

How student teachers overcome the unique challenges of transformative learning

*A case study on the Post Graduate Certificate in Education
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1. ORIENTATION AND PROBLEM STATEMENT

1.1 *Introduction and rationale*

“I am indebted to my father for living, but to my teacher for living well.”

- Alexander the Great

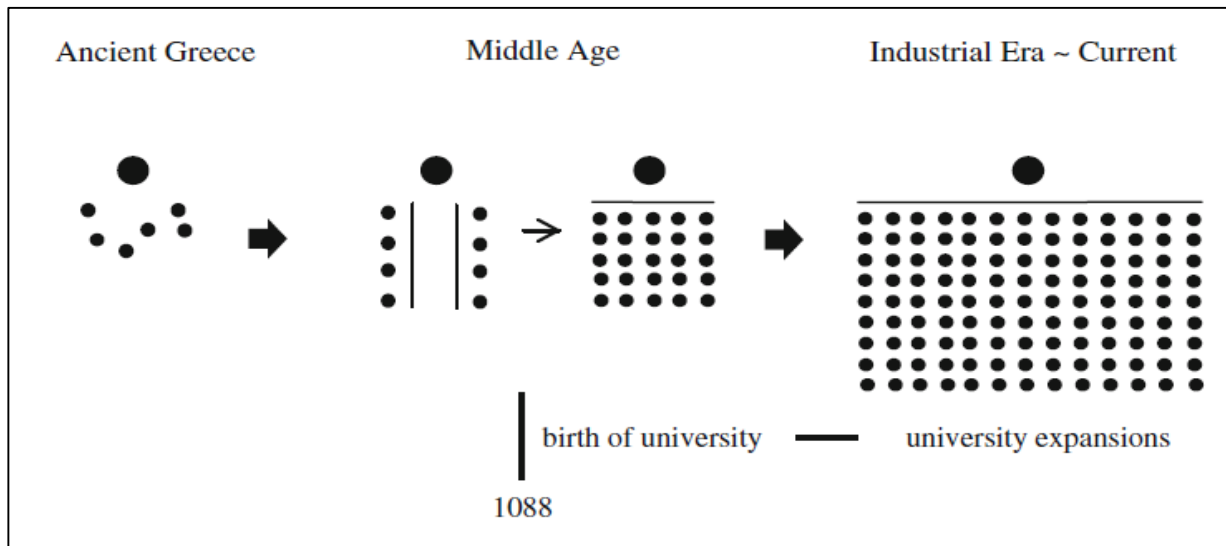
Formal education originated in children learning their parents’ ‘trade’ through ‘apprenticeship’. This was not merely to acquire the knowledge and skills of the parent(s)’ trade however; this was a family affair where education involved a ‘one-on-a-few’ relationship that was imbedded and experienced in the everyday lives of both the family and the community with the intention of ensuring survival and prosperity. This was essentially an education in life for living life. In Ancient Greece, even ‘higher’ education took place in terms of this ‘one-on-a-few’ relationship. The ‘content’ of this education was aimed not only at the acquisition of a set of knowledge and skills, but was also grounded in a philosophical context; it was all about the love of wisdom to ensure a flourishing life on all levels and in all domains. This is evident in Alexander the Great’s praise for the education that he received at the feet of his Greek tutor, Aristotle, indicated in the opening quotation above.

During the Middle Ages, the assumption was that only those from affluent backgrounds were worthy of education and so education was essentially aimed at the flourishing of the nobility. This was achieved by ensuring a tight hierarchical regime among the ranks of the nobles while maintaining a vast underclass of peasants including labourers and servants. This ‘literate–illiterate’ gap increased when the education of nobility, supported by the church, became institutionalised as universities, where education was reserved for the fortunate few with the purpose of enshrining nobility at the cost of maintaining an illiterate peasantry – segregating life and education into irreconcilable entities.

The advent of the Industrial Age compelled the elite to educate the proletariat masses to a level of literacy where they were able to function on the production lines of product manufacturing. Although this form of education was extremely efficient for those who abused it, the brainless manual labour expected from these masses, who toiled under harsh conditions in factories, was nothing less than humiliating and dehumanising.

The history of education and the classroom context in which this occurred is interesting and can be illustrated graphically by looking at the evolution of ‘classrooms’ since ancient Greek times (adapted from the work of Park & Choi, 2014 – see Figure 1.1).

Figure 1.1 Historical changes in classroom design (adapted from the work of Park & Choi, 2014)



Although centuries have passed, it would seem that our apparent inability to transcend the mechanistic and technicist underpinnings of 17th century education persists (Rajae, Junaidi, Taib, Salleh, & Munot, 2013; Jansen, 1998). This is a worrying fact, as is explained in the video presented by Sir Ken Robinson entitled “How to Change Education”, published on YouTube by The RSA (2013). Evidence of the deterioration of education had Summerlee and Murray (2008:1) even question the right to existence of universities within the context of these authors’ findings:

Most institutions are responding to today’s pressures by abrogating our responsibilities ... The consequence is the dismantling of education. We reduce knowledge to bite-size pieces of information that can be clearly defined and standardized. We can then define the minimum amount of information that has to be learned (memorized) and then we create standards that can be used to claim mastery of a particular subject. We blindly trust that developing these individual building blocks of information, and stacking them on top of one another, will somehow create an overall level of understanding and knowledge ... there is a tendency to cling to a

vestige of hope that perhaps learning can occur through structured classes, through the hierarchical presentation of information and through the rote learning of content.

These findings reveal that a fundamental and radical change in education is imminent, despite the fact that 21st century education in the postmodern era takes place in a super complex world with an unknown future (Gardner, 2008; Claxton, 2008, 2012; Barnett, 2007, 2013).

In the wake of the escalating speed, intensity and felt impact of the changes experienced in our postmodern world, where e-learning and associated modes of education have become popular, and numerous global educational reforms have been introduced, some sense of imminent change might be appreciated. However, as with so many previous global educational reform attempts, despite cosmetic changes in official documents and policies and the inclusion of technology, education at the grassroots level of classroom practice remains essentially the transmission and acquisition of knowledge and skills (Harley, Barasa, Bertram, Mattson, & Pillay, 2000; Korthagen, 2004, p. 78; Claxton, 2007, p. 116). This is despite the fact that the medium and mode of transmission may have changed from the educator to one or other form of technology.

Unfortunately, the significance of the required changes in education is much more profound than might be assumed. Our postmodern future “poses radically different challenges to those faced at the foundation of educational systems and that is why we require a qualitatively different approach to teaching in the twenty-first century” (Hargreaves, 2003, p. ix). Hargreaves continues by highlighting three challenges in particular. The first challenge has to do with the demands on young people and the fact that “the challenges they are facing are vastly different from what they were” (2003, p. xi). Since this is the case, and because young people are already digital natives in that realm, what young people demand from education – even though it may be covert – is not technology as the source of knowledge and skills. The challenge is rather to prosper in an unknowable world with its insecurity-riddled uncertainty. What students need in this context “is the temperament to cope confidently with difficulty and uncertainty: in other words, to be powerful real-life learners” (Claxton, 2008, p. 122).

Alexander and Potter (2005, p. 178) suggest that this implies “personal development of the highest order.” This requirement prompted a contemporary buzz word in education to emerge, namely, “transformative education” (Merriam, 2004; Bancheva, Ivanova, & Pojarliev, 2013). It reveals the third and most vital challenge to education as lying in not only ‘what’ we teach, but also ‘how’ we teach. In this regard, Bennett (2010, p. 457) maintains that it is clear from current discourse that our conceptualisation of many aspects of 21st century education and learning “is incomplete, and our theoretical basis found wanting.” In fact, Gardner (2008, p. 17) is quite forthright when he says that we “have not figured out how to prepare youngsters so that they can survive and thrive in a world different from one ever known or even imagined before.”

It should be obvious that 21st century education is epitomising the shift from teacher to learner and learning centredness; however, the shift is not simply a transfer of centredness but also a demand for an appropriate qualitative student–teacher relationship. Although the literature abounds with information on the different roles of the educator and the actions that these various roles entail, the detrimental downplaying of the complexity of such a relationship (Robertson, 1996, p. 44) is of great concern. Removing this ignorance and revealing the competence required for the establishment and maintenance of the quality of such a relationship will be a major contribution to the limited research on this crucial 21st century educational imperative (Robertson, 1996, p. 45; Hamilton & Pinnegar, 2000, p. 235; Berejkovskaya, 2006, p. 44; Bozhovich, 2009, p. 111).

Since transformative learning is determined by a qualitatively novel student–teacher relationship, knowing what constitutes such a relationship and being able to identify evidence of its successful implementation is of crucial importance to a teacher who proposes to implement it. Unfortunately, exposure of this educational paradigm has eluded the pages of research reports, thus posing an aggravating dilemma for its implementation. It is the dilemma faced by all paradigmatic changes: because of its radical novelty and unfamiliarity, the first attempts of someone to execute it (who has never seen or experienced it before) will certainly be unsuccessful and even disastrous. The tendency would be to immediately assume that ‘this new thing does not work’. This could be equated with a child trying to ride a bicycle, who falls and is

hurt in the first few attempts. Based on these experiences, the child subsequently assumes that riding a bicycle is not possible, which is a false assumption. All fundamental educational change has to contend with an uncomfortable but inevitable implementation dip (Fullan, 2011). If this is the case with education, the situation is exponentially compounded with teacher education, especially when we are reminded by McGuinness (1990, p. 305) that educator education should mirror the expected teaching practice at schools. In that sense, Brouwer and Korthagen (2005, p. 155) come to the conclusion that educational change “appears to be a cherished ideal of teacher educators, but perhaps indeed not much more than an ideal.”

However, as a student teacher I have been fortunate to experience an education practice that demonstrates learner and learning centredness. Since it is learning that defines education and not teaching, this new education paradigm entails the professional practice of facilitating learning. It has as its only purpose and outcome an assurance of the highest possible quality of learning. The aim of education that this educational paradigm pursues is to immerse learners in a powerful learning environment (context) where they are compelled to empower themselves (because nothing and no one can do it for them) to maximise (completely develop and fully utilise) their human potential (essential human virtues) by facilitating (demanding the highest possible quality of) lifelong, authentic learning (resolving real-life challenges that causes personal transformation of the highest order) in order to create a safe, sustainable and flourishing future for all (Slabbert, De Kock, & Hattingh, 2009, pp. 34–49). There can be no doubt that this paradigm is essentially transcendental, as education should be. It transcends the limitations of the curriculum, classroom, school and learning to know and the deceptive social forces that deprive us of knowing who we really are, what we are actually capable of and what our ultimate purpose is. It should thus be clear that within this educational paradigm I was immersed in the uncompromising complexity of my real-life challenge to become the best possible facilitator of learning I could be through unfamiliar, difficult and challenging demands that stretched my abilities to the utmost. Ultimately this resulted in both exhilaration at my successes and frustration at my inadvertent failures, thus exposing the transformatory character of my learning. Although not entirely comfortable, I was

inspired by my experiences in this programme and have attempted to emulate the programme in my own education practices since becoming a teacher.

Years later, the successes that I subsequently achieved in my classroom inspired me to become involved with the teacher education programme that my current school is developing. However, looking back I could not reconcile my teacher educator's apparent reticence in assisting us when struggling to overcome seemingly insurmountable obstacles – although there was some encouragement. Since there was no satisfying explanation for this 'strange' behaviour in our teacher educator, I realised that if I were to become a teacher educator, I would need to replace my own inadequate trial-and-error learning in facilitating this novel student–educator relationship (which should help students overcome the challenging demands of transformative learning) with a professional education competence. The more I thought about this, the more I realised that the question was rather “how do students overcome the challenges of transformative learning?” Answering this question would enable me to facilitate transformative learning accordingly. As evidenced by my own challenging education in becoming an educator, the pursuit of this endeavour required open-mindedness, which Slabbert et al. (2009, p. 16) describe as follows:

It requires courage to take the risk of doing something new, experimenting, exploring, failing and utilising the failure to learn. This is the requirement that makes embracing uncertainty, conquering insecurity and flourishing through flexibility possible.

I soon realised that the best way to realise my ambition to become a teacher educator would be to start my professional development in this regard with a research-based substantiation of my purpose; for this, my open-mindedness would be a sustained prerequisite. Fortunately, as I was contemplating my aspiration and attempting to resolve my discomfort with my lack of understanding of the appropriate facilitation of the unique student–teacher relationship in transformative learning, my tentative exploration of the research literature confirmed a significant gap in this discourse. What subsequently became clear was that the best way forward is to exert appropriate effort to identify at least one case where transformative learning has been successfully implemented and where I could observe the way students had overcome the

challenges inherent in this type of learning. Having identified such a case and making it my unit of investigation for this research project, I would then be able to make a valuable contribution to the body of research on how students overcome the challenging demands of transformative learning, as a precursor to the ethical imperative of improving the facilitation of the student–teacher relationship to ensure the highest possible quality of learning. An obvious point of departure for this endeavour was my own experience and that of my peers during our teacher education programme.

Having made my intention known to my supervisor, who was also the teacher educator I referred to earlier, he shared my excitement about the project for three reasons: the first is the vital importance of the ‘student teacher–teacher educator’ relationship in transformative learning; the second is his agreement regarding the lack of research on this vital feature of transformative learning and, thirdly, his own professional curiosity about what constitutes the best possible student–teacher relationship. According to him, this is an aspect of the new professional practice of facilitating learning that underpinned our teacher education programme, which had been designed and executed accordingly (in terms of nature and structure). However, this aspect had not been a particular focus of the continuous longitudinal participatory action research that the programme was submitted to in order to improve its quality. In that sense, the proposed research project fits perfectly in the main research endeavour of the programme, but more importantly it fills an essential gap that has up to now been neglected. This made me realise that I should ensure that my unit of study would contain a clearly distinguishable and very particular focus on establishing, maintaining and improving the educational relationship. This would ensure a quality of learning that is ultimately transformatory in character.

Our discussion also subsequently resulted in recognising the major critical ethical and methodological research considerations. The focus of the research should be on the challenges faced by students in transformative learning and the subsequent way(s) in which students overcame these challenges. This focus had two consequences, the first being that I would come to understand how students overcame the challenges they experienced, which would in turn help me understand my role as a facilitator of learning. Secondly, researcher and participant bias (because the participants would

be other students who have also participated in the same teacher education programme) and the associated ethical and methodological dilemmas could be averted as far as practically possible.

Although my own experience as a student teacher is a convenient point of departure regarding transformative learning, establishing its essence is required to spearhead the aim of this research. I elaborate on this aim in the next section.

1.2 *Purpose of the study*

1.2.1 Aim of the study

The aim of this study was, firstly, to consult the literature in order to ascertain the characteristics of a successfully implemented case of transformative learning. Once determined, these characteristics (forming criteria) were used to support the selected case in this study as being suitable for providing an in-depth description of the students' experiences of transformative learning. This helped me to answer the main research question. Although the context-bound findings of the research are not generalisable, they nevertheless contribute empirical data that may be of use in a case in a similar context.

1.2.2 Focus of the study

The focus of this study is the way the inherent, unique challenges of transformative learning are overcome by students. Seeing that "emotions are vital to human learning and development" (Levykh, 2008, p. 83), this research attempted to identify the unique (being personal) challenges that each student faced within a particular case and their initial emotional response to these challenges. I then endeavoured to shed light on how these students successfully overcame these challenges in order to benefit most from the programme they were enrolled in. The challenges experienced by the students were confirmed to be the product of the successful implementation of transformative learning by correlating them with the intentions of the facilitators of learning, who took the theoretical framework of transformative learning as their point of departure when designing this programme. The findings will be of use to future facilitators of transformative learning. A graphical representation of the focus within this study follows in Figure 1.2.

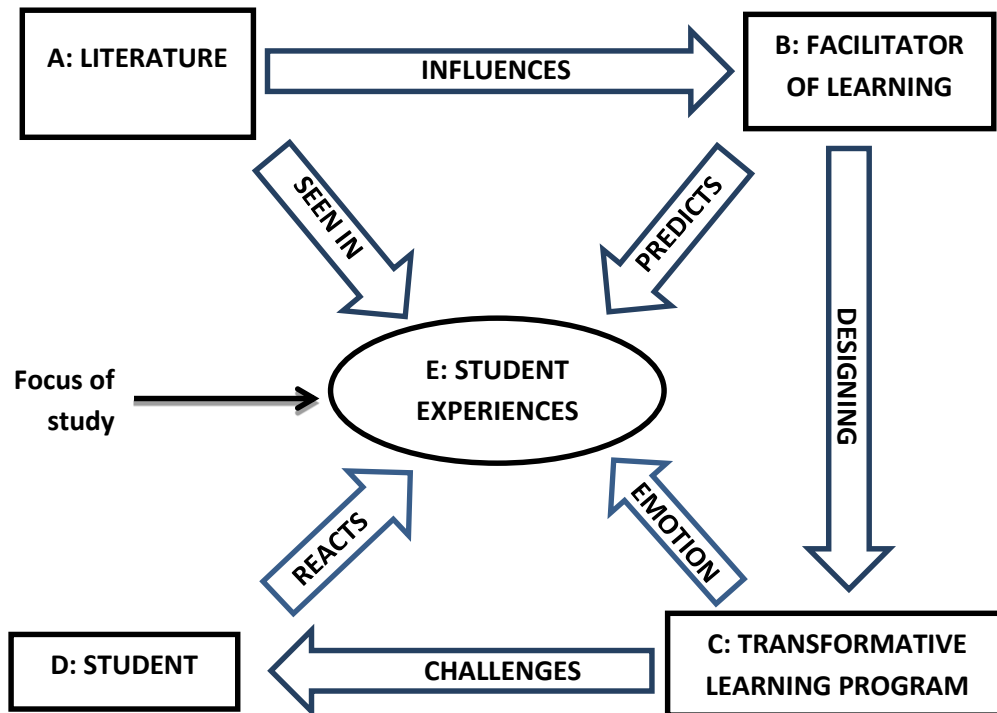


Figure 1.2 A graphical representation of the focus of this study

In Figure 1.2, the origins of the students' experiences (the focus of this study) can be traced. Firstly, a student's individual, personal, unique experiences (E) are influenced by the nature of their person (D), which consists of their personality, background and so forth. Specific personality traits in particular are, in turn, confronted by inherent challenges in transformative learning (C) in a manner unique to each individual. In this study, these challenges were initiated and facilitated by the facilitators of learning, who also designed the programme (B). The facilitators' design choices were, in turn, based on the transformative literature, which states that learning requires challenge (A). This graphical presentation (Fig. 1.2) also serves as a visual explanation of the way in which the collected data was validated, as students' experiences were compared with their descriptions of themselves and the structure of the programme, along with the expectations of the learning facilitators and, finally, the literature on transformative learning, which should be reflected in the programme. This improves the credibility and trustworthiness of the answers to the research questions. The research questions are discussed in the next section.

1.3 Research questions

According to Maree (2010, p. 2), the research question is the main factor that determines the success of a study; it is the *raison d'être* for a research project. Not only does a research question direct research, it also informs the readers on whether the research is applicable to their specific context.

The following main research questions and subsidiary questions were formulated for this research study:

1.3.1 Main research question

How do students overcome the unique challenges of transformative learning?

1.3.2 Subsidiary questions

1. What does the literature regard as transformative learning?
2. What are the criteria with which we can identify a successfully implemented case of transformative learning?
3. What are the unique challenges that students faced within the chosen case?
4. Do these challenges correlate with the intentions of the facilitators of the transformative learning?
5. How did these students overcome these challenges?

1.4 Overview of this study

Chapter 1: Introductory orientation and problem statement

In Chapter 1, I explained the problem statement and the rationale for this study. This preliminary orientation serves as a lens through which the reader can view the subject matter of this study which heightens its trustworthiness and credibility.

Chapter 2: Literature study

In Chapter 2, I locate this research within existing literature, focusing on

- an explanation of the roots of the highest quality of learning in the postmodern age
 - the use of Vygotsky's zone of proximal development (ZPD) as a theoretical framework
 - what the literature views as transformative learning
-

- the gap in the literature that this research aims to fill
- the criteria for identifying a successfully implemented case of transformative learning.

Chapter 2 also provides the reader with a clear picture of the type of learning this research is concerned with and what the characteristics are of a successfully implemented case of transformative learning. This is then used to support my choice of case for this study.

Chapter 3: Research methodology

In Chapter 3 the research methodology is discussed.

Chapter 4: Empirical study

This chapter describes the way the research process played out in practice and presents the collected data, analysed according to themes and sub-themes.

Chapter 5: Research results and recommendations

In the final chapter I provide the answers to my research questions. I also describe the limitations of the study and make suggestions for further research.

1.5 Conclusion

This first chapter has situated this research in the academic realm and explained my own presuppositions and research agenda. It shed light on what is being studied (students' experiences of unique challenges in the transformative learning paradigm) and how this study was conducted. It also provided a theoretical lens through which a reader can read and interpret the rest of the research.

In the next chapter, a literature review describes the postmodern education paradigm and how transformative learning fits within this paradigm. It further elaborates on the problem of the term 'transformative learning' having multiple meanings and attempts to resolve this problem by identifying a set of criteria that can be used to identify a case where transformative learning has been successfully implemented. The backbone of the criteria will be provided by the work of Mezirow, Barnett, and Vygotsky's ZPD.

2. LITERATURE STUDY

2.1 *Introduction*

In educational research, it is prudent for researchers to describe their epistemological views on education as thoroughly as possible in order for their peers to be able to position themselves in terms of the research. As stated by Maree (2010, p. 30): “A theoretical framework is needed in order to situate or locate any research.” In addition to providing the theoretical framework for this study, which will introduce transformative learning, the literature review will also be used to answer two subsidiary research questions, namely:

1. What does the literature regard as transformative learning?
2. What are the criteria with which we can identify a successfully implemented case of transformative learning?

A brief analysis of the history of social constructivism will serve to contextualise a deeper study of Vygotsky’s ZPD which forms the theoretical framework for this research.

2.2 *Learning within a socio-constructivist epistemology*

2.2.1 **Constructivism in a postmodern age**

In order for us to understand our postmodern constructivist present and future, we need to look at our educational roots. Smilkstein (2003, p. 77) states that the goal of education in the modern (past) age was to make certain that future generations would view reality through the same paradigmatic lenses as that of the dominant culture. This was best achieved through strict intellectual discipline.

To meet this educational goal the education system of the past was structured as an outside-in system where the education practices were dominated by knowledge essentially being ‘transmitted’ from the educator outside the students to the inside of the students’ minds where this passively received knowledge was expected to be memorised. The knowledge in a textbook (carefully packaged into bite-sized fragments) had to be ‘covered’ and students were periodically tested on their ability to accurately recall the sequentially covered knowledge.

Although many of the modern habits persist in our postmodern age, it cannot be argued that constructivism has taken the educational world by storm (Slabbert et al., 2009, p. 54). Heyligen (1997) defines a constructivist paradigm as follows:

According to constructivist epistemology, knowledge is not passively received either through the senses or by way of communication, but it is actively built up by the cognising subject.

Smilkstein (2003) states that the key purpose of learning is to make sense of the world through the construction of meaning – which no one else can do on behalf of the learner. Although constructivism (like all major theories) has been challenged and criticised, its popularity has increased. This is partly due to the support received from Kolb's (1984) theory of experiential learning, which is a description of how human beings learn naturally. Closely associated with this is authentic learning (Lombardi, 2007), which has been contextualised by Slabbert et al. (2009, p. 68–73) within the experiential learning cycle. But it is the significant contribution of neural networks (Victor & Ropper, 2005) and the actual functioning of these neural networks (Zull, 2002) that scientifically substantiate the constructivist epistemology. Zull (2002, p. 18–19) explains Kolb's experiential learning in a neuroscience context:

[C]oncrete experience comes through the sensory cortex, reflective observation involves the integrative cortex at the back, creating new abstract concepts in the frontal integrative cortex, and active testing involves the motor brain. In other words, the learning cycle arises naturally from the structure of the brain.

Not only is our brain physically structured to learn constructively, but physical changes occur in it depending on how we learn. Zull (2011, p. 22) refers to this by explaining the term 'neuroplasticity' as "a relatively new term in neuroscience, which means that the brain is moulded by its experience – by the sensory input it receives, by the problems it has solved and the emotions it has experienced." As this implies that "meaning itself is physical" (Zull, 2002, p. 6), we cannot do anything but agree with the following statement by Zull (2002, p. xiv): "The main message is that learning is change. It is change in ourselves, because it is change in our brain."

In addition to the shift in the nature of education, there has been a shift in the type of student that education needs to produce. Claxton (2007, p. 117) describes an effective student as someone who is “capable of being:

- curious, adventurous and questioning
- resilient, determined and focused
- open-minded, flexible, imaginative and creative
- critical, sceptical and analytical
- both methodical and opportunistic
- reflective, thoughtful and self-evaluative
- keen to build on their products and performances
- collaborative but also independent.”

