The Impact of Social Network Sites on written isiXhosa: A Case Study of a Rural and an Urban High School

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DECLARATION

I **Bongiwe Dlutu**, hereby declare that this dissertation is my original work, and that I have acknowledged all the sources used through appropriate referencing. This work has never been submitted for degree purpose at any other university.

Signed:

Date:

DEDICATION

I dedicate my thesis to my late father, Mbonisi Dlutu, who passed away on the 31st July 1999. My love for isiXhosa has been cultivated by him.

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ABSTRACT

The use of cellphones has increased all over the world. That invites many academics to conduct research on the usage of these devices, especially by young people, since young people join Social Network Sites (Facebook, Mxit, 2go, Whatsapp) and use a shorthand language. Most studies are related to the use of English and other languages that are recognised by computer software. There are few studies, if any, that have been done in relation to the use of African Languages on these sites. This research therefore aims to seek to explore the use of African Languages, especially isiXhosa, in assessing how technology might help in language development through the usage of SNSs that learners already use to equip them with educational material in their mother tongue.

This study was conducted in two high schools, Nogemane Senior Secondary School in a disadvantaged and remote rural community with limited access to additional educational material such as magazines, newspapers, and television. The school also lacks basic study materials such as textbooks from the Education Department and they have no access to a library and laboratory. They also only have very few subjects to choose from. Nombulelo Senior Secondary School is in Grahamstown. This school has good infrastructure and learners have access to different technological devices and they can access libraries. What is common between learners in both schools is that they are all doing isiXhosa as a first language and are using SNSs to interact with each other.

This study has found that learners enjoy using SNSs rather than reading the printed books. Furthermore, they enjoy and prefer interacting in isiXhosa in their conversations. Learners also use the web to post and show their creative writing, regardless of the shorthand form writing they use on the SNSs. This study has found that learners are not well equipped with basic isiXhosa skills when reaching the FET phase. They lack the understanding of standard isiXhosa idioms and proverbs. That clearly means that they are equipped in the more modern forms of literature rather than the traditional oral forms. IsiXhosa teachers also see SNSs as the better platform to engage with learners and they suggest that there must be a section in the subjects at school that teaches about cyber bullying and being safe online.

This thesis also presents examples of new and contemporary forms of SNS-speak that are used by learners in both the rural and urban schools. This study is more concerned with SNSs for literacy development and to assess whether the shorthand writing has negative or positive effects in writing isiXhosa. This is done against the backdrop of a literature review which explores new literacies, computer mediated communication, social identity models as well as language policy and planning.

ACRONYMS

AISI- African Information Society Initiative **ANC-** African National Congress **CB-Call-backs CEPD-** Centre for Education Policy Development **CMC-Computer Mediated Communication** CSIR- Council for Science and Industrial Research DACST- Department of Arts, Culture, Science and Technology DoC- Department of Communication **DoE-Department of Education** DBE - Department of Basic Education E-Learning-Electronic Learning EIU- Economist Intelligence Unit FET- Further Education and Training FtF- Face-to-Face HSRC- Human Science Research Council ICT-Information Communication Technology **IM-Instant Messaging** IT-Information Technology M-Learning- Mobile Learning MOOS- MUD Object Orientated MUDS - Multiple-User Dungeon

NGOs- Nongovernmental Organizations

NL-New Literacy

OBE-Outcomes Based Education

PC-Personal Computer

PICTA- Partnership for ICT in Africa

RSCT- Reduced Social Cues Theory

SIDE- Social Identity Model of Deindividuation

SMS- Short Message Service

SNS (s) - Social Network Site (s)

SPT- Social Presence Theory

Stats SA- Statistics South Africa

STDs- Sexually Transmitted Diseases

UNESCO- United Nations Educational, Scientific and Cultural Organization

USASSA- Universal Service Access Agent of South Africa

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Chapter 1 General Introduction

1.1 Introduction

This thesis assesses the impact of contemporary technology, particularly the use of Social Network Sites (SNSs) and cellphones on education and language development within the contemporary classroom, both within rural and urban settings in the Eastern Cape.

There is an increase in the use of cellphones capable of internet connectivity world-wide. This includes South Africa due to the low-cost of instant messaging and other technologies. Citizens use cellphones to communicate via SNSs such as Facebook, Mxit, Twitter, 2Go etc. The SNSs allow them to chat with a range of people all over the world. Some are registered in the SNSs for different reasons. It is therefore important to be safe and to share information you do not mind sharing. There are people who use fake identities, and those who send scam messages. There are also people they already know and from people they do not know. It is therefore important to know both the negative and positive sides of SNSs. What is happening on the social network sites occur through email messages and that means that the internet has negative and positive sides. There are people who surf the internet for academic purposes and research and others who seek information about businesses, accommodation, health related issues, electronic books and many important things including dictionaries and companies that are recruiting people for employment and bursaries that they offer.

Older people, particularly in South Africa who are not on the SNSs, regardless of having knowledge of the internet in terms of "having emails" look largely on the negative sides of the SNSs and as a result they regard SNSs as 'games'. You will find them asking, "do you play Mxit, Facebook...?" Older people and married couples who use SNSs are seen as bad because they think SNSs are for dating and for young people. It is therefore important to allow people who only look on the negative side of SNSs to see the positive sides, because learners use SNSs also to find information about school work and activities.

