

CHAPTER 6

6 CONCLUSIONS AND IMPLICATIONS

Wisdom of Practice in Teaching: The practice of teaching involves a far more complex task environment ... teachers and students can probably learn to engage in more complex and unpredictable students' responses. But more careful preparation of teachers and of their classes may be needed to support such an effort. For one, a teacher may have to develop deeper content knowledge and pedagogical content knowledge to respond adequately to higher frequencies of less predictable student contributions (Shulman, 2004, p.258 and 264).

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6.1 Conclusions

6.1.1 Introduction

The details of the methodology used in carrying out the study, including the justification for its appropriateness are provided in Chapter 2. Nevertheless it suffices to refer briefly to them in this chapter in order to contextualise the conclusions drawn and their implications. An interpretivist approach was followed in undertaking this study. Data was collected through three approaches: narrative, observations of teacher educators' practice and an analysis of the curriculum and assessment documents.

The unit of analysis was eight teacher educators who were based at the National University of Lesotho's Faculty of Education. Their teaching experience, the department in which they were based, their disciplines, their willingness to participate in the study

brought about diversity in carrying out the study. Verification of the extent to which the topic was researchable was done through undertaking a pilot study.

There were immense benefits that accrued from using a qualitative methodology in carrying out this study. As articulated in Chapter 2 it was possible to solicit the research participants' stories about their experience as teacher educators only through engaging them in sharing those experiences. The benefit of qualitative research is seeing action in reality through observations as opposed to being told about how teacher educators teach. Narratives alone would not have revealed the massive data that was collected through actual observations.

The study intended to find answers to the major question, "What are the sources and application of professional knowledge among teacher educators? The encompassing sub-questions are: What sources contribute to teacher educators' professional knowledge? How do teacher educators enact professional knowledge? What types of professional knowledge do teacher educators construct and how do they construct them? And how do teacher educators model professional knowledge? However, they were manageable, especially given the approaches that were used to collect data. Asking the questions facilitated gathering data that informed the entire study.

I have derived several conclusions after undertaking this study. The institution that hired the teacher educators who participated in this study has immersed them in the work of teaching teachers regardless of the credentials they held. Therefore, the challenge for this institution is not so much on the credentials that the newly employed teachers hold but its ensuring that teacher educators are provided with facilities that will facilitate their efforts to learn at work. Work-based learning has been found to be more relevant than learning in a formal setting.

The major finding of this study however, regardless of whether some have relevant credentials, is that working in teacher education programme and teaching student teachers has provided them an opportunity to learn to teach teachers in practice. They therefore sourced professional knowledge in practice.

6.1.2 The Status of Teacher Educators and Implications

Despite the fact that this was not a cause and effect study, there is no doubt that a number of issues have a direct relationship to teacher educators. For example, some questions were on characteristics of teacher educators. Additionally, reviewing literature

on the profession as well as looking into the impact of reforms on education systems and mechanisms that governments or states put in place to manage education were other issues. These issues illustrated a direct relationship between these and teacher educators. Education provided, especially where education reforms are commonly implemented, directly benefits from institutions that train teachers. In practice, whether directly or indirectly, international and local initiatives such as the Education for All initiative, impact on the training of teachers.

The finding that few teacher educators received training on teaching student teachers is, as elaborated in Chapters 1 and 3 not unique to Lesotho. In this study only 2 out of the 8 research participants had taken courses that prepared them for teaching in teacher education programmes. It is therefore important to record that it has been empirically established that this is the case at the National University of Lesotho too. A lack of professional qualifications in the teacher education field has implications for teacher education stakeholders.

The employing institution, being the National University of Lesotho, needs to encourage teacher educators to formally engage in continuing professional development opportunities. Most importantly, the teacher educators need to drastically engage in researching their practice and learning from that activity.

The literature review has also revealed that training of academics is the trend in some developed countries. In Lesotho as illustrated earlier, sporadic workshops are held for people and/or academics teaching in various faculties of the National University of Lesotho. Additionally, this study has established that teacher educators who participated take part in workshops and conferences that equip them with new knowledge. However, the major benefit for training in as far as teacher educators are concerned would be to ensure that the knowledge that they have accumulated in practice is deliberated on and made to contribute on new developments in teacher education. In that regard, accumulated knowledge would be considered relevant in the education of teacher educators. Such training could be facilitated by educators who are well grounded in the teacher educator pedagogy and/or discipline. Presumably, well grounded teacher educators would ensure that there is synergy between practice based knowledge and emerging theories. Most importantly, public awareness of the on-going training structured in the manner described here might impact on professionalisation of teacher educators in Lesotho.

The literature review has further revealed that education reforms are initiated and implemented by governments or states. Reference has been made in the literature to programmes such as Teach for America. Decisions made at government level to reform education systems impact on the education of student teachers. The Education for All (EFA) initiative is one such programme from which Lesotho implemented a Free Primary Education Programme (FPE). FPE has an impact on the education of teachers who teach in the school system and are a product of teacher education institutions. As a result of the FPE initiative, class sizes at the primary and secondary school levels have suddenly become very large. Therefore, using teaching techniques that will respond to this development requires teacher educators to be innovative and model strategies for dealing with innovations.

The literature review also makes reference to standards and government's and state's decisions to maintain quality through establishing and operationalising quality assurance institutions. The said organisations are responsible for ensuring that education systems adhere to quality and standards. This development, while being addressed in other parts of the world, remains a challenge in Lesotho and therefore needs to be resolved. The recently established Higher Education Quality Assurance Committee (HEQAC) of the Lesotho Council on Higher Education, in addressing issues of quality assurance, should pay special attention to the teacher educators' carder.

6.1.3 Sources of Professional Knowledge

Two major sources of professional knowledge have emerged: propositional and/or received professional knowledge, and practical and/or experiential knowledge.

Question 1: What sources contribute to teacher educators' professional knowledge?

Teacher educators holding a Bachelor of Education Degree (B.Ed), as well as those who took postgraduate courses related to the teaching of teachers resort to knowledge gained at the various degree levels to inform their practice and/or the teaching of student teachers. Narrative data revealed that courses that were considered relevant to the teaching of teachers by those who enrolled in them are supervision of instruction, educational research, assessment, teaching and instructional techniques and educational management. Teacher educators, therefore, given that their initial professional knowledge was propositional, relied on conceptual knowledge received from teacher education programmes in their teaching of student teachers.

Teacher educators with an education background regard propositional knowledge to be foundational to the practice of teaching teachers. In practice, the majority of teacher educators use the teaching methods they were taught to use at the time they enrolled in teacher education programmes themselves. Nonetheless, learning to teach teachers in practice is crucial to attaining professional knowledge on teaching *teaching*.

While learning to teach at the undergraduate level introduces those who enrol in teacher education to the field of teaching, and while it is recognised by various teacher education institutions that employ teacher educators to be a relevant exposure to teaching experience, it is risky to assume that the content offered and skills that are taught at this level are necessarily transferrable or applicable in teacher education. The purpose for acquiring appropriate teacher education content or learning about *the pedagogy* of teacher education is to be relevant in the field in which one practices. The implication therefore is that teacher educators need to be trained in the pedagogy of teacher education. Most importantly, they need to take advantage of teaching in teacher education programmes to learn in practice that pedagogy of teacher education.