Effective students are also described as people who can persist in the face of difficulty, relish a challenge and pause to conduct honest self-reflection (Claxton, 2007, p. 118). Claxton (2007) states that these characteristics contrast with those of effective students in a ‘clear cut’ modern paradigm, where there was no tolerance for uncertainty and where confusion was seen as a sign of stupidity. Recent work in experimental psychology has made it clear that learning in fact requires students to be flexible and open to “hazy” or “non-articulate” modes of learning (p. 118). This is not in itself new knowledge, as can be seen when we look at Vygotsky’s view on how knowledge is constructed.

2.2.2 Vygotsky’s view of the social construction of knowledge

Despite the relatively recent move within the educational community towards constructivism, the theoretical foundations of this paradigm were already laid in the early 1900s by psychologists like Lev Vygotsky and Jean Piaget. While Piaget emphasised that learning is a process where the student actively constructs knowledge (Piaget, 1977), Vygotsky stressed the importance that culture plays in a child’s development. In view of the fact that Vygotsky “has been credited with being the key figure in developing a social-constructivist understanding of psychological development” (McQueen, 2010, p. 54), a closer study of Vygotsky’s work should provide us with insights into the nature of transformative learning.

Understanding Vygotsky starts with the acknowledgement that the lives of human beings are shaped by a reality which, in turn, is shaped by the choices human beings make. Influenced by Marx, Vygotsky believed that education is inherently a socio-historical act, meaning that 'higher thinking' in human beings in a specific society can only take place when an individual has been exposed to the cultural practices of that society (Moll, 1993, p. 1; Levykh, 2008, p. 85). But what does the term 'higher thinking' refer to in this context?

Vygotsky used two terms, namely, 'scientific concepts' (higher thinking) and 'spontaneous concepts' (concrete concepts) to explain the two different levels of thinking about any object. Spontaneous concepts are generated by real-life experiences. A toddler touching water feels that it is wet. A spontaneous concept is then formed in the mind of that child associating the experience of touching water with the feeling of wetness. These concepts are described by Vygotsky (1987, p. 172) as concepts which "emerge from the child's own everyday life experience". When the mind of this toddler reaches a certain level of development, however, it becomes capable of being consciously aware of this concept or, to put it differently, the child is able to think about the link between water and wetness. This awareness of the spontaneous concept enables the child to generalise the concept in terms of other spontaneous concepts already formed. The mind becomes capable of linking water to other experiences. In explaining this mental journey from spontaneous concept to generalisation, Vygotsky (1987, p. 192) states:

it is obvious that generalization, in turn, means nothing other than the formation of a higher concept in a system of generalization that includes the given concept as a particular case ... Thus, the generalisation of the concept leads to its localization within a definite system of relationships of generality ... [implying] the conscious awareness and the systemisation of concepts.

In a sense, the formation of these higher concepts can be seen as historical knowledge contained in a society which, through social interaction, brings about a collective construction of knowledge arising from individual, spontaneous concepts (the spontaneous and higher concepts are different levels of understanding the same

object). Levykh (2008, p. 86) states that “one of the main themes in Vygotsky's scientific inquiry is the social nature of cultural development: what was once social (occurring through interactions with people) becomes individual.” Zuckerman (2007, p. 48) expounds on the social nature of learning, where an adult or more capable peer assists in closing the gap between spontaneous and scientific concepts, by stating that “social relations and interactions are not a space or conditions for development but the very flesh of the inter-psychic function, which exists only between people, without belonging to either of them.” Wayne (2007) discusses this concept from a different angle:

[T]he structure of external social relations becomes internalized and in turn structures the ‘higher mental functions’ of the individual (p. 292).

In Vygotsky's conception, the individual is the social and the social is the individual, and social structures impact the cognitive structures of the individual (p. 294).

Thus Vygotsky believed that knowledge (a cognitive structure) is formed through the process of connecting scientific and spontaneous concepts (Wayne, 2007, p. 275) and that social interactions ‘structure’ the creation of new knowledge. Aside from the construction of knowledge through this connection, Vygotsky also believed that every student has an actual level of development (that which has already been learnt) and a proximal level development (that which is possible to learn when assisted by a more capable peer or adult) (Obukhova & Korpanova, 2009). The proximal level contains higher thinking (scientific concepts) which links to spontaneous concepts already experienced. Vygotsky described the formation of these scientific concepts as follows:

[T]he development of scientific concepts [higher thinking] begins in the domain of conscious awareness and volition. It grows downward into the domain of the concrete [spontaneous], into the domain of personal experience. In contrast, the development of spontaneous concepts begins in the domain of the concrete and empirical. It moves toward the higher characteristics of concepts, toward conscious awareness and volition. The link between these two lines of development reflects their true nature. This is the link of the zone of the proximal development and actual development.

Scientific concepts restructure and raise spontaneous concepts to a higher level, forming their zone of proximal development (Vygotsky, 1987, p. 220).

Layman's terms might be of use here. Let us consider a child who finds a fine layer of water on the bathroom mirror. This leads to the formation of a spontaneous concept. In school she learns that this phenomenon is called *water vapour*, as well as the properties of *water vapour* – how it is formed and what happens to it when it cools down. The educator facilitates an increasingly 'deeper' interconnection between the scientific concept of water vapour and significant alternative experiences of the spontaneous concept. It is through this connection that the child finally understands what 'water vapour' is.

This acknowledgement by Vygotsky of the role that spontaneous concepts, which Court (2010, p. 491) refers to as "personal understandings of phenomena and the connections between them", play in learning and development can be attributed to the progressive education of post-revolution Russia in the early twentieth century. The director of the Marx–Engels Institute of Pedagogy, Shulgin, envisaged a form of practice where the walls of a school would disappear and be replaced by the social environment (Moll, 1993). The National Commissariat for Education made a point of allowing educators to look for creative ways to integrate "academic work with physical activity and the natural environment" (Moll, 1993, p. 66), which Vygotsky inverted by connecting the physical (spontaneous) with the academic (higher thinking).

Wayne (2007) explains his own understanding of this relationship between spontaneous concepts and scientific concepts in the formation of the zone of proximal development (ZPD) by stating:

The learning of scientific concepts, of concepts learned within a system, allows us to see things that we did not necessarily see before in the immediacy of our everyday lives. We may learn something new about an object we've taken for granted on a day-to-day basis, or we may learn something new about an object that we have never actually physically experienced (p. 281).

Scientific concepts, as they raise spontaneous concepts from the level of actual development towards conscious awareness, lead directly to the creation of the zone of proximal development (p. 283).

Having touched briefly on the role of social interaction in development, which provides a structure for the construction of scientific concepts (through exposure to spontaneous concepts), we now have access to the conceptualisation of Vygotsky's zone of proximal development (ZPD).

2.2.3 Vygotsky's zone of proximal development as theoretical framework

The ZPD "is at the heart of the relationship between instruction and development and is one of Vygotsky's most widely accepted and widely used concepts" (Wayne, 2007, p. 284). Kravtsova (2009, p. 11) explains the ZPD as follows:

The zone of proximal development concept was introduced by Vygotsky as a counterbalance to actual development. In explaining his understanding of the relationship between education and development he pointed out that in addition to what children are today, they also have a certain limited potential found not within the zone of their actual development, but in the zone of proximal development.

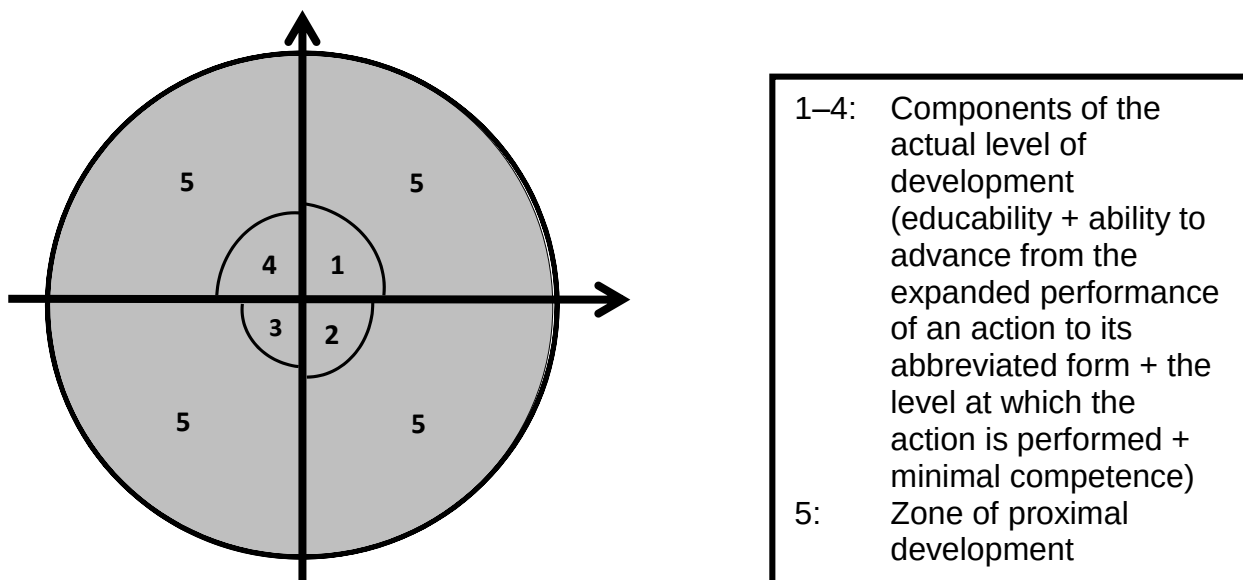


Figure 2.1 A hypothetical structural model of the zone of proximal development, adapted from the work of Obukhova and Korepanova (2009, p. 35)

The implications of this view of development are vast and can be found in educational and psychological studies the world over. Two of the main aspects of the ZPD highlighted by Kravtsova (2009, p. 11) are that children make the shift from the actual to the proximal within a context of social interactions (including peers and adults), which in turn assumes that a child has such a thing as an actual (current) level of development and a proximal (potential) level of development.

According to Levykh (2008), the ZPD can assist an educator diagnostically in estimating the knowledge that the student has the potential to learn today based on the principle that “the assistance that the child receives with solving a problem, first, enables educators to look into the near future of the child’s mental development and uncover his or her true potential for development, and, second, speeds up the process of the child’s development of higher psychological functions” (p. 90). However, I argue that this view, where the construction (learning) of new knowledge needs to be facilitated, contradicts the need to assess a student’s actual level of development before learning takes place. Instead, an educator needs to know what the student has to be able to learn (the proximal level) and, when learning is initiated (through the presentation of a challenge), the educator will be able to gauge a student’s level of actual development and then be able to facilitate the learning accordingly.

When Vygotsky’s ideas were first introduced to Western schools of thought, the ZPD was described as a simple procedure: “independent work on a learning task followed by work with an adult on learning tasks of the same or greater difficulty” (Bozhovich, 2009, p. 50). However, as the concept was more fully explored in the greater context of Vygotsky’s views on development, researchers realised that operating within the ZPD is “a special form of interaction in which the action of the adult is aimed at generating and supporting the child’s initiative” (Zuckerman, 2007, p. 43) and that “it is not the case that any kind of interaction in which the child is involved automatically creates the interpsychic form of a higher mental function [higher thinking]” (Zuckerman, 2007, p. 48). Levykh (2008, p. 89) states that “Vygotsky concluded that under **certain** conditions the learning process can and should lead the process of the child’s ... development” (emphasis added in bold).

The fact that Vygotsky did not elaborate extensively on these specific conditions (Zuckerman, 2007, pp. 46–48; Levykh, 2008, p. 85; McQueen, 2010, p. 56; Matusov, 2011, p. 112) means that more research needs to be done (Obukhova & Korpanova, 2009, p. 26) in order to know how to create “a system of social relationships and activity” (Blunden, 2011, p. 463) using a “variety of techniques that help uncover a child's potential abilities” (Bozhovich, 2009, p. 50). Thus, the ZPD “is described not in the language of the content of tasks but in the language of the kinds of help that to a greater or lesser degree aid the child in solving a task” (Zuckerman, 2007, p. 43).

These activities within the student's social situation form a structure that allows students not only to reach their proximal level but also to increase it (Kravtsova, 2009, p. 23). This structure is also referred to in the literature as

... a scaffolding, a structure of ‘support points’ for performing an action. In working jointly with children, adults first arrange reference points (‘supports’) that allow children to successfully perform an action and then vary their assistance depending on children's ability (Obukhova & Korepanova, 2009, p. 27).

Another tenet of the ZPD is that learning should centre on holistic activities, rather than the atomised and reductionist approach to knowledge favoured by stimulus-response schools (Moll, 1993, p. 6). Vygotsky believed that these whole activities could be divided into units, as long as each unit “contained all the categories of the whole” (Moll, 1993, p. 6). These units of whole activity (in a problem-solving context) would then serve as a “microcosm of the complex interfunctional process that characterises ‘actual psychological activity’” (Wertsch, 1985, p. 185). Cole and Griffin (1983, p. 73) elaborate on this theme by stating that “we should not get blinded by the basic skills. Skills are always part of activities and settings, but they only take meaning in terms of how they are organized.”

As with all theories that claim to have explanatory power, the ZPD has its critics. Zuckerman states that Vygotsky himself realised the danger of people seeing the ZPD as a banal, self-exploratory truth easily witnessed in the daily activities of people, without realising the deeper questions brought to the fore by a close study of its intricate workings (Zuckerman, 2007, p. 45). This can be seen when modern,

behaviouristic, content-driven classroom practitioners claim to understand and indeed operate within Vygotsky's theory of learning, without taking into account (or even knowing about) the constructivist knowledge base on which it rests. Another common critique of Vygotsky's work is listed by Bozhovich (2009, p. 51), who states that assessing a student's "current" level of capability is problematic. The basis of the argument is that it is possible for children to fail in challenges that fall within their capabilities because of ungovernable factors such as fatigue or disinterest.

Despite these critiques, Vygotsky's theory is still widely accepted and used as a "guiding methodological principle in diagnosing children's mental development and in studying children's individual difference" (Obukhova & Korepanova, 2009, p. 26). In addition, the fact that the ZPD "enables penetration into the causal-dynamic and genetic connections determining the process of mental development" (Obukhova & Korepanova, 2009, p. 26), in child and adult alike, makes it a suitable vantage point from which to conduct a study of the challenges posed by transformative learning.

2.2.4 The challenge of learning

Levykh (2008, p. 91) comments on Vygotsky's view on the role of emotions in learning by stating that "emotions play an important role not only in the process of students' learning, but also in the process of teaching." Kravtsova (2009, p. 15) concurs with Levykh, as "the zone of proximal development relates to both emotional and intellectual processes" and its "developmental significance is associated with people's awareness of themselves as the main source of their behaviour and activity." But why should emotion play such a vital role in the development of a student and what type of emotion are we talking about?

Vygotsky believed that a child's situated experience (state of being) is a constant sequence of problems which need to be resolved (Blunden, 2011). Levykh (2008, p. 87) concurs with Blunden by stating that "Vygotsky used ... philosophy to equate socio-historical context with dynamic change as a result of the struggle that takes place between the organism of the child and the environment, as well as the struggle that occurs within the child's organism, that is, between his lower and higher mental functions and within higher mental functions [higher thinking]." Blunden (2011, p. 464) understands that "[a] key concept in this [ZPD] work is the social situation of

development. In Vygotsky's view, the social situation in which the children find themselves constitutes a predicament, a predicament from which the children can only emancipate themselves by making a development.”

Thus I surmise that for Vygotsky learning (development) was not only *associated* with a challenge, but *constituted* a unique struggle within the child in order to resolve challenges. Levykh (2008, p. 87) elaborates on the meaning of the term ‘struggle’ in this context by discussing the emotional roots of the Russian word for ‘struggle’ (*bor'ba protivorechiy*) which Vygotsky himself used:

The Russian term *bor'ba protivorechiy* actually means a struggle, fight, or conflict between contradictions or oppositional forces. According to Funk and Wagnall's *Standard College Dictionary*, struggle is a noun that represents (1) a violent effort, or series of efforts; and (2) a conflict, strife, or battle. According to Aleksandr Kunin's *Russian-English Phraseological Dictionary*, the word ‘struggle’ is used in phrases such as class struggle, a life-and-death struggle, a struggle for existence, and the struggle for peace. It might be interesting to note that, although the result of a struggle (for example, the result of a struggle for peace) might be a positive outcome and thus reflect positive emotions, the process of struggle itself is far from being considered a pleasant action.

In examining this definition, we are faced with a reality that might be uncomfortable for some: learning (in the true sense of the word where it denotes development as described by Vygotsky) only takes place when there is a struggle. Bozhovich (2009, p. 58) refers to the “emotional–volitional” component of learning which “is not simply the emotional context within which the problem is solved, but the effort that children expend in seeking the solution.” This effort arises not just from the need to solve a problem, but also from the need to solve an “uneasiness about the unfamiliar nature of the task” (Bozhovich, 2009, p. 59).

Interestingly, according to Blunden (2011, p. 464-465), any social situation constitutes a problem by default as it serves as a constriction of the abilities of a child, “which frustrates their control over their own conditions of existence insofar as they are capable of perceiving them” and needs to be transcended in order for a student to be

free. Without these constrictions and the drive to transcend them, without a struggle with “serious and individual battles with ideas and skills” (Zull, 2011, p. 77), without challenges to solve, there can be no learning that transforms the learner from a lower to a higher level of development.

The type of problem, standard or non-standard, which students are confronted with also plays a vital role in determining whether or not struggle (ergo development) will take place as explained by the following statement by Bozhovich (2009, pp. 54–55):

[W]hen children encounter difficulty they wind up in a ‘problem situation’. However, encountering difficulty is simply a trigger for the emergence of a problem situation ... it [a problem situation] arises only with the experience of the novelty of the problem, of the unexpectedness of an encounter with difficulty, with the problematisation of existing knowledge. A non-standard problem, as a rule, presumes the actualisation of different strata of experience that has been spontaneously acquired and derived through education, the incorporation of intuition, and the verification of conjectures through rational reasoning, which demands going beyond [transcending] the bounds of present boundaries of familiar means of working with material.

In contrast to non-standard problems, Bozhovich (2009, p. 56) discredits the use of a “ready-made model problem” (as found in textbooks) because a student working on such a model “is confronted with a need to discover an action ‘crystallized’ into a ready-made product and leading to the creation of analogous products.” Non-standard problems would, necessarily, be accompanied by a **negative** emotional experience arising from students’ **struggle** to overcome their current barriers in their social situation. As stated by Zull (2002, p. 52), “[o]ur emotions still seem very important and if we want to help people to learn, we must expect to encounter emotion, and we must take it seriously.” He summarises his understanding of the role of problems (challenges) and emotion in learning as follows (Zull, 2011, p. 74):

The journey toward mind must include experiences that challenge us. Meeting such challenges is an integral part of gaining knowledge and wisdom. Treating emotions as tools rather than as enemies should become a primary goal in education. To use them as tools, we must have control

and self-awareness. This awareness of our feelings is central to development of mind.

In addition to understanding that emotion will play a part in learning, it is also important to underline the fact that each and every student will, necessarily, react uniquely to an authentic challenge posed to them, due to the fact that they are a unique person. To clarify: when students are challenged, their unique inner landscapes and backgrounds will cause them to experience and react to a challenge in a unique manner. Thus the focus of this study: the unique challenges of transformative learning which in turn places a greater emphasis on the personal nature of development, which will ultimately lead to students being able to flourish within an unknown future. As stated by Claxton (2008): “I’ve argued again and again that what young people need is the temperament to cope confidently with difficulty and uncertainty: in other words, to be powerful real-life learners” (p. 122). In addition, a brief overview of the other requirements of the educator–student relationship will help us to understand how transformative learning can be achieved according to the literature.

2.3 Requirements for an educator–student relationship

A study of the roles of educators in the literature indicates the underlying principles for achieving the highest possible quality of education. It is useful to look at this field in the literature because any type of learning that requires that the students be challenged (like in transformative learning) would necessarily include a study on the educator–student relationship which, in turn, is concerned with how students can overcome these challenges. It was surprising to find that even though the literature agreed (in a general sense) that the nature and structure of the student–educator relationship needs to change, neither the motivation nor the structure for that change is necessarily clear. In an article titled “The transcendent educator–student relationship: A class investigation”, O’Hara (2005, p. 331) states that because children’s needs and challenges escalate at an alarming rate, educators “must relate to children in new ways that transcend the obstacles that have long stood in the way of meaningful learning.” The literature seems to suggest that in order to maintain the same standard of academic rigour as in the past, we need to re-strategise our education profession to accommodate students who differ greatly from the students of

the past. In contrast to this, Miller (1997, p. 51) states that the great amount of change that we are experiencing in the world in the postmodern age requires us to completely rethink the very business of education. As stated by Zull (2011, p. 13), “[e]ducators face great challenges. The need for change and improvement is deep and troubling.”

That being said, educational research has at least moved beyond the point where we have realised that our educational practices should be grounded in a constructivist paradigm. The study of the educator–student relationships has now led to an acknowledgement of how difficult it is to manage such relationships. Sgroi and Saltiel (1998, p. 90) go as far as to label questions regarding the management of relationships between people as perhaps being “unanswerable”. Shockingly, they suggest that the only way in which educators can deal with these unanswerable questions is to structure their lessons so that interactions between participants aren’t a necessary requirement and in doing so circumventing possible educator–student relationship ‘problems’.

According to Tiberius and Flak (1999, p. 4), human relationships will always be an imperfect science. Although lengthy, the following quote brilliantly demonstrates their understanding of the educator–student relationship:

Although the educator may do the utmost to understand the student’s needs and to provide what is needed for an optimal outcome, the best of intentions and the best skill will not result in a perfect outcome. Each of us lives a private life within our consciousness, unknown to those around us except insofar as we reveal what we experience through words, emotional display, or action. This private world is imperfectly conveyed to those around us, and their knowledge of us is therefore always incomplete and imperfect. This is a fact of the human condition. All of our relationships contain some inherent disappointment. To some extent, educators and students will always experience some negative feelings (pain, hurt, disappointment) in their relationships.

Reading this quote we come to understand that ‘negative feelings’ will always be experienced in education, not only because of the fact that a facilitator of learning deliberately confronts students with problems, but also owing to the nature of

relationships. Thus, an exploration of the characteristics of the educator–student relationship is necessary. Turning to the ‘roles of educators’, the literature seems to agree that the educator’s primary function or role is to “help” the student achieve the aims and goals of education (Robertson, 1996, p. 42). The question remains: What are the specific actions of an educator who ‘helps’ a student? Seeing as each of these roles entails a research subject on its own, I will merely touch on some of the roles that have become more popular in recent years.

2.3.1 The shifting roles of educators

In *Vygotsky and education* (Moll, 1993, p. 177), Gallimore and Tharp state that the psychology of the twentieth century focused on six different “means of assisting performance”, namely, “modelling, contingency, managing, feeding back, instructing, questioning, and cognitive structuring”. In the same passage they also note that “help” in this century primarily boils down to linguistic assistance. Daloz (1986) describes the educator’s role as continually switching between supporter and challenger. This switching of roles is also discussed by Richards (2006, p. 58), who states that educators can (and need to) switch roles like parents do in order to meet the students’ requirements throughout the learning process. These shifts will allow not only conversation confined by “default” identities in schools (Richards, 2006, p. 60), but true conversation characterised by “transportable” (personal) identity elements which will help establish a relationship based on “both professional and personal interests” (Williams, Levine, Malhotra, & Holtzheimer, 2004, p. 113). Richards also suggests that educators evaluate students less during conversations (for example: “That is correct Jimmy”), as constant evaluation might discourage students from participating in class discussions (Richards, 2006, p. 55). The knowledge gained through these conversations, where an educator switches to the role of peer, coincide with Hamilton and Pinnegar’s (2000) statement that the educator needs to get to know the students, as knowledge of the student is the only thing that can truly lead to trust between educators and students (Hamilton & Pinnegar, 2000, p. 237). This is, however, not the only type of shift required from educators. They also need to shift from dictating a student’s development (control) to facilitating a student’s development (leadership) (Harley et al., 2000, p. 296), which implies that educators need to be willing to change their practice.

O' Hara (2005, p. 332) explains the different roles of the educator as follows:

The educator believes in and has confidence in each student and provides challenging expectations for students. With such a pedagogy, the educator tactfully mediates love and care, hope and trust, and responsibility. This application of tact is not obtrusive but is subtle, hardly noticeable.

So we find our first common ground in the literature regarding the characteristics of transformative learning; namely, that educators need to be able to shift between different roles. A few of these roles, as formulated by various researchers, are highlighted in the following section.

