Chapter One

Orientation

1.1   General problem statement

The Eastern Cape attained the worst matric pass rate performance of all provinces in South Africa (Hlati, 2013; Laganparsad, 2013), with only 61,6% of grade 12 learners who passed matric in 2012 (Scherer, 2013). A disparity exists between "the schools of the privileged and the poor, which has remained constant despite many political and policy interventions" (Jansen, 2011). Problems in our education system relates to various factors like the frequent changing of the curriculum, shortages of teachers, uneven provision of resources, environmental problems, inadequate training, social and environmental problems (poverty and lack of decent school facilities), parental inefficiency, insufficient professionalism among teachers, as well as negative attitudes of learners (Bester, 2012). Jansen maintains that there is an urgent need to prevent the "spread [of] the virus of mediocrity that the authorities are 'determined' to spread from schools into higher education systems in South Africa" (Jansen, 2012). He predicts that little change will take place at a systematic level in the next ten to twenty years as we urgently need "a moral underground, an army of volunteers" (Jansen, 2012) who would be willing to provide another chance to the *abandoned children* in poorer schools to develop their full potential for a brighter future (Jansen, 2012).

Teacher training aims to address this, as well as other pertinent issues in education. At the North-West University (NWU), the Faculty of Education Sciences presents various qualifications to in-service teachers as part of their professional development to assist teachers to address "mediocrity" and work toward a better future for learners across South Africa. This study searched for the knowledge that would enable teaching and research communities to understand and the NWU to provide guidelines for the support to open distance learning (ODL) of teacher-students in rural communities on the academic use of Facebook. Social media, like Facebook, are in many cases used across South Africa as a catalyst for communication between facilitators and students (De Villiers, 2010). A gap—a digital divide—exists between conventional teaching and learning and the integration of learning technologies in reconceptualised teaching and learning environments, especially in terms of rural students. There is a need to understand how traditional instructivist teaching and learning strategies can augment teacher-students at a distance through the academic use of Facebook towards constructivist learning (Brooks, 2013; De Villiers, 2010; Muhuro, 2008).

1.2   Conceptual framework for the study

This study used the conceptual framework of (Kruger, 2012) for the implementation of ICTs for ODL (Figure 3.1). Although it is not yet a generally acknowledged framework, it incorporates various cur-

rent issues and technologies for learning in order to foster 21st century skills (Kruger, 2012): "The intention was to outline guidelines for supporting teacher-students in an open distance learning environment" (Kruger, 2012). Therefore, this study aimed to uncover how the academic use of Facebook could support teacher-students in ODL programmes in rural areas. In addition, it also aims to uncover the affective aspects of learning, according to Bloom's taxonomy (Krathwohl, Bloom, & Masia, 1964), during initial phases of learning technology use. The researcher compiled a Facebook group-page where teacher-students could communicate with the facilitator and peers. The conceptual framework (Kruger, 2012) comprised five concentric layers, starting from the centre progressing outwards with the following headings: (A) student; (B) curriculum aspects; (C) strategic principles; (D) criteria of excellence; and (E) outcomes of implementation of ICTs for ODL. The conceptual framework is unpacked in Chapter Three (§3.2).

This study focuses on the affective learning (the involvement of attitudes, motivation and values which students have in respect of a learning experience) while unpacking and developing the concept of *coaching and scaffolding* (the notion where facilitators assist students to acquire knowledge where the involvement of the facilitator becomes lesser as the student builds own structures and develop confidence in their learning) of rural teacher-students for ODL. The following rationale was provided:

- Due to their average age of 43 years, most of the participants have come through *Bantu Education* and are unfamiliar and uncomfortable with highly constructivist teaching and learning approaches

- Rural teacher-students from the Eastern Cape have for a long time been involved with instructivist teaching and learning approaches, ranging from as far back as *Bantu Education* when most of the participants were learners at school

- In spite of the advent of OBE and other educational interventions, instructivist practices are still active in most of the schools that the research participants relate to as these practices were the ones they initially learnt.

