as Education and Professional Studies, was found to be duplicating the content and thereby limited the scope for the application of other content that could add more knowledge for the PGCE students.

The integration of extra and co-curricula activities and teaching seemed to be absent, as students struggled to answer questions relating to this category and experienced difficulty in comprehending what the question entailed. Most students' responses were irrelevant. This suggested that PGCE as a teacher training programme does not cater for extra and co-curricular activities. Upon examining the curriculum this notion was confirmed, as opposed to the Bachelor of Education (FET) programme which offers training in extra and co-curricular activities through a module called extra mural activity coaching (EAC) during the third-year of study (refer to appendix I).

5.2.3 Research question three: How does the PGCE curriculum influence the pedagogical aspects of the course?

Consistent with the demands of the MRTEQ, the minimum admission requirement for entry into a PGCE programme is an appropriate diploma or bachelor's degree. This is corroborated by the fact that although the minimum admission requirement for PGCE was not listed as one of the interview questions, it emerged as a theme from the responses of the interview participants. The majority of these participants   attested to the fact that they have appropriate degrees or diplomas. This is proof that students who were admitted in the PGCE programme were deserving students who met the requirements.

Teaching practice is part of the curriculum and the weekly reports in the students' portfolios provided valuable information regarding work-integrated learning by students. Some students indicated that they enjoyed their stay at schools and could relate well with the school community. Other students kept a detailed diary of all events that took place during their period of teaching practice and these documentations serve as important indicators of what needs to be done by both lecturers and students to reinforce teaching practice. Documentary evidence from the PGCE students' teaching practice portfolios also indicated that they observed numerous lessons over

a period of six weeks, under the guidance of experienced mentor teachers. The experienced teachers proved to be valuable sources of information to novice teachers.

Evidence from the teaching practice portfolios showed that PGCE students had extensive class discussion with their learners. They also interacted with and presented multiple perspectives on the same aspect to their learners while teaching. It also shows that students are cooperating with the existing structures of the school. With regard to disciplinary knowledge, they displayed thorough and advanced planning of coherent units of worthwhile lessons, which were thoughtfully conceptualised and scaffolded. The portfolio is structured in such a way that it motivates students to learn how to identify and articulate instructional goals of the programme.

As part of the package the objectives of teaching practice or school-based learning were included, although there were a few inconsistencies, since some portfolios did not have them. These probably served as appropriate reminders to students about why they have to be involved in teaching practice. Furthermore, programme instructional materials included evidence of teaching best practices as they related to multimedia techniques.

It was found that the curriculum of PGCE included lesson planning. Data collected revealed that participants were taught how to formulate lesson objectives when planning and preparing for class teaching. Despite indicating that it was not simple to plan and be able to strategise before going to class, they testified that they could plan for class activities, individual and group activities whilst identifying the appropriate teaching methods. This was corroborated by class observations where lesson planning templates were scrutinised and found to meet the criteria for a standard lesson plan. Furthermore, the participants   were emphatic with regard to the importance of a scheme of work which, was something that I had not anticipated from this particular sample. This shows that the PGCE student have learnt about the different components of teaching and lesson planning in particular.

Most participants named the skills necessary for knowledge acquisition, such as talking about and setting the objectives of lessons, including presenting the subject matter in such a way that it would be understood by their audience or learners. Once

112

more, observations corroborated the interviews because upon observation the participants proved to be competent in their teaching. The participants could adapt the exemplar lesson planning template used for teaching practice evaluations at university to their own situation at an FET college.

During their training period, PGCE students were required to do three micro-lesson evaluations and two full lesson evaluations. Full lesson evaluations took place in real classrooms at schools with real learners, whereas micro-lessons took place in a mock classroom situation at the University.

Programme instructional materials included evidence that students are required to complete at least some assignments and to teach lessons. To this effect, all the portfolios analysed reveal that students have completed at least two assignments.
There is also evidence of extensive teaching on concepts, and a comparison of methods, through planning teaching and the observation of numerous lessons. This is contrary to the fact that participants did not display the benefit of these observations in their actual teaching. All of the portfolios showed evidence of monitoring and advice by mentor teachers. In fact, the mentor teachers did not only praise students, but they also criticised them constructively.

Mentorship has proved to be a useful tool in the training of PGCE students, since it bridges the gap between pedagogy and practice. It brings the students into the real teaching world and provides them with the opportunity to practise what they have learnt. There is evidence that students are appreciative of mentorship and that mentors make an effort to help the students to grow pedagogically. Information in portfolios reveals that some mentor teachers offer constructive criticism on the pedagogic application of students. Mentor teachers also evaluate students on many lessons and help them to improve in their teaching strategies. However, this is not exploited to the full because of the short period of the work-integrated learning session. Despite the short period of mentorship, there is an indication that PGCE does, to a certain extent, use mentorship to address its pedagogical aspects.

In addition, teaching practice for PGCE students is structured in such a way that everybody in the school has an opportunity to add value to the students' learning, thus

expanding the scope of mentorship. This is evident in the involvement of not only the mentor teachers, but also that of the school management team. One school principal said that the students' approach and attitude assisted in effective teaching and that they involved learners holistically. Despite the positive input that mentorship can make in the pedagogy of PGCE, it seems as if cannot be not fully utilised because of time constraints and the fact that little communication is maintained with the mentor teachers after teaching practice. (Refer to appendix A).

5.2.4 Research question four: To what extent does the pedagogy of PGCE provide the required skills for students to be ready for the job market?

It can be said that PGCE enhanced students' skill of communication because the participants displayed the ability to communicate through the use of appropriate language to explain, instruct, and question learners, while actively developing learners' subject or learning area literacy in lessons. This could be attributed to the fact that the majority of these students have acquired enough content knowledge and are thus familiar with the vocabulary of their subjects.

Most participants proved to be good communicators and have apparently made the right career choice by becoming teachers. This is corroborated by evidence in their performance on the observation schedule wherein most showed the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly. In addition, they actively developed learners' subject or learning area literacy in lessons because they themselves are literate in the subject. As teachers they displayed professional conduct, dressed appropriately, exercised authority over learners and encouraged mutual respect.

Teaching practice portfolios revealed that the prescriptions of the MRTEQ (2011) were not followed to the letter at the CUT. With reference to work-integrated learning, instead of spending a minimum of eight weeks and a maximum of twelve weeks at a school, students are restricted to six weeks. In some instances, students did not do this at all (refer to appendix I). The prescription that work-integrated learning should be spread over a maximum of twelve weeks is certainly informed by research; thus, it has become policy. Nevertheless, in its implementation, the curriculum managers in

114

the pedagogy of PGCE have largely ignored this. Despite this shortcoming PGCE students could still manage to conduct worthwhile lessons.

One promising indicator in the pedagogy of PGCE is the students' realisation that a teacher is a lifelong learner and it seems that the students have embraced this idea positively. Many indicated their willingness to learn further and took note of the fact that new knowledge should be sought daily. The idea of life-long learning seems to be making a positive impact on the teaching capabilities of PGCE students since they seemed knowledgeable in their subjects. Lifelong learning is an important attribute for teachers.

5.3 INTEGRATING THE THREE INSTRUMENTS USED (TRIANGULATION)

The themes emerging from the instruments, namely: observation; document analysis; and interviews, were compared. The data from lesson observation of PGCE students' pedagogic practice and the data generated from interviews, together with data from document analysis suggest that the PGCE as a teacher education programme does, to a certain extent, have an impact on the pedagogic practice of students. Furthermore, it was found that the pedagogic practice of PGCE promotes a sound culture of teaching and learning.

Lesson observations revealed that students lacked the skills to use teaching and learning media in the presentation of lessons. This became evident when almost all students could not effectively use teaching and learning media to enhance their teaching. To this effect, they all used teaching and learning media supplied without their own initiative. In some instances, as highlighted earlier in the study, when students brought teaching and learning media to class, they could not use them effectively.

Findings from the interviews corroborate those from the document analysis because from the interviews, the results seem to suggest that PGCE students lack proficiency in the implementation of extra- and co-curricular activities. This was also evident in their teaching practice portfolios which did not give a clear direction as to which sporting codes or extramural activities in which the students should take part. While it

is noted that not all PGCE students are enthusiastic sports people, at least an effort should be made to engage them in the world of sport in order for them to influence learners positively, taking into account that sport could be chosen as a career. Moreover, upon scrutinising the PGCE curriculum it was found to be silent on issues relating to extra- and co-curricular activities (see appendix).

5.4 RELEVANCE AND IMPACT OF THE THEORETICAL FRAME-WORK

The theoretical framework is relevant to this study because social constructivism regards learning as an active process. Multiple theories were used in an endeavour to arrive at convincing conclusions in this study. Vygotsky, Dewey, Shulman and Bernstein were all considered, although the overarching theories were those of Vygotsky and Dewey.

While Dewey's philosophy (1938) proposes a carefully developed theory of experience and its relation to education, it was found that the pedagogy of PGCE does not fully ensure that students acquire the relevant experience before they go to practise as teachers.

Since evidence from teaching practice portfolios reveal that the teaching practice period is shorter than prescribed by the MRTEQ by almost six weeks, this is seen to be in contrast with Dewey who opined that sound educational experience involves both continuity and interaction between the learner and what is learnt.

This continuity is not visible in the PGCE pedagogy, because other than the control of the students' portfolios, there is no follow-up or remedial sessions, thus bringing the pedagogy of the PGCE to an abrupt halt as soon as students graduate. This is in stark contrast to Dewey's philosophy that experience arises from the interaction of two principles, namely, continuity and interaction.

An earlier study by Sadovnik (2007) refers to Bernstein's uses of code theory to investigate schools and pedagogical practices which included what knowledge (curriculum) to teach to learners; how it is taught (transmission); and how knowledge

116

is realised (evaluation/ performance). This motivated me to investigate the pedagogy of PGCE.

Bernstein (2000) views pedagogic practices in two forms, namely visible/explicit and invisible/implicit. Related to these are the ordering of the teaching curriculum either sequentially or in parallel and the pacing of the delivery. This view of Bernstein (2000) is best explained by Naidoo (2004) who used the table below to visualise the two generic types of pedagogy as portrayed by Bernstein.

Table 5. I: The basic types of pedagogy

Type of Pedagogy	Visible Pedagogy	Invisible Pedagogy
Hierarchical rule	Explicit	Implicit
Sequencing rule	Explicit	Implicit
Pacing rule	Explicit	Implicit
Evaluative criteria	Performance based	Competence based and Implicit.

This then questions the pacing of the PGCE curriculum which is in fact implemented within a space of nine months. This seemingly poses a dilemma to lecturers of what to teach and how to teach within the time available.

On the other hand, Shulman (1987) focuses on the types of knowledge that are required in teacher training and the processes trainees need to go through to become a teacher, which he calls 'Processes of Pedagogical Reasoning and Action'. The model of pedagogical reasoning and action advocated by Shulman (1987) has six stages: comprehension, transformation, instruction, evaluation, reflection and new comprehensions. The comprehension stage requires understanding of the subject area, such as numeracy, but also values characteristics, and the needs and learning interests of students (trainees and their learners). It is my view that teacher trainers and institutions of higher learning need to revisit the training manuals and correlate

117

them with policy, in order to ensure the maximum benefit for the students. It is also suggested that mentorship as a teacher training method should be encouraged, as it provides students with an opportunity to learn from experienced teachers.