2.3.2 Educators as mediators of conflict

Tiberius and Flak (1999, p. 6) underline the need for the educator to structure a relationship that can mediate conflicts and tensions on a regular basis. Although their study focuses on didactic learning relationships, I believe their findings can be applied to the broader educator–student relational spectrum, because education in the socio-constructivist paradigm requires social interaction which necessarily involves struggle (conflict). These authors state that “negative issues should be dealt with as they arise in order to prevent build-up” (Tiberius & Flak, 1999, p. 5) and they provide sets of steps that can be followed in order to avoid relational catastrophes. To illustrate, I provide the first set of steps, classified under the phrase “Cognitive requisites” (Tiberius & Flak, 1999, p. 5):

- “Both the educator and the learner need to understand the importance of the educator–learner alliance.
- Both parties need to accept disappointments and conflicts in the relationship as part and parcel of the natural development of the relationship.
- Both parties (especially the educator) need to be humble in the knowledge that they are not all-knowing and accept that they will make mistakes in the relationship.
- Both parties need to accept and respect the differences between them.”

When a ‘catastrophe’ does occur and the relationship is damaged, the educator needs to deal with the subsequent trauma by doing three things (Tiberius & Flak, 1999, p. 13), namely:

- “Create a safe environment (this might entail bringing in a third party).
- Explore the trauma.
- Integrate new knowledge.”

It thus becomes apparent that conflict is regarded as an unavoidable “disappointment” (Tiberius & Flak, 1999, p. 4). This disappointment is then dealt with when, through the mediation of the educator, a learner explores the trauma and then integrates this new knowledge into their existing mental framework. Although it is only logical that healthy relationships between people cannot be characterised by constant trauma, the absence of any mention of the fundamental “struggle” that constitutes transformative learning is, for the lack of a better word, troubling. It seems that the word ‘struggle’ is associated only with trauma to be rectified when it appears, instead of regarding it as an integral part of development. Another popular educational role in the literature is that of educators being creators of powerful relationships.

2.3.3 Educators as creators of powerful relationships

Tiberius and Flak (1999, p. 6) state that “strong relationships” are the result of certain attitudes and behaviours. This statement suggests that the motivation behind a learning facilitator’s actions should always be the creation of a strong relationship. However, as stated in my problem statement, a lack of empirical data on students’ unique experiences of and emotional reactions to the inherent challenges of transformative learning has led to confusion in the minds of educators regarding transformative learning and traditional modern education, which implies “a one-way transfer of knowledge” (Gercenshtein, Fogelman, & Yaphe, 2002, p. 3). Educators who continually ‘transmit’ knowledge to passive students in their classroom may be under the impression that they are maintaining the highest level of learning, because of the fact that they feel in control of the class and have no discipline problems. In reality, however, the quality of learning is in fact extremely low.

As early as 1986, Maggil, France, and Munning (1986, p. 149) wrote an article titled “Educational relationships” where they identified a gap in the literature which already existed at that time. According to the article, educational research tends to focus primarily on educators’ skills (arbitrary abilities) and educators’ roles (the mode in which educators utilise their skills) with little focus on the nature of the educator–student relationship. In an attempt to fill this gap they state that educational relationships might be didactic, supervisory, collaborative or consultative (p. 149) in nature. They also note that educators’ roles may shift and change between archetypal roles, which can be seen as markers along the same continuum. A description of each role (marker) follows (p. 150):

- “Didactic: This initial phase of the teaching process consists of the educator transmitting knowledge to the passive student.
- Supervisory: This phase denotes the educator overseeing the student’s application of knowledge.
- Collaborative: The educator and the learner are considered equals and share responsibilities for further learning.
- Consultative: Learners are mainly autonomous regarding their own learning and only approach the educator when faced with a challenge that they cannot solve alone.”

However, by not focusing on the emotional ‘struggle’ of development the usefulness of these relationship types wane in terms of helping an educator facilitate transformative learning. Tiberius and Flak (1999, p. 9) refer to the nature of the relationship between an educator and a learner as an educator–learner alliance. One of the main elements of this alliance is an educational contract, which they describe as

the objectives of the educational programme, the educator’s goals, the learner’s goals, and both the learner’s and educator’s current strengths and weaknesses ... The educational contract, which clarifies the educator’s and learner’s obligations to one another, focuses on the interactions between educator and learner. The alliance includes more than an agreement about

interactions. Another element of the educator-learner alliance is the establishment of ground rules, limits, and expectations that predispose the partners toward one form of interaction or another.

In a similar more recent study, Mokhele (2006, p. 150) looks at discipline and classroom control as something emerging from within the educator–learner relationship. The premise for the study is that both educators’ authority and the relationship between educator and learner are crucial when it comes to managing classroom discipline (Mokhele, 2006, p. 148). According to Mokhele (2006, p. 150), the literature agrees that the educator–student relationship should be based on reciprocal respect and trust. This echoes the extent of understanding of the educators of the past with regard to the nature of educator–student relationships. Maggil et al. (1986, p. 152) state that relationships require trust in order to be effective and Robertson (1996) refers to the “trusting, caring” relationship needed to transform students. Rogers (1967, p. 3) states that “the facilitation of significant learning depends upon certain attitudinal qualities which exist in the personal relationship of the facilitator and the learner.”

But what do these broad terms mean to the educator standing in the classroom faced with students experiencing the struggle which forms the core of transformational learning? Without empirical evidence to give insights into these concepts within a specific context, the learning struggle can be very difficult to facilitate. Returning to the literature, in the next section educators are referred to as equal partners who collaborate with students.

2.3.4 Educators as equal partners who collaborate with students

Sgroi and Saltiel (1998, p. 87) identify key elements in collaborations that support learning:

- “Partners must have a deep trust and mutual respect for each other.
- Partners must select each other.
- Partners must mutually strive for common goals.
- Partners must have complementary personality traits and qualities.
- There must be a ‘synergy’ between the partners.”

Richards (2006, p. 52) focuses on “identity construction and its relationship to the development of ongoing talk.” According to Richards (2006, p. 58), an “equal” relationship between the educator and the student is the ideal, as it will engender authentic conversation in the classroom. His research is a response to the view that the term “classroom conversation” is a contradiction because of the “default identities” in schools. Richards (2006, p. 60) defines “default identities” as follows:

A default identity derives entirely from the context in which the talk is produced and applies where there is a generally recognized set of interactional expectations associated with that context, to the extent that there are recognized identities to which participants in talk would be expected to orient, other things being equal (so while the default identities in the classroom might be educator and student, those in a common room would be colleague and colleague).

Examples of default identities in the classroom of the modern age are the educator who stands in front of the classroom transmitting knowledge and the student who passively sits and receives the knowledge. These identities do not engender an environment where the educator and the student can engage in authentic dialogue. Richards (2006, p. 60) maintains that an educator should attempt to focus on the personal or “transportable” identities of learners in order to achieve an equal relationship where conversation may take place. Robertson (1996, p. 41) lists what he calls “the most influential images of exemplary adult educators” as the following:

- “Belenky, Clinchy, Goldberger, & Tharule’s midwife.
- Brookfield’s skilful educator.
- Daloz’s mentor.
- Freire’s partner.
- Knowles’s andragogue.
- Mezirow’s emancipatory educator.”

Once again this article fails to stipulate the necessity for a ‘struggle’. Instead, Robertson (1996, p. 41) states that the most prominent aspect these images (educator roles) have in common is that they paint the picture of an educator helping students by using his or her relationship with the students as an emotional tool that will lead to the student’s transformation. It is interesting to note that in the transformative literature I reviewed for this research, only Robertson (1996, p. 44) commented on the emotional effect of transformative learning, which he describes as “traumatic”. This highlights the gap in the literature that would allow for an empirical study of the experiences of students in a social situation where the students ‘struggle’ to develop. But why does this gap in the literature still exist?

Instead of a focus on the emotional experiences of the ‘struggle’ for development, a history of the problematic implementation of postmodern curricula has led to a focus on discipline, as the problematic implementation of curriculum leads to disruptive classes. In this field one finds that management and classroom control are the major areas of concern for researchers. Noddings’s (1984) research shows that although caring forms a crucial part of educating future educators, the implications of ‘caring’ need to be considered within a context where the students take total responsibility for their own actions in the classroom when they participate in “student teaching” at schools. Mokhele (2006, p. 148) states that educators “are uncertain about how to relate to the learners and still maintain discipline in the classrooms.” This uncertainty is reflected in the different educator roles suggested by the literature, which are summed up by O’Hara (2005, pp. 335–336), who believes that all educator–learner relationships should be characterised by respect, love, trust and humour, and where both students and educators are emotionally engaged in the educational process.

Robertson (1996, p. 44) criticises this field of study, with its lack of empirical data, for being a field that “neither adequately prepares nor supports adult educators to manage the dynamics of helping relationships.” This is a growing area of concern in the pursuit of transformative learning, as such learning has an intensely emotional nature that leads to complex social dynamics (Robertson, 1996, p. 45). In addition, Robertson (1996, p. 44) notes that transformative learning (engendered by quality educator–learner relationships) inevitably leads to paradigm shifts, which are always traumatic.

The trauma results from the fact that you only change your thinking if you accept that your current thinking is flawed or lacking.

Robertson (1996, p. 46) suggests that these problems be addressed by implementing the following steps:

- “All educators should agree to transformative learning.
- The educator–learner centred approach (focusing on BOTH the educator and learner) should be encouraged.
- A scholarly body of literature regarding educator–learner relationship should be assembled.
- Relationship management should form part of the curriculum in educator education.
- A code of ethics needs to be created for helping relationships in educational contexts.
- Consultation and other supportive structures should be in place to assist educators who struggle with the dynamics of creating helping relationships.”

By providing empirical data on a suitable case, this research will contribute to all of the steps noted by Robertson above and help to fill the ever-growing ‘gap’ in the literature already identified by Maggil et al. (1986) three decades ago. I conclude this brief overview of what the literature views as requirements for an educator–student relationship by looking at educators as facilitators of learning.

2.3.5 Educators as facilitators of learning

Current research trends (such as problem-based learning and cooperative learning) regard the educator as a “facilitator and problem solver/manager” (Coryell, 2013, p.308). The change from teacher to facilitator has “shifted the role ... from just relaying information to serving as a learning coach and facilitator” (Park & Choi, 2014, p.5). Hung (2013, p.31) elaborates on this by stating that educators should be

... facilitators, not knowledge disseminators. Rather, they support and model reasoning processes, facilitate group processes and interpersonal dynamics, probe students' knowledge deeply, and do not interject content or provide direct answers to questions.

Irrespective of the exact terminology used to describe an educational model, whenever an educator is described as a facilitator there is an implication that a process outside of the facilitator needs to occur, which Young (2013, p. 76) refers to as “change”. Through facilitation the educator acts as a guide in a learning process which is truly “student centered” (Mansor, Abdullah, Wahab, Rasul, Nor, & Raof, 2015, p. 260), as opposed to the modern educational paradigm where an educator was viewed as a “guardian of knowledge” (Karge & Moore, 2015, p. 46). Other common facilitator requirements include that they avoid answering questions which the students are meant to answer and always ask neutral, open-ended questions (Gullo, Cam, & Cook, 2015, p. 1). These are all characteristics of a facilitator of learning, as described in various educational models. Because this research forms part of this greater body of work, the term ‘facilitator of learning’ will be used from this point on when referring to educators. In the next section I explore what the literature regards as transformative learning.

2.4 *Transformative learning in the literature*

Popularized by Senge in *The fifth discipline* (1990), transformative learning was theorised by Mezirow (1990) as a form of adult learning, focusing to a large extent on the reflection on experiences (Bancheva et al., 2013, p. 258). Later, Mezirow (2000, p. 259) states that transformative learning consists of a 10-step process, namely:

1. “Experience a disorienting dilemma.
2. Undergo self-examination.
3. Conduct a deep assessment of personal role assumptions and alienation created by new roles.
4. Share and analyse personal discontent and similar experiences with others.
5. Explore options for new ways of acting.
6. Build competence and self-confidence in new roles.
7. Plan a course of action.
8. Acquire knowledge and skills for action.

9. Try new roles and assess feedback.
10. Reintegrate into society with a new perspective.”

Different researchers have researched different aspects of this type of learning, as can be seen in Table 2.1, which is adapted from the work of Bancheva et al. (2013, p. 258).

Table 2.1 Transformative learning described by different authors as adapted from the work of Bancheva et al. (2013)

Authors	Transformative learning
Jarvis	Reflective learning can lead to transformation.
Brookfield	“Education is centrally concerned with the development of a critically aware frame of mind, not with the uncritical assimilation of previously defined skills or bodies of knowledge.”
Taylor	The 21st century deals with pressing issues that challenge the social transformation of power relations based on race, gender, social status and culture.
Mezirow	An outcome and a dialogic process, an expansion of consciousness and a movement towards self-actualisation and self-transcendence.
Karpiak	An ongoing process
O’Sullivan	It is a process of being sensitised to an awareness of others: “We move from having a perspective to being able to move into many perspectives ... to seeing through their presuppositions to awareness.”
O’Sullivan; Hart	As having a spiritual dimension.
Goleman, Boyatzis, and McKee	Assert that “self-awareness means having a deep understanding of one’s emotions, as well as one’s strengths and limitations and one’s values and motives.”
Tisdell	People need to be inspired and have their affective, spiritual and physical selves involved in order for

	emancipatory education around challenging systems of structural oppression to happen.
Clark & Wilson	In transformational learning it should be pointed out that meaning is context dependent. It is shaped by language and culture. Rationality is value laden and one cannot get consensus in perspective transformation.
Preece	Transformational learning is a complex process but one that is contextualised in the individual's interpretation and meaning making of the environment and culture.
Merriam & Ntseane	Transformative learning among international adult learners is often about recognising an inner voice, intuitive guide or self-examination.

Barnett's (2004, pp. 259–260) view of a “transformatory curriculum and pedagogy” can also be added to this list in describing transformative learning as education which is “understood and practiced as endeavours of high risk; high risk not just for the participants but also for the academic staff in their educational roles.” In considering so many different aspects and nuances, it is understandable that Grabove (1997, p. 90) comes to the conclusion that the literature currently holds “no single model of transformative learning”, but rather “many narratives to which all learners and educators contribute diverse perspectives.”

Although a diversity of perspectives is the reality of our existence, conceptualisation is crucial for a beneficial academic discourse on and a corresponding practice of a phenomenon as valuable as transformative learning. While considering the possible contribution of all the diverse perspectives, this research will primarily utilise the work of Mezirow (1990) and the more contemporary work of Barnett (2004, 2007). In conjunction with the socio-constructivist work of Vygotsky (with special reference to his ZPD), which will form the general theoretical basis, I will attempt to create criteria with which to justify a successfully implemented case of transformative learning as the unit of this study.

2.5 *Primary literature consulted in this research*

In the previous chapters it became evident that the socio-constructivist mode of learning envisioned by Vygotsky is the foundation of what is currently considered to be the highest quality of learning, namely, transformative learning. Mezirow (1997, p. 6) describes this as a type of learning where “it becomes essential for learners to become critically reflective of the assumptions underlying intentions, values, beliefs, and feelings.” Learners do not find this comfortable, because in order to reflect critically on one’s underlying assumptions one has to come to terms with the fact that those assumptions may be wrong. It is only as one consciously realises that one’s current framework is inadequate that new thought patterns can emerge.

According to Barnett (2004), this therefore poses a pedagogical challenge to any educator who wants to attempt this form of “high risk” learning. Despite the risks of actively taking learners (who in our current society view themselves as clients) out of their comfort zones, Barnett (2004, p. 258) posits that this type of learning can be our only answer to the unknowable future we are facing. As educators, we need a new educational language consisting of “risk, uncertainty and transformation of [the] human being itself.” But how do these views relate to Vygotsky’s original postulation of learning?

When looked at through the lenses of Mezirow and Barnett, we realise that the visual representation of the ZPD given in Figure 2.1 lacks explanatory power. Looking at the context of socio-constructivism from the perspective of an unknowable future, we see that denoting the actual development of a child as a shifting periphery – while the ZPD is a constant periphery – does not stroke with the literatures view of transformative learning. It has become evident that the child’s actual level of development is but one of the many aspects that contribute to the periphery of the ZPD, which in itself will always be unknowable as it is unique to each and every person. It thus becomes apparent that the social context influences the amount of proximal (potential/possible) development that a student will experience. As stated by Obukhova and Korpanova (2009, p. 44):

differences between children’s zones of proximal development are tied to the particular level of action performance that is within their reach: jointly

with an adult ... The 'size' of the ZPD is constituted by the child's ability to accept adult help that promotes the performance of an action at a particular stage (which determines its breadth) and at a particular level (which determines its depth).

With this in mind, I suggest that development in transformative learning be represented as follows: at the beginning of each educational event a student has a domain of present development (dependent on biological and historical factors, making it complex to the extent that it is unknowable). This domain is 'fixed' at the start of each educational event. When authentically challenged, students pursue access and development of the domain of their self-transcendence (which refers to them overcoming their own unique emotional response to the challenge posed to them by the facilitator of learning). The manner in which the educational process is facilitated will then determine the extent to which the student is able to transcend to the domain of proximal development (determined by the extent to which facilitating the learning process is required, aiming increasingly at its eventual redundancy). So I propose the following representation of Vygotsky's ZPD when applied to transformative learning:

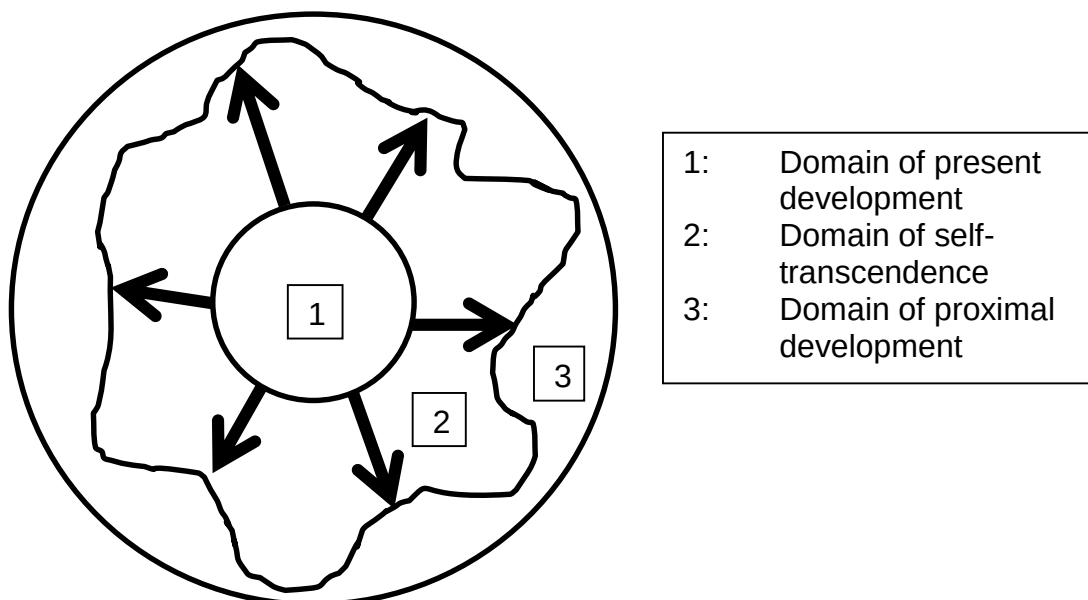


Figure 2.2 An alternative representation of the ZPD

In adapting the representation of the ZPD by Zuckerman (2007, p. 57), I have added a third component, namely, a domain of self-transcendence. Having a domain of

present development (which a teacher will never fully understand before learning is initiated) as well as a domain of proximal development (the intended outcome of the lesson) now brings to the fore the importance of the social environment (facilitated by a facilitator of learning), which will spark transcendence between these zones. Consequently, the amount (decreasing extent) to which the learning process needs to be facilitated will determine how well the learner transcends his/her unique challenges (the gap) to a higher order of knowing and being. With this understanding of the ZPD and the theoretical framework it provides us with, we can now discuss appropriate criteria for identifying this type of learning.

2.6 Criteria for the identification of a suitable case

At this point, having discussed not only the ZPD but also the context of the ZPD along with Vygotsky's view on development in previous sections, I now suggest, based on my understanding of the literature, the following specific conditions to serve as identifiers of transformative learning:

1. The aim of educational intervention is the authentic personal transformation of students.
2. Since Piaget (1977) claims that education is not only a preparation for a future life but also training for current life problems, the challenges that learners are confronted with should be real life problems (non-standard and holistic) reflecting the nature of real life.
3. The learning process needs to be facilitated within a social environment (human agency) by facilitators of learning who have to make themselves increasingly redundant in order to promote students' self-transcendence.
4. The learning process is student centred.

I propose that the presence of these factors will help identify a successfully implemented case of transformative learning. Of these factors I anticipate that the transformation of students accomplished through authentic learning (which will, because of the implicit struggle, be high-risk learning) will be the most obvious sign of a possible case.

The lack of empirical data concerning the emotional struggle inherent in transformative education can partially be attributed to the fact that educators are still to a large extent approaching their classroom practices from a behavioural, modern perspective (Jansen, 1998; Ratnavadivel, 1999). Studying the educator–student relationship within such a classroom would be of no use, because the students would not be challenged and thus would have failed to undergo a developmental ‘struggle’ involving intense emotions. The main aim of the educator–student relationship within such a context would be to maintain discipline (Mokhele, 2006), which is not the focus of this study. When looking at a case of transformative learning, we would expect to see evidence of students’ personal struggles as they are challenged. We would expect to see signs of students having unique emotional experiences, especially negative ones, and of course educators who facilitate and support these students on an emotional level.

As a high school facilitator of learning I know from personal experience that any form of emotional struggle is generally discouraged in today’s modern classrooms. Nevertheless, I believe this struggle will as such serve as the main signature of a classroom where the highest possible learning takes place. Evidence of other conditions listed previously will also serve as indicators of a case that is suitable for study. As it is unlikely that a facilitator would implement all these conditions by chance, it is only logical that such a case will only be found where these criteria are explicitly expected from a facilitator of learning by the curriculum.

2.6.1 Outcomes-based education as a suitable curriculum in which a case might be found

In an attempt to “purge the apartheid curriculum” (Jansen, 1998, p. 321) a National Education Policy Initiative (NEPI) was constructed to research a new curriculum.

[The] NEPI embraced Paulo Freire’s ideals of a student-centred pedagogy, a problem-based curriculum aligned with students’ experiences of life and collaborative learning. Its proposals included a comprehensive curriculum framework which underscored redress, equity and equality within a unitary system of education (Maodzwa-Taruvunga & Cross, 2012, p. 130).

The NEPI then turned to the work of Spady in order to implement outcomes-based education (OBE). The principles of this curriculum were as follows:

- “Begin with the end (outcome) in mind.
- Individual schools design a curriculum around predetermined outcomes.
- Comparing student performance is educationally counter-productive.
- All learning should be calibrated so as to allow for individual success.
- Process is at least as important as product” (Berlach & McNaught, 2007, p. 4).

In attempting to implement Spady’s principles in a local context, the South African Department of Education created C2005 (Curriculum 2005) with an “emphasis on active learning, with the role of the educator as a facilitator of this active learning through knowledge derived from and applied to the local context” (Maodzwa-Taruvunga & Cross, 2012, p. 128).

With the implementation of OBE, the Committee for Educator Education Policy’s (COTEP) *Norms and Standards for Educators* document listed the six roles of facilitators as the following:

- “Learning mediator,
- Interpreter and designer of learning programmes,
- Leader, administrator and manager,
- Community, citizenship and pastoral role,
- Scholar, researcher and lifelong learner,
- Learning area/phase specialist” (Harley et al., p. 291).

Evidence of Vygotsky’s work is clearly visible in this list. The fact that South Africa struggled and eventually failed (Berlach & McNaught, 2007) with the implementation of this curriculum does not serve to denounce it as a suitable curriculum in which to locate our case study, but rather points to a failure by the South African Department of Education to implement the curriculum “given the constraints of existing systems and structures” (Berlach & McNaught, 2007, p. 4).

Within the same time frame and spirit of the OBE reformation, the University of Pretoria created a Post Graduate Certificate in Education (PGCE) programme. Although not directly based on the OBE curriculum, this programme mirrored the spirit of OBE by focusing on instilling intrapersonal and interpersonal human virtues in students (Slabbert et al., 2009). These correlate with the intra- and interpersonal fundamental life performance roles of OBE. Having stated how a suitable case can be identified and knowing that OBE was a transformative curriculum, I will now motivate the choice of the unit of study for this research.