This research aims to investigate whether SNSs present opportunities for learners to develop literacy. Due to the negative perspectives of people who are not using SNSs, there are scholars and teachers who see the SNSs as damaging the writing ability of learners due to the shorthand writing used (Cameron 1995; Luke & Luke 2001). There are also those scholars

who experienced using SNSs and did much research and who see SNSs as not bad for the learner's writing abilities (Braun 2007; Crystal 2001, 2008; Thurlow 2006). These scholars see the need for people like teachers and parents to be engaged on the SNSs and to be part of the online community that young people have chosen.

It is therefore important to do research not only about SNSs but the New Media at large (internet, emails, text messages). It is vital to do proper research and analysis as to why young people are interested in using the New Media rather than printed books. Furthermore this will allow us to see how New Media, particularly SNSs can be used to empower African Languages and how this can be facilitated through the curriculum. It is important to educate young people about the changing technology and the new media and not to allow others to discourage the use of SNSs because they are part of the New Media in the 21st century. If learners can be taught in schools for example about how to use the SNSs in a relevant way and warn them of the dangers they can come across on the internet then they will find opportunities to gain more knowledge about being safe on the internet sites. It is also important for language teachers and lecturers to connect with Computer Science practitioners and Information Technology practitioners so that there can be educational games, puzzles and even important information on the internet and SNSs written in African Languages. This will not only encourage learners to learn African Languages but also those who use for example isiXhosa as a 2nd or 3rd language will find more knowledge and this will make ICT more important in the curriculum.

This study is more concerned with SNSs for literacy development and to assess whether the shorthand writing has negative or positive effects in writing isiXhosa. Computer Mediated Communication (CMC) theories are included in the study to explore the reasons why people use computers and why they behave the way they do in the online environment and potential benefits of using computers to see what they gain from the computers.

1.2 Motivations of the study

This study aims to encourage the use of African Languages and particularly isiXhosa in the Information Communication Technologies (ICTs) in both the school environment and outside of the schools. Most African Languages including isiXhosa are not recognized by computer software that are currently used and where most learners seek information in the 21st century. This study will encourage isiXhosa teachers to explore what is happening around isiXhosa in the online community because learners are using isiXhosa and they have created their own

abbreviations and meanings relevant to the 21st century. Examples are explored further in chapter 5 and are also visible in Appendix A.

This largely means that they have a positive attitude towards their language online. Teachers therefore have to keep that positive attitude and include educational materials in the space the students prefer in order to see if it does not work and encourage learning. Some learners are lazy to read printed books, and they prefer to read online materials. An example in the SNSs, is a common saying by young people, "If Facebook was a subject at school I would be top in the class/ I would get A+"... "If Facebook, twitter, and whatsapp were school subjects my parents will be proud of me". These sayings clearly indicate that young people are more interested in the SNSs and they have more knowledge of the SNSs than their school books. By including educational material on the SNSs this may have a positive impact on their school work.

This research inherently promotes good writing and reading skills of learners and will encourage learners to double check their work before submitting to see if they do not have spelling and grammatical errors, especially when handwriting. Those who type on the computer will be aware that computers and smart phones do not detect spelling and grammar errors automatically when using isiXhosa.

1.3 Statement of the problem

Schools in the rural areas largely have no access to libraries, and science laboratories are not in use as there are no chemicals for experiments in some schools. Most rural schools have no access to landline telephones, electricity, clean water and good sanitation. All these issues show that in the democracy era in South Africa many schools are marginalized according to the region they are situated in, for example schools in poor, rural areas are ill equipped and lack resources because people in these areas are poor. This issue makes the school environment not very different from the apartheid era where schools were divided according to race. Schools in rural areas like Nogemane Senior Secondary School in Ngqeleni, where this study was partly conducted, have a very low pass rate and lack resources compared to Nombulelo Senior Secondary School, in Grahamstown. Even the school buildings are very different but the education policies, law, curriculum, and other policy frameworks are the same. Transport to rural schools both for learners and teachers is an issue because schools in rural areas are very few, and it is very common to find a single school serving more than five villages. It is therefore important to look at certain communication strategies that may close gaps between rural and urban schools. Learners in South Africa use SNS very frequently and for various reasons, partly also to bridge educational gaps between them. In doing so they often adopt a slang, which involves formerly unconventional abbreviations, multiple missing end letters, middle letters, or final letters, acronyms, initials, non-conventional spelling, nonalphabetic symbols and 'emoticons', of characters used to depict images. The use of such language in the SNS has led learners to have their own slang in isiXhosa too as evidenced in chapter 5. It is therefore important to see if the use of the shorthand has negative or positive effects on the learners writing abilities and this is the partly the aim of this study.