The interventions of the project aimed not to perpetuate instructivist approaches, but to create awareness of the value of the use of social media, like the academic use of Facebook to foster communicative change towards the attainment of the outcomes of the use of ICTs in ODL. However, the concept of coaching and scaffolding cannot be treated in isolation, and it was interrelated to all of the concepts depicted in the third layer of the conceptual framework. Research findings indicated the connectedness of the concepts.

1.3   Context of the study

In order to assist learners to achieve a better future, this study focuses on teachers in order to enhance their learning experiences and consequently their teaching performance while they are enrolled for a BEd Honours degree as part of their professional development. I, the researcher, live and work

as a facilitator in the Eastern Cape and focused my study on a group of rural isiXhosa teacher-students in the Queenstown district. Through inspiring them to develop their potential in order to reach higher accomplishments, these teacher-students could become motivated to break the barriers of mediocrity (Jansen, 2012) in the learners they teach. By performing better at school, chances could be better that learners would find employment, or even accomplish further education and thereby contribute to the economy.

The reality of the rural areas of the Eastern Cape where this study took place, relates to challenges like: (i) limited Internet coverage for participants for interaction with the Facebook page as a channel of communication, (ii) the participants needed training to participate meaningfully in the research because they were not skilled in the Internet use of their cellular phones, (iii) some participants had basic cellular phones that did not have the capacity to connect to the Internet and thus Facebook, (iv) a few participants did not have sufficient air-time on their cellular phones, (v) feelings of anxiety and fear about their technological inexperience and (vi) logistical problems prevented the research participants to attend coaching and scaffolding sessions. These problems included, among others, transport problems, unexpected family responsibilities and work related responsibilities.

The mature adult teacher-students as described by Knowles (1990) (§3.2.2) who were participants of this study, were not part of the "mobile-connected-internet-global-village generation" (De Villiers, 2010) who live in the comfort zone of technological expertise. The teacher-students had to overcome many barriers to actively become part of the support group on FaceFunda and participate meaningfully. The question still remains about the critical importance of technology enhanced learning environments with rural ODL students. The fact that technology could help, is undeniable, but to ascertain how technology can be applied to enrich their lives in their unique lived context, remains the challenge.

1.4 Research questions

From the above initial ideas on the research context and the gap the research intended to address, the following research question underpinned the research: *How can the affective learning of open distance learning teacher-students in the rural Eastern Cape be supported through academic Facebook?*

In order to explore the aspects relating to the primary research question, the following subsidiary questions were posed:
(i)   What are the implications of affective learning for Social Network Sites (SNSs)?
(ii)   What are the critical affective learning aspects for coaching and scaffolding opportunities on Facebook?
(iii)   What are the guidelines for the academic use of Facebook for peer and facilitated support?

1.5   Research design and methodology

A pragmatic philosophical world view forms the basis of the research design as it addresses practice and theory (Plomp, 2011) and it focuses on the outcomes of research (Creswell, 2007). Pragmatism deals with real-life situations, is problem-centred and acknowledges that multiple realities exist (Creswell, 2008; Kali & Linn, 2007a). Bloom's taxonomy of educational objectives stipulates "what we expect or intend students to learn as a result of instruction" (Krathwohl, 2002). During this study, I focused on the *affective* domain of the teacher-students while learning with technology. The affective domain includes "attitudes of awareness, interest, attention, concern, responsibility, ability to listen and response to others" (Krathwohl, 2013). Emotion plays an important role in learning and relates to the self and self-identity (Ahn & Picard, 2006), especially on how people construct meaning of their lives (Dirkx, 2008).

Likewise, social constructivism, as a theory of learning as well as an approach to education, emphasises the ways in which people create meaning and make sense of the world in which they live. Vygotsky laid the foundations for the social constructivism theory that stress the critical importance of culture (Theories of Learning in Educational Psychology, s.a.), as well as the significance of the social context for cognitive development. Vygotsky described learning as a social process and postulated that human intelligence originated in society and in culture (Gouws, Kruger, & Burger, 2012).

1.5.1   The proposed literature study

The literature which I used during my dissertation was found in various academic databases like Google Scholar, ISI Web of Science, Ebscohost, SAGE Publishers, Routeledge, Saide and Sabinet. Academic books in the field of research also formed reliable secondary sources of knowledge. I also consulted academic theses and dissertations, but they were not high on my priority list. Newspaper-articles from *The Mail & Guardian, The Sunday Times, The Daily Dispatch, Eastern Cape Today,* and *The Teacher* with information related to my topic were consulted. Websites on the Internet, such as Facebook supplied additional information for my research.