2.7 *The PGCE programme as a case study*

Throughout my professional teaching career, owing to my interest in transformative learning sparked by my own educator-education experience, I have made a point of asking my colleagues about their educator-education experiences. Firstly, I ask them *what* they have learnt, but more importantly I ask *how* they learnt. Despite nine years of teaching at three different schools in two provinces, I have never once heard any mention of anything resembling high-risk learning. Browsing departmental websites of various universities and going through leaflets of different training institutions also proved fruitless in my search for a valid case. Wherever I turned the type of learning presented was always rote, familiar and, above all, safe. Amazed at the apparently singular nature of my own experiences, I saw no alternative but to turn back to the very PGCE programme that had initially introduced me to transformative learning.

The theoretical framework of the PGCE programme can be found in the textbook *The brave 'new' world of education: Creating a unique professionalism* (Slabbert et al., 2009), which includes an explication of its professional practice on an accompanying CD. The authors state that the educational model in the book is a response to an “unknowable super complex world with an unknown future creating an ever growing uncertainty” (Slabbert et al., 2009, p. 66). It is a future in which the value of traditional knowledge and even “generic skills” is greatly reduced, as Barnett (2004, p. 256) states: “Even generic skills offer no succour here for, in a world of uncertainty, in which the self is destabilized, an educational project built around skills cannot meet the bill.” A focus on this unknown future can be seen clearly in the overview of the PGCE programme in the table below, as adapted from the work of Slabbert (2015).

Table 2.1 Broad outline of the facilitator of learning education programme as adapted from the work of Slabbert (2015)

TIME PERIOD	TOPIC	ACTION
1 Week	Topic 1: Orientation	Exposure to nature and structure of programme.
1 Week	Topic 2: What is education?	Reflection on personal experience of 12 years of schooling and at least three years of university education. Construction of first practice theory (PT) of and for facilitating learning.
1 Week	Topic 3: Who am I?	Construction of personal profile (PP) using various methods to find and express life stories and characteristics – pursuit of authenticity.
1 Week	Topic 4: Demands for 21st century education	An exploration and construction of the challenging demands of 21st century education. Is current education meeting these demands?
1 Week	Topic 5: What is education now?	Observation of all defining characteristics of current education. Improving original PT. Answering the preceding question.
Rest	Topic 6: What should education be?	The inadequacy of current education calls for radically and qualitatively different education. Exposure to the experience of different education methods. Interrogating and extending PP. Improving PT.
Whole	Topic 7: Facilitating learning	Facilitating learning in practice. Improving PT. Expanding PP.
Whole	Topic 8: Facilitating learning	Facilitating learning in practice. Improving PT. Expanding PP.

Whole	Topic 9: Assessment	Preparing final professional development portfolio. Preliminary assessment and final assessment.
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Looking at the table we can see that the programme starts off with students critically reflecting on their identities, as well as their current perceptions of education. These topics (Topics 1–3) bring the students to the realisation that we are currently part of a rapidly changing society in which we are unable to predict the specific needs that the future will impose on the students currently sitting in our classrooms (Bancheva et al., 2013, p. 257). We do not know the nature of the jobs they will do and we cannot be sure of the knowledge they will need. Topics 4 to 6 focus on the type of education required by an unknown future where the emphasis in education needs to shift towards a kind of learning that “[elicits] a mode of being that cannot just withstand incessant challenge to one’s understandings of the world”, but also encourages a “form of human being that is not paralyzed into inaction”, but rather into action “that springs from a form of being that is authentic in character” (Barnett, 2004, p. 259).

In short, at the end of their education students need to be practised in resolving unique challenges that they have not encountered before. This is the only way in which we can prepare students for an unknown future. In terms of educator education, the main challenge should be for students to become teachers. The final outcome of the programme is thus a teacher (a facilitator of learning) capable of teaching (facilitating learning). This outcome is achieved when students resolve the main challenge posed by the programme; the mastery of the professional practice of facilitating learning, as shown in the following table.

Table 2.2 The professional practice of facilitating learning as adapted from the work of Slabbert et al. (2009, p. 102-119)

THE PROFESSIONAL PRACTICE OF FACILITATING LEARNING			
WHAT IS THE FACILITATING LEARNING PURPOSE?	WHAT ARE THE RELATIONSHIPS TO BE ESTABLISHED?	WHAT IS THE FACILITATING LEARNING FUNCTION?	DESCRIPTION
INITIATING LEARNING	Relationship for searching meaning	Learning task design (LTD)	A learning task is a demanding real-life challenge that the learners have to actually experience personally in the form an existing real-life problem to be solved or a serious desire to improve the quality of life for which there is currently no known resolution – at least for the learners.
		Learning task presentation (LTP)	Presenting the learning task orally in the form of a monologue and accompanying support only, in order to indicate clearly what the real-life challenge is the learners need to resolve, the importance and urgency of resolving it immediately within the associated parameters and that action is required immediately.
LEARNING	Relationship for constructing meaning	Authentic learning (AL)	Facilitating authentic learning through the immersion of learners in the challenging real-life experience; demanding their reflection on the real-life experience to establish what the actual real-life challenge is and what would be necessary to resolve it.
MAINTAINING LEARNING	Relationship for enhancing meaning	Learning task execution (LTE)	Ensuring that the learners execute the learning task themselves by resolving the demanding real-life challenge through authentic learning, metalearning and cooperative learning in order to acquire fundamental (essential) human virtues (an ethical competence of moral excellence).
		(a)	Ensuring that learners resolve the real-life challenge – personally and individually on their own – by taking full control of and responsibility for their own learning and by planning, executing, monitoring and assessing their own learning to submit the highest possible quality end products.

		Metalearning (ML)	The learner, subsequently, becomes an active, effective, independent, lifelong learner, who continually increases the quality of his or her own learning, maximising his or her own potential and personal development by acquiring fundamental (essential) intrapersonal human virtues (qualities).
		(b) Co-operative learning (CL)	Ensuring that the learners help one another to learn in small groups with the sole purpose of enhancing the quality of their own learning and that of others. Besides the achievements of the individual learner during metalearning, learners also become interdependent through acquiring fundamental (essential) interpersonal human virtues (qualities).
		Learning task feedback (LTF)	This is the epitome of learning facilitating through the intervention of the facilitator of learning during AL, ML and CL, with the sole purpose of improving the quality of the learners' learning through the appropriate execution of an hierarchical order of actions, executing the next one only if and when the current one does not result in the learner's (re-)engagement with LTE. According to my understanding of Vygotsky's ZPD (as depicted in Figure 2.2), LTF will be the greatest determining factor in the amount of growth that a student will experience. In other words, the facilitator's skill in facilitating feedback will determine how much of the possible learning that this LTF potentially contains will be experienced by the student.
		Learning task consolidation (LTC)	Ensuring that learners ascertain the rate of their learning progress, assess the quality of their learning and determine what exactly is to be done to sustain the focus on resolving the real-life challenge in the next learning period, thus significantly bridging the time gap between this learning period and the next.

Based on the work of Mezirow and Barnett, the structure and posited outcome of the PGCE programme seems promising, as does the correlation between the LTF and

Vygotsky's ZPD. However, does it adhere to the criteria proposed in this chapter? I will now list each criterion and state whether this programme adheres to it.

2.7.1 Criterion 1: The aim of educational intervention is the authentic personal transformation of students.

Slabbert et al. (2009, p. 49) state that the aim of education should be for students to maximise (completely develop and fully utilise) their human potential (intra- and interpersonal human virtues) by facilitating authentic lifelong learning in order to create a safe, sustainable and prosperous future for all. The focus of learning should therefore be to equip students with the necessary human virtues that would allow them to fully utilise their ZPD unaided, through authentic, real-life problems (high-risk learning), as demonstrated by the structure of the programme and the model for the practice of facilitating learning. This learning process equips student educators to solve problems in an unknown future. Thus, the first criterion identified in section 2.6 is met, as the product of learning should be the mastery of the process of learning (Wheatley, 2006, p. 69), which qualifies as development.

2.7.2 Criterion 2: Since Piaget (1977) claims that education is not only a preparation for a future life but also training for current life problems, the challenges that the learners are confronted with should be real-life problems (non-standard and holistic) reflecting the nature of real life.

Because 'authentic learning' in the PGCE correlates with Vygotsky's idea of spontaneous concepts, maturing through a holistic activity structured by social interaction and initiated by a non-standard problem, into the realm of the scientific, the second criterion is also met. In contrast to the disparate spread of 'roles' presented by the literature, Slabbert et al. (2009, p. 101) state that a facilitator of learning is ultimately goal orientated in terms of the creation of quality relationships:

The facilitator of learning is fundamentally interested in the outcome, which is primarily and singularly focused on producing the highest possible quality of learning that will in turn produce the highest possible quality intended outcome.

In their research, Slabbert et al. (2009) found that a facilitator of learning has just two roles: to initiate learning and to maintain that learning. These roles are executed by performing actions that will lead to the attainment of the goal of education and presenting a holistic, real-life challenge to students. In this instance, the challenge is one of becoming effective facilitators of learning. The real-life nature of challenges in this programme can also be seen within the context of the “community of truth”, mentioned by Palmer (2007, p. 104) in the following quote: “The firmest foundation of learning is the community of truth.”

Slabbert et al. (2009, p. 70) believe that this community of truth forms the cornerstone of learning, as the following extract, though lengthy, beautifully demonstrates:

It enhances the quality of learning through conflict. It is our willingness to put forward our observations and interpretations for testing by the community and return the favours for others. Conflict is the dynamic by which we test our constructions in the open in a communal effort to stretch each other and the mental constructions of reality we create. We submit our assumptions, our observations and ourselves (our identity and integrity) to its scrutiny. This is why learning within a community of truth can also be classified as ‘authentic’.

In accordance with this quote, truth is identified by Slabbert as one of the requirements for the highest possible quality learning. He explains that the word stems from the Greek word *aletheia*, which refers to the exposure of who we are. The word ‘exposure’ hints at the nature of learning, cutting to the core of a student where their true self resides. When faced with real-life challenges (non-standard problems), students have no way of pretending to be competent and no opportunity to hide. Their true self is revealed and this is frightening for human beings because of the fact that concealment forms part of our identities. The fear of failure is also a powerful incentive not to try to solve a problem that seems too difficult to solve. Intrinsic motivation (triggered by the personal, authentic quality of the real-life challenge) would necessarily then heighten the unique emotional response in a student when confronted with such a challenge. All of these factors show that a quality facilitator–student relationship is crucial for

students to endure the trauma of paradigm shifts, meeting their true selves, risking failure and solving problems that have an impact on their private lives.

The classical approach to ‘problem solving’ is also reconstructed by Slabbert et al. (2009) to entail resolving real-life challenges. It would seem that Vygotsky, Freire and Slabbert all agree that non-standard problems should be the starting point for the education process. Vygotsky talks about a problem-based social environment (Wertsch, 1993, p. 114) and non-standard problems, while Freire refers to critical pedagogy as “subjective problem-themes not yet analysed by students” (Shor & Freire, 1987, p. 18). Slabbert et al. states that the skills and knowledge required by the curriculum should be acquired by resolving “real-life challenges” (Slabbert et al., 2009, p. 66). This concept also implies that the nature of the learning relationship is of paramount importance, because a real-life challenge implicitly evokes a unique emotional response from students. Why is this so? The challenge is real to the student at that moment because it has an actual adverse effect on his or her life right there and then and therefore resolution of this challenge or problem is the only way to return to a state of emotional equilibrium. This response destabilises the emotional equilibrium in the student, compelling the utilisation of the resources needed to solve the problem and thus regain their internal equilibrium. Unless the learning relationship is the best possible relationship, the students will be unwilling to take the risks needed to solve the problem.

2.7.3 Criterion 3: The learning process needs to be facilitated within a social environment (human agency) by facilitators of learning who have to make themselves increasingly redundant in order to promote students’ self-transcendence.

The social context in which learning takes place is referred to by Slabbert et al. (2009, p. 70) as “the community of truth”. This concept can be closely associated with Paulo Freire’s dialogical education within his liberating education pedagogy, where the facilitator of learning and the learner gather around the object of study for mutual inquiry (Shor & Freire, 1987). This community correlates with Vygotsky’s social context, as explained by Palmer (1998, p. 104).

A correlation also appears between Slabbert's human potential and Vygotsky's proximal level of development. Slabbert posits the belief that when a facilitator of learning interacts with students, it should always be with the proximal development of the student in mind. It is important to understand this point of view, as a facilitator with this focus will act differently to a facilitator whose aim is, for example, for the students in his class never to struggle with problems that are 'too difficult'. Accordingly, the third criterion has been met.

2.7.4 Criterion 4: The learning process is student centred.

An emphasis on authentic learning (AL) is prevalent in the PGCE programme. Authentic learning is defined by Slabbert et al. (2009, p. 44) as learning "where students' natural unfolding is respected and their emotional and psychological needs become involved". In short, the basis of AL is the establishment of relationships. In establishing relationships, human beings constantly experience either a sense of equilibrium (their external reality coincides with their current internal framework) or disturbance (new relationships call into question the current internal framework). It is in the re-structuring of these frameworks that 'learning' takes place. According to Slabbert et al. (2009, p. 122), one indication of a facilitator of learning is that "they have very real connectedness with themselves, their students and the subjects they 'teach'." Thus, the fourth criterion has been met.

2.8 Conclusion

In conclusion, the literature on transformative learning can be understood through the lenses offered by the work of Mezirow, Barnett and Vygotsky. The type of education formulated by Slabbert et al. (2009) on which the PGCE programme is based correlates with this interpretation of the literature. In addition to a correlating theoretical base, the implementation of the PGCE programme has also been successful. This programme was externally evaluated four times over a twelve-year period and the consistent results that were obtained can best be summarised by the African representative on one of the evaluation panels, Prof. Richard Jabulana, who said that the education in the programme was the kind of education the world needs.

Having met the identified criteria based on my understanding of the literature on transformative learning, I believe that the PGCE programme is a suitable case for the purposes of this research. The next chapter describes the methodology of this research, including the data collection, the data analysis, the credibility of the study and the ethical considerations.

3. RESEARCH DESIGN

3.1 *Introduction*

A research design is a plan or strategy which moves from the underlying philosophical assumptions ... to specifying the selection of respondents, the data gathering techniques to be used and the data analysis to be done (Maree, 2010, p. 70).

From Maree's quote we can infer that a research design includes every possible aspect of the research to be undertaken. Starting from the basis of the philosophical assumptions (ontological and epistemological), the aspects that should be included comprise the mode of inquiry, the sampling and data collection techniques, data analysis, and credibility and ethical issues. In this chapter, I will discuss each of these aspects in detail as they pertain to this study, starting with my research premise.

3.2 *Research premise*

When choosing a research approach, a researcher needs to consider the nature and type of data that will best answer the research question. A brief overview of my personal ontological and epistemological assumptions for this study will now be given, as these greatly influence the manner in which I will attempt to answer the main research question of this study. There are a couple of factors in this research that suggest the use of qualitative data. These are the following:

- This is an exploratory study. Although I had certain hunches stemming from the literature and my own experiences, I did not have a priori thesis that I wanted to test against data that I collected. Instead, I looked for new empirical data that could indicate how students navigate the challenges of transformative learning.
- The aim of this research is not to generalise the findings, but to give insights into a specific phenomenon. The findings of this research will, nevertheless, be relevant to any transformative educational situation/programme with a similar context.

- The aim of this study is to provide an in-depth description of students' experiences. A case study (which forms part of the qualitative approach) is an ideal method for this purpose, as it allows the researcher to gather empirical data and to make a contribution to what is currently a largely conceptual field of research.

Bromley (1990, p. 302) describes case study research as a “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest.” A case study of the experiences of former students of the PGCE programme can thus provide insight into their unique responses to the challenges they faced and how they overcame these challenges. Table 3.1 summarises my own worldview, as well as the research design in terms of its key elements.

Table 3.1 Research premise and corresponding choice for the study

RESEARCH PREMISE			CORRESPONDING APPROPRIATE CHOICE FOR THE STUDY
Research premises	Ontological assumptions	Interpretivism	Multiple realities exist, researcher and research are inseparable.
	Epistemological assumptions	Subjective	Knowledge is created via social interaction.

In the next section I elaborate on these philosophical assumptions.

3.3 Philosophical assumptions

This research is conducted within an interpretivist ontology, referring to a worldview that claims that understanding (to know) is a process of psychological reconstruction (Maree, 2010, p. 63). As human beings gain sensory information through their senses, this information needs to be interpreted in order for reality to exist for the individual. This implies a subjective epistemological assumption which maintains that knowledge is created through social interaction. This, in turn, implies that multiple realities exist and consequently studies within this paradigm “generally attempt to understand phenomena through the meanings that people assign to them” (Maree, 2010, p. 63). In terms of understanding how learning takes place (my theoretical assumptions), I turned to the man considered to be the father of socio-constructivism, Lev Vygotsky and his model of learning called the zone of proximal development (ZPD).

In view of the fact that this study is concerned with a postmodern educational paradigm (transformative learning) it is to be expected that this research should correlate with postmodern thinking, which supports the idea that reality is “socially constructed” (Maree, 2010). This assumption supports the use of a mode of inquiry (case study) located in interpretivism which enables one to access the inner experiences of participants. The diagram in Figure 3.1 depicts the link between my philosophical assumptions and the mode of inquiry.

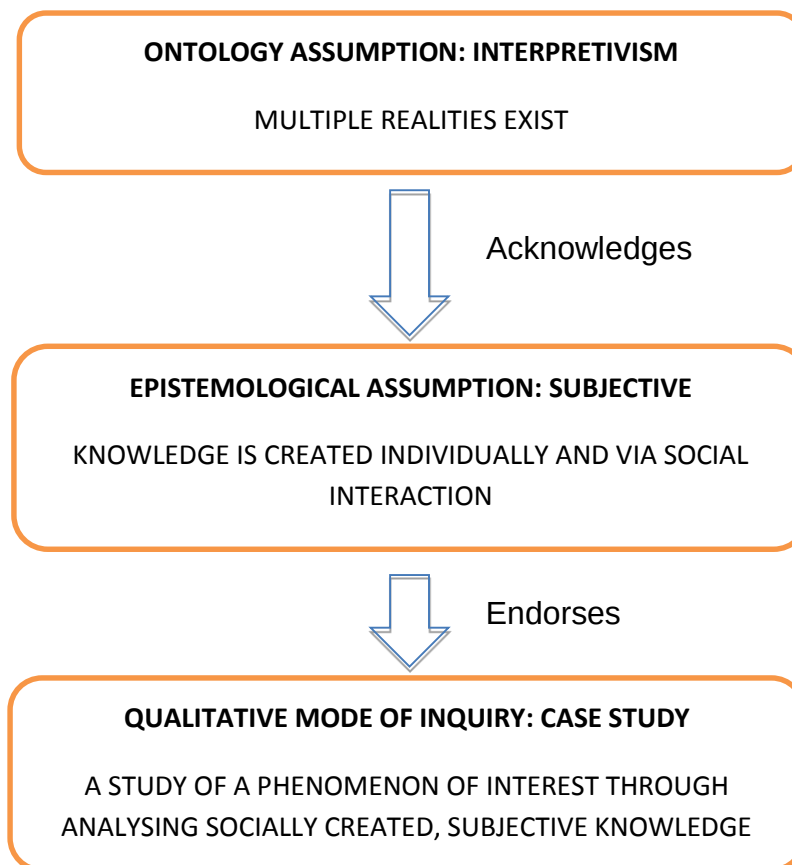


Figure 3.1 The link between the philosophical assumptions and the mode of inquiry

Having motivated my choice of case study as being the appropriate mode of inquiry for this research, referring to my philosophical assumptions, I will now discuss this mode of inquiry in greater detail.

3.4 Case study as mode of inquiry

As explained in my rationale, my own experiences of transformative learning planted the seeds of this research many years ago and, based on these experiences, I had a hunch that the data needed for this study was to be found within the verbal accounts of other PGCE students. This was a crucial point: the students needed to have been exposed to the same type of learning that I was interested in researching. So, context became extremely relevant within the research, as there are many misconceptions in the educational community concerning postmodern education and, specifically, transformative learning. I consequently knew that the mode of inquiry for this research had to clearly show that the participant had in fact experienced transformative learning and that the accounts detailed in this study are supported by socio-constructivist theory. Only then could a reader be confident that these findings are indeed useful for understanding transformative learning. In light of this, I decided to make use of an exploratory, multiple case study methodology as my mode of inquiry, as shown in Table 3.2.

Table 3.2 Mode of inquiry stemming from the research premise for the study

RESEARCH PREMISE			CORRESPONDING APPROPRIATE CHOICE FOR THE STUDY
Mode of inquiry and research design	Qualitative mode of inquiry	Case study	This research is a “systematic inquiry into an event ... which aims to describe and explain the phenomenon of interest” (Bromley, 1990, p. 302). In this case it is the particular case of students’ experiences of overcoming the challenges of transformative learning in a particular Post Graduate Certificate of Education (PGCE) programme.

A case study allowed me to focus on the context of these participants, which in this research forms part of their experiences. In doing so this research fits into the larger interpretivist school of thought which states that in “the study of human affairs, there appears to exist only context dependent knowledge” (Flyvbjerg, 2006, p. 221). In addition, the fact that I was going to be asking ‘how’ students navigated the challenges of transformative learning made me realise that a case study would be the most suitable mode of inquiry as it requires in-depth descriptions of experiences within a very specific case of transformative learning (Wells, Williams, Treweek, Coyle, & Taylor, 2012).

Using existing literature and the theoretical framework of the ZPD, I have endeavoured to first define my understanding of transformative learning and then motivate the PGCE as a suitable case where transformative learning had been successfully implemented. This allowed me to do research on the experiences of students, supported by a mode of inquiry concerned with a context validated through the use of existing literature. Figure 3.2 illustrates the way in which the case study mode of inquiry influenced my data sampling.

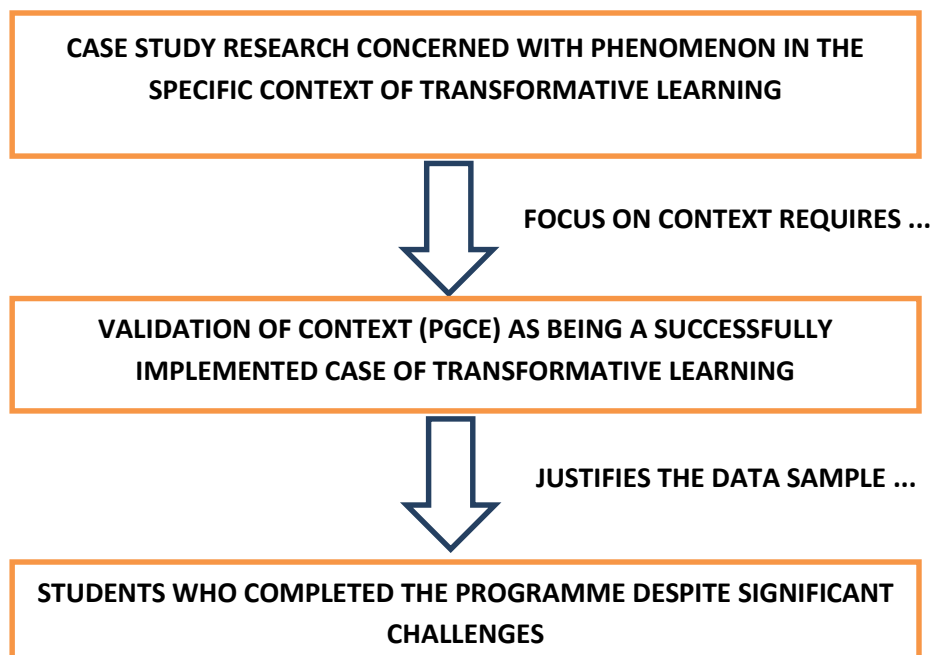


Figure 3.2 The link between the mode of inquiry and data sampling

Having explained the context of the research, a description will now follow of the process by means of which the student participants were selected for this study.

3.5 Data sampling

Tongco (2007, p. 147) states that “[I]n choosing a sampling method for informant selection, the question the researcher is interested in answering is of the utmost importance.” In this research I was interested in the way students had navigated (experienced and overcame) transformative learning challenges they had faced. Purposive sampling is a non-random sampling technique where the researcher identifies the type of data needed to answer the research question and then selects people who are capable of providing that data as a result of various factors (Tongco, 2007, p. 147). I knew that I needed to find students who had

- been exposed to the PGCE programme (transformative learning)
- experienced the transformative learning as extremely challenging
- had succeeded in overcoming these challenges (they finished the programme).

As stated in my rationale, my exposure to transformative learning took place when I enrolled for the Post Graduate Certificate in Education at the University of Pretoria. Since that time I have never seen any other case that adheres to the criteria of transformative learning and thus I knew that my respondents for this research would have to be former PGCE students who had successfully completed this certificate programme. Determining which of these students had experienced a significant struggle within the programme was more difficult, so I sought the assistance of the primary facilitator of learning in this programme to help me identify students who had had powerful experiences.