That teacher educators use the methods of teaching they acquired at undergraduate level and approaches to teaching for the years during which they have been in the teacher education system as this study illustrates does not justify continuity. The perpetuation of methods of teaching and practices whose viability at the teacher education level have not even been tested calls for the renewal of teacher education. It is incumbent upon teacher educators as professionals to seize an opportunity of being in practice to improve upon their profession.

6.1.4 Propositional or Received Professional Knowledge

Teacher education programmes for those who enrol in such programmes serve as the reservoir of professional knowledge. Therefore propositional knowledge attained through the undergraduate and postgraduate programmes in the relevant field of study prepared the research participants who participated in this study for teaching at the various levels of the education system. Additionally, propositional knowledge acquired at postgraduate level, except for the research participants who indicated that they took courses that are of a teacher educator type, strengthened their discipline knowledge such as, for example, mathematics education, language education and geography education.

It would therefore seem that the technical rationale practice observed as a common feature in the lecture halls in this study is an indication of what these teacher educators inherited from the academic programmes. However, the major shortfall of the finding that academic programmes serve as a source of professional knowledge is that teacher educators are still lacking in the content or skills necessary for teaching teachers.

While recognising propositional knowledge as providing requisite knowledge, its major limitation is the fact that it does not fully prepare academics for the unpredictable world of work. Additionally, propositional knowledge acquired in undergraduate and postgraduate programmes, while it may be recognised as valid, does not necessarily prepare teacher educators for the task of teaching teachers. The pedagogy of teacher education as I note in Chapter 3 is broader and very demanding on teacher educators who practise it fully knowledgeable of what it entails.

Most intriguing about teaching teachers is the “dual role” that teacher educators have to play in their task of teaching teachers. It makes their task much more complicated than teaching them content only; they have to prepare them for the task of teaching others. Therefore the dual role they are expected to play poses as a challenge for these teacher educators. The question that one may ask is: can they do so if they have not been equipped with appropriate skills for performing the task? In the real world of teacher educators, they have to be innovative to move beyond propositional and/or traditional knowledge. In fact as fully illustrated by the “cumulative model” analogy, more is learned in practice.

6.1.5 Practical or Experienced-based Knowledge

A common feature for all the teacher educators, given that they all started teaching before acquiring a postgraduate degree, was that they were immersed in the teaching of teachers. They learned the art of teaching teachers in the actual context of a teacher education programme. It is therefore significant that the other source of professional knowledge for teacher educators is practical and/or experiential.

Numerous components were found to constitute professional knowledge that is experience-based. It was ascertained that the components of practical and/or experiential knowledge include human resources. Teacher educators are constantly in contact with student teachers. The groups of student teachers vary from those who enter teacher education directly from secondary school to those who have taught before. They

all bring perceptions of teachers and teaching. The varying experiences provide a valuable opportunity for teacher educators to learn from these groups. Lessons learned from the experience of teaching different groups of student teachers, while expressed as valuable remain as knowledge stored in their memories and gets used in the actual teaching whenever necessary. The valued lessons have not been critically analyzed by the teacher educators themselves or shared with the student teachers for the latter to interrogate.

In practice, teacher educators meet serving teachers in schools, especially those who supervise teaching practice or when undertaking research. Contact with teachers, although minimal, provides opportunities for teacher educators to reflect on their teaching. They use messages emanating from their contact with teachers to rethink their teaching. Additionally, as part of the human contact, teacher educators have colleagues within their own departments or broader university contexts. Although there is very little that accrues from contact with colleagues, institutional opportunities facilitated by serving in administrative positions and engaging in professional activities provide ample opportunities to learn from experiences. Therefore the teacher educators' acquisition of professional knowledge benefits from the exposure to such numerous experiences.

6.1.6 Relationship between Episteme and Phronesis: Contextualising the Snowball

There is tension between the two forms of knowledge, namely episteme and phronesis referred to in this study. On the one hand, episteme is knowledge attained from academic programmes. On the other, phronesis is the type of knowledge based on appropriate reflection; it provides for construction of knowledge or practical experience and it is attained from wisdom. However, although epistemic knowledge is considered valuable as clearly articulated in Chapter 3, its shortfalls are immense; knowledge acquired through academia programmes does not always help individuals to deal with the real challenges encountered in the world of work. It is in practice where educators engage in activities that provide them opportunities to construct new knowledge and in the process accumulate practical knowledge-based on experience.

I have used the cumulative *model or snowball model* to illustrate what Lortie (1975) regards as an *apprenticeship of observation*. In the work context teacher educators significantly acquire professional knowledge that is necessary to handle work-related

challenges and in the process learn in context how to teach teachers. I resort to the three cases that I indicated in Chapter 5 that I, using Creswell's "winnowing" concept selected. The cases I used are in this section meant to illustrate the tension that might exist between episteme and phronesis.

6.1.6.1 Administrative Camouflage: The Case of Zinzi

Zinzi has a degree that equipped her with epistemic knowledge in teacher education. She is a qualified secondary school teacher. Yet as a newly recruited teacher educator, because of fears, discomforts and perceptions about teaching at university, she during her novice days, resorted to deliberately missing a part of her teaching time.

In practice, regardless of having been attached to a mentor, she still could not handle teaching university students. As a beginner or novice (the beginner in the snowball figure has not accumulated much snow), Zinzi can be portrayed in her initial years of teaching as having little snow gathered. The problem of teaching experienced student teachers in the world of work could not be solved even if she made reference to her mentor or her undergraduate content. In the real life of teaching she had to find a solution to her teaching problems herself.

As a consequence of her experience and upon reflecting on her experiences, she changed the strategies for managing her teaching time by engaging in planning. She had to solve her teaching problems herself by means of practice-based knowledge. She passed what she had accumulated over the years to her students. This is one of her messages at the time that she shared her professional life: *Unfortunately I have not had time to be actively involved in research due to **administrative duties**. However, the little commissioned research I have been involved in has contributed to the way in which I teach. For example, helping students interpret syllabus objectives and designing activities to match these. Another important lesson one learnt is moving away from focusing on writing essays but now engaging students in designing hierarchical concept maps to assist them in planning their teaching*".

I note that she does not say any person told her how to use the little research experience she has. I also note that she must have reflected deeply on her experience and its implications. The implication is that engaging in research related to her work could see her become more creative in her teaching and in the process constructing professionally based knowledge.

6.1.6.2 Learning through being thrown in at the Deep End: the Case of Peditta

Peditta is one of the few teacher educators who actually took courses in a postgraduate programme designed for teacher educators. She had taken an educational research course and had actually undertaken research which she admits has remained a relevant point of reference in her practice. The challenge, she admits, was being asked to supervise a student teacher undertaking research for the first time. Although she had fears and discomforts too, she had a helpful mentor with whom she worked in the task of supervising a student teacher.