Teachers in the Senior and Further Education and Training (FET) phases widely assume that learners entering these phase have already gained good grammar and reading skills, and that they do not need to focus teaching and learning sessions on reading and grammar. Students who undertake writing tasks without using computers that detect and correct errors in grammar or spelling or write in isiXhosa language, which computers cannot automatically correct should double check their work. However, they do not do that because they think they know the language since they gained and practiced it in the Senior Phase, and Foundation Phase. For these reasons learners have poor spelling because much focus in lower classes is on teaching English and very little focus is on isiXhosa. As a result learners graduate to the FET phase without the knowledge of isiXhosa idioms and proverbs and some even find it hard to critique isiXhosa poems and to write essays. This may also be as a result of the curriculum that has changed many times over the past years.

1.4 Research aims and objectives

This study focused on the effects of SNS on isiXhosa. The specific objectives of this study were as follows:

- To determine and characterize the nature of the language used by isiXhosa mothertongue speaking learners who are studying isiXhosa;
- To account for language used by isiXhosa mother tongue speaking learners on SNS;
- To determine whether the non-standard language use in SNS affect negatively or positively the learners' writing skills in isiXhosa;
- To consider the opportunities that SNS provide for the development of literacy skills in African languages.

1.5 Research Methodology

The study was conducted in two high schools in the Eastern Cape Province of South Africa. Nogemane Senior Secondary School is in a rural setting and Nombulelo Senior Secondary School, in the urban setting of Grahamstown. 60 learners took part in the study (30 from the urban school and 30 from the rural school). Because I needed to find information from different genders, there were 15 females and 15 males from each school who participated in the study. They were all from different classes, 10 from each school were from Grade 10, another 10 from Grade 11 and the remaining 10 from Grade 12. It was deemed important to study learners from different grades because their information about the SNSs and the internet largely differs and they go online for different reasons. For example learners from Grade 10 in both high schools showed that they register on the SNSs most of the time for the purpose of networking and do very little school activities online. They request more information about registering from those who are already on the SNSs. Learners especially from rural areas get phones with internet most of the time when they get to high school. These are generally presents from parents or siblings when congratulated for reaching high school level. These cellphones are usually second hand or cheap, while other learners from urban schools own brand new, expensive 'Smartphones'. Teachers who teach isiXhosa as well as other teachers from Nogemane SSS and Nombulelo SSS were also interviewed to substantiate the above observations.

Case Study

This research is in the form of a case study. It studies two different high schools, one from a rural and one from an urban setting. The school backgrounds are studied and it is recognised that each background of the school shapes teacher's and learner's perspectives on using ICTs because schools from urban areas have more access to ICTs than those schools in rural areas. Schools from different backgrounds have different needs and schools from rural areas lack important educational resources compared to those in urban areas. This case study in some way is comparing two separate but comparable establishments.

Interviews

Teachers who teach isiXhosa were interviewed about learners writing skills in school, and whether teachers do perhaps face any difficulties in this regard. These interviews were conducted with two teachers who teach isiXhosa from each school. Interviewing teachers allows the researcher to gain more insight because they are the ones who observe the learner's written documents on a daily basis. These interviews corroborated the view that learners use the social dialect when writing school work in both rural and urban schools. They often misunderstand questions, especially when it has something to do with idioms and proverbs. Teachers also gave their opinions about SNSs and how they can be used to encourage learners to like isiXhosa and not study it just to graduate to another level.

Written documents

All participants were asked to forward at least 3 SMSs they received. To avoid confusion when analysing the SMSs, participants were asked to write down at least 3 SMSs they sent, and were also asked to send a call-back message to the researcher so that their call-back personalization can also be analysed since they use a short form of writing most of the time when personalizing call-back messages. Learners were informed not to write their names when writing those text messages.

Participants were asked to provide isiXhosa essays that are already marked by teachers (1 from each learner). Samples of this written work are contained in Appendix A. This was when I observed the language used online and the language used at school. Participants also wrote down one paragraph about 'why they use SNSs', and that was for me to mark and see how they use isiXhosa.

Focus Groups

a. Offline

From each school learners were grouped into 6 groups, 2 from each Grade (Grade 10-12). In the focus groups learners discussed the advantages and disadvantages of using SNSs and the importance of sending SMSs rather than making calls. They discussed the reasons for them to abbreviate when writing on the SNSs, when sending SMSs and when sending call-back messages. In their discussions they included opinions regarding whether the shorthand language they use when texting affects them when writing isiXhosa in the classroom. This is however when they come up with ideas that can make them learn isiXhosa better online, for example through educational games. They also indicated that they wanted animal photos and plants and other educational material to be put online with the names written in isiXhosa.

I decided to use focus groups because it is the method that allows participants to interact with each other, and it further allows them to come up with new ways of thinking about the discussed topic. Krueger and Casey (2000) and Fern (2001) argue that focus groups allow

participants to raise their own opinions that can make data more trustworthy, and it allows the researcher to observe the behaviour of the participants during the study. According to Crewel (1998:18) focus groups allow the researcher not to rely only on the spoken words but to observe the participant's tone and emotions. That in turn helps to learn not just the facts but also the meaning behind those facts.