The participants of this study were not necessarily students who did the best in their year group, nor were they the most positive or negative. They were rather students (as observed by the facilitator) who had undergone major change or transformation in the programme. I have to be very clear that these specific students were selected because of the fact that each had had some personal barrier which had increased the level of challenge they experienced (and overcame) within the programme. Their selection had nothing to do with their opinions on the programme or the facilitator of the programme, but rather with their experiences of the transformative challenges within the programme. With the help of the facilitator I obtained a list of students along with their contact information.

Although the literature “provides ample evidence of the acceptance of a single case as the object of study” (Maree, 2010), I tried to get hold of as many of the students identified by the facilitator as I could. In view of the fact that this case study concerns the phenomenon of ‘overcoming challenges in transformative learning’, I hoped that more participants would provide greater credibility (Maree, 2010, p. 80) as the findings of this research crystallised (Maree, 2010, p. 81) from these multiple perspectives or stories. In the end, six of the alumni students on the list agreed to participate in my research. This number is supported by the research of Creswell (1998), who recommends using a minimum of five interviews for a study. I also interviewed the two

designers of the PGCE programme in order to learn what their expectations had been in terms of students' experiences, as well as to understand the theoretical framework of the PGCE programme. This brings me to my next point, namely, the data collection techniques used in this research. Figure 3.3 below graphically illustrates the link between the research question and the data sampling.

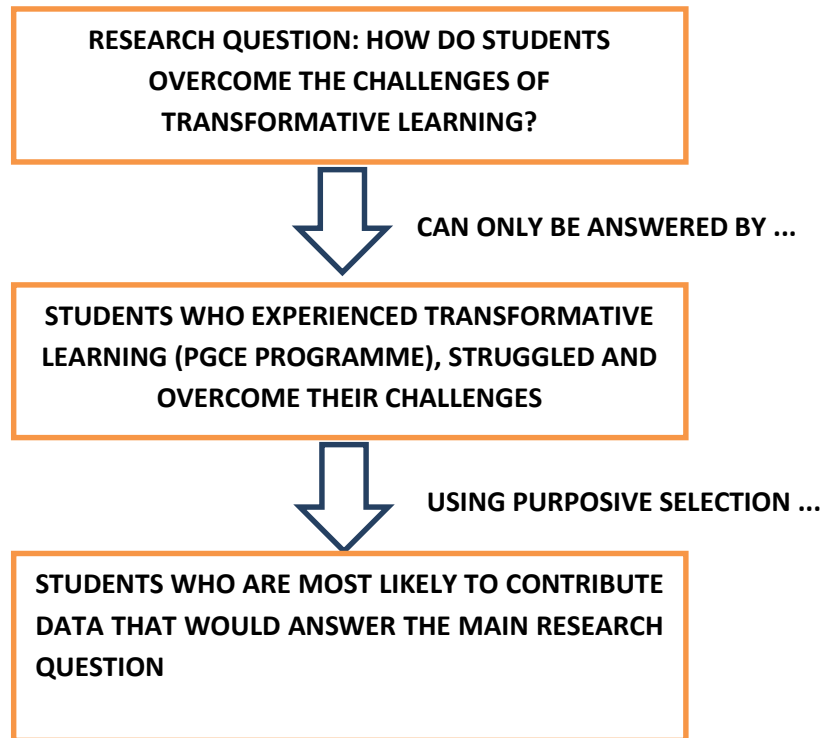


Figure 3.3 The link between the research question and the data sampling

My description of the data sampling for this research is followed by an overview of the data collection technique used.

3.6 Data collection

Maree (2010, p. 76) states that interviews are one of the most prevalent data collection techniques used in qualitative research. Gill, Stewart, Treasure, and Chadwick (2008) identify this technique as a predominantly qualitative tool. They state that "the purpose of the research interview is to explore the views, experiences, beliefs and/or motivations of individuals on specific matters" (p. 291).

Interviewing as a technique can be divided into three sub-types of interview, namely, structured, semi-structured and unstructured. In their research Gill et al. (2008, p. 291)

describe structured interviews as essentially being “verbally administered questionnaires”, while unstructured interviews have only “an opening question”. Once the opening question has been asked, the interview then progresses on the basis of the “initial response” (Gill et al., 2008, p. 291). Finally, semi-structured interviews are described as interviews having a set of “key questions” (Gill et al., 2008, p. 291) to guide the interview process, while still allowing for flexibility so that the interviewer can freely respond to anything that the interviewee may say. The data collected from the interviews was analysed as described in the next section.

3.7 Data analysis

Braun and Clarke (2006, p. 79) describe thematic analysis as “a method for identifying, analysing and reporting patterns (themes) within data.” It was deemed to be a sensible choice for this study as it “works both to reflect reality and to unpick or unravel the surface of ‘reality’” and could assist in exploring the experiences of students (give an account of their experiences) and to a certain degree help understand these experiences. A summary of the data collection and analysis for this research is shown in Table 3.3.

Table 3.3 Data collection and data analysis

Data to be collected	Procedure to be used to collect the data	Reason for using the procedure	Contribution of data to main research question	Contribution of data to sub-research questions
EXISTING RESEARCH AND CURRICULA	Literature study consisting of - books - academic journals - internet and - curricula.	In order to ascertain what the current educational community perceives as transformative learning.	It allowed me to formulate criteria with which to motivate a case study that successfully implements this learning.	1. What does the literature regard as transformative learning?
				2. What are the criteria with which we can identify a successfully implemented case of transformative learning?
EXPERIENCES OF THE CHALLENGES OF TRANSFOR-	Unstructured interview with facilitator of identified case study.	Identify recurring themes of data through thematic analysis.	Gain the facilitator of learning's understanding of what was expected from the experiences of students in	3. What were the unique challenges the students faced within this case?

MATIVE LEARNING			transformative learning.	4. Do these challenges correlate with the intentions of the facilitators of learning of the transformative programme? 5. How did these students overcome these challenges?
	Unstructured interview with alumni of identified case study (probing questions used in second set of interviews).	Identify recurring themes in data through thematic analysis.	Gain an understanding of the experiences of students in transformative learning.	

Before this research process could be initiated, I first had to obtain ethical clearance from the university, as is discussed next.

3.8 *Ethics*

The research process creates tension between the aims of research to make generalisations for the good of others, and the rights of participants to maintain privacy. Ethics pertains to doing good and avoiding harm. Harm can be prevented or reduced through the application of appropriate ethical principles. Thus, the protection of human subjects or participants in any research study is imperative (Orb, Eisenhauer, & Wynaden, 2000, p. 93).

This quote sums up the case for ethics, namely, the safety of the participants involved. Before I was allowed to engage with this research, my research first had to be approved by an ethics committee. This was no trivial task. As the phenomenon of interest took place on the grounds of the very university where this master's thesis was to be completed, there were considerable ethical concerns. The ethics committee was particularly concerned about the fact that my promoter (who helped me to identify students who had significant personal barriers within the programme) was also a former facilitator of the programme, as bias might come into play.

Eventually, this research was cleared owing to the fact that I specifically stipulated that it was not an assessment of the PGCE programme or its facilitator(s). In my research I argue that the PGCE is an example of successfully implemented transformative learning with my concern being solely the students' emotional responses towards the inherent challenges of transformative learning. This included the nature of the learning without inquiring from students whether they perceived the programme's facilitation as 'right or wrong' or 'good or bad'. This is why I first needed to make sure that challenges

mentioned by the students were void of personal bias/judgement. I did this by cross-referencing the literature and the facilitator interviews with the challenges mentioned. A challenge stated by the literature and purposefully posed by the facilitators of learning was considered to be appropriate. By also stating my specific focus in the consent letter containing a statement of the ethical issues involved (see addendum CD), which my interviewees had to sign beforehand, and verbally explaining this specific point of view to the student participants, I ensured that the interviews were not a personal attack on any individual or institution, but rather reflections on challenging experiences within a transformative learning paradigm.

In doing this research, I subscribed to the principles of

- *voluntary participation* in research, implying that the participants could withdraw from the research at any time,
- *informed consent*, meaning that research participants had to be fully informed about the research process and its purposes at all times, and they had to give consent to their participation in the research,
- *safety in participation*; in other words, that the human respondents should not be placed at risk of harm of any kind,
- *privacy*, meaning that the *confidentiality* and *anonymity* of human respondents should be protected at all times and
- *trust*, which implies that human respondents will not be respondent to any acts of deception or betrayal in the research process or its published outcomes.

A full set of ethics documents for the research is available in on my addenda CD, including my letter to the Department of Education, the details of the research project and the letter given to the respondents of the study. My application for ethical approval is also included. Table 3.8 explains how I incorporated my ethical considerations in practice.

Table 3.4 The implementation of ethical considerations in this research

ETHICAL CONSIDERATION	HOW WAS THIS CONSIDERATION IMPLEMENTED IN THIS RESEARCH?
<i>VOLUNTARY PARTICIPATION</i>	Interviewees were informed that participation was voluntary; this was also stated in my letter of invitation which all interviewees had to read and sign in my presence (with the exception of one phone interview where I read out the letter and the interviewee gave verbal consent). This recording can be found on my addenda CD.
<i>INFORMED CONSENT</i>	- The research was explained to interviewees by email, or phone or verbally at the start of each interview. - An explanation of the research was included in the invitation letter which interviewees had to read and sign in my presence at the start of each interview. - Each invitation letter had a space where interviewees had to sign when they consented to be part of this research.
<i>SAFETY IN PARTICIPATION</i>	- Safe spaces were selected for the interviews. - Interviewees were assured that the interview could be stopped at any time if they should feel uncomfortable (this was also stated on the invitation letter).
<i>PRIVACY</i>	The identities of interviewees were not disclosed in the research.

Once the ethics committee had given its approval, I had to start planning how I would ensure that this research is both credible and trustworthy.

3.9 Credibility and trustworthiness

In qualitative research, the researcher is the data gathering instrument. Thus it seems when qualitative researchers speak of research 'validity and

reliability’ they are usually referring to research that is credible and trustworthy (Maree, 2010, p. 80).

Cutcliffe (1999, p. 379) states that a researcher should “make explicit what attempts/methods they have used to establish the credibility of their data interpretations” and “consideration should be given to selecting methods of credibility testing as some might be more worthwhile than others.” This study derived credibility from the following attempts/methods:

- It was a prolonged engagement spanning two years with the sets of interviews separated by three months. This allowed me to get to know my data (Maree, 2010, p. 104).
- A member check was done at the end of each interview (Cutcliffe, 1999, p. 379; Maree, 2010, p. 86).
- My work was constantly reviewed (Siegle, 2014).
- Referential quality was assured by noting the availability of raw data, data reduction products, analysis products, process notes and suchlike (Siegle, 2014).
- An emergent reality (crystallisation) is presented where different views on the same phenomenon lead to a greater and deeper understanding (Maree, 2010, p. 81).

Siegle (2014) suggests criteria which can help qualitative researchers gain trustworthiness. I will briefly highlight the criteria which are applicable to this study in Table 3.5.

Table 3.5 Credibility within this study

CRITERIA		SUB-COMPONENTS	PRESENCE IN THIS STUDY
Data verification and trustworthiness	Credibility (truth value)	Prolonged engagement (Stay in the field until data saturation occurs.)	This research took place over two years, with two sets of interviews separated by four months.
		Crystallisation (different points of view on the same phenomenon)	Expectations of students of facilitators of learning were linked to the literature of transformative learning.
			Student experiences were checked against facilitator expectations.

			Students were asked not only to recall their reactions, but also to analyse them in light of what the students had learnt about transformative learning.
		Referential adequacy (What materials are available to document these findings?)	• Proposal document for defence available on addendum CD • Drafts moderated by promoter available on addendum CD • All referenced journals available on addendum CD • Voice recordings of interviews available on addendum CD • Transcribed interviews available on addendum CD • Rich data derived from interviews available on addendum CD • Thematic analysis on rich data available on addendum CD • Research journal notes available on addendum CD
		Peer debriefing (colleges of similar status)	• Interviewees were asked for their opinions on the study
		Member checks (go to the source of the information and check the data and the interpretation)	• Written notes were read back to interviewees at the end of an interview, who then affirmed my understanding of what was said.
	Transferability (applicability)	The findings of the research will not only be transferable to similar contexts, but will shed light on a universal phenomenon – namely challenge in transformative learning.	• Other facilitators of learning may use these participants' experiences as a starting point for the design of their own transformative learning programme.
	Researcher bias	By stating my assumptions, research rationale, research focus and problem statement beforehand, I hoped to overcome research bias.	• See Chapter 1

As transparency will heighten the trustworthiness of this research, I will now define my understanding of what the role of the researcher entailed in this study.

3.10 The role of the researcher

One of the distinguishing factors of qualitative research is that it views the researcher as the primary “research instrument” (Maree, 2010, p. 79) in the data gathering process. As stated by Maree (2010, p. 79), “the researcher’s involvement and immersion in the changing, real-world situation is essential since the qualitative

researcher needs to record those changes in the real-life context.” Considering that I was the main research instrument, it was crucial to convey my bias at the start of my research and through an honest account of the research give the reader a sense of authenticity which in turn makes the research ‘truthful’. Identifying my own perceptions required of me to go back to the literature and stipulate my understanding of the concepts within this research. This serves to orientate any reader in terms of the research focus. To do this I referred to the basics of socio-constructivism and used the work of Mezirow and Barnett, as well as Vygotsky’s ZPD, as lenses through which to grasp the literature’s view on transformative learning. In so doing, I am able to defend the relevancy of this research as it pertains to any transformative mode of learning and also eliminate the danger of readers ‘reading’ their own view of learning into the research.

3.11 Conclusion

This chapter delivered an in-depth description of my research design and also provided the motivation behind the many research choices made. A summary of my research design can be seen in Table 3.6.

Table 3.6 Research design considerations and corresponding choice for the study

RESEARCH DESIGN CONSIDERATIONS			CORRESPONDING APPROPRIATE CHOICE FOR THE STUDY
MODE OF INQUIRY AND RESEARCH DESIGN	Qualitative mode of inquiry	Case study	This research is a “systematic inquiry into an event ... which aims to describe and explain the phenomenon of interest” (Bromley, 1990, p. 302).
DESCRIBING THE SAMPLE	Purposive sampling (non-probability or deliberate sampling)	Stratified purposive sampling	Only those candidates who would provide ‘rich’ data were selected; these were students who had successfully completed their PGCE programme and had “powerful experiences” according to the facilitator of the programme. The facilitators of learning who were responsible for the design and facilitation of the PGCE programme were also interviewed.

DATA COLLECTION TECHNIQUES (RESEARCH METHODS)	Literature study	Latest books, academic journals, articles in periodicals, conference proceedings, internet	A literature study that ascertained what the current literature regards as transformative learning and also establishes criteria for motivating a case where this type of education was successfully implemented.
	Interview	Unstructured interviews and Semi- structured interviews	“The aim of qualitative interviews is to see the world through the eyes of the participants ... to obtain rich descriptive data that will help you to understand the participant’s construction of knowledge and social reality” (Maree, 2010, p. 87). As I did not want to influence the participants’ responses, I started with the unstructured interviews and attempted to identify any emerging themes using thematic analysis. As the interviews progressed I asked probing questions pertaining to the themes already identified in previous interviews.

This concludes the discussion on the research design for this study. In Chapter 4, I describe how this design was implemented (how the research played out) and also discuss the data which emerged.

4. EMPIRICAL STUDY

4.1 *Introduction*

This chapter contains a description of the execution of the planned research process described in Chapter 3. It also contains the findings gleaned from interviewing six alumni students of the PGCE programme at the University of Pretoria, as well as from two interviews conducted with the facilitators of the programme in order to answer the main research question of this study, namely: How do student overcome the unique challenges of transformative learning?

4.2 *Execution of the planned research*

In this study I wanted to understand the experiences of the students while keeping my own bias and presuppositions at bay. I achieved this by recording the participants' accounts of their experiences, as described by them in their own words. Although some of their experiences might have been similar to mine, my follow-up probing questions were directed at specifically exploring experiences that were complementary or contradictory to my own. I wanted to conduct my interviews in a manner that would allow the participants to make their own voice heard. I thus decided to start the study with unstructured interviews.

My opening question for each interview was: "How did you experience challenges within the PGCE programme?" I hoped such a question would encourage the participants to respond freely and spontaneously, interpreting the terms 'experience' and 'challenge' according to their own mental framework. Unfortunately, more often than not the participant asked me to explain the question in more detail, which opened the door for my own bias to slip in as I then explained my perception of the terms 'experience' and 'challenges'. As the interviews progressed, I started to identify key aspects about the PGCE programme that were constantly re-emerging and these became initial themes that I used in later interviews when the interviewee needed guidance in terms of answering the opening question. Thus, my unstructured interview method developed over the course of the interviews into something that more closely resembled a semi-structured interview.

The data collection took place in three stages with the first stage comprising two interviews, and the second and third stage each comprising three. I first interviewed the two founders of the PGCE programme (phase one) in order to understand the theoretical framework of the programme and also how they had anticipated students would react to the challenges within the programme. Thereafter I interviewed three of the six student participants on my list (phase two). I then carried out a preliminary thematic analysis of the data and reflected on my interviewing technique. Once I was satisfied that the themes emerging were providing insight into my research questions, I engaged in a second round of interviews with the remaining three participants, three months after the first round. During this second round I probed participants to explore experiences that were new and different from mine and from the data of the previous stage. It was through this process that I came to know my data, which is one of the pillars of qualitative research (Maree, 2010, p. 164).

For the interviews I made use of two voice recorders, namely, my cell phone and my tablet, using free voice recording applications. I also took notes during the interviews, which I read back to the interviewee at the end of the interview in order to be sure that I had correctly understood what they had said. Before I started each interview I reviewed a basic interview schedule for myself in case the interviewee struggled to remember something or felt lost within the questions and needed some prompting. This schedule can be found on my addendum CD. Although I experienced the interview process as successful for the most part, there were also some challenges (mostly in phase two of my interviews) that I had to overcome.

An interview with a student participant consisted of four parts, namely:

1. an introductory phase in which I introduced myself, explained the research and asked the student participant to read through and sign the ethical consent form
2. the research phase where I asked the opening questions and conducted the interview based on the initial response – probing for different experiences
3. a conclusion where I read my notes back and asked the student participant to correct any incorrect interpretation of what had been said (member check)
4. an informal phase where we talked about our shared experiences in transformative learning and the education practice.

My first challenge in interviewing the student participants lay in initiating contact. Accordingly, my strategy was to make use of emails. This was not very effective, however, and I received very few replies. When this strategy failed I started phoning the potential participants, leaving messages on their answering machines and sending them text messages on their cell phones. These strategies ultimately succeeded and once contact was established they were very willing to be part of this research. This brought me to my second challenge: arranging meetings with the participants.

Owing to the fact that 90% of my participants were professional people, interviews had to take place after work during the week – usually between 16:00 and 17:00 in the afternoon. When I had fitted all the participants into my own schedule I met them to conduct the interviews. There I faced the next challenge, namely, the interview itself. Having had some minor interview experience at the start of the research and being armed with theoretical knowledge gained through the study of the literature and training sessions with my promoter, I had thought myself an interview expert. It did not take me long, however, to realise that this data collection technique is far more complex than I had originally thought. Doing the interviews in three stages (one stage in phase one and two stages in phase two) allowed me to reflect on and improve my interviewing technique.

I started each student participant interview by explaining the research. Although a necessary part of the process, I found myself tempted to impart my own hunches about the research, thereby unknowingly prepping the participant for when they would answer my questions. The use of certain key words or key terminology also made their way into this phase and participants would consequently make use of these phrases/words in their responses. When this happened it was unfortunate, as the unprompted use of key terminology of the transformative paradigm could have been a valuable asset not only in describing their own experiences, but also in demonstrating their current understanding of the transformative paradigm and how they perceived their experiences in the PGCE programme in hind sight.

After the first three student interviews I reflected on my interview technique and consequently I began to understand how I could explain the research using simpler language, allowing student participants in interviews four to six to answer questions using their own natural vocabulary. Aside from needing to become comfortable with my interviewing technique, I also had experienced challenges in controlling the interview environment.

As I wanted the interviewees to be at ease I asked them whether they would prefer to do the interview at a public coffee shop or at their home. All the student participants chose a public coffee shop near their homes where they felt safe. The downside of this strategy was that I did not have control over the environment where the interview took place – often only seeing the space for the first time when I showed up for the interview. This caused minor irritations in some interviews, where loud background noise made it difficult for me to later listen to and transcribe the voice recordings.

When I transcribed my data, I realised that I would have to make sure that there was a balance between the interviewee's preference (where they would like to conduct the interview) and a certain degree of environmental control (as little background noise as possible). In my second set of interviews I got into the habit of arriving early for interviews and finding the least noisy spaces/tables to ensure that my recordings were as clear as possible. Figure 4.1 graphically illustrates the interview procedure for this study.

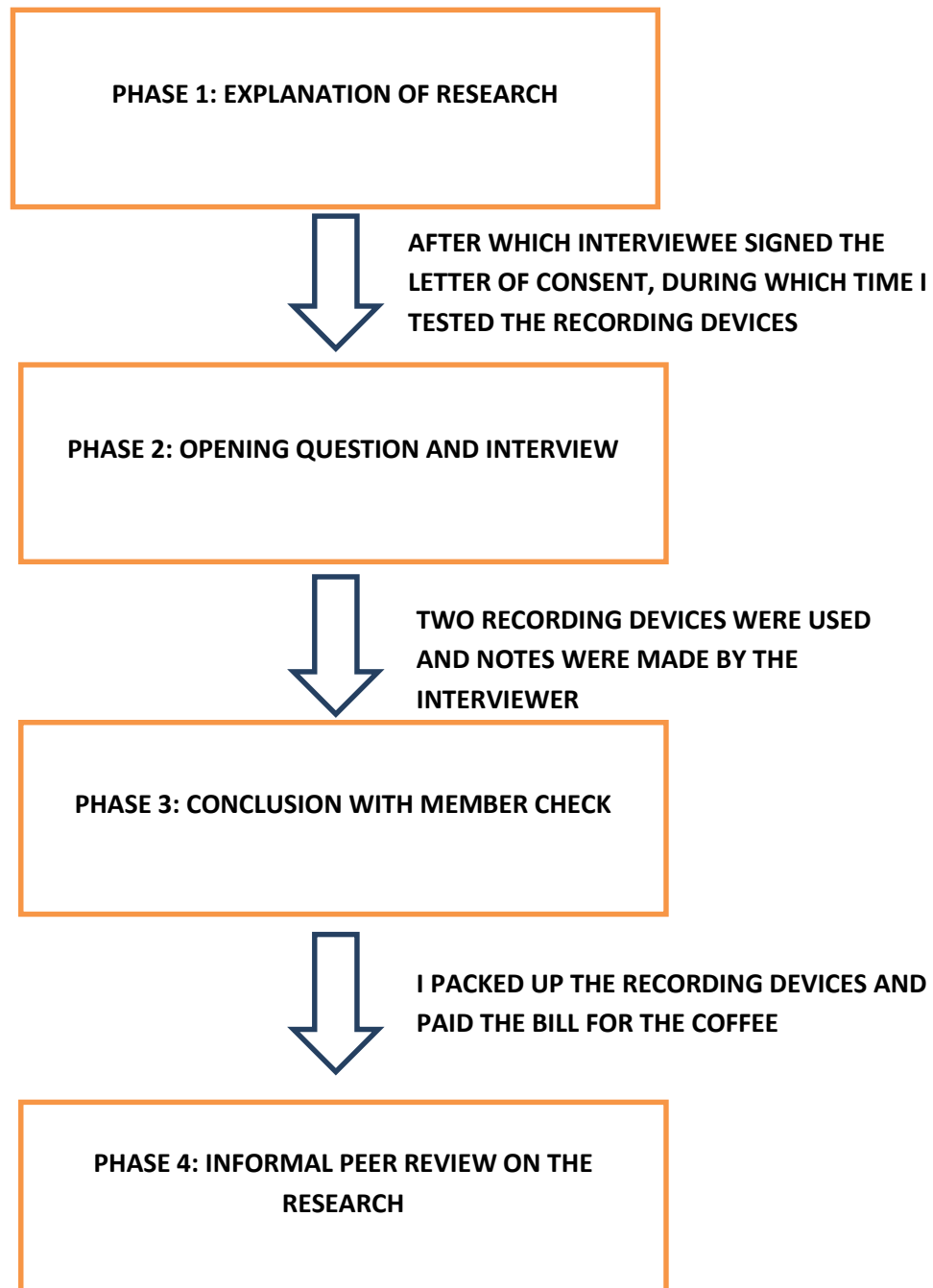


Figure 4.1 The interview process

As with my data collection, my data analysis took place in two groups of three interviews. The first analysis took place after my first three student participant interviews. After transcribing the interviews I printed them out, read through the transcripts and highlighted any significant phrase, word or paragraph that elicited the

interviewee's experience of the learning challenge and how these challenges were overcome. I also made notes on the margin of the page next to each highlighted text. As I read through the transcripts, certain patterns/themes/codes started to emerge. This is called emergent or priori coding (Maree, 2010, p. 107). The initial themes and sub-themes that emerged from my analysis of the first three interviews are depicted in the table below:

Table 4.1 Initial themes and sub-themes after analysing the first three student participant interviews

Theme	Sub-Theme
Mental state at the start of the programme	Characteristics of students at start of the PGCE programme
	Mind shift
Challenges	Uncertainty
	Real-life challenges
	Social
	Assessment
What helped with these challenges?	Communication with facilitator of learning
	Relationship with facilitator of learning
	Peers
	Research
	Personality/drive
	Success
	Responsibility
	Practice

Understanding of programme	Focus on self
	Emotional nature of learning
	Mind shift
	The role of uncertainty
	The role of challenge

Once I had identified emerging themes (and keeping my eyes open for any possible additional themes) I interviewed the remaining three participants. However, after transcribing and analysing the data obtained from the second round of interviews, no further/additional themes emerged and thus I concluded that I had achieved a point of data saturation in terms of the themes for this study.