Teaching practice needs to be implemented according to the requirements of the MRTEQ, particularly because PGCE is a one-year programme. This will ensure that students benefit sufficiently from their interaction with schools. Shulman suggests that in order for a trainee to teach, he/she needs to transform his/her understanding or comprehension of the subject matter. Thus, transformation requires some ordering, which includes the preparation of subject materials, their understanding and critical interpretation and representation that require ways in which ideas and concepts of the subject materials can be conveyed to learners. Techniques such as using examples, metaphors, experiments and demonstrations and instructional selections where teaching and learning styles, such as lecturing, group learning and project work, can be applied in a learning environment. As alluded to earlier, this variation in teaching strategies is missing from the presentation of PGCE students, as they mainly use a single teaching strategy throughout the lesson. According to Shulman (1987), the other two transformation processes are the adaptation of the previous three, in which the teaching and learning materials are adapted to a teacher's generic cohort, and tailoring the adaptations to a teacher's specific cohort. I agree with Shulman's notion, since PGCE students have to adapt their learning to benefit their teaching and their pedagogic growth.

The third pedagogical process from Shulman's (1987) model is instruction which requires the most important of teaching acts, such as organising and managing the classroom; providing succinct explanations; handing out and assessing work; interacting effectively with learners via questions and answers; and praise and criticism. What is presented by this model could not be articulated with confidence regarding the programme of PGCE, as many of these acts were not evident during lesson observations and during micro lessons. With regard to the micro lessons, it is worth noting that micro-teaching for PGCE is not given the respect it deserves and there is a shortage of micro-teaching equipment and laboratories. Students' micro lessons are not recorded and students are not afforded an opportunity to view

playback of the recordings which is a requirement for the implementation of micro-teaching.

The implementation of micro-teaching requires that micro lessons have to be recorded through the use of appropriate equipment, such as monitors and video cameras. However, this equipment was not available. Cameras that could be found were old and could no longer be used. There was only one micro-teaching laboratory which was also not sufficiently equipped.

 As a result of this lack of equipment, students could not view their own teaching and reflect thereon afterwards. Shulman regards evaluation as important where the understanding or not by learners is monitored in both formal and informal ways. With regards to PGCE evaluation could not be done, as the execution of micro lessons did not provide the basis for it to happen. As a consequence, the PGCE student takes this   culture of not evaluating their lessons along with them into their real world of teaching. Seemingly, they cannot reflect on their teaching experiences since they do not know how to go about it. Shulman in Loo (2007) further states that reflection is used by a teacher to refer back to his/her teaching to check what has worked and what has not, and to rethink how the lesson has gone in relation to achieving its aims. Contrary to the positive findings made by this study, this act of reflection was found to be compromised in the PGCE curriculum.

Shulman's model of pedagogical reasoning is of importance to this study, because it sheds light on the pedagogical stages which are particularly useful in understanding a student's cognitive processes in becoming a teacher. Another issue of significance is that students have to acquire pedagogical content knowledge which is critical for them to be able to impart what they know. For this pedagogical knowledge to be imparted, there are steps to be followed.

Loo (2007) speculates on some of the steps which are similar, such as instruction and representation. These steps are part of transformation, as both are concerned with presenting succinct explanation to learners by using metaphors, demonstrations, and examples. The ability to use these elements of teaching seem to be present in the teaching and training of the PGCE students.

119

5.5 SUMMARY OF THE DISCUSSION OF THE FINDINGS FROM AN EMPIRICAL STUDY

Some of the findings collected through interviews corroborate findings from the document analyses and observations, in that there is a strong link between what is encrypted in the minimum requirements for teacher education qualifications (MRTEQ) and what the students said in response to interview questions about the modules that influence their pedagogy the most. Education and Professional studies were found to be modules that influenced the pedagogy of PGCE the most. This finding is in contrast to my presumption that specific subject didactics would influence the students' pedagogy the most as it dealt with the methods of teaching a specific subject.

Sosibo (2012) found that disciplinary knowledge is supported in teacher education programmes. There is evidence that educators pay attention to the extent to which content knowledge, taught at a university, is relevant to that in their schools.
There is an indication that the objectives of this study have been achieved because lessons were observed with the aid of an observation schedule to determine if the students had indeed acquired any pedagogic knowledge and if so, how they put it into practice. In five lessons that were observed, PGCE students displayed a high level of confidence in their teaching.

During the interviews PGCE students cited school-based learning and education as the modules that influence them the most. School-based learning also informs work-integrated learning. There is an indication that the PGCE learners' pedagogic knowledge may be derived from both theory and practice. But is it really true that PGCE students' pedagogic knowledge comes from both theory and practice? There is a probability that the PGCE students' pedagogic knowledge comes from both theory and practice because this finding is justified by the PGCE students' response to mentorship during work-integrated learning, as stated in chapter four of this study. Another possible explanation may be that during work-integrated learning, students were given an opportunity to put into practice the theory they have learnt in real classroom settings by teaching learners in real classroom situations.

It can also be concluded that it was during the teaching practice evaluation sessions that students were faced with the challenge of having to navigate through the actual classroom complexities which sometimes extend beyond the class itself. The extent of practice to which students are exposed became evident in the students' work-integrated learning reports (see appendix H).

It can be explained that, as part of the PGCE curriculum, there are modules that are specifically designed to provide students with the pedagogy of a particular subject. These modules are referred to as specific subject didactics. The curriculum is designed in such a way that it is possible for students to specialise in a particular subject which they have studied at diploma or junior degree level.

The PGCE curriculum provides pedagogic knowledge to a certain extent because the students can plan constructive lessons, while they seemingly understand the requirements of the lesson template. A strong possibility exists that they could also find meaning and understand the language used in the preparation of lessons. This became evident during lesson observations in class and when the actual lesson plan was scrutinised.

Lesson observations provided the platform to explore the way PGCE students incorporate pedagogic knowledge into their lessons. From these lesson observation it should be noted that despite the fact that PGCE provides students with pedagogic knowledge, it has to be acknowledged that the knowledge did not include all that had to be known and done about teaching. This emerged from the study when considering the use of teaching and learning media in particular and the implementation of extra and co-curricular activities. The use of a chalkboard can be cited as one of the examples since many participants either did not use it or struggled to use it optimally. The use of a variety of teaching methods was also a problem that PGCE students were faced with.

Evidence from student portfolios reveal that the PGCE curriculum addresses the pedagogical aspects of the course through the teaching of theory to students by lecturers and also by subjecting students to pedagogic mentorship by experienced teachers during the work-integrated learning session.

It was also found that the PGCE students did have the ability to incorporate pedagogical knowledge into their teaching, even though it was to a lesser extent. As indicated in chapter two, Denzin and Lincoln (2004) assert that qualitative research makes use of a wide range of interconnected methods with the purpose of understanding the subject matter at hand, better. In support, Henning (2011) adds that unstructured observation, open interviewing, idiographic descriptions and qualitative data analysis are different ways to capture insider knowledge that is part of an interpretivist methodology. These, according to Henning, should all be executed in a principled way.

It was established that PGCE students are believably competent teachers, and could seemingly perform at the same level as other teachers who were trained through other programmes such as B.Ed. FET and B.Ed. Hons. The one aspect that clearly emerges is that teaching competency cannot be attained overnight, but needs practice and time. This is supported by the observation I made that the PGCE students' teaching strategies have improved from the time they were observed during the students' micro lessons, as compared to when they were evaluated during their teaching practice.

It was found that many PGCE students did not have their micro-teaching lessons evaluated, as it was the case with undergraduate students. There was also not enough time for PGCE students to practise different teaching skills in simulated situations. As indicated earlier, the lessons by most of the PGCE students lacked in variety, which could be attributed to a lack of practice. This lack of practice could be attributed to lack of resources as the University only had one micro-teaching laboratory which had to service a student population of almost 250 students. This suggests that with time and experience, PGCE students could always improve. It was also revealed that PGCE students have a seeming lack of competence regarding the use of a variety of teaching methods in their classrooms, as most of them used a single method of teaching.

The results suggest that PGCE as a teacher education programme provides the students with the necessary pedagogic knowledge, although there are some areas which are deficient in the training of students and need to be refined and strengthened.

There is an indication that PGCE as a teacher education programme has to be retained and refined to meet the standards of the ever-changing landscape of education and teacher training in particular, across the globe. Seemingly, this will help to improve and maintain the standard of teacher training in South Africa.

The fact that participants also displayed the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly, while they actively developed the learners' subject or learning area literacy in lessons, seemed to strengthen the position of PGCE as a valid teacher education programme. This could be attributed to the knowledge gained from the subjects, Education and Professional Studies, as alluded to earlier by the participants. As teachers, the participants displayed professional conduct, dressed appropriately, had authority over learners and encouraged mutual respect. These distinct qualities were observed in all the participants.

The results of this study mean that PGCE as a teacher education programme adds value to the teaching profession and succeeds in training teachers who are ready to teach in both government and private schools across the country. These results are important because they advocate for the strengthening of PGCE programmes with the aim of providing the teaching profession with capable teachers who are well grounded in both pedagogic and disciplinary knowledge.

5.6 SUMMARY

Data were collected over a period of six months with intervals of one month. I collected data by observing lesson presentations and carrying out interviews which were also supported with an analysis of documents used by PGCE students. The information generated from the interviews seems to suggest that PGCE students become better teachers after being trained in the PGCE programme. In spite of this, their approaches seem to differ since they could be products of different systems because of the different disciplines from which they came before they were accepted in the PGCE programme.

The literature review strongly supported the findings, as the subject of pedagogical knowledge was well researched over a period of time. The literature showed that there was gap in the research about the PGCE, as a teacher training programme. There are not many articles and documents related to research about the pedagogy of the PGCE.

The lessons observed in classrooms show a pattern of how things are done in different schools and the results of the observed lessons corroborate the answers generated from interviews and questionnaires from this study.

However, a contradiction apparent in the research is in the way student teachers rated their English fluency. They rated themselves highly but their interview responses contained many grammatical mistakes and even when they were teaching in their classrooms, their English was not up to desired standard.

Generally, the findings indicate a need to improve both learner and teacher language proficiency in the medium of instruction. My presence seems to have affected some participants, because they appeared more concerned about their performance instead of the learners' comprehension. Some teachers appeared to be teaching for the camera; thus they forgot to teach for the benefit of their learners.

5.7 CONCLUSION

This study has hopefully answered the research questions posed in the first chapter. The results of this study show a strong connection between what was initially intended and what actually took place. The themes and issues that are re-stated in this chapter seem to justify conformability to the findings of this study.

This chapter interpreted and discussed the results of this study and reached the following conclusions. Firstly, it concludes that the PGCE does, to a large extent, provide its students with the necessary pedagogic knowledge, although it appears that there is a need for reinforcement. Secondly, the modules in the PGCE programme need to be looked at critically, since there seems to be some duplication and overlapping of content, though the findings strongly suggest that Education and

Professional Studies are the modules that shape the performance of PGCE students as educators. Thirdly, there seems to be a need to revisit the implementation of work-integrated learning, since the results showed that policy was not followed correctly in its implementation.