However, the tension for her was actually observing a student teacher going through an extremely difficult moment of coming up with a research proposal. Although her thesis has proven to be a valued point of reference, she could not in this incident refer to her thesis which of course covered a topic different from that of her student teacher. Additionally, she could refer to her educational research course content in helping a student resolve her practical problem. Yet, her challenge was more in observing the process and helping the student find a solution to the problem herself. Her admission that she is still struggling with balancing theory and practice could be contributing to the tension that surfaced when she had to help students. In her real world of work, Peditta might have reflected on the relevance of her propositional knowledge in the context of her professional challenge and realized that it was not going to immediately assist her address the real life problem she was expected to resolve.

Part of Peditta realises that she had to learn from being thrown in at the deep end. In her narrative she reported as follows: *Regarding supervision of research I wouldn't say I have a lot of experience but thanks to my working at ... because, there, one did not have a choice. As soon as you teach, ... they just throw you in, and you either swim or sink. They will give you a student and you will work with a senior member of staff. So I co-supervised a student and drew my knowledge for undertaking this task from doing courses in research and experience from teaching - the ability to provide a structure to an argument; and how you are going to follow it up and the logical sequence of presenting stuff. I saw how difficult the process of linking what one has read with research ideas is. I learned the difficulty a novice researcher finds in actually developing that new knowledge.*

An important observation here is that her postgraduate epistemic knowledge alone could not help her address a student teacher's problem. This research participant acknowledges that she took courses that she thought prepared her for engaging in research or could be used for assisting student teachers. Additionally, she did not have much experience that could have helped her address the problem she was experiencing. However, she had to tackle the problem in the context in which it was presented. Her work required her to come up with solutions that were not theoretically based.

6.1.6.3 Relationships with Students Come in Many Shapes: The Case of 'Masethabathaba

'Masethabathaba's experiences involved enacting professional knowledge through building relationship with students. She had a student who smoked marijuana and became mad. She is a motherly teacher educator whose students rely on her even during difficult times. This is an aspect of her teaching that she claims she acquired from her undergraduate degree programme; she had a psychology teacher educator who in many ways acted as her role model. However, the way in which she handled a case she experienced in her encounter with a "mad" student teacher could not have come from a psychology lecturer. *I have encountered students in my course who are even mentally disturbed; one just dashed into my office, locked my office door, and I knew he had become mad due to marijuana. He said, "I know you are the only person who can understand"; he came and hugged me and said, "Don't be scared of me madam, it is because they are chasing me" and indeed the security guards were chasing him. He sat there, was calm and we talked, and I immediately said to him "Remember, at this rate you will not graduate and there is no reason why you should not graduate". It worked. He completed his studies and is a regular teacher at high school and whenever we meet he reminds me, "If it were not for you I would not be where I am". You have to be there for them, no matter what.*

'Masethabathaba believes that her psychology course helped her deal with psychologically-related cases she experienced in her role as a teacher educator. What she was not aware of as she related this story was that enacting the pedagogy of teacher education extends beyond lecture halls; building relationships with students is an aspect of being a teacher educator and is part of the pedagogy of teacher education.

In conclusion, the three cases present real work experiences and how the research participants learned from these by being engaged in working with their student teachers to address the cases. Therefore I reiterate here that professionals may have a knowledge base to draw from to address some aspects of their work. This study's research participants seemed to consider knowledge gained from their further studies as a reservoir from which teacher educators get guidance as they engage in professional activities. The challenge, though, is that real life contexts provide ample opportunities for professionals to gather practice-based knowledge. This is true for the research participants who participated in this study. The working context as elaborated in the literature review and the discussion chapters presents numerous challenges, most of which will not depend on the knowledge one may have acquired in teacher education alone.

Professional knowledge cannot be drawn from one source after which professionals would not need to continue to develop. Instead, the finding that the two forms of knowledge complement each other confirms the fact that the essence of building on initially received knowledge is critical. The level of expertise can only be attained through continuing to learn and in the case of teacher educators that learning would come from engaging in activities such as researching own discipline, and publishing and attending relevant continuing professional development activities.

Therefore, one of the lessons that I have learned from reviewing the related literature is that teacher educators too begin their teaching in their own landscape at a very narrow level based on their epistemic knowledge. They soon realise this narrow base expands as they grow professionally. They in the end expand their narrow base in the process of learning more in the very landscape in which they find themselves. Professional development therefore is basically based on their experience in which they continuously reflect and find solutions to real-life challenges.

6.1.7 Application of Professional Knowledge

6.1.7.1 How do Teacher Educators Enact Professional Knowledge?

Observing teacher educators in practise unearthed the complex part of a teacher educator's role. The literature on enacting professional knowledge is crystal clear on what it entails to enact or apply professional knowledge in the context of teacher education; enacting professional knowledge as explained in Chapter 5 refers to teaching

teaching. Teaching *teaching* entails playing a dual role whereby teacher educators teach the pedagogy of teacher education and in that regard prepare student teachers for their role of teaching and teaching the content that student teachers will themselves teach. Therefore enacting the pedagogy of teacher education goes beyond just teaching.

In my view listening to the research participants narrate their professional lives presented part of that teaching which could not be directly observed. They shared incidences portraying relationships with student teachers, yet parts of the stories revealed what teaching *teaching* beyond a classroom context entails. Issues of personal relationship with own students, for example, are one of the examples provided in detail in narrative data.

Another aspect of the enactment of professional knowledge that the research participants did not mention, although it is implied in that they have been teaching at this level of an education system for years, is the very fact that they teach teacher education programmes. This means that they had the opportunity to learn about teaching student teachers. Being part of a teacher education programme required them to be constantly thinking about teaching student teachers, acting in different ways to challenges posed by the very nature of teaching and reflecting on their teaching *teaching*. Additionally, they had to engage in developing the curricula and implementing their curricula ideas in the real world of teaching and in the process learning about the trade of teaching *teaching* as they constructed the material they needed for teaching. In this regard, the professional advancement was observable and thus learning from serving in the context of teacher education programmes was valued. Learning about learning is what I refer to as metalearning in the literature. However, the major gap is the lack of research specifically on what these teacher educators regard as lessons learned. The scenarios shared about their experience are potential research areas.

Observing teacher educators engage in the act of teaching illustrated that the majority use conventional ways of delivering content. In practice the teacher educators enter a seminar room or lecture hall and lecture. However, lectures varied a great deal in length and in what was taught. Some teacher educators were working in the area of subject content while others were in educational foundations disciplines. Aligned to their areas of specialisation they used technical language specific to a particular field. The teaching of Geography Education, for example, exposed student teachers to such methods as field trips, which were considered relevant to this particular subject. It is therefore evident that

conceptual learning or episteme is a common feature in the teaching of student teachers. Presumably in such courses student teachers begin to have practical experience on what it takes to undertake some research.

In the observation of teaching practice it was established that there are instructional techniques that are used more in particular subject areas than in others. Extensive use of transmissive instructional methods such as lectures is common in English education and in most of the Educational Foundations courses. Extensive lecturing does not seem appropriate for Mathematics and Science Education. While there might be an understanding that certain teaching methods facilitate better learning in some subject areas, in others this is not the case. The common method of teaching therefore, does not provide student teachers with ways to explore other avenues of learning.