During the focus group discussions learners were also asked to give meaning to the abbreviated words from the SMSs and call-backs they sent to the researcher without telling who sent the text messages. In their groups they also came up with words they use on the SNSs, that are written in the short form and they gave meanings for each word. During focus groups discussions, learners came up with different ideas as to why they prefer to use isiXhosa and sometimes code-mix it with English when chatting.

b. Online

There were 3 chatrooms opened from Mxit. 10 participants from each group were divided according to their grades. They discussed online the importance of technology in their lives in general and what they usually do when they go online. This discussion was very important because it was when they were able to show that they do not always log online for networking but also for researching about school topics or work, checking breaking news and also checking the weather online. There was also a group discussion with the same topic on Facebook, but this time all learners from both schools were given a chance to interact with each other. Facebook conversations allowed the researcher to also observe why people online than offline. This is when as a researcher I observed the updated status of the participants and comments from their friends. It was evident that most of the time they were using isiXhosa when updating and that raised the following question which came up in learner discussions: "why they prefer to update their statuses in isiXhosa rather than in English"?

1.6 Outline of chapters

Chapter 1: This chapter introduces the study, provides research aims and objectives, motivations to the study, and provides a problem statement.

Chapter 2: This chapter focuses on the theoretical framework, it consists of concepts, their definition and theories used for this study.

Chapter 3: In this chapter a theoretical framework is presented. It provides information about Computer Medicated Communication theory that is widely used in the study. This chapter explains literacy and new literacy, language attitudes in general and attitudes towards isiXhosa in education.

Chapter 4: This chapter provides a study of the key differences between ICTs in education in both a rural and urban high schools in South Africa. This chapter explains the situation within schools in South Africa and its differences according to their regions and how ICT is used differently in education sectors.

Chapter 5: This chapter presents a summary and interpretation of results. This chapter provides much information about Nogemane Senior Secondary School and Nombulelo Senior Secondary School. It outlines the contextual situations of the 2 schools, and it includes the findings of the study. Furthermore it provides an interpretation of the results and collected examples of SNS-speak.

Chapter 6: This is a concluding chapter and it provides a summary-consolidation of key points or insights from all the research and observations.

1.7 Conclusion

This chapter has sought to outline the objectives of this research against the backdrop of this emerging field of the relationship between technology and education. This is seen specifically in relation to Social Network Sites and the use of cellphones to access these sites within the educational milieu. The chapter also provides a brief outline of the data presented in this thesis as well as the methodology used in this thesis.

Chapter 2

Theoretical framework

2.1 Introduction

This chapter sets out to provide a literature review related both to the notion of language planning and the emergence of isiXhosa as an important language used on Social Network Sites. It is important to note that isiXhosa is an official language which provides it with a certain status in South Africa. However, the growth of isiXhosa on SNS is not necessarily only attributable to its enhanced status since 1994, but it is also because it is the second largest language group in South Africa. The theoretical relationship between the language planning and the theory associated with SNS forms the main focus of this chapter.

2.2 Language policy and planning

South Africa has different languages that are spoken (Mesthrie 1995). This contributes to the multilingual nature of the country (Phillipson 1996; Verhoef 1988; Desai 2001). During the apartheid era the languages that were enriched by the apartheid policy were primarily Afrikaans and English (Alexander 1991; 2002, Mesthrie 1995; Chumbow 1987). This was shown by implementing English and Afrikaans as the only official languages and as medium of instructions in all schools and in higher education institutions (Alexander 1991; Kamwangamalu 2000).

African languages were largely marginalised (Alexander 1991, 2002; Cluver 1992; Finlayson &Madiba 2002 and Heugh 1999). Language is very important because it cannot be divorced from the culture of its people (Sapir 1985; Valdes 1986; Flores 1991) and this contributes to the importance of effective language planning and preservation of languages. As a result of the apartheid policy that required Afrikaans and English to be the only medium of instruction in schools, learners from Soweto protested on June 16th 1976. In this protest about 176 people died and many were injured (Finlayson & Madiba 1999; Heugh, 1995, 1999). As a result in South Africa today June 16th is recognized as a public holiday (Baines 2000; Nutall & Coetzee 1998).

From 1994, when South Africa became a democratic country, the government declared 11 languages as official languages of the country, to be used at all levels of education and

governance (Alexander 2002; Stroud 2001). These languages are: Afrikaans, English, IsiXhosa, IsiZulu, IsiNdebele, Sepedi, Sesotho, Setswana, siSwati, Tshivenda and Xitsonga. As a result of this policy decision, language planning in South Africa can be regarded as one of the most advanced. There are also language bodies such as the Pan South African Language Board (PanSALB) that overlook the protection and use of African languages at all levels, thereby encouraging multilingualism (Alexander 2002; Stroud 2001). Section 6 of 1996, in the South Africa Constitution states that: "Everyone has the right to use the language and participate in the cultural life of his or her choice" (South Africa Constitution, 1996). However, the South African government has largely failed to implement the language policies (Bunyi 1999). There is no single school in South Africa where the medium of instructions is an African Language (Phillipson 1996; Heugh 2000). However there are mother tongue pilot schools in the Eastern Cape where Mathematics is taught in isiXhosa. Generally speaking African languages are learned as a single subject in the same way as other subjects such as Life Science, Physical Science, and Mathematics etc. These are taught largely in English in most schools and examination papers are only available in English and Afrikaans, including instructions required for writing the examination (Barkhuizen 1998; Sesati, Adler, Reed & Bapoo 2002).