The literature review in Chapter Three explored the following concepts: the student, curriculum aspects, strategic principles; criteria of excellence; and critical outcomes of implementation of ICTs for ODL, each section having subsections relating to the heading.

1.5.2   Research design

The qualitative case study was presented in a descriptive exploratory style because I examined a phenomenon of which little is understood (Merriam, 1998b). I aimed to discover themes and patterns relating to participants' affective learning experiences on the academic use of Facebook on coaching and scaffolding (§ 3.2.3.1). Seeing that *emotion* is the *on/off switch* for learning (Vail, 2013) and emo-

tions evolve to enable students to develop a deeper sense of how experiences influence their lives (Clark & Dirkx, 2008), the affective domain plays thus an important role in the learning environment. A phenomenological mode of inquiry was used to describe the lived experiences of the participants (McMillan & Schumacher, 2001b).

1.5.3   Case study

A qualitative case study is an "intensive, holistic description and analysis of a bounded phenomenon" (Merriam, 1998b, p. xiii). It is "the study of an instance in action" (Cohen, Manion, & Morrison, 2011, p. 289). A case study describes *real people in real situations* and allows the readers to understand the context and ideas of the participants because it penetrates into situations in ways that cannot be reproduced by quantitative designs (Cohen *et al.*, 2011). The focus was to gain an in-depth understanding of a situation and to create meaning for those that were involved in the situation. The proses, context and discovery is more important than the outcome, variables or confirmation of knowledge. The outcome of a case study can influence policy, practice as well as future research (Merriam, 1998b).

A bounded case study is a "fenced in" (Merriam, 1998b, p. 27) unit of study. The boundary for my case study was the criteria for choosing the participants (§ 4.5.2.1).

1.5.4   Site selection

The site where the study took place was the rural areas around Queenstown in the Eastern Cape (the former Transkei and Ciskei). Coaching and scaffolding was held either in the Library Hall in Queenstown or at the Cathcart High School Library. The participants were in contact with one another through Facebook communication from their homes in the respective areas where they lived. These included Butterworth, Cathcart, Cofimvaba, Lady Frere, Nqobo, Queenstown and Whittlesea.

1.5.5   Participant selection

Sampling refers to the "process used to select a portion of the population for a study" (Maree, 2011, p. 79). Purposive sampling means that the participants in this bounded case study research would be "selected because of some defining characteristics that make them holders of the data needed for the study" (Maree, 2011, p. 79). I chose to use this sampling method because I needed specific participants that were living in and dealing with the phenomenon under scrutiny. Their first-hand experience was valuable for the study because they could provide rich information.

I made use of a purposive sampling method as I selected participants because they needed to be (i) enrolled at the NWU in the BEd Honours degree ODL programme, (ii) inhabitants of the former Transkei or Ciskei areas, (iii) the owner of an electronic device that can connect to the Internet, (iv) isiXhosa home language speakers, and (v) male and female teachers at various schools.

From a list of enrolled Eastern Cape students that I obtained from the Open Learning Group (OLG), I invited 74 teacher-students to an informative session where they could decide whether they wanted to become participants in this research.

1.5.6 Data collection strategies

During this qualitative research study, I made use of three data collection strategies: (i) individual interviews; (ii) a focus group interview; and (iii) content analyses of the academic Facebook group pages.

I conducted frequent semi-structured interviews with some of the participants. Criteria were: (i) participants who were actively involved in the Facebook discussions; (ii) participants who participated minimally, (iii) the IT expert, (iv) and the observer at a coaching and scaffolding session. The interviews were in the form of comfortable, informal conversations (Maree, 2011), yet focusing on the research questions.

A focus-group interview was conducted near the end of the programme. All the participants were invited to the session to discuss the support programme and the impact which Facebook had on their learning experience. At that stage, they had had many opportunities to engage on the academic Facebook group page with one another and myself—supporting one another, asking questions, giving information, sharing photos, reflecting on experiences, etc., and were therefore holders of rich data for the research. I asked a colleague (who was of the same ethnic identity as the participants) to facilitate the focus group session.