Dynamism was observed in the way in which some teacher educators within the same discipline use methods that challenge students to be more responsible for their own learning. Although some of the teacher educators may not have been cognizant of the paradigm that they were promoting, namely episteme, disparity was obvious.

Coincidentally, some teaching methods that could promote individual learning were rarely used, while project methods and field study were occasionally used. These methods of teaching remain espoused to those research participants who mainly used transmissive methods of teaching. Methods of teaching such as those mentioned here, if properly used, could, besides encouraging student teachers to be responsible for their own learning, promote the idea of unleashing student teachers' potential to begin to learn, for example, how to research in their own discipline.

Observing teaching also revealed that some participants use interactive methods of teaching. Most common of these is question-and-answer. Asking questions is an interesting strategy for engaging students, depending on the type of question. Higher order type of question would, for example, provide a great opportunity to become critical in analysing those questions. An advantage of asking questions is that they should not always come from the teacher educators as has been exemplified in this study. Questions asked by the students would also persuade teacher educators to reveal their otherwise tacit knowledge. The example that I constantly refer to in this study because it reveals how a student teacher can ask a question that puzzles a teacher educator is that of one of the research participants, Hoanghoang.

This particular research participant, Hoanghoang, presented a scenario from which he appeared to assume that students would accept inviting a guest speaker as a good method of teaching. He appeared frustrated when students asked him to explain why he thought that inviting that guest speaker is a good method of teaching. One of the student teachers elaborated on his question by indicating that to him that was “*spoon feeding*”. Watching Hoanghoang struggle to address the challenge posed by the student teacher’s question could have been a great opportunity for him to share with the student teacher his “tacit knowledge” by explaining why he thought so. Yet, he referred this question to other students and denied himself the opportunity to display his teacher education knowledge.

I have indicated in Chapter 5 that critiques of use of the lecture method or transmissive methods of teaching refer to these as a *tyranny of talk*. Extensive use of the lecture method for those participants that I call *expository outright lecturers* seems to have reduced opportunities of engaging student teachers in their own learning. The research participants for this study seem to have the perception that they need to teach student teachers by using a transmissive mode of teaching. This is a counter productive perception if one considers that student teachers need to learn to teach, but their teacher educators do not provide them opportunities to learn to teach. The consequence of this practice is that teacher education is eventually characterised by a perpetual imitation of the same delivery mode which is transmission. One is forced to ask: what is professional about that? There are some serious implications for the use of this particular method of teaching, particularly in teacher education. These include the following:

Firstly, student teachers are provided with tips on how to teach. The research participants constantly referred students to the value of using technical language in teaching. While the idea of technical language could contribute to helping student teachers to become conversant with the language of a particular discipline, it falls short of engaging them in critical thinking on teaching itself.

Secondly, telling student teachers about what to expect as they enter teaching practice to the extent of sharing previous scenarios based on lecturers’ observations of teaching practice poses as a challenge. The idea of sharing stories is in itself a good practice but it does not mean that students will use such scenarios when they themselves encounter challenges during their own teaching. Furthermore, sharing stories without challenging

student teachers to interrogate these means they are not provided with opportunities to question some of their lecturers' interpretation of the field-based scenarios.

Thirdly and most importantly, teacher educators have to rethink the lecture or transmissive method/s of teaching and how it can be used to challenge student teachers.

In the final analysis two distinct scenarios emerge from watching teacher educators enact professional knowledge. The first is the one discussed above in which teacher educators use transmissive methods of teaching. The second is whereby some use interactive methods. The interactive methods that were explored by at least two of them through engaging students to analyse cases are one of the many ways of engaging students in ways that allow them (student teachers) to be critical thinkers. Engaging student teachers to analyse cases implies that teacher educators have to consider what the literature challenges them to explore. Teacher educators are required to see teaching through the eyes of a student teacher. In this regard they have to think beyond themselves and position themselves, in terms of thinking, as those who are watching and listening to them as they enact the pedagogy of teacher education.

Teacher educators who participated in this study have more opportunities of learning from engaging in research at the school level than just relating experience-based scenarios. Following the research route would perhaps not interrupt the current teacher education programme; instead it would provide ample opportunities for learning in the process of enacting the pedagogy of teacher education.

My observations of teacher educators as they engage their student teachers in teaching and learning activities have revealed that what students do is a true reflection of the teacher educators' styles of teaching. In the narrative data it is clear that there are incidents that have provided valuable information for teacher educators to the extent that they were able to rethink their teaching. A typical example is that of the research participant who, based on the *visually impaired persons* study she undertook, was able to rethink her teaching. She called her student teachers and inquired about her teaching and how best she ('Masethabathaba) could involve them in their own learning. That inquiry as discussed in Chapter 5 of this study seems to have persuaded her to think of ways of involving them in her teaching.

This particular participant seems to have reflected on her teaching and did so basing her reflection on the study she was commissioned to undertake. However, while I would argue here that reflection on teaching or on implications of a study that one undertook may be common among teacher educators, the problem is that implementing change based on research experiences remains tacit. It may get revealed during in-depth interviews such as was the case in this study; the narrative data was revealing.

The need for parity that recognises individual differences in teaching teachers could be one way of promoting advancement in teaching student teachers. In enacting professional knowledge teacher educators also assess student teachers.

6.1.8 Skills Needed for Assessing Student Teachers

In their narratives the research participants presented three scenarios in the context of assessment. Firstly, there are research participants with clear assessment skills. They took courses in assessment and measurement at the postgraduate level. The skills are proving to be helpful in the context of assessing student teachers. The second position is that of research participants who have benefited from workshops on testing and measurement organised by the teacher education institution that they worked for prior to joining the Faculty of Education in this institution. The third scenario on assessing student teachers is that of a group that does not have this skill. It was revealed in Chapter 5 that this need has to be addressed.

Clearly there is tension between what the research participants know about assessment and practice. There is a clear connection between skills attained in an academic institution and the ability to apply that skill in the real context of assessing student teachers. The common practice is that of a pencil and paper mode of assessing student teachers and perhaps teaching practice. The use of a pencil and paper mode has been alluded to in Chapter 5 in particular. In this chapter I refer to researchers who refer to assessment in teacher education as assessing content. In fact their examination papers are a true reflection a bias towards pencil and paper mode of assessment. An exception was noted where only one research participant, while using a pencil and paper assessment required student teachers to, instead of recalling content, apply their knowledge in analysing scenarios. The finding that the research participants lack assessment skills has implications for teacher educators.

Firstly there is an acknowledgement of the need to be equipped with testing and measurement or assessment skills. This acknowledgement is indicative of the extent of the problem. Assessment is a grey area for teacher educators teaching in this faculty; they need to sharpen their skill in this area.