The results also showed that the personnel responsible for the teaching of PGCE programmes are qualified and able to teach at postgraduate level because of their qualifications. According to PGCE students their lecturers influenced their teaching and they could attribute some of their successes to the way they were taught by their lecturers.

The findings of this study justify the importance of PGCE as a teacher education programme in South Africa. It also encourages continued support for PGCE as a teacher education programme. What came from this study has also highlighted a growing popularity of PGCE since many students who have graduated in other disciplines find it as a convenient way of joining the teaching profession. The statistics from the Department of Post Graduate Studies show the growing number of applicants and enrolments for PGCE. The table below is a summary of PGCE applications and enrolments for a five-year period.

Table 5.2: PGCE applications and enrolments.

Year	Number of applications	Number of enrolments
2013		150
2014		210
2015		170
2016		175
2017		195

 A significant finding of this study is that despite the shortcomings established, PGCE still empowers students pedagogically. Another important finding is that micro teaching

125

is not implemented accordingly. If it was done correctly, there might be a significant improvement in the pedagogy of PGCE. Furthermore, students should be assisted to find ways of evaluating their own teaching, which will, in turn, benefit them by developing the means of self-improvement. Students' self-evaluation and reflection has to be incorporated into the PGCE curriculum and students be made conscious of its importance.

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130

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Appendix A

Centre for research in academic, professional and vocational pedagogy (CRiAPVP)
Faculty of Humanities

13 August 2013

TO WHOM IT MAY CONCERN

This letter serves to confirm that Ramotale Moliko, Student no 207065063 is a registered student for a Master's degree at Central University of Technology (CUT).

Yours Sincerely
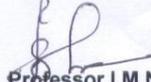
Professor I M Ntshoe

Appendix B

Central University of Technology, Free State

■ ACADEMIC AND PROFESSIONAL PEDAGOGY

19 AUGUST 2013

ATTENTION: THE CAMPUS MANAGER (WELKOMCAMPUS)
GOLDFIELDS FET COLLEGE

This letter serves to advise that Ramotale Moliko, student number 207065063 is a registered student for a Masters degree at Central University of Technology (CUT).

Student Ramotale Moliko's research requires that he collect data in FET colleges and teachers. The name of the college he is requesting to collect information from is: Maluti FET College.

To this end, I as the supervisor, kindly request that he be granted permission to collect the data in FET College as stated above. I also confirm that the data required will be used for educational purposes only.

Yours Sincerely

Professor I M Ntshoe

139

Appendix C

Central University of Technology, Free State

19 AUGUST 2013

ATTENTION: **THE CAMPUS MANAGER (Phuthaditjhaba Campus)**
MALUTI FET COLLEGE

This letter serves to advise that Ramotale Moliko, student number 207065063 is a registered student for a Masters degree at Central University of Technology (CUT).

Student Ramotale Moliko's research requires that he collect data in FET colleges and teachers. The name of the college he is requesting to collect information from is: Maluti FET College.

To this end, I as the supervisor, kindly request that he be granted permission to collect the data in FET College as stated above. I also confirm that the data required will be used for educational purposes only.

Yours Sincerely

Professor I M Ntshoe

Appendix D

Department of
Education
FREE STATE PROVINCE

Enquiries: PB MOJAU
Reference no. : 16/4/1/37-2013

Tel: 051 404 9287
Fax: 086 725 7855
Email:research@edu.fs.gov.za

2013-08-28

TO: DISTRICT DIRECTOR

The Director: Thabo Mofutsanyana Education District

Dear Ms Tshabalala

NOTIFICATION OF A RESEARCH PROJECT IN YOUR DISTRICT

Please find attached copy of the letter giving **Mr RZ Moliko** permission to conduct research in sampled District in the Province.

Mr Moliko RZ is a lecturer at CUT and is studying Master in Education with Central University of Technology.

Yours sincerely
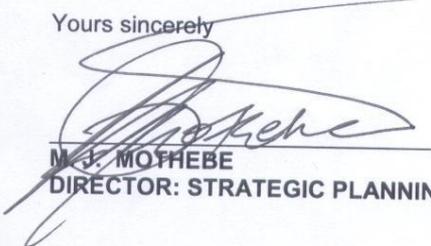
M J MOTHEBE
DIRECTOR: STRATEGIC PLANNING, POLICY AND RESEARCH

Directorate: Strategic Planning, Policy & Research; Old CNA Building, Maitland Street, Private Bag X20565, Bloemfontein, 9300
Tel: 051 404 9283 / 9275; Fax:086 6678 678 - E-mail: research@edu.fs.gov.za

141

Appendix E

education
Department of
Education
FREE STATE PROVINCE

Enquiries: BP Mojau	Tel: 051 404 9287
Reference: 16/4/1/37- 2013	Fax: 086 725 7588
	E-mail: research@edu.fs.gov.za

2013 – 08 – 28

6605K7
KUTLWANONG
ODENDAALSRUS
9483

Dear Mr RZ Moliko

REGISTRATION OF RESEARCH PROJECT

1. This letter is in reply to your application for the registration of your research project.

2. Research topic: **Towards strengthening pedagogical knowledge in a teacher education programme: A case of postgraduate certificate in education**

3 Your research project has been registered with the Free State Education Department.

4. Approval is granted under the following conditions:-

4.1 The name of participants involved remains confidential.

4.2 The questionnaires are completed and the **interviews are conducted outside normal tuition time**.

4.3 This letter is shown to all participating persons.

4.4 A bound copy of the report and a summary on a computer disc on this study is donated to the Free State Department of Education.

4.5 Findings and recommendations are presented to relevant officials in the Department.

5. The costs relating to all the conditions mentioned above are your own responsibility.

6. **You are requested to confirm acceptance of the above conditions in writing to:**

DIRECTOR: STRATEGIC PLANNING, POLICY AND RESEARCH,
Old CNA Building, Charlotte Maxeke Street OR Private Bag X20565,
BLOEMFONTEIN, 9301

We wish you every success with your research.

Yours sincerely
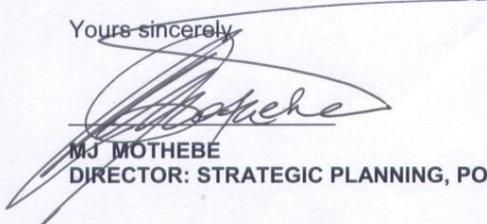
MJ MOTHEBE
DIRECTOR: STRATEGIC PLANNING, POLICY AND RESEARCH

3irectorate: Strategic Planning, Policy & Research - Private Bag X20565, Bloemfontein, 9300 – Room 301, Old CNA building,
Maitland Street, Bloemfontein 9300 - Tel: 051 404 9283 / Fax: 086 6678 678   E-mail: research@edu.fs.gov.za

www.fsdoe.fs.gov.za

142

Appendix F

Classroom observation form

Faculty: _____

Date of observation: _____

Class group: _____

Participant: _____

Criteria	A Not yet coping	B Emerging teaching competence	C Developing skilled teaching competence	D Thoughtful, insightful teaching competence	Observer Comments
Formulation of objectives	Limited consideration or understanding of lesson objectives	Objectives of the lesson is unclear or vaguely formulated	Clear purpose in terms of key questions, skills, attitudes and values	Objectives are subject specific , reflecting the knowledge, skills and disposition of the of the subject discipline	
Conceptualisation of lessons	Incoherent lesson steps not aligned with purpose	lesson steps often disjointed without links between steps	Lesson steps coherent but not always thought fully scaffolded	Thoughtfully conceptualized and scaffolded lesson	
Lesson plans	Vaguely written or generic write up of lessons	Prepares thoroughly for prepared lessons	Thorough and coherent planning of individual lessons, one at a time	Thorough and advanced planning of coherent units lessons of worthwhile lessons	

Teaching and learning support materials	lessons lack support materials	Mainly uses learning materials provided without own initiative	Selects appropriate support materials and uses them effectively	Develops modifies and materials appropriate to level of learners, uses resources effectively	
Support required from mentor teacher in planning	Heavily dependent on assistance	Needs continuous supervision	Requires support and guidance	Can work on own with some guidance as a beginner teacher would	
Ability to communicate	Struggles to communicate with learners in a language of instruction	Explanations, questions and instructions are not always clearly conveyed to learners	Uses language of instruction to question, explain and instruct. Language appropriate to level of learners.	Uses appropriate language to explain, instruct and question learners clearly; Actively develops learners' subject/learning area literacy in lessons.	

Appendix G

Semi- structured Interview

I am <u>Ramotale Zacharia Moliko</u>. I am studying towards a Master's degree at Central University of Technology. I am inviting you to participate in research which I am doing. You may talk to anyone you feel comfortable talking with about the research and you can take time to reflect on whether you want to participate or not. This interview may contain words that you do not understand. I assure you that if you do not understand some of the words or concepts, I will take time to explain them as I go along and you can ask questions at any time. Please ask me to stop as we go through the information.

Interview questions for PGCE students

Research question	Interview question
A. How do different disciplines in the PGCE course shape their respective pedagogies?	1. To what extent do you think your certificate/qualification is relevant to the subject you want to teach? 2. What methodological challenges did you experience in your subject and how did you overcome them? 3. How was your development in teaching methods evaluated and how did this intervention help you? (Was it ever discussed with you?)

B. To what extent does the PGCE curriculum equip students with the pedagogical skills needed to formulate objectives relevant to their respective disciplines	1. What training has been provided to help you in the formulation of lesson objectives? 2. How can teachers integrate and use resources to stimulate learning? 3. What pedagogic support is provided to you in the formulation of objectives in your subject? 4. How might a teacher work with individual pupils, groups, whole classes and larger groups?
C. How does the PGCE curriculum help to develop students into effective communicators?	1. Why do you think it is important to be a good communicator as teacher? 2. How do you keep up to date with the vocabulary of your subject? 3. What is the role of language in teaching and what is your opinion about the impact of language in your subject?
D. How does the PGCE curriculum prepare students to become members of the profession?	1. What are collective roles of teachers in a school? 2. Which minimum set of competencies are required of newly qualified teachers? 3. What is your opinion of an educator as an assessor? 4. To what extent do PGCE modules offer skills that could be useful for extra-curricular activities?

APPENDIX H:

OBSERVATIONS

Observation: 1

Description of the class:

Human resources management taught by Mr. K, a PGCE graduate from CUT employed as Lecturer at Maluti FET College and its aim is to help learners to acquire skills in personnel management. Most learners in HRM class are those who are doing it for the first time. The class meets two times a week on Monday, and Thursday, in a normal classroom and for a period of 45 minutes. In this normal classroom, students focus on topics outlines in textbook and practice through specific writing assignments, and are assessed through formal tests.