With all six my students' interviews analysed, I turned to my initial two interviews with the facilitators of learning. As I wanted to locate the students' experiences within the transformative paradigm of the PGCE programme, I only analysed these facilitator interviews after I had discovered the themes that had emerged from the students' interviews. Using these same themes I then made use of in vivo coding (Maree, 2010, p. 106) to code the transcripts of the two interviews with the lecturers in order to be able to either affirm or contradict the students' experiences in my findings. This then also contributed to the credibility of my study by providing multiple perspectives on the same phenomenon (crystallisation), as well as a form of triangulation. Finally, after much iteration, I identified four themes in my data, which will be discussed in the following section.

4.3 Themes

To contribute to credibility, quotes are linked to code names (Iris, Eon, Neo, Lira, Leto, Narobe) representing the different student participants of this study. This allows the reader to keep track of the origin of the quotes, which will in turn reinforce the sense that the themes did in fact emerge across the interviews from different participants while still protecting their anonymity. This was crucial because the participants were

selected for this research on the basis of the fact that they had experienced a great amount of challenge in the PGCE programme for a variety of personal and confidential reasons, including changing their country of residence, personality disorders and divorce.

Interview data gained from the facilitators of learning (coded as Prof. Para and Prof. Tera) were used to introduce each theme and locate the theme within the PGCE programme. Not only did this heighten the credibility of the study (by either contradicting or reinforcing the student data), but it also reinforced the legitimacy of the theme as being a part of a successfully implemented case of transformative learning. In attempting to give as raw and truthful representation of the data as possible, quotes from the interviewees will be listed in bullet form. Each quote is referenced by listing the page and line number where it can be found in the Transcriptions document (available on the addendum CD).

During the interviews I was told the ‘stories’ of students who had experienced transformative learning at postgraduate level. As with any story, these accounts followed a natural progression from the beginning of the programme to where they were sitting at the time of the interview, years later, reflecting on their experiences. Thus the first theme to emerge had to do with their first impressions of the programme.

4.3.1 Theme 1: “*It was not at all what I expected*” (Neo, p. 75, line 8)

Introduction

It became clear that the students’ perceptions of education were challenged by this programme. Founded on the understanding that a human being grows through struggling (attempting to bring about equilibrium after experiencing disequilibrium [Prof. Tera, page 2, line 20]) and believing that the education envisioned in this programme differed radically from what students knew (Prof. Para, page 34, line 6), the facilitators of learning of the PGCE programme realised that the students’ “*education perceptions need to be broken*” (Prof. Para, page 35, line 22). The initial state (or shock) of disequilibrium thus had to be powerful/profound enough to get students to a point where they said “I don’t know what education is. I thought I knew, but now I don’t know” (Prof. Para, page 36, line 31). Although they believed it to be

necessary, the facilitators had expected that this would be a traumatic process for students (Prof. Para, page 36, line 32), as will be discussed in the next two sub-themes.

Theme 1.1: “I decided that I am going to be positive” (Iris, page 42, line 25)

Two sub-themes emerged as the students reacted to their uncertainty in one of two ways. Initially, some participants had a positive reaction, which they ascribed to various factors, including:

- personality traits (*“I am not a negative person per se [Iris, page 44, line 28],*
- intrinsic motivation (*“I knew I had to do this to get where I wanted to be” [Eon, page 59, line 23],*
- excitement (*“the initial thought was one of excitement and anticipation” [Neo, page 74, line 22],*
- stubbornness (*“I’m the type of person when someone tells me you can’t do it, I will prove them wrong” [Eon, page 65, line 6],*
- background (*“It was a natural thing for me. I come from a background of educators so I know the challenges at school and everything that comes along – the lifestyle and such” [Leo, page 124, line 23]) and*
- naivety (*“I thought it was going to be nice and easy and just a post-grad on teaching” [Narobe, page 107, line 6].*

Theme 1.2: “You started off oblivious, then you hit a bottom” (Eon, page 73, line 13)

The second type of reaction was more negative. The following factors contributed to students reacting negatively to their initial state of disequilibrium:

- background (*“It was in a very traumatic period of my life [Neo, page 76, line 22],*
- group dynamics (*“there was a very negative atmosphere” [Iris, page 42, line 20],*
- preconceived ideas (*“I had never seen any methodology of that type and that approach to learning and I just thought that was ridiculous” [Neo, page 74, line 11]) and*
- personality traits (*“I don’t like to figure things out on my own in case they are wrong” [Narobe, page 116, line 22].*

Conclusion

Confronted by uncertainty, two types of reaction were observed; students either made a conscious decision to approach the programme with a positive frame of mind or instinctively recoiled. After students were initially challenged by the programme, this state of uncertainty was maintained by the facilitators of learning who took the students out of their comfort zone. The next theme to emerge centred on these experiences.

4.3.2 Theme 2: *“He took us out of our comfort zones”* (Iris, page 46, line 26)

Introduction

Disequilibrium seemed to be ingrained in this programme. After being challenged by the ‘new’ nature of the programme, the students expected that their inner disequilibrium would promptly be rebalanced by the facilitators of learning. Instead, the facilitators ensured that students were constantly being challenged in their thinking, seeking certainties but not finding them as *“learning is what you do when you don’t know what to do”* (Prof. Para, page 24, line 29). As transformative learning is aimed at the growth (or transformation) of the students’ inner landscape, the continued uncertainty within the programme was meant to reconcile students with themselves (Prof. Tera, page 12, line 22). From the programme’s inception, it was understood that this would be a traumatic experience as students needed to be brought to a place where they would realise that they did not know themselves as well as they had thought (Prof. Para, page 34, line 2). This intention of the facilitators of learning can be seen in the data that emerged as three sub-categories.

Theme 2.1: *“You are always uncertain”* (Iris, page 47, line 28)

Some students quickly realised that the uncertainty was to be a continued state of being within the programme. Their disconcertment with the protracted nature of this uncertainty, and the fact that it was purposefully maintained, can be seen when interviewees stated that:

- *“[the facilitator] was almost a bit dismissive”* (Eon, page 61, line 17)

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- *“They [the students] just wanted to have a little bit more structure” (Iris, page 48, line 2)*
 - *“there was never a correct concept map!” (Iris, page 53, line 16)*
 - *“you weren’t spoon fed all the information” (Neo, page 75, line 27)*
 - *“you weren’t even told where to find the answer. You were only told how to find it. It’s in you. You will get to it. And that was just so frustrating for me” (Neo, page 76, line 9)*
 - *“To ask yourself: is this the best? Is this right? Am I doing the right thing? Is this good enough?” (Iris, page 47, line 30)*
 - *“That was where I realised that this was not the traditional way of learning. You know? Not what you’re used to after four years at university” (Eon, page 60, line 26)*
 - *“After the whole week of having done things that I didn’t really understand where that fitted into the course” (Lira, page 126, line 16)*
 - *“Where you are used to walking into a lecture hall where people feed you knowledge, he [the facilitator] kind of walks in and gives you either a challenge or something weird to do and you’re kind of disgruntled by it, like ‘What’s the point in this? Just teach me! I just want to get my degree you know!’ So I think that’s what caused the negativity” (Lira, page 91, line 18)*
 - *“Questions were answered with questions” (Neo, page 86, line 14).*

Other students were influenced by social interactions with their peers.

Theme 2.2: “I didn’t realise that the course was different until everybody else started complaining” (Eon, page 59, line 20)

Other students were not initially concerned by the novel nature of the programme. After the initial shock of uncertainty, these students still felt that this programme was not something new. By interpreting the learning within the programme through their existing paradigm, they were not experiencing any shifts in thinking and consequently were not learning. However, before long their social interactions with their peers made them realise that this was not something they had experienced before, as can be seen in the following quotes:

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- *“Now, four or five people. Now some of them are super positive. Some of them are super negative” (Iris, page 54, line 13)*
 - *“There was a little bit of a personality clash” (Iris, page 56, line 24)*
 - *“opening up emotionally ... was difficult” (Eon, page 72, line 27).*

Theme 2.3: “Then sort of hitting bottom with my first assessment and then realising ‘okay, this is not what you think it is’” (Eon, page 69, line 10)

As a facilitator of teacher education, the fact is that students need to be challenged. No two ways about that. There has to be uncertainty, there has to be emotion because as Claxton said: “Learning is essentially an emotional business and not a cognitive business.” No two ways about that. This is the crux of facilitating learning. So now you have to create a gap, which is the challenge that the student teachers need to overcome (Prof. Para, page 37, line 24).

Some of the students only left their comfort zone (the quote refers to creating a gap) due to the facilitators’ use of assessment to create challenges that students needed to overcome. Evidence of this can be seen in the following quotes:

- *“[the facilitator] asked me questions that I was unable to answer” (Eon, page 63, line 4)*
- *“I just wanted to scream” (Neo, page 82, line 17)*
- *“I just thought: ‘Hang on, what happened here? How dare you fail me?’ And that was really the worst bit. Cause I’m thinking, coming from a completely academic perspective ... you ... do your assignment, do this and you do this and just as long as your bibliography is okay you’ll pass” (Eon, page 60, line 13).*

Conclusion

Understanding the important role that seeking played in the programme and knowing how these students were taken out of their comfort zone, the question to ask is how did these students cope in these circumstances? How did they finally overcome these challenges to persevere and successfully complete this programme? This question is answered in the next theme.

4.3.3 Theme 3: *“Shut up and just get on with it”* (Eon, page 65, line 4)

Introduction

The fact that the students in the programme were constantly challenged beyond their initial response to the novel nature of the programme (in order to remove their initial understanding of education), meant that all the students had challenges to overcome. The quote used to code this third theme is fitting (though harsh) as it gives us a glimpse into the psyche of a student who has been challenged, who has struggled, who has complained and who has finally realised that complaining won't help. It suggests a student who has realised that the only way forward is by telling herself to *“get on with it”*. This quote signals a turning point in the student's emotional journey. Data collected in interviews suggest three ways in which students 'got on' with coping in this programme, the first being emotional support.

Theme 3.1: *“Come on, you can do this!”* (Eon, page 64, line 1)

In most of the interviews it became apparent that external emotional support was one of the main forms of support which helped students overcome their challenges. When it comes to facilitating learning in the programme, Prof. Para states that the concerns lie more with the emotional than the cognitive, as “learning is an emotional business ... management fundamentally has to be emotional – not cognitive” (Prof. Para, page 38, line 18). As stated by Prof. Tera (page 9, line 5), a student's emotional stability was something that they, as the facilitators of learning, needed to be constantly aware of in order to provide support when needed. In addition to the support provided by the facilitators, the following ways of coping emerged from the data:

- *“What I did was, some of my friends went first, so I would ask them: ‘What did he say? What did you have to change about your concept map?’”*(Iris, page 53, line 9)
- *“I complained to Prof ... I can't even remember, I think I just sort – of talked to him”* (Eon, page 61, line 7)
- *“They cared and they were interested. They didn't solve your problems, but they listened. They gave you the dignity and the respect”* (Neo, page 82, line 33)

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- *“So I understood him because I met him on his level. So, I could go to him and speak to him” (Iris, page 44, line 6)*
 - *“the only way you got through it was by talking to you fellow students” (Iris, page 51, line 22)*
 - *“‘Can you please help me? How are you feeling?’ You would just have like a psyche session where you said all your problems to this person [fellow student] and then you would try to help each other” (Iris, page 51, line 25)*
 - *“I knew that Prof. ... had moved mountains to get me into the course, so I also knew that whatever happened; go with the flow of how things were going. Then just make the most of it and do what you need to do to make a success out of it” (Neo, page 75, line 14)*
 - *“the group accepted me immediately ... I trusted the group that I was part of” (Neo, page 77, line 3)*
 - *“Because he [the facilitator] placed that amount of trust in me, I felt that I also had to and could place that amount of trust in him. That whatever he was doing in the classroom that felt so weird and so foreign, that it would be okay. Because he wouldn’t do it unless he had good reason for it” (Neo, page 78, line 14)*
 - *“What helped you during the PGCE course was ... fellowship within the course” (Eon, page 72, line 16)*
 - *“if I needed help I could go to the lecturers, they were open to it but I realised that I was not alone and I had support. That kind of just pushed me through” (Lira, page 133, line 4)*
 - *“I got it [support] from the people that did the course with me” (Lira, page 129, line 15)*
 - *“then you ask him for clarification and he [the facilitator] would say ‘I don’t know, what do you think?’, until you get it right” (Narobe, page 121, line 16)*
 - *“he [the facilitator] gets to know you ... he would also notice you if you tried to hide” (Lira, page 103, line 5)*
 - *“when you are going through tough times the people around you become even closer because we supported each other” (Leto, page 132, line 18).*

In addition to emotional support, students also consulted external sources of knowledge.

Theme 3.2: “I went on to the internet and I searched the internet for hours and hours” (Iris, page 48, line 27)

Some students made use of external sources of knowledge to overcome their challenges. My initial reaction to the emergence of this theme was to classify it as being part of the students’ inner resources (a sub-theme to be discussed later). However, when more than one student made specific mention of the fact that they did research on their own I felt that this should be grouped as a separate sub-theme. The data from which this theme emerged can be seen below:

- *“I was a firm believer and I still am of research. Go into the library, looking at books. Looking at journals. Looking at the internet. Everything”* (Eon, page 64, line 14)
- *“What helped you ... was your own research that you did”* (Eon, page 72, line 15)
- *“you go to your textbooks and you do a bit of research”* (Neo, page 81, line 3).

Lastly, the students overcame their challenges with the help of internal supports.

Theme 3.3: “I really wanted it, like an internal motivation” (Leto, page 132, line 10)

All of the interviewees referred to some form of inherent intrapersonal human virtue (internal support) which helped them to persevere in this programme. These specific internal motivators were not really mentioned by the programme facilitators, perhaps because they were more concerned with managing the gap (Prof. Para, page 38, line 11) than listing possible resources that students might have, because this management is a much more intuitive process than one would think (Prof. Para, page 39, line 5). Students come from different backgrounds and react differently to the programme, which calls for the facilitator to sense intuitively the facilitation needed by the individual at a specific time. When speaking to the students the following supports emerged:

- *“prayer”* (Lira, page 100, line 3)
- *“the positive thing about me being such a people’s pleaser was that I was like: ‘Okay, that wasn’t good enough. What can I do? Can I do something else that is even better than this idea?’”* (Leto, page 130, line 22)

- *“I wanted it so much to become a teacher and this was the only opportunity I had and I just at least had to try this even though it was hard I had to try” (Leto, page 132, line 10)*
- *“I knew that I needed the scores to get back into the UK” (Eon, page 64, line 22)*
- *“my spiritual beliefs ... So I’ve always believed that finally, it doesn’t matter what happens in my life, whether it’s a strange learning methodology or a paradigm or whether it’s a traumatic event, I will get through it” (Neo, page 79, line 20)*
- *“I think I am quite a resilient person” (Neo, page 79, line 18)*
- *“I am a bit lucky, because I like being creative” (Iris, page 48, line 26)*
- *“the more you kind of try ... the more you understood” (Lira, page 93, line 10)*
- *“It [success] gave me a little more self-confidence” (Iris, page 49, line 26)*
- *“You have this huge concept map or whatever it’s called, showing what you’ve learned. And you can explain every single part of it” (Eon, page 63, line 18).*

Conclusion

This theme forms the heart of this research as it describes how different students overcame the challenges of transformative learning. In order to further crystallise the emerging truths within this study, students were asked to reflect briefly on their experiences in hindsight from the transformative perspective that they gained through being exposed to the PGCE programme. These reflections can be seen in the final theme to be discussed.

4.3.4 Theme 4: “So it was tough for me, but looking back I am just so grateful” (Leto, page 123, line 25)

Introduction

I found it interesting that the students appreciated the transformatory learning that they had been exposed to in this programme. I asked the students to analyse their experiences using the paradigm of transformative learning as they now understood it. If this data were to correlate with the intention of the facilitators of learning it would imply that the students had been transformed to the extent that they could now identify the signatures of transformative learning within their own experiences. At the end of each interview I also conducted member checking. Member checking is a strategy by

means of which you “verify your understanding of what you have observed with those observed” (Maree, 2010, p. 86). This was accomplished by reading back my written notes to the interviewees at the end of each interview in order to make sure that I understood them correctly. Analysing the students’ reflections led to the emergence of the fourth and final theme, consisting of three sub-themes.

Theme 4.1: “You have to work on yourself” (Iris, page 42, line 2)

Students understood that this form of learning required them to grow. Both facilitators of learning made a point of stating that transformative learning has to do with the inner being. Prof. Tera stated that “*the violation of the student is important*” (page 9, line 23) while Prof. Para stated that “*it’s not learning to know – that doesn’t contribute to what education is, it is learning to be because it is learning to be who we really are, what we are actually capable of and what our ultimate purpose is*” (page 28, line 2). Students’ reflections echoed this understanding, as can be seen in the following quotes:

- “*Because you need to dig inside yourself to find the reason you are there, and the reason you are doing it*” (Eon, page 65, line 21)
- “*it forced you to look inside yourself*” (Eon, page 72, line 24)
- “*learning isn’t about acquiring knowledge, it’s about internalising that knowledge to make yourself a richer and better person that cannot just achieve academically, but actually that can impact your environment*” (Neo, page 84, line 1)
- “*We had to do this whole collage about yourself and it was odd to start with ... but I think in the end if you look back ... you could kind of see the sense in it*” (Lira, page 91, line 8)
- “*Then he said that that was the whole point of it. That you force yourself to get somewhere*” (Narobe, page 111, line 15)
- “*They focused on you as a person and they wanted to know who you are and where you come from and why you enrolled for this course and those kind of things*” (Leto, page 127, line 29)
- “*It’s a massive difference between head knowledge and being able to recite facts, and actually being a better person. You’ll probably learn a lot of facts along the way but the personal development area is major*” (Lira, page 106, line 19)

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- “*you have to know who you are first before you can actually work with kids*” (Iris, page 43, line 3).

It was also clear that these students understood the role of emotion in learning.

Theme 4.2: “*It’s a very emotional thing*” (Iris, page 46, line 32)

Students were aware that this form of learning was designed to be experienced on an emotional level. The emotional nature of learning has been reiterated many times throughout this study and was also noted by both facilitators of learning. Thus, when facilitating transformative learning, facilitators of learning need to be concerned with their students’ emotions. The following quotes represent the students’ understanding of the role of emotion in transformative learning:

- “*assess what is the emotional state of different students in your class*” (Iris, page 57, line 18)
- “*it sounds like a small thing to say that but your confidence in a lot of things also comes, willingness to try things which you haven’t tried before too, I suppose*” (Lira, page 101, line 27)
- “*You have to be in tune with the students and their lives and you have to go dig out all those things that students struggle with even in their personal lives*” (Iris, page 46, line 32)
- “*Yes it was frustrating but how much did I learn? I learned so much more about life, about learning, about relating to people, about solving problems*” (Neo, page 84, line 14)
- “*unless I treat them [students] with dignity and respect and I give them what they need emotionally, they couldn’t care less about what I have to say in the classroom*” (Neo, page 82, line 25)
- “*I realised that the real-life learning does make it better and also that whole uncomfortable situation, because failing is highly uncomfortable in my life, and then I made myself work harder*” (Narobe, page 114, line 18)
- “*I think the uncertainty was part of the whole course*” (Iris, page 47, line 31) and
- “*Uncertainty was the foundation of everything and if I would guess, I think it makes you stronger*” (Eon, page 65, line 20).

Looking at these quotes I did not find it surprising that students concluded that they believed in transformative learning.

Theme 4.3: “When I did it myself and it worked ... I realised that this is something good” (Leto, page 131, line 19)

We could never rely on something outside the human being, so the only thing we can rely on is inside the human being. So what is it inside the human being that we should look at? That is of course everything that has been invested in human potential. So therefore the whole perception of education changes in that it is still learning, but it's not learning to know—that doesn't contribute to what education is, it is learning to be because it is learning to be who we really are, what we are actually capable of and what our ultimate purpose is (Prof. Para, page 27, line 30).

Prof. Para's quote above clearly depicts the facilitators' end goal for the PGCE programme; that is, maximising human potential. The only way to do this is to expose students to uncertainty, as *“human beings [not only] need to be able to live with uncertainty but also prosper despite it”* (Para, page 28, line 12). Uncertainty triggers an emotional response that ultimately leads to transformation (a paradigm shift). Data discussed in this research indicate that these students were indeed challenged, that they managed to cope with the challenges and that they were ultimately changed by the programme. Only one question remains: How do they now view the emotional turmoil that they had been subjected to? Was it worth it? Would they go through it again? Would they recommend this process for others? An analysis of the data allowed the following answers emerge:

- *“It stretched me in my thinking of what I am able to do and what I actually can do”* (Leto, page 134, line 14)
- *“I found the entire course frustrating until I was done with it, and when I was finished with it I saw the value. Only after the end”* (Neo, page 82, line 3)
- *“With this entire struggle and everything you go through to get to the end, you have to go through that in order to taste that sweet success of having done this and being able to do transformative learning”* (Leto, page 133, line 23)

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- *“you figure it out yourself and it stays in your mind. Like that saying ‘Teach me and I will remember for a week, involve me and I will remember for a life time”* (Narobe, page 121, line 2)
 - *“I think that the whole ‘being faced with a challenge and struggling to get through it’, generally makes you more willing to struggle through things. And to not give up ... I think the determination and perseverance ... have been embedded into you. That has transformed the way you act or think, or the way that you are”* (Lira, page 104, line 11)
 - *“when you were finished and you looked back on it, you said that the spoon feeding mentality leads to there not being a personal journey in your students and they do not learn effectively”* (Neo, page 87, line 23)
 - *“I was originally going to use it as a stepping stone just until I got my degree in psychology, but then I decided to stay in teaching”* (Narobe, page 110, line 22)
 - *“An uncomfortable situation that is like life that makes you want to get out of the situation and find the solution”* (Narobe, page 118, line 11)
 - *“There was a restructuring of the way you see things. You made a paradigm shift out of it and by the end you felt empowered and uplifted”* (Eon, page 73, line 15).

Conclusion

In view of the fact that the reflections dealt within this theme came from the students who were subjected to transformative learning, they make an important contribution to the reliability and trustworthiness of this study, as they clearly corroborate the expectations and intentions of the facilitators of the programme.

4.4 Conclusion

The aim of this chapter was to familiarise the reader with the data, which was grouped into four themes. Each theme was introduced by referring to interview data obtained from the facilitators of the programme, as this located the theme within the programme and legitimised the theme as being a component of transformative learning and not merely an arbitrary attribute of this specific case. In order to present the data in its purest form, quotes were given in bullet points and were each cross-referenced to the Transcriptions document (available on my addendum CD) where they can be found.

Table 4.2 summarises themes one to three which emerged across the student interviews as discussed in this chapter. Theme 4 is not included in the table, as it did not directly answer the sub-research questions of this study. Instead it forms part of the discussion in the following chapter where the validity of this case is affirmed.