There are few if any organizations that allow people to have interviews in their own languages and to express themselves in their languages. Government departments try by all means to translate important documents into African languages but most of the time the translations are very poor (Levin 2008; Dowling 2010). This clearly indicates that they do not hire accredited translators. The documents are often given to a person who knows the language but who is not a trained professional translator. Furthermore they do not proofread the document after translation to make sure that the translations are accurate for the target audience.

African languages are not visible enough in the government sectors and private sectors, even when a person receives an official letter such as a municipality bill, this will be written in either English or Afrikaans. SNSs therefore play a role in making languages visible because people use their languages freely online and show linguistic creativity even though they use the shorthand form of writing.

2.3 Defining literacy

It is important to comprehend that not all educationalists and academics will agree on just one definition of literacy (Harris 1989; de Lemos 2002). De Lemos (2002) argues that literacy has been defined in many different ways, each of which reflects different theoretical perspectives. According to de Lemos (2002:3) literacy is categorised into two approaches: the socio-cultural approach and the common sense or cognitive or psychological approach. According to de Lemos (2002:3) the socio-cultural approach views literacy primarily as a social process that develops through exposure to literacy within a particular environment and that it is inseparable from its social context. This view rejects the notion that literacy as a process of deriving meaning from the text. This definition of literacy usually covers additional language skills such as listening and speaking, and other ranges of abilities including the interpretation of visual material, the use and understanding of mathematical concepts and notation, computer literacy and critical thinking.

The psychological approach defines literacy as the ability to read and write, which means it is an ability to convert the written text to the spoken word and vice versa. In terms of this view literacy is defined as acquiring the ability to comprehend and produce written texts (de Lemos 2002:3).

According to Alexander & Fox (2004); Gordon & Gordon (2003) and Pearson & Stephens (1994) defining literacy often depends on an individual's perspective. Much of the current confusion results from the word being used in a variety of contexts such as computer literacy, cultural literacy and financial literacy. From this point of view literacy can be defined as the degree of interaction with a written text that enables a person to be fluent, functioning, and a contributing member of a society (Gordon & Gordon 2003; UNESCO 2006).

Braun (2007:8) argues that while the traditional definition of literacy as the ability to read and write moves in and out of fashion overtime, no definition is completely accurate or completely inaccurate. Librarians and educators thus need to determine which part from each definition is important and combine the important parts together as this will help to design a definition that works for the twenty-first century.

According to Synder (2002:3), an expanded definition of literacy is needed which recognises that reading and writing, considered as print based and logocentric, are only part of what

people have learnt in order to be literate. The written, oral and audio-visual modalities of communication are integrated into multimodal hypertext systems made accessible via the internet and the World Wide Web (www).

2.4 Learners and new literacies

According to Synder (2002:3) in an electronically mediated world, being literate means a person must be able to use different computerised modalities and understand how they are used to create meaning. New literacies, therefore are linked with the change of technology and knowledge, and thus cannot be easily defined since technology is invented and developed at an increasing rate (Lankhear & Knobel 2003). New literacies can be associated with changes in social practices of meaning making (Lankhear & Knobel 2006; Knobel & Lankhear 2007; Coiro, Knobel, Lankshear & Leu 2008). According to Antonacci & O'Callaghan (2011:6), the new literacies that result from media and digital technological developments are part of the world of the modern student.

People have to learn to make sense of the iconic system evident in computer displays with all combination of signs, symbols, pictures, words and sounds (Kress & van Leeuwen 2006). Snyder (2002:3) further argues that language is no longer just about grammar, lexicon and semantics: language now includes different kinds of semiotic structure that cut across reading, writing, viewing and speaking. According to Synder (2002:3) language follows different meaning conventions and requires different skills for its successful use further. It operates in different social networks for different purposes as part of different human activities. Understanding the multimodal texts requires an interdisciplinary range of methods of analysis: linguistics, semiotics, social, cultural, historical and critical (Synder 2002; Kress & van Leeuwen 2006).

Literacy has always been closely bound up with technology from earliest times; people have used technologies such as clay tablets and papyrus to record ideas and stories, to save information, and to communicate across time and space (Gaur 2003; Tonkin 1995; Winch, Johnston, March, Lijungdahl & Holliday 2006; Gee 2012). According to Winch et al (2006::xxxv), over time, technological inventions such as printing presses, fountain and ballpoint pens, and the telephone prompted huge changes in the way literacy, as part of social interactions was practiced.