Lesson Observation:

The lesson observed was on Thursday, September 19, 2013 and the class met in a classroom at Maluti FET College. The major task of the lesson was to help Learners to understand personnel management. At the beginning of the class, Mr. K spent 5 minutes introducing the lesson. Some details of personnel management such as, where it applies, why it is necessary, and what it is, were given to learners during the process. After 5-6 minutes, Mr. K began to deliberate on the contents of the lesson. The presentation actually was very fruitful and efficient because learners came up with many inputs and actively participated in activities although not many, that Mr. K implemented. Mr. K did guide learners much to the discussion of this topic personnel management since he appeared to be more teacher centered in his approach. One thing commendable in Mr. K's presentation is his proper and efficient time management, knowledge of the content and his good command of the language of instruction.

Analysis and reflections:

From observation, Mr. K's teaching philosophy in teaching can be revealed mainly through the following aspects. First, he believes that a class should be Teacher-centered and less interactive. This is particularly obvious in the time he spent talking without involving his learners. However, He proved to be a worthy teacher because he was above average in most of the criteria set in the observation schedule. He displayed the following competencies:

In the formulation of objectives, he displayed a thoughtful insightful teaching competence by setting objectives that are subject specific reflecting the knowledge, skills and disposition of the subject discipline.

Regarding the conceptualization of lessons, he came up with thoughtfully conceptualized and scaffolded lesson while on the revelation of disciplinary knowledge he displayed a thorough and advanced planning of coherent units of worthwhile lessons.

There seemed to be obvious challenges regarding teaching and learning support materials because Mr. K mainly uses learning materials provided without own initiative. However, it was revealed that he does not require support from a mentor teacher in planning, since he can work on his own with some guidance as a beginner teacher would.

Mr. has the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly while actively developing learners' subject or learning area literacy in lessons and as a teacher he displays professional conduct, dresses appropriately, has authority over learners and encourages mutual respect.

Observation: 2

Description of the class:

Sales management N5 taught by Mr. R, a PGCE graduate from CUT employed as Lecturer at Maluti FET College Bethlehem campus. The aim of the subject is to help learners to acquire skills in sales management. Most learners in this class have no

experience in sales management; however, they have been exposed to the subject from N4. The class meets two times a week on Monday, and Thursday in normal classrooms, for a period of 45 minutes. In this particular classroom, students focus on topics outlined in the textbook and engage in activities as directed by their teacher.

Lesson Observation:

The lesson observed was on Wednesday, September 18, 2013 and the class met in a classroom at Maluti FET College. The major task of the lesson was to help Learners to understand Sales management. At the beginning of the class, the teacher spent approximately 10 minutes introducing the lesson. Some details of Sales management such as, where it applies, why it is necessary, and what it is, were given to learners during the process. After which the teacher began to deliberate on the contents of the lesson. The presentation followed a lecture type of method which was successfully mixed with a question and answer method of teaching. The teacher did guide learners much to the discussion of this topic personnel management since he appeared to be more teacher centered in his approach. The good lessons to be learned from the teacher are his good command of the language and, knowledge of the content which complement one another so well in his delivery.

Analysis and reflections:

From observation, Mr. R's teaching philosophy can be revealed mainly through the following aspects. First, he believes that a class should be Teacher-centered and less interactive. This is particularly obvious in the time he spent talking without involving his learners. However, He proved to be a worthy teacher because he was above average in most of the criteria set in the observation schedule. He displayed the following competencies:

1.   In the formulation of objectives he displayed a thoughtful insightful teaching competence by setting objectives that are subject specific reflecting the knowledge, skills and disposition of the subject discipline.

2

2.	Regarding the conceptualization of lessons he came up with thoughtfully conceptualized and scaffolded lesson.

3.	On the revelation of disciplinary knowledge he displayed a thorough and advanced planning of coherent units of worthwhile lessons.

4.	There were obvious challenges regarding teaching and learning support materials because mainly uses learning materials provided without own initiative.

5.	It was revealed that he does not require support from a mentor teacher in planning, since he can work on his own with some guidance as a beginner teacher would.

6.	He has the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly while actively developing learners' subject or learning area literacy in lessons.

7.	As a teacher he displays professional conduct, dresses appropriately, has authority over learners and encourages mutual respect.

Observation: 3

Description of the class:

Computer Practice N5 taught by Ms. S, a PGCE graduate from CUT employed as Lecturer at Maluti FET College Bethlehem campus and its aim is to help learners to acquire skills in Computer Practice. Most learners in Computer class have some computer experience since they are not doing it for the first time. The class meets two times a week on Monday, and Thursday in a computer laboratory and for a period of 45 minutes. In this laboratory, students focus on theoretical and practical topics outlined in a computer practice textbook. Learners practice through specific activities, and are assessed through practical application of what has been learned.

Lesson Observation:

3

The lesson observed was on Thursday, September 18, 2013 and the class met in a classroom at Maluti FET College. The major task of the lesson was to help Learners to understand Computer literacy and be able to practice different computer skills. At the beginning of the class, Ms. S. spent about 8 minutes introducing the lesson. Some details of computer practice such as, where it applies, why it is necessary, and what it is, were given to learners during the process. After 8 minutes, Ms. S began to deliberate on the contents of the lesson, which was mainly on writing an official letter. The presentation actually was effective and efficient because learners could follow the teacher's instructions and do things on their own without the intervention of the teacher. Ms. S guided learners to work independently. she appeared to be more pragmatic in her approach. She presented in a proper and efficient manner and kept to the time allocated for the lesson. Her classroom management, knowledge of the content and command of the language made up for her good instruction, although there were few challenges that were observed. These challenges were not so adverse that they could derail the presentation of the lesson.

Analysis and reflections:

From observation, Ms. S's teaching philosophy in writing can be revealed mainly through the following aspects. First, she believes that a class should be Learner-centered and interactive. This is particularly obvious in the manner she involved her learners. She is worthy teacher because he was above average in some of the criteria set in the observation schedule. She displayed the following competencies:

1. In the formulation of objectives she displayed emerging teaching competence by setting lesson objectives that are unclear and vaguely formulated.

2. Regarding the conceptualization of lessons she displayed a development of skilled teaching. competence through the planning of lesson steps that are coherent but not always thoughtfully scaffolded.

3. On the revelation of disciplinary knowledge he displayed a thorough and coherent planning of individual lessons.one at a time.

4. She selected appropriate and learning support materials and used them appropriately.

5. It was revealed that he does not require support from a mentor teacher in planning, since she can work on her own with some guidance as a beginner teacher would.

6. She has the ability to communicate through the use of appropriate language to explain, instruct and question to learners, clearly while actively developing learners' subject or learning area literacy in lessons.

7. As a teacher she displays professional conduct, dresses appropriately, has authority over learners and encourages mutual respect.

Observation: 4

Description of the class:

Labour Relations N5 taught by Mr. N, a PGCE graduate from CUT employed as Lecturer at Maluti FET College Bonamelo campus. The aim of the lesson is to help learners to gain knowledge of the necessity of statutory control over Labour relations in South Africa. The class is made up of about 32 learners of different age groups and gender. The class meets two times a week on Monday, and Thursday in a normal classroom and for a period of 45 minutes. In this normal classroom, students focus on topics outlines in textbook and practice through labour related assignments, and are assessed through formal tests.

 Observation:

The lesson observed was on Friday, March14, 2014 and the class met in a classroom at Maluti FET College. The major task of the lesson was to help Learners to understand personnel management. At the beginning of the class, Mr. N spent almost 10 minutes introducing the lesson. He deliberated on issues of Labour relations and cited Labour movements as examples. After 10 minutes, Mr. N began to deliberate on the contents of the lesson. The presentation actually was very fruitful and efficient because learners came up with many inputs and actively participated in discussion. Mr. N successfully guided his learners much to the discussion of this topic since he

5

appeared to be more Learner centered in his approach. Mr. N's has strong and efficient time management, knowledge of the content and has good command of the language of instruction. He appeared to be a good motivator because his learners stayed inspired throughout the duration of the lesson.

Analysis and reflections:

Mr. N displayed the following competencies:

1.   In the formulation of objectives he displayed a developing skilled teaching competence through the formulation of a clear purpose in terms of key questions, skills, attitudes and values

2.   Regarding the conceptualization of lessons he displayed a developing skilled teaching competence through lesson steps that are coherent but not always thoughtfully scaffolded.

3.   There were obvious challenges regarding teaching and learning support materials because mainly uses learning materials provided without own initiative.

4.   It was revealed that he does not require support from a mentor teacher in planning, since he can work on his own with some guidance as a beginner teacher would.

5.   He has the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly while actively developing learners' subject or learning area literacy in lessons.

6.   As a teacher he displays professional conduct, dresses appropriately, has authority over learners and encourages mutual respect.

Observation: 5

Description of the class:

Computer Practice N5 taught by Mr. K.T a PGCE graduate from CUT employed as Lecturer at Maluti FET College Phuthaditjhaba campus and its aim is to help learners

to acquire knowledge and skills in financial accounting. Most learners in Computer class have some computer experience since they are not doing it for the first time. The class meets two times a week on Monday, and Thursday in a normal classroom and for a period of 45 minutes. In normal classroom, students focus on topics outlines in textbook and practice through specific writing assignments, and are assessed through formal tests.

Lesson Observation:

The lesson observed was on Wednesday, March 12, 2014 and the class met in a classroom at Maluti FET College, Phuthaditjhaba Campus. The major task of the lesson was to help Learners to understand Financial Accounting with specific focus on Close corporation. At the beginning of the class, Mr. KT spent about 12 minutes introducing the lesson. He went at length explaining what a close corporation is and where it finds application, Mr. KT began to deliberate on the contents of the lesson. His was effective because learners could open up and asked questions many inputs and actively participated in activities although not many that Mr. KT implemented. Mr. KT did guide learners much to the discussion of this topic. He appeared to be more learner centered in his approach. One thing commendable in Mr. KT's presentation is his proper and efficient time management, knowledge of the content and his good command of the language of instruction. The one thing that became notable is his good use of the white board to summarize the lesson.

Analysis and reflections:

From observation, Mr. KT's teaching philosophy in writing can be revealed mainly through the following aspects. First, he believes that a class should be learner centered and interactive. This is particularly obvious in the way he without involved his learners. He proved to be a worthy teacher because he was above average in most of the criteria set in the observation schedule. He displayed the following competencies:

1. In the formulation of objectives, he displayed a clear purpose in terms of key questions, skills attitudes and values,

2. Regarding the conceptualization of lessons, he came up with thoughtfully conceptualized and scaffolded lesson.

3. On the revelation of disciplinary knowledge, he displayed a thorough and advanced planning of coherent units of worthwhile lessons.

4. He selected appropriate teaching and learning support materials and used them appropriately.

5. It was revealed that he does not require support from a mentor teacher in planning, since he can work on his own with some guidance as a beginner teacher would.

6. He has the ability to communicate through the use of appropriate language to explain, instruct and question learners clearly while actively developing learners' subject or learning area literacy in lessons.

7. As a teacher he displays professional conduct, dresses appropriately, has authority over learners and encourages mutual respect.