Table 4.2 Organisation of the thematic map with a description of codes, adapted from the work of Pascaol, Narciso, and Pereira (2013, p. 26)

MAIN THEMES (THIRD LEVEL)	SUB THEMES (SECOND LEVEL)	DESCRIPTION	EXAMPLES
THEME 1 Neo : <i>"it was not at all what I expected"</i> (page 75, line 8).	THEME 1.1 Iris: <i>"I decided that I am going to be positive"</i> (page 42, line 25).	Some of the students made a conscious decision to react positively to the unexpected nature of the programme. This decision was fuelled by different motivations.	Iris: <i>"... not a negative person per se"</i> (page 44, line 28). Eon: <i>"I knew that I had to do this to get where I wanted to be"</i> (page 59, line 23). Neo: <i>"I was going to get in and I was going to make a success out of it, regardless how challenging it would be"</i> (page 75, line 1).
	THEME 1.2 Eon: <i>"You started off oblivious, then you hit a bottom"</i> (page 73, line 13).	Some students reacted negatively to the unexpected nature of the programme for various reasons.	Neo: <i>"I was in a very traumatic period of my life"</i> (page 76, line 2). Iris: <i>"it felt like it was a bit disorganised"</i> (page 46, line 24). Leto: <i>"I didn't think that I was able to go there ... able to do that"</i> (page 126, line 14).
THEME 2 Iris: <i>"He took us out of our comfort zones"</i> (page 46, line 26).	THEME 2.1 Iris: <i>"you are always uncertain"</i> (page 47, line 28).	Students experienced a sustained level of uncertainty throughout most of the programme.	Eon: <i>"you felt like you were in the dark"</i> (page 59, line 16). Iris: <i>"They [the students] just wanted to have a little bit more structure"</i> (page 48, line 2). Neo: <i>"Questions were answered with questions"</i> (page 86, line 14).
	THEME 2.2 Eon: <i>"I didn't realise that the course was different until everybody else started"</i>	Some students did not experience the programme as 'uncertain' until they started to witness the reaction of their peers.	Iris: <i>"Now, four or five people. Now some of them are super positive. Some of them are super negative. Some of them are in-between. Now how do you do a research project with all"</i>

	<i>complaining</i> " (page 59, line 20)		<i>these different feelings?"</i> (page 54, line 13). Eon: " <i>opening up emotionally: it was difficult, but not so much because of the course, as much as where you were at that stage</i> " (page 72, line 5).
	THEME 2.3 Eon: " <i>Then sort of hitting bottom with my first assessment and then realising 'okay, this is not what you think it is'</i> " (page 69, line 10).	Students experienced an emotional low point as they came to grips with their deficiencies.	Eon: " <i>he asked me questions that I was unable to answer. And the ones that he asked me that I thought I knew very well, but he was almost dismissive</i> " (page 63, line 4). Neo: " <i>But why are they going to learn it in this lesson at this section?', and I just wanted to scream: 'Because they have to!'</i> " (page 82, line 17)
THEME 3 Eon: " <i>shut up and just get on with it</i> " (page 65, line 4).	THEME 3.1 Eon: " <i>Come on, you can do this!</i> " (page 64, line 1).	At their emotional low point, students were encouraged to persevere by facilitators, family, friends and fellow students.	Iris: " <i>What I did was, some of my friends went first, so I would ask them: 'What did he say? What did you have to change about your concept map?'</i> " (page 53, line 9). Eon: " <i>I complained to Prof. ... I can't even remember, I think I just sort of talked to him</i> " (page 61, line 7). Neo: " <i>They cared and they were interested. They didn't solve your problems, but they listened. They gave you the dignity and the respect</i> " (page 82, line 33).
	THEME 3.2 Iris: " <i>I went on to the internet and I searched the internet for hours and hours</i> " (page 48, line 27).	At their emotional low point, students persevered by doing research.	Eon: " <i>I was a firm believer and I still am of research. Go into the library, looking at books. Looking at journals. Looking at the internet. Everything</i> " (page 64, line 14). Neo: " <i>you go to your textbooks and you do a bit of research</i> " (page 81, line 3).
	THEME 3.3 Leto: " <i>I really wanted it, like an internal motivation</i> " (page 132, line 10).	At their emotional low point, students persevered by accessing inner resources.	Lira: " <i>You mean apart from prayer?</i> " (page 100, line 3). Leto: " <i>but the positive thing about me being such a people's pleaser was that I</i>

			<i>was like 'Okay, that wasn't good enough. What can I do? Can I do something else that is even better than this idea?'" (page 130, line 22).</i> Eon: "I knew that I needed the scores to get back into the UK" (page 64, line 22). Neo: "From a more personal point of view, I think I am quite a resilient person" (page 79, line 18). Iris: "I am a bit lucky, because I like being creative. So, I would spend hours and hours trying to see if I can find new videos and creative things, pictures and nice experiments etc." (page 48, line 26).
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In the next chapter I will draw conclusions from the results of my study (Maree, 2010, p. 302) and provide answers to my research questions. I will also discuss the limitations of this research and, finally, make recommendations for further research.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 *Introduction*

Having acquainted the reader with my raw data in Chapter 4, I will now proceed to draw conclusions from the data in an effort to answer my sub-research questions. This should in turn answer my main research question; however, this will only be done after discussing the extent to which each of my themes correlate with existing literature.¹ This process is known as a literature control (Mouton, 2006, p. 179). As the literature study for this research focused on identifying a successfully implemented case of transformative learning, the literature control will be conducted on the interview data gathered from the facilitators of learning who designed the PGCE programme. This will heighten the credibility of the PGCE programme as being a successfully implemented case of transformative learning as defined in Chapter 2.

5.2 *Conclusions relating to the literature control*

5.2.1 Literature that supports the findings in this research

Findings from the facilitators of the PGCE programme strongly resonated with the opinions expressed in the literature on transformative learning, which I studied. This can be seen in the following: starting the learning process with a non-standard problem causing uncertainty (Theme 1); maintaining the uncertainty (Theme 2); facilitating students' emotions (Theme 3); and focusing on the transformation of the human being (Theme 4). These correlations are detailed in Table 5.1.

¹ As this is an exploratory study generating new knowledge, the sub-themes would not have been very useful in a literature control. The main themes can, however, be used as reference points for comparing the design of the PGCE programme design with what existing literature regards as transformative learning.

Table 5.1 Correlations between findings and existing literature

Theme	Author and year	Existing literature	Correlation in findings
Theme 1: <i>"it was not at all what I expected"</i> (Neo, page 75, line 8)	Heyligen, 1997	"When students are in interaction with their environment attempting to make sense of their world ... [they are] constructing knowledge through their experiences which constitutes the construction of meaning."	Learning is the continuous movement from emotional disequilibrium to equilibrium.
	Claxton, 2007	Characteristics of effective students contrast with students within a modern paradigm.	Transformative learning differs radically from learning within a modern paradigm.
	Miller, 1997	We need to completely rethink education.	There has to be uncertainty.
	Levykh, 2008	Struggle (development) is not pleasant.	You need to create a gap that students can overcome.
	Taleb, 2007	Students need to be able to function in an uncertain world.	
	Bozhovich, 2009	Effort in learning arises because of uneasiness about the unfamiliar nature of a task.	
	Robertson, 1996	Transformative learning is traumatic.	
Theme 2: <i>"He took us out of our comfort zones"</i> (Iris, page 46, line 26)	Claxton, 2007	Effective students are people who can persist in the face of difficulty (challenges).	Learning is what you do when you don't know what to do.
	Kravtsova, 2009	People's awareness of themselves is the main source of their behaviour and activity.	Students should be reconciled with themselves.
	Robertson, 1996	You only change your thinking when you realise that your belief system is flawed.	Students need to be brought to a place where they realise that they do not know themselves.
	Levykh, 2008	Change is the result of struggle.	
	Zull, 2011	The brain is moulded by emotional experience.	Learning is an emotional business.
	Mansor <i>et al.</i> , 2015	"[P]roblems form the original focus and stimulus for learning" (p. 260).	Learning centres on resolving problems
Theme 3: <i>"shut up and just get on"</i>	Levykh, 2008	Emotions play an important role in learning and educating.	

with it" (Eon, page 65, line 4)	Bozhovich, 2009	Learning has an emotional–volitional component.	Facilitators of learning need to focus on the emotional well-being of the students.
	Zull, 2011	Emotions should be treated as tools, rather than as enemies.	Learning is an emotional business.
	Mansor et al., 2015	"Dealing with students' attitudes is another very challenging task" (p. 264).	Students need to create their own scaffold to resolve their problems.
		"They overcome this uncertainty and ambiguity by referring to senior students and friends from other training institutes" (p. 265).	
Theme 4: "So it was tough for me, but looking back I am just so grateful" (Leto, page 123, line 25)	Palmer, 2007	"It can take many years for a student to feel grateful to a teacher who introduces a dissatisfying truth"(Palmer, 2007).	It is not learning to know, it is learning to be. It is about finding out what our ultimate purpose is.
	Bancheva et al., 2013	We are unable to predict the specific needs that the future will impose on today's students.	The only thing we can rely on is inside the human being. With time the students acquired a new perspective giving them a better understanding of their experiences.
	Mansor et al., 2015	"In conclusion, all participants in this study agreed that PBL [problem based learning] is a pedagogical technique that offers the potential to help students to consolidate knowledge and to be reflective and flexible thinkers capable of solving real-life problems" (p. 266).	

5.2.1.1 Literature that supports the findings in this research – Theme 1

The findings of this study, which indicate that the type of learning in the PGCE programme differs radically from anything students have experienced before, correlate with Miller's (1997) view that we need to rethink education. It is a sentiment echoed by Claxton (2007), who believes that the characteristics of an effective transformative student drastically differ from those that were required in the past. The fact that learning is viewed as a continuous shift between disequilibrium and equilibrium in the student is also affirmed by the works of Heyligen (1997), Robertson (1996) and Levykh (2008), who all agree that to learn entails a traumatic struggle within a state of uncertainty.

5.2.1.2 Literature that supports the findings in this research – Theme 2

In the PGCE programme, learning centres on the meaning that is created from uncertainty; that is, the uncertainty that is generated by an authentic, nonstandard

problem. This coincides with the work of Bozhovich (2009), who believes that effort can only be generated when students are uneasy about an unfamiliar task. It is also in line with the work of Claxton (2007) and Taleb (2007), who state that students need to be prepared for a world with an unknown future. Struggling with uncertainty also allows students to be reconciled with themselves as they realise that their existing paradigms are not sufficient in the face of the challenge, which Robertson (1996) states is the only condition for the possibility of a change in thinking. In addition, Kravtsova (2009) believes that reconciliation with the self is crucial as our self-awareness lies at the root of our behaviour. This is a point of view that has been carried over into the world of neuroscience by Zull (2011), who states that the brain is physically moulded by experience (emotional struggle). The work of Levykh (2008) concurs with this notion, stating that change is the result of struggle.

5.2.1.3 Literature that supports the findings in this research – Theme 3

The emotional well-being of students was the main focus of the PGCE programme. This correlates with Bozhovich's writings (2009), which advocate that all students have a volition or drive which is emotional in nature. Zull (2011) agrees that students' emotions should be seen as a tool for increasing learning.

5.2.1.4 Literature that supports the findings in this research – Theme 4

According to my findings, the aim of the PGCE programme was to help students learn how to 'be' in a world with an unknown future. As their inner being is the only constant that they will be able to rely on in such a future, the programme also wanted students to grasp their ultimate purpose in life – something that would fuel lifelong learning. This is in line with work of Bancheva et al. (2013), who state that we are not capable of predicting the specific needs of the future and thus the only thing we can be certain of is that students will need to be able to make good choices, which means that the focus of learning should be directed inward.

5.2.2 Literature that contradicts the findings in this research

The views expressed by the facilitators of learning on the emotional extent of learning (Theme 2) and the nature of learning facilitation (Theme 3) contradict certain literature that I studied. These contradictions are given in Table 5.2.

Table 5.2 Contrasts between findings and existing literature

Theme	Author and year	Existing literature	Contradiction in findings
Theme 2: <i>"He took us out of our comfort zones"</i> (Iris, page 46, line 26)	Tiberius & Flak, 1999	It is an unfortunate reality that learning will also entail negative feelings.	Transformative learning is traumatic.
Theme 3: <i>"shut up and just get on with it"</i> (Eon, page 65, line 4)	Moll, 1993	There is a predetermined set of ways to assist performance.	Managing the gap is an intuitive process.
	Sgroi & Saltiel, 1998	Questions regarding the management of relationships between people are unanswerable.	

5.2.2.1 Literature that contradicts the findings in this research – Theme 2

When analysing the findings, a contradiction became apparent in terms of the emotional nature of learning. Tiberius and Flak (1999) state in this regard that negative feelings are an unfortunate side product of learning; the PGCE programme, on the other hand, views negative feelings as part and parcel of the 'struggle' which constitutes learning.

5.2.2.2 Literature that contradicts the findings in this research – Theme 3

Two contradictions arose between the findings of this research and the existing literature concerning the facilitation of transformative learning. In the first, Moll (1993) asserts that there is a predetermined set of actions/supports that a facilitator of learning can employ when facilitating. Although the facilitation of learning in the PGCE programme is also systematic, the nature of the facilitation is far more intuitive than mechanistic. It thus requires facilitators to support students in making instantaneous judgements based on all the information available in that specific moment. This also contrasts the view of Sgroi and Saltiel (1998), who state that the facilitation of students is a matter so complex that we are unable to understand it. Although the facilitators of the PGCE programme agreed that it is both difficult and complex, they state that the answer lies in the facilitator accessing inner resources so as to determine intuitively

the best course of action to get a student where that student needs to be. As stated by Prof. Para (page 38, line 24):

The facilitation of learning here is the facilitation of the human being. It's facilitation not of the outside, but the inside. That is why ... learning task feedback, that procedure, has been put into place ... [but] when it's a human being and when this is the gap, you could even have a good mechanism or management procedure but, because it's always the human being and you don't know what will happen, one has to be very alert.

Despite these minor disparities, the majority of this research correlates with the literature, which heightens the credibility of the following research findings.

5.3 Conclusions regarding the research questions

The findings of my study will now be addressed. In order to answer the main research question, I will first answer the sub-research questions.

5.3.1 Subsidiary question 1

What does the literature regard as transformative learning?

In an attempt to ascertain the highest possible quality of education, this literature study attempted to define transformative learning. Although the term has a very specific point of origin in the works of Senge (1990) and Mezirow (1990), it has evolved, changed and been adapted to the point where it has become an umbrella term used by any researcher or facilitator of learning that concerns themselves with the transformation of the inner being (Cormick, 1997). Nevertheless, during the literature review it became apparent that although a universally accepted definition of the term does not exist, most studies agree on the characteristics of this form of learning. These characteristics include the need for it to be centred on the student, and for it to be problem-based and socio-constructivist in nature, in contrast with the modern behaviourist paradigm. Of these characteristics, socio-constructivism offered the best platform with which to construct the criteria for identifying a case of transformative learning, as there is consensus in the literature that Vygotsky is the definitive source to consult on the matter, as well as the more recent works of Mezirow and Barnett.

5.3.2 Subsidiary question 2

What are the criteria with which we can identify a successfully implemented case of transformative learning?

Focusing on the works of Mezirow, Barnett and, in particular, Vygotsky's ZPD, I identified the following criteria:

1. The aim of educational intervention is the authentic personal transformation of students.
2. Since Piaget (1977) claims that education is not only a preparation for a future life, but also training for current life problems, the challenges that learners are confronted with should be real-life problems (non-standard and holistic) reflecting the nature of real life.
3. The learning process needs to be facilitated within a social environment (human agency) by facilitators of learning who have to make themselves increasingly redundant in order to promote students' self-transcendence.
4. The learning process is student-centred.

These criteria were used to justify the selection of the PGCE programme as the unit of analysis for this research, as it adheres to all of the criteria and has been proven to be well implemented by respected external educational bodies. As an additional control, students were asked to reflect on their experiences in order to ascertain whether the characteristics of this programme did in fact correlate with the view of transformative learning in the literature.

The rich nature of the generated data of Theme 4.1 attests to the fact that these students had indeed been transformed by their experiences in this programme, as they were able to analyse their experiences and identify the transformative paradigm in light of the fact that the education involved was concerned with the inner being. Statements like 'personal development', 'getting somewhere', 'being a better person' and 'finding reason' all resonate with the aims of the facilitators of the programme and, consequently, the aims of transformative learning itself. A correlation between these reflections and the intentions of the facilitators also attest to the fact that this programme was a well-implemented case of transformative learning, therefore further

increasing the reliability and truthfulness of this research. Not only was the learning in the programme centred on the students' inner landscape (Theme 4.1), but it was also very emotional and traumatic (high risk) in nature (Theme 4.2). However, in understanding the necessity of struggle these former students did not regard the negative feelings they had experienced as an "unfortunate reality" (Tiberius & Flak, 1999), but were instead grateful for them.

5.3.3 Subsidiary question 3

What were the unique challenges that students faced in the context of this case?

The primary challenge posed to students in the PGCE course was to become a facilitator of learning. This generated a massive amount of uncertainty. As the programme progressed this uncertainty was fuelled by various sources. Initially it was generated by the authentic, non-standard nature of the programme (Theme 1.1). Students had never experienced a programme like this before. Additional factors which kept students switching between doubting themselves ("*And I was just like 'No, I can't do this'*" [Leto, page 126, line 18]) and doubting the facilities ("*I just thought this is utter and complete nonsense*" [Neon, page 75, line 11]) were background (Theme 1.2), personality (Theme 1.2), group dynamics (Theme 2.2) and the structure of the programme (Theme 2.3). It is interesting to note that depending on the student, two of these factors (background and personality) either caused doubt in some students (Theme 1.2), or empowered them to function in the midst of the uncertainty (Theme 1.1).

This data also suggests a process where students who had different emotional reactions to the programme interacted with each other and through this interaction shaped the cognitive structures with which they explained their experiences (Theme 2.2). It is a process that correlates beautifully with the social-constructive roots of the programme, as explained by Prof. Para (page 35, line 3) when he stated that students need to realise that "*I am going to be in a group of people who are studying this and I need to engage with them because we as a community of truth need to come up with what education really is.*"

It was also interesting to note evidence here of the afflicted ego of a student who was failed (Theme 2.3). Prof. Tera refers to our egos impeding our learning as we often rebel against criticism that makes us feel “*stupid*” (Prof. Tera, page 12, line 18). In this sense a student who is used to doing well within a modern learning paradigm (Eon, page 60, line 13) may be offended and blame the facilitator (Prof. Tera, page 12, line 1) when they no longer obtain high marks. Assessment is thus used to bring about “*a real-life experience that students had to resolve themselves*” (Prof. Para, page 24, line 28). In doing so, challenge becomes the very essence of learning in the programme.

5.3.4 Subsidiary question 4

Do these challenges correlate with the intentions of the facilitators of the transformative learning?

It is important to be certain that the challenges mentioned were in fact present by design and not merely symptoms of a badly implemented programme, as this research hinges on the unit of analysis being a successfully implemented case of transformative learning. Looking at the data, we see a clear correlation between the challenges experienced by the students and the intentions of the facilitators of learning. As stated by Prof. Para:

One should not think that the finding of meaning is the primary motivation, it's not. If finding meaning is the primary motivation then when meaning is found the search will stop. So the important thing is the search for meaning and the search for meaning is the crucial thing. It's not the finding of the meaning. Of course meaning has to be found for the will to be ignited in the search for further meaning. But that sets the cycle and that is everything about what learning is. And then just to conclude this conception (and of course we know how Victor Frankel came to this with his incarceration in the concentration camps): It was Louis Buscalio who said that when it concerns learning it is not the knowing, but the seeking (Prof. Para page 26, line 1).

There has to be uncertainty, there has to be emotion because as Claxton said: “Learning is essentially an emotional business and not a cognitive

business.” No two ways about that. This is the crux of facilitating learning. So now you have to create a gap, which is the challenge that the student teachers need to overcome (Prof. Para, page 37, line 24).

The fact that facilitators of learning worked actively to maintain a sense of uncertainty served to ensure that those students who were initially looking at their experiences in the programme through an existing paradigmatic lens were coerced into a paradigmatic shift. This raises an interesting point: from the perspective of the student (who has a history of teacher-centred education), ‘bad’ (modern) education might appear to be ‘good’, as the facilitator is conforming to the student’s existing expectations. Conversely, high quality education (transformative) will appear to be ‘bad’, because (through the student’s eyes) the facilitator does not readily give answers and constantly leaves the student to struggle. If this is the case, future studies may focus on how students can be encouraged to trust facilitators of learning who do not conform to what students have experienced in modernistic classrooms of the past.

As the challenges experienced in this specific programme correlate with the literature (Theme 1 and Theme 2), we can safely surmise that this “*uncertainty*” (Neon, page 74, line 11) and the factors contributing to the uncertainty will be present whenever transformative learning takes place. This makes the students’ unique reactions to the challenges something to be taken into account as these experiences form part of the transformative learning experience.

5.3.5 Subsidiary question 5

How did these students overcome these challenges?

The analysed data indicate two categories of ‘support’ that helped these students overcome the challenges they experienced. The first category concerns external support (Theme 3.1 and Theme 3.2) and the second intrinsic support (Theme 3.3). Although the former may have an influence on the latter, it is important to note that the students’ background, personality and social environment exist prior to and are independent of any stimuli presented in the learning programme.

Starting with external supports, the facilitators of learning played a role in the emotional support of the students (Theme 3.1), although the greater part of the data referred to

the support that students found in each other (Theme 3.1). It would seem that **most** students had had the inner resources needed to approach the facilitators of learning, while **all** students had been able to tap into the emotional support provided by their peers. Students also attempted to make sense of their experiences by going to their textbooks, the library, academic journals and the internet (Theme 3.2). In a sense they tried to bridge the gap created within this programme by acquiring new knowledge. Although this strategy might not have succeeded in alleviating their uncertainty (which was purposefully maintained by the facilitators of learning), it did give the students a sense of control (emotional calm) within a turbulent environment.

The variety of inner resources (or intrinsic supports) mentioned by the students attest to the very personal nature of transformative learning, where an individual is forced to access inner resources specific to that particular individual at that particular time. Intrinsic supports included religion, being a people pleaser who wanted to please the facilitator, wanting to become a facilitator, needing to pass the programme to further career goals, spiritual beliefs (which do not necessarily refer only to religion), being creative, being resilient, an increased sense of pride after experiencing success and gaining confidence. The findings related to these sub-questions answered my main research question.

5.3.6 Main research question

How do students overcome the unique challenges of transformative learning?

Themes 1 and 2 set the stage for the challenges experienced by students in transformative learning. In Theme 3 we saw how students overcame these obstacles. According to the data, student support can ultimately be categorised as external and intrinsic. Externally they were encouraged by their peers and the facilitators of learning. They also made use of external data sources in an effort to ‘research’ their way to certainty. Intrinsic supports were also utilised, such as faith, personality traits, positive emotions (feelings of loyalty, pride in success) and intrinsic motivation.

Although the nature of the interviews conducted does not allow us to determine precisely which supports were more effective in overcoming specific challenges, this does not in any way make the findings of this research less important. Managing the

gap in transformative learning is a highly intuitive process as each student has a unique background with a unique set of traits and skills. It would thus be folly to even attempt to create some form of step-by-step guide for a facilitator of learning. Rather, this research may help facilitators to prepare for the possible range of challenges in the programme (some of which need to be implemented by the facilitator) and, in the planning of the programme, provision may be made for the emergence of the supports as listed by this research. Although future facilitators of learning will still have to use their own judgement in managing the gap, this research at least gives them a partial overview of what transformative learning entails, adds empirical evidence to the literature regarding the challenges that students face and, lastly, gives examples of how students within this particular case overcame these challenges.