Learners today are the products of different environments (Braun 2007; Crystal 2001, 2008). To them the ability to stay connected with others is constant and communication between them takes many forms. Writing has taken on a new importance and plays a prominent role in the way they socialise, share information and structure their communication (Crystal 2008; Craig 2003). According to Winch et al (2006: xxxvi) when we make use of new technologies to engage in information-gathering and communication activities we are using literacy in new ways. When we use a mobile phone and send text messages, surf the net, send emails or bank, shop online, use the fax or leave message answering machines, or listen to a song on iPod or MP3, we are using new technologies to meet our communication needs. New possibilities open up to us such as new ways of meeting socially grounded communication needs and these require, inevitably, new knowledge and skills. According to Synder (2002:179) central to all these changes are altering of the landscape of representation and communication. We are in the midst of a shift from an era of mass communication to an era of individuated communication, from unidirectional communication from the centre to the mass, to multidirectional communication from many communications, from the passive audience to the interactive audience (Synder 2002:179).

The current ICTs are fundamentally changing the way youth read, write and communicate. Their writing uses medium of instant messaging (IM), text messaging, and emails and shared electronic documents and posting on blogs and SNSs (Luke & Luke 2001; Synder 2002; Braun 2007). The writing itself does not follow traditional conventions, featuring instead images (Kress& van Leeuwen 2006), audio recordings, and forms of shorthand in which vowels and punctuations are irrelevant and time consuming to use (Crystal 2008). This is also verified in chapter 5 of this thesis. Teachers therefore need to engage themselves in the NL form (Braun 2007). Synder (2002:181) states that "literacy educators cannot be satisfied with merely identifying, describing and making familiar to students the new multimodal text types. This represents an increasingly inadequate response to the changes to the literacy practices associated with the new use of technologies. We need to develop pedagogical and curriculum frameworks that seek to bestow students with their place in the new global system, but also with capacity to view that given system critically." At the very least we can help our students to engage in cultural forms of critical critique. Winch et al (2006) emphasise that we need to learn how these text forms are structured and what conventions apply to their use. We need to learn how these texts forms operate in culturally significant ways to empower individuals and groups in a society.

2.5 Language attitudes: Definition

According to Baker (1992:25) language attitudes are the feelings people have about their own language or language of others. These feelings may be overt or covert and may be both negative and positive (Baker 1988; Petty & Cacioppo 1981). Overt language attitude means a person expresses their feelings about certain language. A covert attitude means a person keeps their feelings about certain language confidential.

The mentalist approach theory to language attitudes is the most represented. (Lamberd 1967:93) regarding the mentalist approach believes that attitudes have three components which are:

- 1. Cognitive;
- 2. Affective and
- 3. Connotative (Dittmar 1976:181; Lamberd 1967).

The cognitive component refers to the individual's belief system, knowledge and perception, the affective component refers to emotions, reactions and feelings, while the connotative component comprehends the tendency to take action towards the attitude (Dittimar 1976; Norman 1975; Lamberd 1967). According to William (1974:21) the mentalist view "defines attitude as an internal state aroused by different stimulations that may arbitrate the organism's response".

According to Fasold (1984:147) following the behaviourist view, attitudes are to be found simply in the response people make to social situations. This kind of behaviour is much easier to observe and analyse, but it cannot be used to predict other kinds of behaviours. Petty and Caciappo (1981:6) further argue that the term attitude should be used to refer to a general and enduring positive or negative feeling about person or issue.

People are not born with language attitudes; they develop attitudes through the society they live in and from their experiences. According to Baker (1988:112) "language attitudes are learned predispositions, not inherited and are likely to be relatively stable, they have a tendency to persist". However attitudes are affected by experience, thus language change is an important notion of bilingualism. Attitudes can change overtime or remain unchangeable through a person's life. Eagly & Chaiken (2005:746) state that "there are three kinds of attitudes these are: Enduring attitude through one's life; formed attitude that changes; A

formed but eventually receding and disappearing attitude". Eagly & Chaiken (2005:746) define attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor".

2.6 Language and subcultures

Sapir (1985) emphasised that language and culture cannot be divorced. It is therefore important to understand that SNSs have their own culture, and can be regarded as subcultures. According to Donelly (1980:364) subculture can be defined as a segment of society embracing certain distinctive cultural elements of its own. People in any culture share the same values and norms, in subcultures too people share identifiable beliefs, values and means of symbolic expressions. Young people from different subcultures use language differently, for example there are those who prefer to use the language called Tsotsitaal in certain circumstances (Kamwangamalu 1995; Makhudu 2012).

As society changes, new aspects of language are also invented by young people depending on the societies they find themselves. For example, in prison, prisoners use a language of their subculture. Rastafarians can also be regarded as part of a subculture, as they have their own way of doing things and communicating in relation to the dominant or mainstream cultures. People who belong to a subculture also belong to a culture underpinned by a wide range of people. Technology can also create its own subculture. According to Kaschula & Mostert (2009:69), "Cellular telephones have revolutionised the art of communication across all societies, and South Africa is no exception. Access to this form of communication has made personal contact easier, in both rural and urban contexts. Globally this form of communication has been readily embraced. However, cultural rules that pertain to face-toface communication are often flouted by cellular phone users".

In chapter 5 of this study, learners highlighted the fact that that they communicate quicker and faster in order to save airtime. It is therefore impossible to undertake lengthy conversations in the offline environment because it is costing much, as opposed to on-line communication which is much cheaper and affordable.