Document analysis

Evidence, from teaching practice portfolios, shows provision of extensive class discussion, interaction and presentation of multiple perspectives by PGCE students, while cooperating with the existing structures of the school. The portfolio is structured in such a way that it motivates students to learn how to identify and articulate instructional goals of the programme. As part of the package the objectives of teaching practice or School based learning were included, although there were some inconsistencies since other portfolios did not have them. These probably served as appropriate reminders to students about why they had to be involved in teaching practice. Furthermore, Program instructional materials include evidence of teaching best practices as they relate to multimedia techniques. This could be best demonstrated by the exemplar teaching practice lesson plan that was included in the portfolio. This lesson plan could direct the students with regards to the use of different teaching methods.

Program instructional materials included evidence that students are required to complete at least some assignments and lessons. To this effect, all the portfolios analyzed revealed that students had completed at least two assignments. There was

8

also a show of extensive teaching on concepts, and comparison of methods, through the planning teaching and observation of numerous lessons.

All of the portfolios show evidence of monitoring and advice by mentor teacher. In fact the mentor teacher did not only shower the students with praises but they also criticized them constructively.

For P1, the mentor teacher said:

"*The lesson plans were correctly completed and presented, in a way that attracts the attention of learners.*" Also *"she is creative and did most of the things in a satisfactory manner. Her teaching skill is satisfactory for a beginner and chose the relevant activities for assessment, and gave feedback to the learners. She has vast knowledge of the subject.*

There is evidence that the majority of PGCE students Identified and dealt with administrative tasks in the classroom, through the application of the principles and theories learnt in the classroom.

P.1   "*She has learnt to manage the learners in a classroom.*
        She has interest in learners. She is confident and has a positive attitude."

Weekly reports:

Most students provided weekly reports in their portfolios. Some of these students gave an indication that they enjoyed their stay in schools an could relate well with the school community

Observed lessons

Documentary evidence shows that PGCE students observed numerous lessons over a period of six weeks, under the guidance of experienced mentor teachers. The experienced teachers proved to be valuable sources of information to novice teachers. One student said the following about her observation;

P.4:*"this week I spent more time with Mme M (physical science teacher Gr10-12) in order to see different approaches to teach Physical Science. Mme M is also assisting me and giving me a few pointers on how to improve active teaching and learning."*

Taught lessons

The majority of mentor teachers indicated that students presented lessons in a manner that the learners gained interest and that the students were creative and moved from known to unknown. Many students observed and presented numerous lessons. There is evidence that students gave a good account of themselves in this regard. The other important revelation that came across is that the majority of students were consistent with regards to the schools they chose for their teaching practice and therefore the mentor teacher. This resulted in some of the students building strong relationships with both the school and the mentor teacher thereby ensuring continuity of the mentoring processes. Some mentor teachers had this to say:

P5: *"Lesson plan was set out very good. Student has a strong voice and personality. Very good at checking if the learners are still following. Can see she prepared well, but still need to get confident with teaching the subject, this is the first lesson. I am looking forward to the next one. Student is already showing more confidence than last term when she visited our class."*

Pedagogic mentorship by mentor teachers

P.2: *"Facilitator linked the present knowledge with previous knowledge to arouse interest of learners; she used different methods of questions to interact with learners."*

P.3: *"Student teacher is well disciplined and can become a good teacher."*

P:4 Principal's comments: *"Yes her approach and attitude assist in the effective teaching, she involves learners holistically."*

10

P:4 mentor teacher's report: "*I have enjoyed working with the student teacher and the way we engage learners in class was very helpful for them.*" "*Ms B has a passion for what she is doing. She starts her lessons with motivation messages for the learners, she is a teacher indeed. She was always present in class she did all duties that she was supposed to do.*"

Information in portfolios reveal that some mentor teachers offered constructive criticism on the pedagogic application of students, while they also evaluated students on many lessons and could help them to improve in their teaching strategies. One mentor teacher had this to say with regards to one of his/her protégé's lessons;

P.3

"*When learners answer questions do not just thank them, indicate whether their answer is correct or incorrect. You have the internet at your disposal; download some description and pictures to keep the lesson interesting and to enhance understanding. Encourage your learners to communicate in English at all times. Thank you for doing all you can to answer questions thoroughly.*"

Response to pedagogic mentorship by students

P.5 "*One of the lecturers from school phoned and told me to prepare for my lesson evaluation. This was really nice as she told me in advance to prepare on time. The teachers were really accommodative in terms of letting us do our teaching practice.*"

P.5 "*The grade 10 wrote their English paper 3 on Thursday 6th August 2013 and before the exam some of the learners asked me to help them prepare for it. This really motivated me as the learners had faith in my teaching skills.*"

11

APPENDIX I

Transcriptions from interviews

The researcher went on to interview the PGCE students and the majority of the participants   were upbeat about PGCE as a teaching qualification

Interview one; Participant One

RZ: Good morning Mme S

On research question number A which says

RZ: How do different disciplines in the PGCE course shape their respect with pedagogies?

May I find out?

RZ: To what extend do you think your qualification is relevant to the subject you teach?

I think eh... the most important thing, it is the scheme on how to teach and how to stand in front of the student and how to again treat them as you have different eh.. Students in class who don't understand eh … who don't understand the same.

RZ: What methodological challenges did you experience in your subject and how did you overcome them?

Using chalkboard is one of the things, and fortunately we had some of the room where we got a projector, data projector so we made use of them as well as the internet.

RZ: How was your development in teaching methods evaluated and how did this intervention help you?

S: It did help a lot because of observation; I was observed during the lessons and was also told to work in the areas of improvement, what to improve.

RZ: <u>So this intervention was discussed you?</u>

Yes, it was discussed with me. It was my superior as well as the peer.

RZ: On research question B which says.

RZ: <u>To what extend does the PGCE curriculum equip with a pedagogical skills needed to formulate the objectives relevant to their respective disciplines?</u>

May I file out?

RZ: <u>What training has been provided to you, to help you in the formulation of lesson objectives?</u>

S: The use of different methodologies and the use of technology.

RZ: So you were provided with training in the formulation of lesson objectives for those subjects.

S: Yes, I was.

RZ: How can teachers integrate and use resources to stimulate learning
S: Mmh. Can you repeat the question?

RZ: <u>How can teachers integrate and use resources or teaching and learning media or what we used to call teaching aids to stimulate learning?</u>

S; Can we stop?

RZ: Ok we can continue or you feel you can't answer the question.

S: I think we can move forward, I will think about that one.

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RZ: What pedagogic support in these instance by pedagogic I mean, the methods the methodological support, support in the teaching skills and strategies,

RZ: What pedagogic support is provided to you in the formulation of objectives in your subject?

S: Ok, I have attended ICT that is e-learning and again ehm... Or is it specifically PGCE

RZ: From your PGCE lecturers and.so on.

S: E fete, ke kopa oe fete.

RZ: Ok.

RZ: How might a teacher work with individual pupils with groups or with a whole class and larger groups?

S: Can you repeat the question again sir?

RZ: How might a teacher work with individual pupils with groups or with a whole class and larger groups?

S: Usually if they're in a group, we go to them, we explain to them, actually you first observe whether they are doing it correctly and again if those are in a group, those who are doing it all by themselves, we just go there and you check whether they are still doing it correctly and if not you go in and you assist.

RZ: What is your opinion of an educator as an assessor?

S: I think as an assessor we still need professional assessor because we do our own assessments and immediately after that they go for moderation, but the quality of those assessments they are not 100% right.

RZ: <u>How does the PGCE curriculum help to develop students in to effective communicator?</u>

RZ: <u>Why do you think it is important to be a good communicator as a teacher?</u>

S: Because as a teacher you normally talk to people, not only to student but also to the adults or maybe parents, then you must know how to communicate with them.

RZ: <u>How do you keep up to date with the vocabulary of your subject?</u>

S: We normally use our text books so that we get different terms and on how to apply them while you are teaching so that the students get familiar with them.

RZ: <u>What is the role of language in teaching and what is your opinion about the impact of language in your subject</u>

I think the language we still need to improve because we are not hundred percent, as well as our student, so if as a teacher I am not hundred percent, then the information that I take to the students it is also not right.

RZ: On the last research question, How <u>the PGCE curriculum does prepares students to become members of the profession?</u> May I find out?

RZ: <u>What are the collective roles in the school?</u>

RZ: That is the collective roles of teachers in the school.

S: The role, must be able to teach and also to produce good results and also students who can express themselves without maybe fear of being wrong.

RZ: <u>Which minimum set of competencies are required of newly qualified teachers, what is it that they must be competent in</u>

S: In teaching as well as the language

15

RZ: <u>To what extend do PGCE modules offers skills that could be useful for extra curriculum activities</u>

RZ: The PGCE modules that you were exposed to, did they really delve on extramural activities? If so to what extend?

S: I think ehm it, yes we were exposed to those modules whereby extra curriculum activities are dealt with and I think if maybe students are involved in such activities it is part of exercising their body as well as their minds.

RZ: <u>So there were such modules that would help you with extra curriculum activities.</u>

Mme S, thank you for your participation. The information you provided really proved to be valuable for this study and in actual fact no information is wrong information, that is only the truth for this research; I thank you very much for your help and agreeing to be part of this research.

Interview Number two: Participant Number two
Good morning Mr R

RZ: I am Ramotale Moliko; I am studying towards Master Degree at CUT. I am inviting you to participate in this research, you may talk to anyone you feel comfortable talking about the research and you can take time to reflect on whether you want to participate or not. This interview may contain words that you may not understand; I assure you that if you do not understand some of the words or concepts, I will take time to explain as I go along, and you can ask questions at any time, please ask me to stop as we go through the information.

RZ: On research question A which says.

16

RZ: How do different disciplines in the pgce course shape their respective pedagogies?

RZ: I want us to agree on what I mean by pedagogy. By pedagogy I mean, the methodological skills, the teaching and learning situation, the methods of teaching, that's what I mean by pedagogy, the art of teaching. So may I find out?

RZ: To what extend do you think your qualification, PGCE is relevant to the subject that you teach

R: I think it has being very relevant because, initially when I started teaching i had only a degree. I had no qualification which is relevant to pgce so could not understand certain things that one has to apply in the process of teaching so I can make an example of one situation that I got from my lecturer during the process of training for pgce.

The fact that when you are in class and you happen to ask students a question, make sure you do not answer the question let the student answer the questions so I never knew that before, I felt that I will answer the student a question, if they were not responding immediately I give them the answer and continue.

The training I got from pgce allowed me to, I should give them a chance to think about the question I asked them... and one conclude that they do not know and decides to answer the question myself and I should not ask those questions if I am going to answer. As far as my pgce is concerned, it has helped me a lot because I have learned quite a lot of things in as far as teaching is concerned, how to treat students, how to create a conducive environment for learning and teaching...

RZ: What methodological challenges did you experience in your subject and how did you overcome those challenges?

R: Eh Can you explain what you are expecting from this?

17

RZ: **What challenges relating to the teaching methods did you experience in your subject and how do you really get to overcome these challenges, how did you get rid of those challenges you experienced**

R:I think one of the most critical challenges that I came across was the challenge that I have with students, generally, I think it is a general problem with student of which is the language interpretation, try to explain everything to the student because most of the student do not have, eh , the language of instruction is not their mother tongue and it becomes a serious challenge to them as in terms of terminology used in the subject matters but then I found out that this thing of word wall that one needs to use when you are presenting, you will write the difficult words or words you think are the jargon of the subject matter and might be difficult for student to understand, write them on the board or you just paste them in the front and you go through them with the student before you continue or as you continue the lesson and you come to the showing them they need to open page for the explanation.