Although the facilitation of this type of learning was one of the main drives behind this study, having answered the main research question I have come to realise that the facilitation is not important in the way that I had thought before. In other words; the facilitation of learning is not primarily about supporting struggling students. I make this statement because of the data which proved that the supports that students utilised to overcome their unique responses to challenges were for the greater part located outside the structure of the programme (peer support, accessing external data, personality traits and past experiences). In fact, it would appear that selecting specific supports at various stages, as well as accessing and in some case generating these supports, not only formed part of their struggle to learn but was in fact their development. Hence, this begs the question: Does any form of support (scaffolding) introduced by the facilitator not then impede the student's growth? Accordingly, my alternative representation of the ZPD (Figure 5.1) applies:

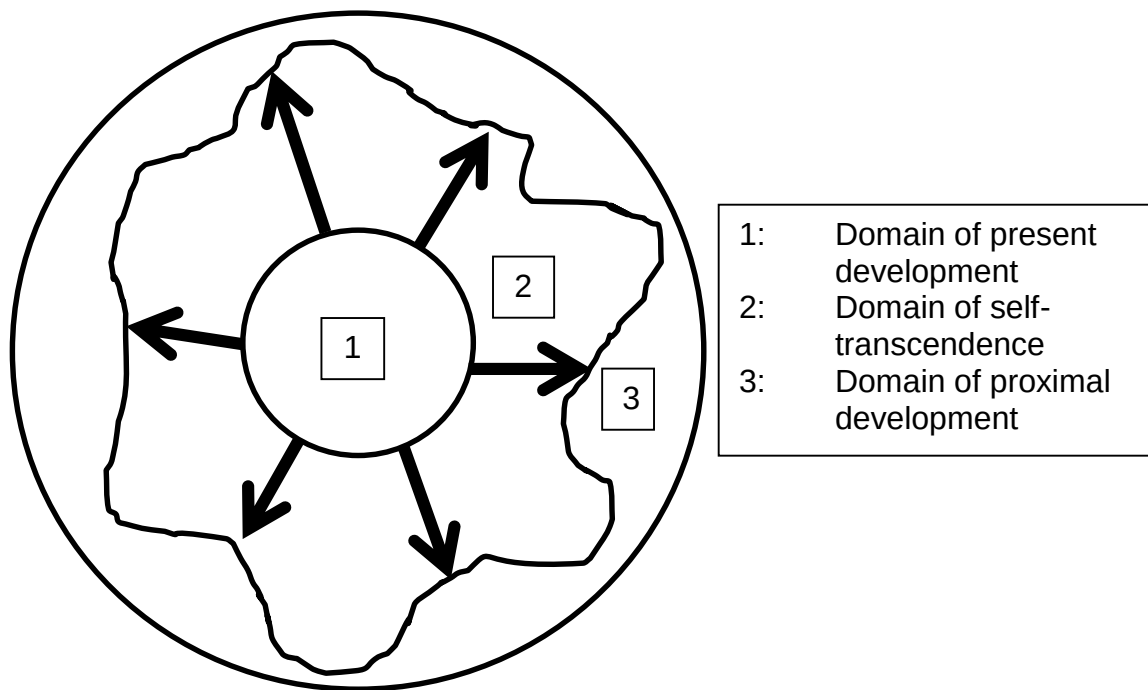


Figure 5.1 An alternative representation of the ZPD

Before conducting this research, I had suspected that the main concern of a facilitator of transformative learning should be the specific actions that would lead to the greatest area of the Domain of Self-Transcendence (Domain 2). After analysing the data generated by this research, however, I believe that the facilitator should be primarily concerned with the Domain of Proximal Development (Zone 3), as the students themselves should struggle to attain this domain through the utilisation of external and intrinsic supports. The facilitation of learning then becomes the process where the level of the challenge posed to students is constantly maintained or shifted as is called for by the situation and the unique emotional response of the student to the challenge, without the facilitator ever directly 'helping' or 'supporting' the student to overcome this challenge. It is, therefore, the extent of the facilitation of learning that determines the Domain of Self-Transcendence. The transformation within a student depends on how well the student as an individual can transcend the challenges of transformational learning by either eliciting or constructing whatever 'assistance' is appropriate and/or available. Ultimately, this ability remains within the student, representing the virtue of resourcefulness.

5.4 *Limitations of this study*

The criteria constructed in this research, which supported the selection of the PGCE programme as a suitable case, can be queried and brought into question as they are based on my own understanding of the literature. This might be seen as a limitation, as readers who have a different view of the literature might disagree with my initial research premise.

Another limitation of this study is that, like all research, its findings are temporal and tentative. However, in this research, the undeniable value of transformative learning and its inevitable necessity has been revealed, but it also exposed its intricate complexity and critical high-risk nature. It seems as though the adequate education of a facilitator of transformative learning is a challenge that involves dimensions that were not part of teacher education in the past. This research may have indicated but not explored those dimensions that would contribute to the highest possible quality of education. In addition, this research did not indicate how to curtail the initial dissatisfaction of students to a quicker realisation of the unavoidable necessity of having their prejudices challenged and their sense of self shaken. Some students who have been introduced to such a dissatisfying truth may become and remain negative and disgruntled with adverse effects on their own and other students' personal transformation.

A final limitation of this study is the fact that I am an alumnus of this programme myself and thus am biased in terms of the programme; the type of learning it entails and its facilitators of learning. I only hope that I have succeeded in stating this bias to the extent that readers will find this research truthful and credible. Only then will this research be able to make a contribution in this field, which I am very passionate about.

5.5 *Recommendations for further research*

From my experiences in conducting this study, I suggest the following topics for further research:

- How can students trust a programme without having experienced anything similar to the programme before?

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- How can students be made to trust a facilitator if they are having negative experiences that they do not at the time understand the value of?
 - How can one structure the complexity of a challenge in order for a facilitator to be able to increase or decrease it at will (in real time) for each individual, based on the unique emotional response of that student?
 - What gives a student the courage to assume the role of a facilitator of transformative learning, which can seem to be ‘harsh’?
 - How much time should be allocated for students to access the supports they need in order to overcome a challenge?
 - How do you implement transformative learning in a consumer-driven culture?

5.6 Conclusion

It is interesting to note that all the students interviewed concurred that this programme had been a much richer learning experience than they had ever previously experienced. Evidence of life change can be seen in the quotes (Theme 4), not only in spite of the trauma experienced, but because of it. Students were thankful for feeling “*empowered and uplifted*” (Eon, page 73, line 15) at the end of the programme and saw the trauma as a fair price to pay for the “*sweet success of having done this*” (Leto, page 133, line 23). Although students inferred that this is the best approach to learning and even stated that they would also educate in this way, there seemed to be some hesitation when it came to students declaring that they would expose their students to the same intensity of challenge as they had experienced – and rightly so: these student teachers were higher education students in this programme, while their current students range from babies to eighteen year olds and the “intensity” of the challenge should, no doubt, match the level of maturity of their students. In addition, these students might not have had enough experience yet, neither have they reached the maturity yet to feel comfortable enough to engage in the challenges of facilitating learning on that level of “intensity”. Prof. Tera (page 4, line 23) stated in this regard that it is not the “intensity” of the challenge that matters most, but how well the facilitator of learning is capable of facilitating the transformative learning process. Under these circumstances the facilitating learning process might be perceived by an observer as “*harsh*” because the conduct of the facilitator of learning might seem to be avoiding providing assistance to students and, therefore, void of empathy for the students in

their struggle with the challenge. Meanwhile it is a struggle for the facilitator of learning because such behaviour is contradictory to human nature. It takes someone of sincere convictions and a strong character to stand down to allow the students to struggle through their own challenges, because *“the only way that the intrapersonal human virtues can be acquired is if your student really struggles with an uncertainty and then constructs meaning from this uncertainty”* (Prof. Para, page 29, line 33). What also makes this a demanding challenge for a facilitator of transformative learning is that the initial consequences of such conduct might seem to be counterproductive. Palmer (2007, p. 94) echoes this reality when he states:

[a] good education might leave students deeply dissatisfied ... I do not mean the dissatisfaction that comes from teachers who are inaudible, incoherent, or incompetent. But students who have been well served by good teachers may walk away angry - angry that their prejudices have been challenged and their sense of self shaken ... It can take many years for a student to feel grateful to a teacher who introduces a dissatisfying truth.

Are these students of this study hesitant to take on the ‘harsh’ nature of a facilitator of learning? Does the intuitive nature of this learning, as demonstrated by the facilitators of learning in the programme, scare them? I suspect that these students had seen how vulnerable the highest quality of education makes a facilitator and are frightened of that commitment. They are frightened of exposing students to situations that involve struggle, having seen first-hand the discontent that this generates. I suspect they are weary of the parents phoning their schools, not understanding the learning process and demanding to see the principal. Even so, one can only hope that they will overcome this fear, described by Palmer (1991, p.1) as a “fear of vulnerability” and that they will realise that one should not “think you are being kind by rescuing pupils from difficulty and frustration: you are merely reinforcing the idea that sticking with difficulty is fearful rather than exciting” (Claxton, 2012, p.15). One can only hope that with this knowledge they will find the courage to help shape the educational landscape towards a better tomorrow, just as my own understanding of transformational learning has been shaped by this study.

It is only after completing this research that I have come to truly understand that the ‘struggle’ of development originates from a discrepancy between what is known and what is not, what one can do and what one is incapable of doing. When faced with an authentic real-life problem, this struggle then generates uncertainty. Since such uncertainty in education can generate ‘negative’ emotions in students, it is usually quickly resolved by a teacher, acting as an external support. However, since transformative learning does not permit such an external resolution, the uncertainty lingers and the discomfort increases to the extent that the student realises that the discomfort is irresolvable by external sources because it is intrapersonal – ‘I don’t know, I can’t do this’. This is always traumatic to admit. Since true resolution is not forthcoming from the outside where it is expected to come from, the first defence for incompetence is to find a scapegoat on the outside, which is the teacher, who has now been replaced by a ‘facilitator of learning’ who appears aloof, not conforming to the expectations of the student. Being proficient in facilitating learning, the facilitator does not succumb to the ‘blame’ of being the culprit. Thus the facilitator of learning avoids becoming the object of the struggle that the student is experiencing, allowing the student to come to the inevitable conclusion that this is ultimately an inner struggle. At this point the student realises that the only person who can resolve this struggle and bring an end to the uncertainty is the student. Then, and only then, is a personal transformation of the highest order possible.

We conclude where we started, with the metaphor of a child trying to ride a bicycle. The child (student) tries to ride a bicycle for the first time (is immersed in transformational learning) and falls (traumatic realisation that their current skill set is inadequate). Instead of walking away from the traumatic experience, the child picks up the bicycle and tries again. Although the child is taken aback by the traumatic process, she utilises both external and intrinsic supports in order to succeed and as a result she is transformed. The child succeeds, the bicycle stays upright and suddenly she is flying above the pavement, experiencing an exhilarating mode of transportation which gives her access to greater speeds than she has ever experienced before. The participants in this study also flew above the pavement of modern educational practice. Transcending their unique challenges the students were transformed and now serve

as a living testament that the challenges of transformational learning are overcome by accessing the intrinsic virtue of resourcefulness.

6. REFERENCES

- Alexander, T., & Potter, J. (2005). *Education for a change: Transforming the way we teach our children*. New York, NY: Routledge Falmer.
- Bancheva, E., Ivanova, M., & Pojarliev, A. (2013). *Adult education and transformative learning*. Paper presented at the 7th European Research Conference, Berlin, 4–7 September.
- Barnett, R. (2004). Learning for an unknown future. *Higher Education Research and Development*, 23(3), 247–260.
- Barnett, R. (2007). *A will to learn: Being a student in an age of uncertainty*. Maidenhead, UK: McGraw-Hill Education.
- Barnett, R. (2013). *Imagining the university*. London: Routledge.
- Bennett, C. (2010). The impact of transformational learning on individuals, families and communities. *International Journal of Lifelong Education*, 22(5), 457–480.
- Berejkovskaya, E. L. (2006). Potential negative consequences of education based on the principle of the zone of proximal development. *Journal of Russian and East European Psychology*, 44(6), 37–53.
- Berlach, R. G., & McNaught, K. (2007). Outcomes based education? Rethinking the provision of compulsory education in Western Australia. *Issues in Educational Research*, 17(1).
- Blanck, G. (1993). Vygotsky: The man and his cause. In L.C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 31–58). New York, USA: Cambridge University Press.
- Blunden, A. (2011). Vygotsky's idea of gestalt and its origins. *Theory & Psychology*, 21(4), 457–471.
- Bozhovich, E. D. (2009). Zone of proximal development: The diagnostic capabilities and limitations of indirect collaboration. *Journal of Russian and East European Psychology*, 47(6), 48–69.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101.

Brouwer, N. & Korthagen, F. (2005). Can teacher education make a difference? *American Educational Research Journal*, 42(1), 153–224.

Bromley, D. B. (1990). Academic contributions to psychological counselling: A philosophy of science for the study of individual cases. *Counseling Psychology Quarterly*, 3(3), 299–307.

Brouwer, N., & Korthagen, F. (2005). Can teacher education make a difference? *American Educational Research Journal*, 42(1), 153–224.

Cameron-Jones, M., & O'Hara, P. (1997). Support and challenge in educator education. *British Educational Research Journal*, 23(1), 15–25.

Claxton, G. (2007). Expanding young people's capacity to learn. *British Journal of Educational Studies*, 55(2), 115–234.

Claxton, G. (2008). *What's the point of school? Recovering the heart of education*. Oxford: Oneworld Publications.

Claxton, G. (2012). Virtues of uncertainty. *AEON Magazine*, 17 Sept. Retrieved from <http://aeon.co/magazine/being-human/guy-glaxton-education-morality-character/>

Cole, M., & Griffin, P. (1983). A socio-historical approach to remediation. *Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, 5(4), 69–74.

Coryell, J., E. (2013). Collaborative, comparative inquiry and transformative cross-cultural adult learning and teaching: A western educator metanarrative and inspiring a global vision. *Adult Education Quarterly*, 63, 299.

Cormick, J. (1997). Transformative and self-directed learning in practice. *New Directions for Adult and Continuing Education*, 74, 69–77.

Court, D. (2010). What happens to children's faith in the zone of proximal development, and what can religious educators do about it? *Religious Education*, 105(5).

Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.

Daloz, L. (1986). *Effective teaching and mentoring*, San Francisco, CA: Jossey-Bass.

De Beaubort, E. (1996). *The three faces of mind: Developing your mental, emotional and behavioural intelligences*. Wheaton, IL: Quest Books.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12, 219.

Fullan, M. (2011). *Change leader: Learning to do what matters most*. San Francisco, CA: Jossey-Bass.

Gardner, H. (1993). *Multiple intelligence: The theory in practice – A reader*. New York, NY: Basic Books.

Gardner, H. (2008, January 12). Five minds for the future [Oral presentation]. International School of Geneva, The Ecolint Meeting in Geneva: Schools Facing the Challenges of the Contemporary World [Conference]. Published in *The international school of Geneva conference report* (pp. 20–40). Genève: International Labour Office. Gercenshtein, L., Fogelman, Y., & Yaphe, J. (2002). Increasing the satisfaction of general practitioners with continuing medical education programs: A method for quality improvement through increasing teacher-learner interaction. *BMC Family Practice*, 3, 15.

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, 204, 291–295.

Grabove, V. (1997). The many faces of transformative learning theory and practice. *New Directions for Adult and Continuing Education*, 74, 89–96.

Gullo, C., Cam, T., & Cook, S. (2015). Twelve tips for facilitating team-based learning. *Medical Teacher*, 0, 1–6.

Gupta, A. (2009). Vygotskian perspectives on using dramatic play to enhance children's development and balance creativity with structure in the early childhood classroom. *Early Child Development and Care*, 179(8), 1041–1054.

Hamilton, M. L., & Pinnegar, S. (2000). On the threshold of a new century: Trustworthiness, integrity, and self-study in educator education. *Journal of Educator Education*, 51, 234.

Harley, K., Barasa, F., Bertram, C., Mattson, E., & Pillay, S. (2000). "The real and the ideal": Educator roles and competences in South African policy and practice. *International Journal of Educational Development*, 20, 287–304.

Hargreaves, A. (2003). *Teaching in the knowledge society: education in the age of insecurity*. New York: Teachers College Press.

Heyligen, A. (1997). *Epistemological constructivism*. Retrieved March 19, 2013 from <http://pespmc1.vub.ac.be/CONSTRUC.html>

Herman, C. (2012). NMQ 810 *An introduction to advanced research, theory and methods in education, lecture 2, week 2: Ontology, Epistemology, Methodology and Methods* [Lecture PowerPoint slides]. Retrieved from https://clickup.up.ac.za/bbcswebdav/pid-78026-dt-content-rid-932431_1/courses/nmq810_s1_2012/Ontology%2C%20Epistemology%2C%20Methodology%20and%20methods.pdf

Hung, W. (2013). Problem-based learning: A learning environment for enhancing learning transfer. *New Directions for Adult and Continuing Education*, 137, 27–38.

Jansen, J. D. (1998). Curriculum reform in South Africa: A critical analysis of outcomes-based education. *Cambridge Journal of Education*, 28(3), 321–331.

Karge, B. D., & Moore, R. K. (2015). Common core: Teaching Optimum Topic Exploration (TOTE). *Contemporary Issues in Education Research*, 8(1), 45–48.

Kolb, D. A. (1984). *Experiential learning: Experience as the Source of Learning and Development*. New Jersey: Prentice-Hall Inc.

Korthagen, F. A. J. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and Teacher Education*, 20, 77–97.

Kravtsova, E. E. (2009). The cultural–historical foundations of the zone of proximal development. *Journal of Russian and East European Psychology*, 47(6), 9–24.

Levykh, M. G. (2008). The affective establishment and maintenance of Vygotsky's zone of proximal development. *Educational Theory*, 58(1).

Lombardi, B. M. (2007). Authentic learning for the 21st century. *EDUCAUSE Learning Initiative*, ELI paper 1, 1-12.

Lumpkin, A. (2007). Caring educators: The key to student learning. *Kappa Delta Pi Record*, 43(4), 158–160.

Mansor, A. N., Abdullah, N. O., Wahab, J. A., Rasul, M. S., Nor, M. Y. M., NOR, N. M., & Raof, R. A. (2015). Managing problem-based learning: Challenges and solutions for educational practice. *Asian Social Science*, 11(4), 259–268.

Magill, M. K., France, R. D., & Munning, K. A. (1986). Educational relationships. *Medical Teacher*, 8(2), 149–154.

Maodzwa-Taruvunga, M., & Cross, M. (2012). Jonathan Jansen and the curriculum debate in South Africa: An essay review of Jansen's writings between 1999 and 2009. *Curriculum Inquiry*, 42(1).

Maree, K. (2010). *First steps in research* (4th ed.). Pretoria: Van Schaik.

Matusov, E. (2011). Irreconcilable differences in Vygotsky's and Bakhtin's approaches to the social and the individual: An educational perspective. *Culture Psychology*, 17, 99.

McGuinness, C. (1990). Talking about thinking: The role of metacognition in teaching and thinking. In K. J. Gilhooly, M. T. G. Kearne, R. J. Logie & G. Erdos (Eds), *Lines of thinking, Vol 2* (pp. 301–312). London: John Wiley and Sons.

McQueen, K. (2010). Chasing Vygotsky's dogs: Retrieving Lev Vygotsky's philosophy for a worker's paradise. *Stud. Philos. Educ.*, 29, 53–66.

Merriam, S. B. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly*, 55, 60.

Mezirow, J. (Ed). (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco, CA: Jossey-Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 6.

Mezirow, J., & Associates. (2000). *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco, CA: Jossey-Bass.

Mokhele, P. R. (2006). The teacher–learner relationship in the management of discipline in public high schools. *Africa Education Review*, 3 (1–2), 148–159.

Moll, L. C. (Ed.) (1993). *Vygotsky and education: Instructional implications and applications of sociohistorical psychology*. New York, NY: Cambridge University Press.

Noddings, N. (1984). *Caring: A feminine approach to ethics and moral education*. Berkeley, CA: University of California.

Obukhova, L. F., & Korpanova, I. A. (2009). The zone of proximal development: A spatiotemporal model. *Journal of Russian and East European Psychology*, 47(6), 25–47.

O'Hara, H. (2005). The transcendent educator–learner relationship: A class investigation. *Journal of Early Childhood Educator Education*, 25(4), 331–337.

Orb, A., Eisenhauer, L., & Wynaden, D. (2000). Ethics in qualitative research. *Journal of Nursing Scholarship*, 33(1), 93–96.

Ornstein, A. C., & Hunkins, F. P. (2009). *Curriculum: Foundations, principles, and issues*. USA: Pearson Education.

Palmer, P. J. (1991). The courage to teach. *The National Teaching and Learning Forum*, 1(2), 1–3.

Palmer, P. J. (2007). *The courage to teach*. Hoboken, NJ: John Wiley & Sons.

Park, E. L., & Choi, B. K. (2014). Transformation of classroom spaces: Traditional versus active learning classrooms in colleges. *Journal of Higher Education*, March. doi: 10.1007/s10734-014-9742-0

Pascaol, P. M., Narciso, I. S. B., & Pereira, N. M. (2013). What is sexual satisfaction? Thematic analysis of lay people's definitions. *The Journal of Sex Research*, 51(1), 22–30.

Piaget, J. (1977). *The development of thought: Equilibrium of cognitive structures*. Oxford: Blackwell.

Rajaei, N., Junaidi, E., Taib, S. N. L., Salleh, S. F., & Munot, M. A. (2013). Issues and challenges in implementing outcome based education in engineering education. *International Journal for Innovation Education and Research*, 1(4), 1–9.

Ratnavadivel, N. (1999). Educator education: Interface between practice and policies. The Malaysian experience 1919–1991. *Educator and Educator Education*, 15, 193–212.

Rogers, C. (1967). The interpersonal relationship in the facilitation of learning. In R. R. Leeper (Ed.), *Humanizing education: The person in the process* (pp. 1–18). Washington, DC: Association for Supervision and Curriculum Development, NEA.

Richards, K. (2006). “Being the educator”: Identity and classroom conversation. *Journal of Applied Linguistics*, 27(1), 51–77.

Robertson, D. L. (1996). Facilitating transformative learning: Attending to the dynamics of the educational helping relationship. *Adult Education Quarterly*, 47(1), 41–53.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday.

Shor, I., & Freire, P. (1987). What is the “dialogical method” of teaching? *Journal of Education*, 169(3), 11–31.

Siegle, D. (2014). [online] Retrieved May 25, 2014 from:
<http://www.gifted.uconn.edu/siegle/research/qualitative/trust.htm>

Sgroi, A., & Saltiel, A. M. (1998). Human connections. *New Directions for Adult and Continuing Education*, 79, 87–92.

Slabbert, J. A. (2015). *Reviving education and the education of educators*. (Unpublished article). University of Pretoria.

Slabbert, J. A., De Kock, D. M., & Hattingh, A. (2009). *The brave 'new' world of education: Creating a unique professionalism* (1st ed.). Cape Town: Juta.

Slavin, R. E. (1994). *Educational psychology* (4th ed.). Boston, MA: Allyn and Bacon.

Smilkstein, R. (2003). *We're born to learn: Using the brain's natural learning process to create today's curriculum* (1st ed.). Thousand Oaks, CA: Corwin Press.

Summerlee, A. J. S., & Murray, J. (2008, June). Can universities survive the 21st century? *Journal of the Oxford Round Table*.

Taleb, N. (2007). *The black swan*. New York, NY: Random House.

The RSA. (2013). How to change education – Ken Robinson. [Online Video]. 18 July 2013. Retrieved May 01, 2015 from:
<https://www.youtube.com/watch?v=BEsZOnyQzxQ>

Tiberius, R. G., & Flak, E. (1999). Incivility in dyadic teaching and learning. *New Directions for Teaching and Learning*, 77.

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5(12).

UNESCO. (2005). *Education for all: The quality imperative. EFA Global monitoring report 2005*. Paris: UNESCO.

Victor, M., & Ropper, A. H. (2005). *Adams and Victor's principles of neurology*. New York, NY: Mc Graw-Hill.

Vygotsky, L. S. (1987). Thinking and speech. In R. Rieber & A. Carton (Eds), *L. S. Vygotsky: Collected works Vol 1*. (pp. 39–285). New York, NY: Plenum (Original work published in Russian in 1934).

Walter, M. (1998). Participatory action research. *Reason*, ch 21. Retrieved from <http://www.oup.com.au>.

Wayne, A. U. (2007). Vygotsky and Lenin on learning: The parallel structures of individual and social development. *Science & Society*, 71(3), 273–298.

Wells, M., Williams, B., Treweek, S., Coyle, J., & Taylor, J. (2012). Intervention description is not enough: Evidence from an in-depth multiple case study on the untold role and impact of context in randomized controlled trials of seven complex interventions. *Trials*, 13, 95.

Wertsch, J. V. (Ed.). (1985). *Culture, communication, and cognition: Vygotskian perspectives*. Cambridge: Cambridge University Press.

Wertsch, J. V. (1993). The voice of rationality in a sociocultural approach to mind. In L.C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 111–126). New York, NY: Cambridge University Press.

Wheatley, M. J. (2006). *Leadership and the new science: Discovering order in a chaotic world*. San Francisco, CA: Berrett Koehler.

Williams, L. L., Levine, J. B., Malhotra, S., & Holtzheimer, P. (2004). The good-enough mentoring relationship. *Journal of Academic Psychiatry*, 28(2), 111–115.

Yin, R. K. (1981). The case study crisis: Some answers. *Administrative Science Quarterly*, 26(1), 58–65.

Young, J. C. (2013). Understanding transfer as personal change: Concerns, intentions, and resistance. *New Directions for Adult and Continuing Education*, 137, 71–82.

Zuckerman, G. (2007). Child–adult interaction that creates a zone of proximal development. *Journal of Russian and East European Psychology*, 45(3), 43–69.

Zull, J. E. (2002). *The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning*. Arlington, VA: Stylus.

Zull, J. E. (2011). *From brain to mind: Using neuroscience to guide change in education*. Arlington, VA: Stylus.