2.7 Attitudes towards isiXhosa in education

The learning of African languages generally at schools is currently envisaged as contributing to their development. The teaching of these languages, as exemplified by isiXhosa in the Eastern Cape, is still suffering from the retrogressive language-in-education policies and negative attitudes from learners and parents (de Klerk 2000; Mapi 2011; Mabeqa 2012). As a result, some students matriculate without adequate reading and writing skills in their mother-tongue.

According to de Klerk (2000:198), "It has long been recognised that indigenous languages are endangered because of powerful social, political and economic pressures. In South Africa, the legacy of apartheid has left its indigenous languages particularly vulnerable, and since 1994 huge efforts have been made to reverse the situation. Despite the new language policy and accompanying legislation, it would seem that many Xhosa speakers themselves want English, and not Xhosa, for their children".

It is common to see isiXhosa speaking learners who prefer to speak English even in situations where they can speak their language. De Klerk, (2000:205; 2006:7) listed nine views from parents she interviewed in Grahamstown townships as to why they send their children to English medium schools. In summary these include:

• They need better education and a more stable environment, and they felt that English medium schools offered their children more sport and cultural facilities i.e. a "more meaningful education", free from the problems in black schools such as lack of discipline, high pupil numbers, poor facilities, protests and general chaos.

• English is the international language, the most important world language and they "saw it as necessary to prepare the child for the modern world", and to develop in them cultural awareness, tolerance and communication with other groups.

• Wanting to give a child a better chance in life than they had themselves i.e. a chance that for financial reasons could often only offered to the first born in the family i.e. at least to have one person who was able to speak English.

• They believe that English would open doors to more job opportunities and equip their child with a competitive edge, since it is "the language most used in work places and it is the

language of technology and science."

• They believe that English is vital to educational success generally, since "English is the key to other subjects", and exams are in English. English is the South Africa lingua franca and "the most important language in our schools". For this reason it is seen as vital to be able to write and speak English fluently.

• English would bestow certain social advantages on their children, as "children who learn English become assertive and confidant, they develop self-discipline".

• Some parents want their child to mix with an English world and with mother-tongue speakers of English naturally and easily.

• Some were simply closer to the geographical proximity to English medium schools, and there was a general dissatisfaction with the facilities at the township schools.

2.8 Computer Mediated Communication (CMC) Theories

This section explains different theories of Computer Mediated Communication (CMC) that shape the research. ICT goes together with the language because communication involves verbal or non-verbal utterances. In this regard literacy needs to be explained. Does literacy influence ICT or does ICT influence literacy? Understanding CMC will help to understand why young people are engaged in SNSs and the influence of SNSs on the language used by young people when they are online and whether new literacies emerge in African languages too. Boyd and Ellison (2007) defend the language used in the SNS as sometimes bad and sometimes not: "why bad grammar is not always bad". They consider the linguistic perspective and the CMS perspective, whereby they see the languages in the SNS as not bad for that particular domain but bad in the classroom. This chapter will define literacy and how new literacy is used by learners.

2.8.1 Defining CMC

Thimm (2010:231) states that, "the online media have influenced global communication like no other media technology through the decades". However it is not the degree of media exposition on individuals all over the world or the possibility of presenting oneself on a website or ordering a book online that counts, rather, it is the interpersonal contact function of computer mediated communication that shapes and is still shaping human communication (Thimm 2010). Rheingold (1993:1) states that "the idea of community accessibility only via my computer screen sounded cold to me at first. But I learned quickly that people can feel passionately about email and computer conferences. I have become one of them. I care about those people I met on my computer". According to Thurlow, Lengel and Tomic (2004) CMC is now a part of daily interaction, it helps us to maintain existing relationships and foster the creation of new concepts.

According to Thurlow, Lengel and Tomic (2004:83) CMC is "the communication that takes place between human beings via instrumentality of computers". When sending email via a PC or mobile phone or just having a Facebook or Mxit chat you will respond to the messages and senders can interact with you by asking questions or respond to your statement. There are advanced programs like Skype where users can use webcam and the communication will be like face-to-face discussion over the internet. In all these situations the communication is interactive as you are both a sender and a receiver (Thurlow, Lengel & Tomic 2004).

Alexander, Dawson and Ichharam (2006:241) argue that CMC is a widely accepted concept that has been appropriately applied to illustrate the communication process occurring via a computer terminal and a communication network such as the internet.

According to Greiffenstern (2010:3) in order for a person to analyse the influence of CMC on everyday language, one has to know what exactly CMC is and understand which circumstances CMC is used in, and which features it has. To be able to trace CMC in offline communication one needs to know where and how it is used in the online communication.

According to Thurlow, Lengels and Tomic (2004) when new technologies emerge, new modes of CMS emerge as well today. CMC does not only include forms of communication like emails or web-chats, but it also includes text messages sent via mobile phones called SMS (Short Message Service). Many websites these days are used to exchanging ideas too which counts as CMC. According to Thimm (2010:334) "the internet provides asynchronous communication via email, bulletin boards, and computer conferencing, and it provides synchronous communication via chatting or real time conferencing, IM, or chats in multi-user dungeon". Virtual simulation activities, such as online seminars, visual field trips and virtual experiments are also possible on the web (Alexander et al 2004).