RZ: **How is the development in teaching methods evaluated and how did this intervention or this evaluation help you? Was it ever discussed with you?**

R.Z: **In other words, we talking about your growth, how was your growth in the teaching methods evaluated and how did this intervention help you?**

R:I think in terms of teaching methods that we did, it really assisted me because I always believe or I became aware from what I thought before I acquired the teaching experience or the actual teaching lessons from PGCE that it is critical and important that one needs to prepare thoroughly and have a written lesson plan and having prepared, it gives you confidence as a person and you turn to know in advance and you can also be able to work on or be able anticipate the questions that you expect your student to ask and prepare answers for them...so all those things I took them for granted that students are students, they have to listen to me. but I was enlightened to and I should not think that those students do not know anything, they have prime knowledge and if I am not prepared they will definitely be aware that I am not prepared and I would lose my confidence...and they will also lose confidence from me as such

18

especially the question of how to prepare for a lesson...and how to take out that lesson and how to reflect also of that lesson you have conducted.

RZ: On research question number B which says
to what extend does the PGCE curriculum equips students with the pedagogical skills needed to formulate objectives relevant to their respective disciplines
RZ: May I find out

RZ: what training has been provided to help you in the formulation of lesson objections, aims of the lessons

R: I think we have had quite a detailed training did take place as far as that is concerned.

We were made to understand that there are learning outcomes and also subject outcomes which they should go hand in hand when you decide on the lesson and you should be able to evaluate the student at the end of the lesson in order to see or to establish to what extend the lesson has been a success or not and I think the training of how to use the learning outcomes as well as the subject outcomes in that regard, has actually given us a clear understanding of the situation

RZ: On can teachers integrate and use resources or teaching and learning medium to stimulate learning

I think students or learner are actually fascinated by those electronical gargets they like them and immediately you can manage to grab their attention through the use of those equipment's definitely that will enhance their education as well as their concentration I believe

R.Z What pedagogic support is provided to you in the formulation of objectives in your subjects

19

R: we've got bookless note we've got those that are related to the subject so in terms of methodologies what help or support has been provided to you to help you formulate those.

In my campus specifically we have a structure that you can discuss with the concerns as well as the difficulty that you are met with as a lecturer it consists of experts in particular subjects and we have worked out of a way of accumulating question papers and the previous exam question papers and their memorandums as a way of which it is going to guide us and allow us to be able to guide our students as to how they are expected to respond to the typical examination questions and we also go through several training such as a assessor training as well as a moderator training which equipped us with the knowledge of how, one needs to be set an acceptable test that follows the .... and also be able to compile an analysis script on the test that you have set.

how might ...work with individual people's groups whole class and larger groups

this is the dynamic the dimensions that define a teacher work with those

it depends on the topic of a discussion as well as resources that you going to utilize during that particular lesson they will definitely have the influence with the differences in terms of how we handle the student, but an ordinary which will end up with just an assessment homework or class work for a student can allow a class to work as individuals or students to work as individuals because the assessment at the end of the day maybe be in the form of a test but in some instances the student might need to reflect on how the lesson grew as a group then you need to group them appropriately considering the fact that there are those that are a bit more clever who can grab easily and faster, there are those that are regarded as slow learners or those that take some time who needs time to purely digest the subject matter so depending on the complexity of the lesson resources they will be the guidelines as to how we use the different ways of ...in our class

RZ: **How does the pgce curriculum help to develop student on how to be effective communicators**

RZ: May I find out?

RZ: <u>Why do you think it is important to be a good communicator as a teacher</u>

R: I believe as a teacher there are, your students are going to use their sense of hearing, their sense of seeing and their talking sense, so, having to use the sense of hearing already tells that you need to be able to speak.

Communication is critical in terms of passing information so knowing that we cannot speak like you see when you actually lecturing.

it has to be that blazing and lowering of the tone so as to keep the attention of the students it is critically important.

The PGCE has taught me how should I communicate with the class

RZ: <u>How do you keep up to date with the vocabulary of your subject</u>

R: Eh I read, I believe is only about reading newspapers, magazines reading journals which are specific to the subject matter and in general reading watching TV where the subject is related so the info that is used there is important and in all the media that you can get information

R.Z: What is the role of language in teaching and what is your opinion about the impact of language?

R: language plays an important role in a sense that in every institution there is a mode of instruction that is stated for that particular instruction so like English is regarding as mode of teaching. the only problem is that like I mentioned before, majority of my student do not have English as their home language and to be honest their level of English vocabulary wise it is pathetic and immediately you become conversant and you become comfortable with the language it becomes easier for you to express yourself and it becomes easier to understand what you are actually reading.

So I always advice my student that as far as language is concerned there is no way you can go to class and turn to understand or being the expert in the language...the

21

only as alternative is to read a lot about that, the more read the more you improve on your language skills and language knowledge

R.Z: On research question number D which says: <u>how does the PGCE curriculum prepare student to become of the profession</u> may I find out <u>what are the collective roles of teachers in the school?</u>

R: collectively we know that as teachers we are parents. And we acknowledge the diversities of our students and understand that we have to play a certain pastoral role within their lives, so in generally, everyone is committed and understands his or her responsibilities towards the students and proper successful teaching and learning

R.Z <u>which minimum set of competencies are required for newly qualified teachers?</u> I mean which competencies must they display, as newly qualified teachers, what must they be competent in?

R: Eh I think that might be a challenge to me because. in most instances people in management could be the ones who outline what is it that they expect the new qualified ones to show but in general I think it was outlines that the performance of students is regarded as they point of critical importance in evaluating your ability as a lecturer here or as a teacher, so it is always reflected that your competencies is always reflected on you in the with the performance of students.

RZ: <u>What is your opinion of an educator as an assessor</u>

R: I believe an educator should actually be an assessor, in my opinion the educator turns to be the one who is with the children he is the one who teaches the children and fair enough you have to assess children on what they have been taught, as the person who is teaching them you are supposed to be the one who assesses them,

RZ: Last but not least, **to what extend do PGCE in modules offer skills that could be useful for extra curriculum activities**
R: I think during my study in PGCE the modules where there which guided us on our responsibilities in terms of extracurricular activities especially the fact that we also

22

dealt with the relationship of a teacher as an educator together with a parent, how you need to come together, how you need to work together, what is the importance of working together with the parent and that already informs the parents involvement at home with children which tell us what is helping with the children at home, actually involvement of teachers to children beyond the classroom is what is outlined to us, I think is deals sufficiently to some of the extracurricular activities

RZ: Mr. R thank you for participating in this research and in this interview
I believe that the information that you provided will go along towards shaping this study

R: We truly acknowledge accepting and agreeing to be part of this study

R: My pleasure, I wish you all the success in this not only for you but South Africa in general.

Interview Three Participant Three
Good morning Mr. N

RZ: How to different disciplines in the PGCE course shape their respective with pedagogies?

May i find out?

RZ: To what extend do you think your qualification is relevant to the subject you teach

N: Eh, not only to the subject that I teach, eh, It helped me a lot in terms of delivering the, the entire subjects that i am offering in a sense that I am aware that there are different ways on how one can teach especially when it comes to,. Eh, eh. It should not be about us imparting knowledge to the learners only they should be made integral part of everyday lessons. That is how I think the PGCE programme helped me in terms of eh, eh, eh developing, career wise.

23

RZ: What methodological challenges did you experience in your subject and how did you overcome them?

N: The methodologies?

RZ: yes, the challenges relating to the methods in your subject.

N:Number one, was that of having to write notes because some of the learners you can't just eh teach them without giving them summaries or writing notes, so with this PGCE programme, eh, I have improved a lot I am able now to write notes I am able now to make eh.. those group discussions whereby learners learn by themselves, eh.. they learn from amongst themselves so that is how, the methods in terms of the methods, one is able to engage all the learners in the lesson and not only you being the person who has to impart knowledge as I have indicated before as I indicated before you are now able to engage all the learners, teaching is no longer about us as educators but we must actively involve the learners, the learners too.

RZ: How was your development in teaching methods evaluated and how did this intervention help, was it ever discussed with you?

RZ: In other words, your growth your development in as far as the teaching methods are concerned. How was it evaluated?

N: There were, I will make reference to micro teaching will make reference to my group teaching, we conducted classes whereby you will be teaching and there will be those recording and immediately after you presented your lesson you can come and watch it with your colleagues and you are able to identify areas you need development on. so it was indeed communicated beforehand to us, we knew there will be such an assessment to us student about PGCE.

RZ: To what extend does the PGCE curriculum equip students with the pedagogical skills needed to formulate lesson objectives relevant to their respective disciplines

24

RZ: May I find out?

RZ: What training has been provided to help you in the formulation of lesson objectives?

I would say if I get the question correctly, I would say each and every lesson you present must have the objectives, what is it that you want to achieve at the end of the lesson, what is it that you want your learners to have learned at the end of the lesson.

Now you must draw a lesson plan on how you going to deal with the topics and how are you going to, the methods that you will be using in dealing with that topic and eh the resources too, what resources will be utilized during that lesson presentation, and, and, and you are able to reflect as to whether the objectives where achieved I'm not sure if I am relevant in that regard.

RZ: How can teachers integrate and use resources to stimulate learning?

N: can I continue?

RZ: Yes.

N: Eh, the use of resources, since learners have got different types learning, eh, teachers must make it their responsibility to use different teaching aids so that they can, their learning can be more interesting, explore different resources or teaching aids because like i indicated we have got different students and learners who learn differently so by using the resources such as your projectors your pictures and so forth will ignite interest in wanting to learn through those resources

RZ: What pedagogic support is provided to you in the formulation of objectives in your subjects?

Eh I would say currently there are none, being honest, there's none because earlier we used to have student camps whereby we take learners to certain area different

25

environment totally different from the institution but now none has been happening in terms of support we got to see for ourselves to make sure the objectives are achieved

RZ: How might a teacher work with individual peoples, with groups, with the whole class and larger group?

Eh, number one, I think it is important that we as teachers we know our students, not only by their names, you know their strengths, what they might be other things that bothers them outside the classroom which might is it that is have an impact on their learning so it is very important that you know them at least you have an idea of what a student, you have a background with regard to a student and as a group some might feel that they may resist working as group because they may feel that they can exposed so the teacher must make sure that theys ascertain students not there to be exposed, no student will be looked down at, it's part of teaching, they can only learn best if they work as peers. Sometime you find the information given by the teacher, you do not always reach all your learners but if they learn as peers as a group you can be more interesting to them and it will stimulate that interest of wanting to learn with larger groups it becomes difficult, because you have to deal with issues like your disciplines, your control how do you control so you must come up with strategies, you must make a thorough preparation in terms of larger groups you find others are not paying attention to what you going to present to them or you going to do.

Now strategies must be in place on how you going to ensure that they stay focused concentrate on what is being done, that is how are believe teachers can go about to teach the groups the individuals and so forth

RZ: How does the PGCE curriculum help to develop students into effective communicators?

RZ: Why do you think it is important to be a good communicator as a teacher?