The participants were encouraged to take part in the Facebook group page site (called FaceFunda) during the programme. All the data generated were saved in MS Word format. This formed the basis of the textual content analysis which took place.

The research question which guided this study was: *How can the affective learning of open distance learning teacher-students in the rural Eastern Cape be supported through academic Facebook?* In order to answer the question, the strategy of creating a support group on Facebook to ascertain which affective emotions are experienced while learning with technology, which components of constructivist teaching-methods are most effective as well as what support is needed by rural teacher-students who are involved in ODL to create a positive affect towards the learning experience. Various data collection strategies were implemented to gather relevant data with respect to the posed research question and sub questions (Table 4.1 and § 6.3).

1.5.7   Data analysis

The data obtained through the implementation of the three data collection strategies were formatted as MS Word documents: The data were transcribed and the files were assigned to Atlas.ti™—a qualitative analysis computer-assisted programme. The main purpose of this programme is to assist researchers to uncover and analyse data systematically. Atlas.ti™ provides tools that enable the researcher to "locate, code and annotate findings in primary data material, to weigh and evaluate their importance, and to visualize the often complex relations between them. It combines large volumes of documents and can keep track of notes from texts, images, audio or video data. It also provides analytical and visualization tools to show other views on the data" (Atlas.ti™, 2013).

The focus of the data coding was the affective domain of teacher-students. After coding, the data were reorganized and clustered to enable me to find patterns and themes. Thereafter, the data were recombined and synthesized in relation to the proposed research question(s). Atlas.ti™ is capable of managing, extracting, comparing, exploring and reassembling meaningful segments of large volumes of data. Systematic grouping of data builds themes and patterns to meaningful conclusions (Atlas.ti™, 2013). Although software packages like Atlas.ti.™ are excellent for the management of qualitative data, I remained the primary research instrument to interpret the meaning of the text (Maree, 2011).

1.6   Researcher's role

In qualitative studies, the researcher is subjectively involved in all areas of the investigation. The researcher becomes the "research instrument" (Maree, 2011, p. 79) during the data collection and analysis. The researcher is involved in the changing real-world situation and this should be recorded meticulously (Maree, 2011). The researcher was personally involved in every step of the research process, because every consideration and decision had to be based on entirely personal grounds—a very complex perspective (Ostashewski, Reid, & Dron, 2013).

I participated in the interviewing process by taking on the role of observer as participant. Although I was involved with the facilitation of the coaching and scaffolding sessions and the FaceFunda interaction, I remained as objective as possible while analysing the collected research data. The intimate knowledge of the course interaction provided me with an insider view of their participation (Terre Blanche, Durrheim, & Painter, 2006). The participants knew me as their mentor and researcher.

Bias is a tendency which avoids unprejudiced deliberation of a situation. Bias occurs when a "systematic error [is] introduced into sampling or testing by selecting or encouraging one outcome or answer over others" (Pannucci, Wilkins, & Edwin, 2010, p. 621). To prevent bias in my role as researcher, I dealt with the research with a great awareness of how easily bias could happen. I tried to recog-

nise bias and reduce it as far as possible, was open minded and neutral and did not give my personal opinion.

For the students to become part of an academic Facebook programme, a private Facebook group page (FaceFunda) was created. In my capacity as facilitator, I designed and administrated the Face-Funda group according to the specific goals of the study (Coklar, 2012).

1.7 Ethical aspects of the research

The ultimate goal of all science is to search for truth, but this may not happen at the expense of the rights of individuals (Mouton, 2011). A general definition for ethical behaviour represents a "set of moral principles, rules, or standards governing a person or a profession" (Aurelius, 2013). In qualitative research, the researcher focuses on exploring, examining and describing people in their natural environments. Entrenched herein is the concept of relationships and the power between the researcher and the participants. By participating in a research programme, the participants are showing a willingness to share their experiences. Therefore, by giving consent to participate, the participants become involved in a relationship were trust is negotiated (Mouton, 2011; Orb, Eisenhauer, & Wynaden, 2000).