Secondly, the mode of assessing student teachers while on campus needs to be reviewed. The literature referred to in Chapter 5 cautions that passing grades in content courses cannot be taken as evidence that a future teacher adequately understands the facts and principles of the school subjects in the curriculum that he will be working with. There is therefore a need for teacher educators to review the assessment practice commonly used in their programmes. An example is that of using portfolio assessment that would deeply involve the learners in their own learning. Exploring the involvement of student teachers in their own learning could, among other avenues be dealt with during teaching practice. During teaching practice student teachers have an opportune moment to reflect on their own teaching and what they would have learned in the process of learning to teach.

6.1.8.1 Students' Activities in Real Classroom Situations

This study has revealed that student teachers' activities are those that are initiated by the teacher educators. One of the interactive methods of teaching that is commonly used is the question-and-answer method. The flipside of this activity is that students, among the many activities in which they engage, include answering questions mainly from the teacher educator, and to a less extent questions from their own colleagues. The practice followed, whether intentionally or unintentionally, promotes dependency on the part of student teachers. There are implications here too.

In the first place involvement of student teachers in teaching about the pedagogy of teaching should, in a typical teacher education context, go beyond just involving them in classroom-based activities, most of which are not that challenging.

In the second place the literature review has revealed that researching with student teachers, can promote both the teacher educators' teaching capabilities or potential, their metacognition and metalearning abilities as well as instil a research culture in student teachers. This would be a culture of undertaking action research to improve their own teaching; a culture that, if initiated in a teacher education programme, could be pursued by the student teachers once qualified to teach.

In the third place, involving student teachers in research work, especially at the postgraduate level, has been researched by numerous researchers as alluded to in chapters 3 and 5. One of the cases discussed in the said chapter is where postgraduate programmes serve as platforms for joint research involving, among others, student teachers. A similar culture, I believe, can be built even at undergraduate level given that most programmes in my institution are at undergraduate level. Teacher educators would probably learn from research in which student teachers also play a significant role.

In the fourth place and as opposed to the routine of seeing teaching practice as a student teacher activity that teacher educators observe and evaluate, there is a need to consider shifting from this paradigm. There are possibilities that new practice would benefit both the teacher educators and the student teachers in a practice that deplores their involvement in evaluating their own teaching. Given such an opportunity, student teachers would probably be in a better position to view teaching differently from the current position in which they act mainly as recipients. Teacher educators on their part would reason about their own practical knowledge as opposed to constantly referring to teaching practice scenarios or research on teaching undertaken by teacher educators elsewhere; an idea that is good for purposes of learning from others. However, while such ideas are good there is a need to use our own expertise and own scenarios based on one's own practice.

6.1.8.2 Use of Instructional Media

Very clearly teacher educators strictly adhere to the use of conventional instructional media, mainly whiteboards, textbooks and to some extent overhead projectors. The latter is the only electronic and probably the only contemporary instructional medium used, and then by only two of the research participants. Other than these, some teacher educators make reference to the Internet facility, indicating that it provides ample materials that could be downloaded and used. While studying the curriculum documents and course outlines it became apparent that library materials in the form of books and readers are the major reference points.

The fact that most teacher educators, with the exception of two who developed and used their own teaching modules or games, preferred to use conventional media points to a failure to challenge student teachers to create their own teaching materials.

The fact of the matter is that the National University of Lesotho's Faculty of Education is, as was articulated by the research participants, lacking in modern technology. However, relying on conventional teaching and instructional media has serious implications for student teachers too. It is most likely that student teachers will themselves continue using teaching materials with which they are conversant and will hardly challenge their students to be creative in their own learning environments.

6.1.9 Construction of Professional Knowledge

This study to a large extent illustrates that teacher educators have learned the pedagogy of teacher educators from practice. I reiterate this point in this section to extend my argument that learning the pedagogy of teacher education does not end in the teaching arena only. Constructing professional knowledge, while it could be more challenging cognitively, is yet another avenue from which teacher educators would continue to learn the pedagogy of teacher education. I argue this point because I strongly believe that the construction of professional knowledge requires teacher educators not only to think about teaching; it also requires them to construct knowledge through research for purposes of creating new knowledge and learning from that experience. It would be an experience that would be based on concrete research experiences. Conceptualisation of a new paradigm as I suggested earlier would benefit from engagement in research to inform the paradigm before shifting to it.

6.1.10 Constructing Personal/Professional Philosophies

Teacher educators construct professional knowledge to some extent. It has been found that they can comprehend what construction of knowledge entails. It has further been established that some have constructed individual professional philosophies but others have not. That is, even those who affirm that they had professional philosophies and actually articulated them spontaneously, only to disclose later that these were not documented, confirms the notion that having an individual philosophy could be considered one of the many outputs of the construction of professional knowledge. Clearly the challenge is for teacher educators to concretise what they consider to be their philosophies as this might guide the way in which they enact their professional knowledge.

6.1.11 *Production of Professionally Developed Documents*

It was evident that teacher educators have to adhere to the principle that there should be curricular documents, even if only in the form of course outlines. All teacher educators had developed course outlines and used examination papers as instruments for assessing student teachers. There are some consistencies with the course outlines; they spell out goals, objectives, content, pedagogy and assessment. It is under the content section where teaching and learning materials are indicated.

It is also evident that pedagogical content knowledge, even to one research participant who very strongly made reference to it as the concept that informed his professional philosophy, is not included in any of the course outlines. Similarities in the course outlines clearly illustrate the line of thinking followed by the majority of teacher educators. Examination questions, with the exception of one subject, mainly focused on student teachers' content knowledge.

Although my initial plan was to analyse materials other than the curricula as indicated in Chapter 5 of this thesis, this could not be pursued due to the fact that only two out of eight had developed modules for use by student teachers or for teaching purposes. The third developed games for the teaching of Mathematics. These games were intended to enable student teachers to learn to use them and to learn to create some for future use. There is a relationship between people who have developed materials for use during teaching. In one case where student teachers were assigned assignments to study and analyse cases presented in the module, it was clear that the materials were used to help students to learn to become critical of real life incidences. These cases, I want to argue, help student teachers to see psychology in the context of their everyday life.

There is therefore a clear link between the narrative and the lessons observed. In the Mathematics lessons the concerned research participants had learned how to develop teaching and learning materials during her PhD studies. This is something she shared during the narrative and was observed practising it in her teaching of student teachers. Here is an individual who used knowledge gained in an academic world to inform the practical world.

In the second case the research participant had made it clear in her narrative that she had at least three exposures in as far as developing teaching and learning materials was concerned. In the first instance she, together with colleagues at the Lesotho College of

Education, was introduced to the idea of developing Self-Instructional Materials, an idea that she applied as a Science teacher then. She further indicated in her narrative that she had other opportunities for developing teaching and learning materials; at the national and regional levels, science teachers had an opportunity to write Science books. Her recent experience was during her sabbatical leave in one South African University where it was mandatory for her and colleagues to develop modules for use by student teachers. The exposure experienced by this particular research participant clearly illustrates the magnitude of learning at work and taking that as part of life by developing materials for use in her current teaching assignment.