The reason is because you are at the center of you are between the learners and the curriculum you are the one supposed to be delivering the information to the learners.

You are the pillar of learning; you are the link between what wants to be learned and the learners and also learning.

RZ: How do you keep up to date with the vocabulary of your subject?

I think being abreast with the vocabulary of the subject goes a long way, you need not be focused only on the material at hand, you need make use of research methods in terms of you seeking more information, going to the library, finding materials that will be relevant to what you will be doing at that particular time and maybe the use of technology in terms of the internet it is very assisting. So you must constantly visit or utilize such resources.

RZ: What is the role of language in teaching and what is your opinion about the impact of language in teaching?

The language is the only way you are able to interact with the learners; you can only interact with learners so now there is no way you will be understood in any way without interacting through communication without using proper language with regard to the subject matter.

Now the impact of language of language, one will be able to stay, to be relevant to what is being taught and again the we have got different schools of thought and you will have to be intent with the language which is being used in your field of study so without you being having language skills you won't be able to learn effectively. So language is very important in such a way that one will be able to learn effectively

RZ: On research question number D

RZ: How does the PGCE curriculum prepare students to become members of the profession?

RZ: May I find out?

RZ: What are the collective roles of teachers in a school?

27

We are not only teachers, we also parents, we also playing roles such as that of a community leader, a pastor and so forth you are a councilor not only employed to teach and it end there, there are different roles, you got to be your administrator, you got to be a researcher, make sure that you bring your students to speed with what is happening in the real world show them what is happening in real life situation.

RZ: Which minimum set of competencies are required from newly qualified teachers

Which competencies should they display?

In terms of the skill, you will have to be able to know, talk about setting the objective of lesson and how you going to present that in such a way that it will be understood by your audience being your student knowledge how do you the inspiration that you possess, you need to stay abreast with what is happening outside, you must be abreast with information, you continuously develop- yourself because learning never ends and because we have got different learners, you need to make sure that you stay prepared you stay ahead with the information, like we have made mention of mention the technology just come to our help so you visit those and keep abreast with the information and attitude, you are the leader in a class, you must lead a role of you must an example student are going to learn from us, you must lead by example and make sure that you are somebody who can be trusted by your learners.

RZ: What is your opinion about an educator as an assessor?

My opinion is that you would have taught your and there are objectives that you have set for yourself, what is it that you want to achieve, your objectives and goals
now as an assessor, you need not to make assessment that will maybe expose learners on how, expose learners in terms of how stupid they are, you are assessing them because you want to see if they meet the required standards, so assessments should be designed in such a way that they cover all the collective levels because you

may concentrate on one level only to find that you disadvantage other learners so all collective levels must be utilized when a teacher assess

RZ: Last but not least

RZ: To what extend do PGCE modules offer skills that could be useful for extracurricular activities

N: Can you come again?

RZ: To what extend do PGCE modules offer skills that could be useful for extracurricular activities?

N; We have the classroom situations; we have extracurricular activities such as sports

R, Z: Do you think PGCE modules cater for it?

N:Of course as an educator you can't keep your learners in class all the time, they are different people with different given talents and so forth, so engaging them this PGCE program it will make you aware that is not about what you do in class only, it extent to whereby there are engagements outside the class in terms of your sporting codes, there are those learners who will be interested in coming to school because they take part in outside classroom activities like your sports and so forth, so it makes us aware that we should not only concentrate on our classroom work activities so we should also conduct outside classroom activities because we got different believes and religions would be interested being part of such groups or organization.

Do we have a specific module that helps you in the PGCE program?

N: I can't remember but I do know that we have touched on so9me of methods that deals with outside class activities, I do not have a specific module that I remember.

RZ: Mr. N, thank you for participating in this interview, I believe your contribution will go a long way towards shaping the course of this study and coming up with the

29

conclusive results to strengthen the PGCE program so your participation is very much valued, thanks a lot.

Interview four: Participant four

Good morning Mr. Kh
Good morning Mr. Moliko

Kh: Ehm, we may proceed with our interview.
We have four research questions and each has its probes then you will only respond to the probes.

Research question number A, says;

How do different disciplines in the PGCE course shape their respective pedagogies?

R.Z: May I find out?

R.Z: **To what extend do you think your qualification is relevant to the subject you teach?**

Kh: Mmm… coughing, you referring to PGCE qualification?

R.Z:Yes

Kh:I think it is relevant Mr. Moliko because ehm, what I have studied, emh I was doing Cost management accounting and then now I find myself here at the college and I'm supposed to teach eh, but then without knowing exactly how to teach and it is something that I think could according to me it helped me a lot in terms of discipline in Managing the classroom in terms of how to approach the class in terms of the lessons preparations and all those things.

R.Z: What methodological challenges did you experience in your subject and how did you overcome them?
Kh: The methodological?

31

R.Z Challenges regarding the methods of teaching that you might have experienced in your subject and how did you overcome those challenges?

Kh: I will say, actually I did not experience that much challenges in terms of the methodology in my subject.

Kh: What PGCE actually did it helped eh; like I said in terms of how do I do I manage the classroom in terms of the discipline in the classroom. When coming to the content part actually I did not struggle at all.

How was your development in teaching methods evaluated and how did this intervention help you, was it ever discussed with you there is an intervention either before or after?

Kh: The discussion with regard to?

The development in your teaching, of how have you developed.

R.Z: your development, how was it evaluated, to say if this person progresses in terms of the methods, how were you evaluated to check progress and development?

Kh: They have done some observations in class and then now again we did they did administer some tests in whether to check if whether am learning and in that case that's when they did actually find out that I'm progressing, the level that I was at that time before I studied PGCE actually it was ...in terms of like I said managing and in terms of disciplines in the class and the approach to the classroom

On research question number B

R.Z <u>To what extend does the PGCE curriculum equip students with the pedagogical skills needed to formulate objectives relevant to their respective disciplines?</u>

R.Z <u>What training has been provided to help you in the formulation of lesson objectives?</u>

R.Z what training did you receive that helped you to formulate the lesson objectives appropriately?

Kh:I will rather say Mr. Moliko It was not a training as such, it was a sort of it was like they did not train me like sort of workshopping it was sort of an advice as well as been able to make me aware some of. the other things. In terms of how to formulate those lessons for preparing for the classroom

R.Z <u>How can teachers integrate and use resources to stimulate learning?</u>

We talking here of resources as teaching and learning medium/aid:
How can teachers use those resources to stimulate learning?

there is only one thing that teachers can do actually, is to use the other resources like the e-learning resources, that is whereby they will engage students in terms of accessing some of this sites, by using those sites actually they will encourage students to learn more because of now they explore they are able to get hold of some of the information even though some teachers at some point they do not know of such information, lecturer himself must know of those sites that the students can access in terms of learning.

R.Z <u>What pedagogic support is provided to you in the formulation of objectives for your subject?</u>

We spoke about lesson now us going to a bigger picture which is now the subject.

The objectives in your subject, what support do they provide you, methodological support.

the support provided by the PGCE lecturers is basically the one that the lecturer should be able to know as well as use in the classroom, more especially if you go in the classroom not knowing the background of your students and then you going and teach the students without actually involving them all in terms of their background and then that's when the PGCE actually made us aware as teachers that you should be able to know student's strengths as well as their weaknesses.

R.Z <u>How might a teacher work with individual people, groups, whole class and larger groups?</u>

R.Z <u>What strategies as a teacher do you use to work with such groups?</u>

How do you work with individual, groups, whole class and very large groups?

Kh: It is not simple actually but now as a teacher you should be able strategies before you go to class in terms of planning for activities, and there are those activities you can give to students so that they can perform individually and those ones that you can group them and there are those activities that you can use method of questioning and then the student will answer, you as the lecturer, but now this thing actually based as planning is a planning part for the teacher before going to class

On research question number C

R.Z <u>How does the PGCE curriculum help to develop students into effective communicators?</u>

R.Z <u>Why do you think it is important to be a good communicator as a teacher?</u>

Kh:If you are not a good communicator there is no way you will be able to reach all students in the classroom, and you should be approachable and be able to talk to students and in a good way.

It is important to communicate with them, with things that are actually curriculum base...and not something else you may find you are talking something does not benefit the student

R.Z <u>How do you keep up to date with the vocabulary of your subject?</u>

Kh: Actually I keep up to date by making research because I have to know what is happening now so that I can teach students about things that are happening currently, if I don't do research, it's all about making a research, I if do not make a research I will be teaching students things that are outdated.

R.Z <u>What is the role of language in teaching and what is your opinion about the impact of language in your subject?</u>

Kh: The role of language is very ordained though you say the language will depend on subject that you are teaching because each and every subject has its own language, in terms of the terms but then I will say my opinion it does not matter actually because at some point you may find that there those terms that we have to explain to the student and you will find that students understand those terms differently and then that's when they will abuse the meaning of the lesson but if you as a teacher you are able to explain to students how do we use such words based on such particular subject and is simple for students to be able to catch up

R.Z <u>How does the PGCE curriculum prepare to students to become members of the profession?</u>

<u>What are collective roles of teachers in the school?</u>

Kh: The role of a teacher in a school you are a role model to those students, you are a parent figure sort of to them, you should be able to guide those students, you should support them academically and non-academically, that's the role of a teacher actually

R.Z Which minimum set of competencies are required of newly qualified teachers. In other words, which competencies must they display, which competencies should they have when they enter the profession?

Kh: It is expected that they should be competent in, which are those competencies
I would say before they enter the profession of teaching I would say it should be those people who can be able to stand and talk to other people, they should be those people who can be able to understand other people, because now you will be dealing with different students at the end of the day.

You should be a particular person who is impartially fair, I think according to me you should be that person who practice your profession at all times.

R.Z What is your opinion of an educator as an assessor?

Kh: In my opinion is that as an assessor you should be that particular person who can assess the student, either you assess them based them based on task you administered, or you can be able to assess them without even writing the tasks
in that case is you will be able to tell as the teacher that this student or this group of students are struggling and these ones are performing very well.

R.Z To what extend to PGCE modules offer skills that could be useful for extracurricular activities

Kh: According to me actually PGCE the modules did not actually offer support on extracurricular activities... the support that they offer basically is based on curricular activities...you as the teacher can be able to do whatever that is in the classroom situation not outside the classroom situation.

Mr. Kh thank you for being part of this research and interview, we hope that the information that you provided would be quite helpful towards coming with conclusive results from this study, we really appreciate your participation.

R.Z: Good day Mr. K

R.Z: we will continue with our interview, and this interview have about four research question.

Each research question has its own probes so you will need to respond to the probes, not necessarily to the research questions.

On research question number a:

R.Z: <u>how do different disciplines in the PGCE course shape their respective pedagogies?</u>

R.Z: <u>to what extend do you think your qualification is relevant to the subject you teach</u>

Well pertaining the PGCE as a qualification I must indeed say, it has been helpful; because it has equipped me with the knowledge of the methods of teaching. the methods of interacting educationally with the students and actually it has also helped me in ways of understanding the behavior of students and again being able to meet the needs of the students for learning purposes. So it has given me that particular perspective that actually helps along those particular lines.