During my research, I obtained permission from every participating teacher-student. They signed a form giving their informed consent, and again during the focus group interview the participants acknowledged their voluntary participation to share their perceptions, as well as to be videotaped and photographs taken during coaching and scaffolding sessions. Their privacy and confidentiality would be protected through the fact that all the communications that took place on academic Facebook, was kept within the group. It was not seen on the public social network. Furthermore, participants stayed anonymous as pseudonyms where assigned to each. Participants did not do any physical exercises or go to dangerous places—they only used ICTs and partook in interviews. Feedback on the outcome of the investigation would be communicated to them, if they so wished. The participants partook on a voluntary basis and they were free to withdraw from the research at any time, without any penalty.

1.8 Contribution of the study

The study contributed towards the developing and understanding of the academic use of Facebook in order to support the learning experience of Open Distance Learning (ODL) students in the rural areas of the Eastern Cape. The main focus was to investigate the academic use of SNSs as part of peer and facilitated support to distance teacher-students in a rural setting.

The research outcomes contributed towards the outcomes of the research project of Technology Enhanced Learning (TELHE) as part of the sub programme, *The effect of technology enhanced learning on teaching and learning in higher education.*

1.9　　　Outline of chapters

The conducted research is presented according to the following chapters:

Chapter 1　　　Orientation

This chapter deals with the orientation of the study. The general problem statement is discussed, an outline of the conceptual framework is described, the purpose of the research is explained and then an overview of the research design follows. The following question guides the study: *How can the affective learning of open distance learning teacher-students in the rural Eastern Cape be supported through academic Facebook?*

Chapter 2　　　The coaching and scaffolding intervention

This chapter provides a detailed account of the instructional interventions that were implemented through coaching and scaffolding sessions to guide and develop the teacher-students' skills to participate in the programme. Photos illustrating the different stages and implementation of strategies are shown. A comprehensive summary of the participant's participation frequencies is set out.

Chapter 3　　　Conceptual framework and literature review

This chapter identifies factors in relevant literature pertaining to the study. The conceptual framework, for the implementation of ICTs for ODL, which forms the basis of this study, comprises five concentric layers of consideration (from the centre outwards). They are the (A) student; (B) curriculum aspects; (C) strategic principles; (D) criteria of excellence; and (E) outcomes of implementation of ICTs for ODL. The academic use of Facebook to enhance the learning experience is researched as technology is becoming ubiquitous in the learning and teaching arena of the 21st century. Throughout the literature study, a holistic picture of the global impact of technology is looked at, to discover the impact of technology on learning experiences. The purpose and problems of the research are examined from relevant literature.

Chapter 4　　　Research methodology

This chapter deals with the nature and methodology of this research. The methodology is explained, the qualitative data collection method is explored and the reasons why this specific method was cho-

sen, is explained. The selection of the site and participants is described. The data collection strategies, researcher's role and ethical aspects pertaining to this study, are discussed. Finally, the measures that where implemented to assure validity and trustworthiness, are set out.

Chapter 5   Analysis and discussion

This chapter deals with the analysis of the data collected from the interviews, the focus group interview as well as the textual Facebook scripts. The analysis was done by using Atlas.ti™. Data were discussed according to the affective domain in Bloom's taxonomy of learning. The main focus is to understand how teacher-students' affective reactions influence their learning experience with technology, and how a support group can be created to enhance learning of the rural isiXhosa teacher-students of the Eastern Cape. The chapter ends with the presentation of the qualitative findings.

Chapter 6   Conclusion

This chapter provides information about the synoptic overview of the inquiry, together with the synopsis of the key findings. In order to address the research question which guided the research, three sub questions assisted the researcher to uncover the various aspects: (i) What are the implications of affective learning for SNSs?, (ii) What are the critical affective learning aspects for coaching and scaffolding opportunities on Facebook? and (iii) What are the guidelines for the academic use of Facebook for peer and facilitated learning support? It also illustrates the value and contributions of this study to the field of research. This chapter organizes the study and provides a summarized overview of how academic Facebook can enhance the affective learning experience of ODL rural isiXhosa teacher-students in the Eastern Cape.