While other research participants in narrating their stories made reference to developing teaching and learning materials, these were not in the context of teacher education. Most importantly, other than the three mentioned here, the rest of those who indicated they had developed materials did not have any materials developed for use in their teaching of student teachers. Their experience of developing materials in other context was definitely not transferred to the teacher education context.

The major implication here is that teacher educators need to develop materials for use by student teachers or for modelling the idea of creativity to own student teachers. They themselves have acquired the skill mainly in the world of work and by actually developing the needed materials.

Participation in conferences or professional fora which was mentioned in the narratives by research participants was considered an enriching exposure. Emphasis was on the papers that they prepare and present in the conferences and the benefits accruing from meeting professionals from other institutions. However, in practice none of the teacher educators referred their student teachers to materials they themselves developed. This gap can be easily addressed by requiring student teachers to read and critique materials, including conference papers developed by teacher educators. Such an activity could encourage student teachers to develop writing skill and critique locally developed materials.

It is in the literature chapter that I make reference to an understanding by some educational researchers that constructing professional knowledge has connotations of learning. Some of these researchers refer to a communal journey in which individuals have the opportunity to discover their identities to the extent of constructing their own life trajectories and in the process learning from such experiences.

My reference to the said researchers here is specifically because the research participants, by referring to the lack of collegiality in their institution, implied that teacher education is a lonely field. However, some participants suggested that co-teaching could serve as a strategy for promoting collegiality. While this view is justifiable, engaging in joint research with colleagues could serve as an avenue for creating new knowledge or *actionable knowledge*. The purpose as purported by some researchers would be to contribute towards enhancing professional learning. An additional benefit in my view would be the provision of lessons that could inform teaching. In as far as constructing professional knowledge is concerned, the implications for the teacher educators in the institution in which the study was carried out are many.

Firstly, there is a need for the Faculty of Education at the National University of Lesotho to rethink its core business. The major challenge is ensuring that student teachers who enrol in this Faculty are helped to move from the dependency syndrome resulting from the transmissive methods of teaching to independent learning. The focus should be on cultivating the essential components of teacher educator professional development.

Secondly, there is a need for teacher educators to articulate their philosophies, document them and develop principles to guide their realisation. A learning teacher educator would not have a never changing philosophy or permanent principles to be applied to all groups of student teachers. Reflecting on the philosophy and rethinking own principles would allow teacher educators to think constantly about what they are learning from applying their philosophies and from implementing their principles to different groups of student teachers who join teacher education every academic year and enter with varying characteristics and expectations.

Thirdly, being explicit about professional philosophies and principles directly impacts on teacher educators' construction of what other researchers have labelled *constructing a personal pedagogy*. Constructing a personal pedagogy implies that teacher educators would be reflecting on their experiences and finding solutions to challenging teacher education endeavours. Most importantly they would find their unique areas of expertise or what they are good at.

In the process of addressing issues pertaining to teacher educators, they will probably learn more about teacher education and in the process enrich their practical knowledge. In this regard the wisdom of practice/phronesis will be explicit to all. Perhaps teacher educators may be attracted to the idea of documenting their accumulated practical

knowledge as was the case with Lee Schulman's 2004 work. He found it worth sharing his life as a professor of education in his book: *The wisdom of practice: essays of teaching, learning and learning to teach*. There are benefits of sharing experience as the future teachers may, while learning from such experiences be motivated to engage in similar if not best practices.

Sharing experiences could provide lessons to share with colleagues and students to the extent of building case studies for the teacher educator profession. I have learned from the literature that other professions particularly learn from cases documented by professionals in similar fields.

Finally, it was found that research was considered to be one major area where the research participants felt they had opportunities to construct professional knowledge. However, the research studies in which they were involved appeared to be either those they undertook during their graduate studies or commissioned research. In practice and as alluded to earlier none of the research participants undertook research on their professional activities. As a result undertaking research to inform practice was found to be a major gap for these teacher educators. Yet, if research in one's own area of specialisation was the norm, it could, more than informing practice contribute to the construction of new knowledge.

Undertaking research at postgraduate level and using it in context, as some of the research participants claimed, is a worthwhile practice. However, research undertaken at postgraduate level cannot help resolve the need for research undertaken at this level. There definitely is a need for these teacher educators to shift towards addressing this gap.

6.1.12 Modelling Professional Knowledge

Teacher educators are familiar with the concept of modelling in the context of teacher education. However, the study established that modelling professional knowledge in practice is a complex undertaking and an idea that would require more than just being conscious of modelling as a concept but actually living the intentions of modelling. Modelling professional knowledge is more than inspiring student teachers to act and/or behave in certain ways, illustrating being a professional or engaging in unique ways peculiar to teacher education.

This study established that there are some activities that could be linked to modelling, including teacher educators' activities of giving feedback, actually spelling out the intention to demonstrate good practice and encouraging student teachers to behave in similar ways. However, expecting student teachers to share the same sentiments to the extent of emulating their teacher educators could not be established. Very few teacher educators who participated in this study claimed that they consciously modelled professional knowledge in practice.

I have included implications of this study in the relevant sections of this chapter. However there are other implications which need to be reflected separately from those infused in the said sections. These are the implications of the study in a broader context of education.

6.2 Challenges of this Study for Teacher Educators and their Professional Learning and Development

The findings of this study are a valuable contribution to the body of knowledge of teacher educator professionalism. The study has revealed the sources of and construction of professional knowledge and how these are reflected in the teacher educator's education practice. It has become clear that the kinds and levels of quality of the sources (or lack thereof) of professional knowledge have a corresponding effect on the quality of the teacher education practice that the teacher educators engage in. The teacher educators who participated in this study have, though informally, started their work as teacher educators through being involved in the art of teaching teachers, albeit with some mentorship for some and none for others.

An example of one of the teacher educators who persistently used interactive methods of teaching has been alluded to in the discussion chapter. A positive correlation between her postgraduate thesis and her interactive methods of teaching seems to exemplify enacting a constructed professional knowledge. In this regard this particular individual seems to illustrate the epitome of having acquired professional knowledge through a formal construction of such knowledge in undertaking research required for the fulfilment of a postgraduate degree and coming to live that research. This is a true example of how episteme and phronesis can be made to complement each other.

It is evident that if professional knowledge has been constructed by the teacher educator through a formal research programme that there could be a significant difference in the

quality of teacher education practice compared to a situation where such construction has not been realised. The case being cited here implies that it is possible to break the mould of this apparently inescapable dimension of teaching practice whereby teacher educators tend to use one method of teaching; a transmissive mode of teaching.

However, the finding that illustrates a combination of propositional and practical knowledge is not necessarily a logical conclusion, given that in practice the opposite has been found to prevail for the majority of the research participants. An important revelation though is that the practice of this individual has exhibited some level of quality which could be her level of intuitive awareness. Secondly, and with regard to others, what matters is the confirmation that the level and the quality of the sources of professional knowledge of teacher educators are reflected in the quality of their teacher educator professionalism. Based on examples such as the one discussed above, it is apparent that the message to teacher educators as indicated in Chapter 3 is that they should *avoid pitfalls and demand professionalism*. In demanding professionalism the call is for teacher educators to strive for the provision of quality education.