R.Z: <u>what methodological challenges did you experience in your subject and how did you overcome them</u>

Well the subject that I teach requires time and in this particular time is where we can be able to do things such as the role playing we can also be able to do some case studying where we may use the in basket type of an activity to actually help learners to learn better.

37

However, we do not have that particular luxury of time as a result the composition of our system in the colleges will be aware that we do what we call the nated programme informed by report 191 of the department of higher education.

Now we run our programmes within a period of a semester which is not really in reality the six months however sometimes four months of teaching time and sometimes even three months of the teaching time referring to the second semester. Now in such a case we do not have a liberty of time and we limitations of practice in terms of the teaching methods, we always resort in many times than normal to lecture presentations which do not obviously cover all the learning areas as we go through but we try and find time in weekend where we gather students even though not all of them present themselves but we gather students on weekend so that we can able to get at least provide time that they can have practice of that particular methods of learning.

R.Z: <u>how was your development in teaching methods evaluated and how did this intervention help you, was it ever discussed with you?</u>

We have in the college we have reference to performance uprising, we have in the college the system that is called the IQMS indeed it is intended according to my understanding it is intended to find the ways or areas where lecturers lack in their practice and also around that also inform ways in through which they can be assisted in order to better their service to the students.

It is not always discussed I must be honest with ourselves even myself I must speak on my behalf, it is not always discussed we are given an information that is going to be conducted the result of which are almost every time submitted without the discussion we will only there after the submission of which find out there has been a certain recommendation or certain findings but they are not always discussed with us so in that way I think that we have challenge with the leadership and management strategies.

If now taking this in the light of development by the PGCE programme, how did you find that experience?

I have found it quite informative I had found it quite elevating in terms of my profession chosen because as I have referred earlier it has given light to the methods which I did not know about previously, I had only taught from a perspective of knowledge of the academia but not necessarily from the understanding the behavior human behavior that comes with one being a person then a student but now after the PGCE programme I have been able to identify areas of sensitivity of the student in terms of their behavior and understand their backgrounds again do impact in their ways of learning not necessarily background from home perspective but backgrounds educationally from schools where they come and the development that they have undergone or have undertaken at those particular schools, I'm now able to design interventions as a result of the informative undertaken that was brought about by the PGCE programme.

On research question number b:

RZ To what extend does the PGCE curriculum equips students with the pedagogical skills needed to formulate objectives relevant to their respective disciplines
What training has been provided to help in the formulation of lesson objectives?

I was doing the PGCE I am now be able to call all the subject from the back of my head but we were dealing in the PGCE classroom based learning, we also dealt with education as a subject of course in one of the subject we were dealing with the methodologies of teaching.

Now that has been aiding in a way of in fact it helped me to understand the process of pedagogic learning as I have referred this has connection very well with the understanding of human nature 1: the needs of learning from the understanding of an individual who engages in the learning process now the PGCE has expanded and opened up my thinking pertaining to the differences in human which informs the behavior and the needs which I as the lecturer has to be sensitive in order to be able to aid the learning of the students that I teach so PGCE has broader brought sensitivity to them and it has helped me to better position myself as a lecturer in order to touch base with the sensitive issues that the student come with before they even come into

39

the classroom, and also to put away those particular issues and actually make it a learnable environment for them so it has helped me to be able to create a learnable environment for students in their diversity in their differences.

R.Z; How can teachers integrate and use resources to stimulate learning

R.Z: I am talking here about teaching and learning media, education related resources, and how can you integrate their use to stimulate learning

Very well Ntate Moliko...you see the world is changing as it does technology improves, as technology improves, the learning preferences of the people changes as well and that also goes to the behavior of the students, students want to watch television, they want to browse the internet, they do not want to be sitting there with a lot of text in the books they find it boring they find it devious now the medium that we use can stimulate learning where it actually begins to attract the attention and actually bring about interest in the students to actually want to go further and learn.

Now using technological medium actually becomes very helpful because they ratiocinate very well with the learning preferences of the type of students we have.

R.Z: what pedagogic support is provided to you in the formulation of objectives in your subject?

Well I as I was doing education I had engaged the number of areas, I have to talk about the professional which was one of my subjects, as I was engaging with PGCE learning across specific professional studied I think for about the methods within the programmes, I have been made aware that I do not only have the responsibility of educating the students I also have the responsibility of mentoring the students meaning I am a role player I become some sort of somebody that they look up to I become a model to them...now I am a lecturer in the human resources field, if I speak about the techniques of management they must see that from how I manage them now the interaction that I have with my students, as a result on the information on the roles that I must play as a lecturer and not only limited to that, I was informed by that

40

particular study to say I have many other roles that I have to play to students that has also prepared pedagogically to say the students are there to learn from you but only not learn from you but also you must avail their venues through which they can also construct their home knowledge from the learning that you impart

R.Z: how might a teacher work with individual peoples, groups, whole class and larger group?

K: It's a matter of creating an environment that is allowing first you must make everyone feel welcome which sometimes might sound very difficult if some people say it's impossible but i would say that it is possible that particular i was given from the PGCE it takes a skill of a teacher and it can only happen if the educator understand all behaviors of people that they teach or in this instance that they lead, now i have to create first a situation where everyone will feel welcome and everyone will feel an important part of the group, again working with individual students, it takes an understanding of the students first by understanding their objectives as persons because students do not come from home and therefore do not know anything.

Mr. Moliko accept that students are not empty vessels so I begin considering students as people who have feelings, people with ideas people who have their own personal objectives and those particular objectives must be taken care of and perhaps integrated in the studies that we undertake with the students thereby making them aware of how to reach their own objectives while also playing their role in their broader community and perhaps in the organization that they prospecting will be part of in the future.

On the research question number C

R.Z: how does the PGCE curriculum help to develop students into being effective communicators?

Why do you think it is important to be a good communicator as a teacher?

41

Communication is the baseline to an understanding, we cannot know of each other if we do not communicate, we can things lead to destruction if we do not communicate sufficiently and PGCE has taught me that in order to be a good communicator one must open themselves up to the possibilities of a classroom situation because they cannot be anticipated nor can they be prepared for but through the PGCE I have learned the strategies of immediacy which was always preferred by Mr. Moliko and as it were I am now a better person in that I can tackle problems that may arise immediately in a classroom situation not having prepared for them but then to also not only me as the lecturer to play a role of leadership in the classroom.

R.Z: How do you keep up to date with the vocabulary of your subject?

Studying, studying and studying.

The PGCE has made me learn that I mean I learn as an educator so from that particular perspective I have undertaken to engage life from learning than in that particular way I acclimatize with other lecturer and other teachers and other specialists in my subjects and that also aimed my keeping abreast with the terminology.

R.Z: What is the role of language in teaching and what is your opinion about the impact of language in your subject?

The role of language primarily is communication and if there is a misunderstanding of there is a lack of understanding of language we of course going to have a barrier to communication the impact of language is communication primarily and in my subject the importance of language is that you see labor matter are dealt with through English language specifically, the terminology that we use in the labor area of the industrial systems finds its embodiment in the English language and you find other languages very limited in terms of terminology to that particular space where there are then it takes long and very inclusive research about words which will always be to the time that we have, so it is important that we learn the language but we also help our students better learn in that particular language because we teach different students from different cultural background and not all of them are able to understand the language of English. So the challenge here is we first have to better the understanding

42

of language to the student and first master it as a lecturer or an educator before you can even go to the students because then the students will look up to you and as a result of that particular leadership role that you must play you must also be able to help them in terms of understanding of language and in this state we have misconceptions that are there so it is a critical medium of communication language is

On research question number D.

R.Z: What are collective roles of teachers in the school?

The role of a teacher in the school.

Collective roles of a teacher in the schools are one discipline what we do as a collective and doing it in a unified manner provides a sense of discipline, but once we act as individuals then it distorts and disperse that spirit of discipline because then we do not treat the same message we give multiple messages sometimes for similar subjects not necessarily subjects but for similar aspects of the school structure itself.

Now the roles of teachers in a school pertaining their collective role is that of discipline which can come to one's mind beyond that it is peer learning to inform each other and to keep each other abreast and to challenge each other positively to criticize each other as colleagues and friends sometimes, so it's about growth
the collective role that we play is development and growth of one another and majorly discipline as I have said.

R.Z: Which minimum set of competencies are required of newly qualified teachers

In our situation it's a university degree, it is a minimum requirement and however within the colleges we have had in the past I'm not sure if it's still the time but we met people starting to teach the N6 not even a full qualification of a college diploma, some teaching with the college diplomas, some having those particular degrees and bringing of the learning's and the implications of the PGCE has really helped from bringing people out

from that particular angle of low skills and all of that but the requirements are learning a massive degree.

R.Z: Have you ever being exposed to a document called as an acronym we refer to it as a MRTEQ, minimum requirements for teacher education qualification did you at some point get exposed to that document

K: No

R.Z: What is your opinion of an educator as an assessor?

K: my opinion of an educator as an assessor, the educator is one who has a daily interaction with the student, they have a better knowledge and better understanding of the student. However, the educator as an assessor might not be resourceful if such an educator himself do not have the basic understanding and the knowledge of the subject they teach, not limited to and also the professional conduct attached to the profession of teaching. My opinion is first the educator as an assessor must have the knowledge, extensive knowledge of that they teach, and they must have the professional proficiencies before they become assessor
because the knowledge that they may have on an academic point of view may not result in effective learning as an assessor but as a professional they will know that it is not to trick the students to assess them it is not to find fort with the students to assess them but it actually to help them develop it is in the process growing them it is in the process of constructing knowledge so my opinion of that particular aspect is one must be first a knowledgeable professional and as I have indicated have interest of student development

Lastly

R.Z: To what extend do PGCE modules offer skills that could be useful for extracurricular activities

K: Well they do, I feel you will be the judge of that, I feel that I am a better of a leader to my student through the PGCE that I have studied, I feel that I am a better

44

communicator to my students through the PGCE that I have undertaken, I feel that I am a better of an educator in that I am able to create a learnable environment by using many resourceful ways of teaching to touch base with the diverse student's base that we have.

Would I say let me just find out.

Well we have, educational activities as taking place within the classroom sector, other than that we have which we refer to extramural activities like sporting activities, different sporting codes including cultural activities

R.Z: Do you feel that PGCE modules are doing enough, to enhance the teacher's knowledge or to really sort of make this a new educator graduate certificate recipient to fit in a situation where he will be position without a hassle deal with sporting activities deal with all those extracurricular activities?

K: Definitely one of the emphasis through the PGCE was that we should able to understand the background and behavior and the development childhood development of the people you engage, that in the case we must also be sensitive to their interests, not all the learners have the same interest some are aspirants and if we want to win the commitment to their studies we must also take interest in the happening of their personal interest and if it is related to sport then we must prevail a platform we in fact not prevail but we must avail an opportunity for them to exercise and actually be supportive so through PGCE I have learned to be supportive to the extramural commitments and interests of the students in that it helps me better understand and it helps me to better win their commitment.

R.Z: Mr. K thank you for your participation in this interview, I believe that this contribution will really add meaningful to the study and shape the course of this study to come up with a product that is going to really strive intensify the strategies that they apply to us PGCE teaching