The question that could be asked here is what should be regarded as constituting quality sources of teacher educator professional knowledge and its construction that will reflect the required high quality teacher educator professionalism. This question is not necessarily the focus or objective of this research. But as this research progressed and approached its end my concern was aroused by a persistent conventional perception that teacher education is to teach teachers to teach. This particular issue has been questioned by some educational researchers. Therefore, inadequate and outdated deeply ingrained mental models of what education actually is need to be addressed.

6.3 Implications of the Study

Discernible from a study of this magnitude, and based on the numerous observations of practice, is that lessons have been learned and valuable experiences obtained. Additionally, numerous impressions are left with both the researcher and the researched teacher educators. Most importantly, I assume that a study of this magnitude has implications for practice and that possible research is likely to emanate from where I left off. There are therefore implications for the core business of teacher education and future research.

6.3.1 Rethinking the Core Business of Teacher Educators

In undertaking this study I established that, in practice, very few teacher educators challenge student teachers to the extent of providing them opportunities to construct knowledge. Changing the current practice so that the majority adopt a different paradigm, the Faculty of Education at the National University of Lesotho has to opt for rethinking its core business. The major challenge is ensuring that student teachers who enrol in this Faculty's programmes are helped to move from the dependency syndrome where they seem to learn mainly from the didactic methods of teaching to independent learning. Thus, the observations of the teacher educators enacting their practice have revealed that most students rely heavily on teacher educators. The observed situation contradicts the fact that teacher educators themselves gather their professional knowledge from being immersed in the actual teaching of student teachers as illustrated by the cumulative model.

Therefore, teacher educators firstly have to rethink what their core business should be and it is incumbent upon them to challenge their practice. Some researchers argue that since teaching is a paradoxical profession it is expected to create human skills and capacities. Thus, in the real world of the work, teacher educators have to consider the consequences of their current practice in a world that is evolving.

Secondly, in rethinking the consequences of their practice, they could design and operationalise powerful learning environments to ensure the highest possible quality of learning by student teachers and, by implication, students in the school system. Adopting this frame of thinking would require teacher educators to shift from the paradigm that persuades them to use teaching methods that are transmissive to facilitating learning. Furthermore, that adoption would require teacher educators to rethink the way in which they present content knowledge in teacher education programmes.

In concluding this section of chapter 6, I want to argue that the nucleus of rethinking the role and/or business of the faculty is considering a different learning task. The major challenge is ensuring that student teachers engage in the highest possible quality of learning and in so doing would be helped to produce the learning outcomes, and take advantage of opportunities that present themselves in the teacher education arena. This cannot be a once-off strategy but will have to be a necessary practice of all teacher educators. The Faculty might be required to develop a philosophy that will embrace

learning as key to teaching *teaching*. In such a context, they would need to design and operationalise the best possible strategy of a *powerful learning environment*. Adopting such a strategy would lead to structuring the environment so as to, among other things, ensure that the intended outcomes are achieved.

Additionally, in undertaking the study I have found that while being immersed in teaching, some teacher educators have come up with different styles of teaching. Most crucial is that they have managed to honour the mandate of teaching. However, while they have themselves survived through using the professional knowledge they have acquired in the world of work, the tendency for the majority has been to teach student teachers in the way they themselves were taught. In the process they have followed a paradigm that perpetuates epistemic ways of teaching and learning that fail to recognise that student teachers should be allowed to learn in the best way possible for themselves.

Therefore, moving from this practice implies that teacher educators would be considering adopting the proposed strategy or embracing the model of facilitating learning as advocated for by advocates of learning. Adopting the proposed model implies that they, and eventually their student teachers, will emulate strategies of teaching that recognise and encourage the potential in students to learn in ways that are meaningful to them.

6.3.2 *Developments in Education*

The literature chapter presents some researchers' views that point to contemporary research in learning and teaching. In particular, instructional psychology, instructional design and instructional technology propose new theoretical frameworks in the design, implementation and evaluation of powerful learning environments. This view has prompted the realisation of what the core business of education and subsequently that of the teacher educator entail. It is to design, operationalise or implement and maintain the best possible learning environment in order to ensure the highest possible quality of learning.

Developments in all the mentioned intersecting research fields are obviously characterised by similarities and differences. Although there are differences, it seems as though there is some consensus about what has become a matter of primary importance. Some researchers whose work appear in Chapter 3 of this thesis argue that it is appropriate and important at this point in time to answer the question on how to

design and develop powerful learning environments in an efficient and systematic manner. Designing powerful learning environments should ensure the highest possible quality of learning by the learner.

This study has revealed that one of the benefits that research participants have enjoyed is attending short-term training or participating in conferences. However, the extent to which this has contributed to their professional development is uncertain; this is because it has been shown that these short intermittent events that do not completely engage the “learner” personally, has at most only a marginal influence in a possible transformation of the learner or in this case the professional.

The major finding of this research is that the research participants have learned to teach teachers mainly according to existing education practices which represents only a perpetuation of existing education practices. Merging these experiences with traditional existing theoretical disciplinary content renders a very unsatisfactorily result regarding learning quality and the quality of education. This is what I am suggesting is the major outcome of this study.

Consequently, teacher educators should rather be challenged to engage in research within the demanding and innovative contemporary discourse in education that has as its focus to design, operationalise and maintain powerful learning environments. Thus, to achieve the highest possible quality of learning should become a lifelong pursuit for teacher educators. What follows may therefore be the essential components that should be the focus of teacher educator professional learning and development. Subsequently teacher educators should engage in their own research for purposes of the construction of their own professional knowledge.

Essential Components of Teacher Educator Professional Development

Personal development - Maximising personal potential in all domains (PQ, IQ, EQ, SQ)

- a. Cultivating moral character;
- b. Exercising freedom and power of choice;

Professional development – Maximising professional potential: cultivating professional character through:

- a. Designing, maintaining and assessing the most powerful learning environments for teachers possible in practice;
- b. Continually constructing a practice theory for professional development;
- c. Engaging in a dynamic reflective practice to become a reflective practitioner;
- d. Engaging as much as possible in action (work-based) research of self-study research;
- e. Designing real-life challenges for student teachers through which they will learn how to design real life challenges for their learners.

6.4 Conclusions and the Thesis

I am, in bringing a closure to this study, highlighting the conclusions drawn and possible way forward in the context of teacher educators who participated in this case study. The literature reviewed has persuaded me to imagine that, while this study focused on the National University of Lesotho's Faculty of Education, other teacher educators may find it a relevant study to use in their own context.

6.4.1 Conclusions

In collecting data, analysing and scrutinising the results, it became clear that a study of this nature could not cover a number of issues, no matter how comprehensive. Two issues that seem valid include documenting teacher educators' profiles and approaching research on teacher educators in a manner that they would be part of such an innovation in their own context.

It has emerged that this study provided, to a large extent, an opportunity for teacher educators to reflect deeply on their own teaching, especially at the time that they narrated their stories. A critical issue that emerged is that none of the teacher educators who participated in this research ever studied their own teaching practice. Yet, as they

shared their lived professional lives it was clear that the study had touched on what could, metaphorically, be considered a 'gold mine' of information, which, when documented, could be valuable to the teacher education field of study.

The study has therefore confirmed that teachers or teacher educators in this context privately hold on to professional knowledge, or, as some researchers who study teachers' life histories have proved, professional knowledge remains hidden or tacit; yet it needs to be made public. Making their sacred beliefs public could benefit more teacher educators who enter teacher education institutions. Therefore there is a need for research of a self-study nature to be undertaken by the teacher educators themselves.

The implication of carrying out studies themselves on their own work would be one of the many ways through which teacher educators could better understand their teaching practice. Following a self-study approach could provide them with an opportunity to research their own field of study for its betterment. Researching their own practice could help them nurture action research among their own students, and to a large extent promote researching own professional activities. Therefore consistent reflection, which was mentioned by some of the participants, would be undertaken systematically.

Additionally, a study that thoroughly analyses teacher educators' profiles could highlight their similarities and differences, while they, for their part, could tap on the strengths held by each. A community of teacher educators committed to improving their professional knowledge would probably emerge. That might be a community that will begin to establish a knowledge base on teacher education in the context of Lesotho.

Although there are critiques of current efforts by teacher educators to research the discipline, I adopt what some of the researchers referred to in the literature chapter suggest. In practice, teacher educators should function simultaneously as both researchers and practitioners. This would seem to be an important goal and a possible research topic for future research. Teacher educators have to research their practice if they are to construct professional knowledge in the context of teacher education.

6.4.2 The Impact of the Study on the Researcher

During the initial stages of engaging in this study I was emphatic about where teacher educators draw their professional knowledge from, given that they had not undergone any formal education on training student teachers. I close my research with new knowledge: practitioners learn more from experience. Three researchers stand out for

me: Eraut (1996) Clandinin and Connelly (1995), and Jackson (2003) all of whom strongly argue that practitioners accumulate experience and that experience enables them to operate holistically in their own situations. I have come out of this research a different person. I have, based both on the findings of this study, experience during the process of undertaking the study and deep introspection on how I conduct my own teaching, started changing my style of teaching.

As a researcher I have discovered a number of issues that have emanated from engaging in this study on sources and the application of professional knowledge among teacher educators. I have drawn some conclusion and have set directions for the future education of student teachers as well as possible research that could be undertaken in Lesotho teacher education institutions. The suggestions are indicative of new developments in teacher education that call for teacher educators to rethink their teaching. The suggestions further indicate that teacher educators should begin to consider engaging in research that might impact on the quality of their own teaching and consequently that of their student teachers.

The research participants on their part had an opportunity that they applauded; this was an opportunity of thinking more deeply about their work as teacher educators. Asking for the video-taped lessons and expressing the feelings of having to reflect on their experience are signs of people who could, based on this study, begin to think about how they might improve their work of teaching *teaching*. Most significantly, thinking deeply about their practice has consequences for professional knowledge gained over the years.

I have learned that the practical experience that the teacher educators have gathered throughout the years of educating student teachers should have afforded them an opportunity for appropriate reflection. That reflection should have inevitably provided them an opportunity to construct knowledge. The constructed knowledge would have come from their experience. As alluded to in Chapter 3, there is tension between epistemic knowledge and phronesis in that the former is based on, among other things, scientific knowledge and therefore remains rigid. The later is knowledge acquired through enough appropriate and authentic *experiences* and enriched, adapted or changed through reflection and authentic research practice.

Additionally, I have learned that in order for teacher educators to move from what they have learned from experience there is a need to pursue contemporary educational

development if we are to ensure the best and highest quality of education. The major challenge for teacher educators based in my institution is to engage in the risk of transforming their practice. They have to design and implement teacher education and teacher educator education programmes. Such programmes should extend beyond the current practices that do not seem to recognise the contemporary education ethos and the potential and the ability that student teachers and teacher educators have. Both teacher educators and student teachers have to explore various ways of learning for the betterment of the Lesotho education system.

I refer here to contemporary education that requires the highest possible quality of education. Contemporary education calls for a radically different education from that which governments and states policies require and advocate. In essence the call here is for teacher educators to engage in formal research and not so much in formal training along the lines of essential components of the block which could be entitled “teacher educator professional development”.

I have alluded in Chapter 3 to the fact that some researchers argue that engaging in learning that will result in challenging the wishes of those who employ teachers may seem a very risky business. Thus, according to some researchers, this is particularly so in the current climate where there is an increasing gulf between the ways in which the factory model of schooling is conducted and the needs and interests of learners in the new millennium schools are allegedly designed for. These arguments are raised in particular by the researchers: Groundwater-Smith and Mockler (2009).

I have further learned from reviewing the literature, particularly the work of Groundwater-Smith and Mockler, (2009) that some researchers promote the perspective of courage that teacher educators operating in the context of education need to consider and perhaps adopt. There is a need for courage to have concern for procedural justice directed to moral outcomes guided by societal norms and principles; engage with teaching's moral purpose that demands authentic change measures; be truly professional in undertaking practice in order to challenge the status quo continually to improve the quality of education; be progressive and take a transformative and liberatory stance; tolerate ambiguity; have hope; ask the difficult questions; and propose challenging solutions (Groundwater-Smith and Mockler, 2009, pp 31-32).

Having studied the work of Groundwater-Smith and Mockler I realise that acquiring the virtue of courage has to be part and parcel of teacher educator professional knowledge.

The source of courage is the ethical competence of moral authority in pursuing the highest possible authentic quality in education through consistent inquiry. Utilising this knowledge requires the virtue of integrity and selflessness to fulfil a higher purpose that cannot be replaced by anything else: That of the authentic transformation of the human being in becoming who he or she is supposed to be.

6.4.3 *The Thesis*

Two distinct sources of professional knowledge have come to the fore. Teacher educators receive propositional knowledge from formal teacher education programmes. An immersion of teacher educators in a professional landscape, a landscape in which their mandate is to teach student teachers, provides them with ample opportunities to learn from an array of experiences. They accumulate professional knowledge as they learn to teach, construct, apply and model it in the context that is uniquely teacher education. As is the case with people who learn the vocabulary of a second language in a natural setting, so do teacher educators learn to teach teachers in natural settings. However, failure to take advantage of the situations and interrogate lessons emanating from practice for purposes of coming up with experienced-based professional knowledge delimits opportunities for these professionals to develop in distinct ways. I conclude by recognising the work of Groundwater-Smith and Mockler (2009) who conclude their work with their own call to action and

for the teaching profession itself as well as those who serve it, such as teacher educators – to pose a challenge to the compliance agenda in education in all its manifestations. Such a challenge is not likely to be easy, swimming as it is against the tides of compliance, instrumentalism, fundamentalism and neo-liberalism which categorise the contemporary age. Given what is at stake, however, we can scarcely afford not to work vigorously and strategically to close the gap between contemporary policy and practice and truly generative and transformative education (p139).