According to Spitzberg (2006:630) CMC is any human symbolic text-based interaction conducted or facilitated through digitally based technologies. This definition includes the internet, cellular phone text messaging, Instant Messaging (IM) and multi-user interactions

(MUDS and MOOS), email and listserv interactions, and a text-supplemented videoconferencing.

According to Thurlow (2007:213) the rapid progress of technologies will make CMS change continually and more quickly. "New ways to use the internet are constantly appearing, and there is a shift from the text-based use of the internet towards the new three-dimensional multimedia based 'www'. According to Thimm (2010) CMC has taken over many communicative functions and is ubiquitous. The social web called 2.0 has started to turn the internet into one massive mediation for people all over the world (Thurlow 2007; Thurlow et al 2004).

Thimm (2010) notes that the social websites, on which millions of users are mostly young people, have created a gigantic universe of interpersonal networks that may be regarded as the start of a New Age of technically mediated relationships.

Thurlow et al (2004) emphasise that language in the computer communication occupies a privileged position in the co-production of inter-subjective experiences whether online or offline. According to Thibault (2010:319) when people speak, their proximity to one another in physical terms also translates into relations terms. This is because speech serves not only as means of expression, rather it is used to construct reality and shape relationships (Thimm 2010: 332).

According to Thurlow et.al (2004) when looking at ways to categorize and describe CMC, this requires a variety of approaches. As categories like anonymity, privacy, space, time and distance have gained importance in the overall description of interpersonal interaction, so the level of analysis has changed (Doring 2003; Thimm 2010). Thimm (2010:334) emphasises that the internet provides asynchronous communication via email, bulletin boards, and computer conferencing, as well as through instant messing.

2.8.2 Theories of Computer Mediated Communication

This chapter also explains different theories of Computer Mediated Communication (CMC) that underpin the findings of the research. These theories shape the research in the sense that chapter 5 indicates that learners have literacy in these new forms of CMC. ICT goes together with language because communication involves verbal and non-verbal utterances. Literacy then needs to be explained in order to assess its influence on ICT or whether it is ICT that has an influence on literacy. Understanding CMC will help to understand why young people are

engaged in SNSs and the influence of SNSs on the language used by young people when they are online and whether new literacies emerge in African languages too. This chapter has already defined literacy and how new literacy is used by learners.

2.8.3 Discussion of CMC Theories

a) Social presence theory

According to Walther (2011:445) social presence theory was imported from teleconferencing research as one of the analytic frameworks applied to CMC. According to Fulk and Collin-Jarvis (2001:627) Social Presence theory (SPT) is linked with the nonverbal signals, facial expression, and direction of gaze, posture, dress, physical appearance, proximity and orientation. Nonverbal cues relate to specific communication functions including mutual attention and responsiveness, channel control, feedback, illustrations, emblems and interpersonal attitudes.

Short, William and Christies (1976) as quoted by Fulk and Collin-Jarvis (2001:627) argue that SPT is the differential quality of each medium that describes the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationship.

According to Fulk and Collin-Jarvis (2001) and Walther (2011) SPT proposes that interpersonal interaction involves both acting out roles and maintaining personal relationships. For equivocal communication face-to-face (F2F) meetings are appropriate (Fulk and Collin-Jarvis). According to Short (1976) as quoted by Walther (2011:445) SPT argues that various communication media differed in their capacity to transmit classes of nonverbal communication in addition to verbal content. The fewer the number of cue systems supported, the less warmth and involvement users experienced with one another.

b) Reduced Social Cues Theory (RSCT)

RSCT was put forward by Sproull & Kiesker (1986). According to Sproull & Kiesker (1986:1498) RSCT proposes that when people use information and communication technologies instead of F2F communication, they have to deal with the absence of social cues. According to Thurlow, Lengel & Tomic (2004:49), the lack of social cues such as status and occupation of the user is associated with the RSCT. According to Walther (1992:60) the RSCT explains how people get to know each other and maintain relationships without the social cues. People online can chat with people they never saw and become friends and sometimes they trust each other so much they can tell them their problems.

c) Media Richness Theory

The Media Richness theory (Daft & Lengel 1984, 1986) also known as Information richness theory proposes that the use of certain medium in communication activity is influenced by the way medium of capacity and the nature of the task are put together. Daft & Lengel (1984, 1986), claim that media vary in their capability of reducing miscommunication equivocally and without ambiguity. A medium is regarded as rich if it facilitates feedback, communicates multiple cues, presents individual-tailored messages and uses natural language (Daft & Lengel 1984).

According to Trevino et al (1990), Thibault (2010) and Daft & Lengel (1984), media can be ranked according to their richness with F2F communication ranked highest, formal numeric text lowest and email somewhere in between.

Walther (1992) argues that with CMC media becoming widely available and more people using the email, voicemail, and internet, the focus shifted to searching the social influences, network context, and process of media uses and perception.

d) Signalling theory

According to Walther (2011:45), Donath (1999) was the first to propose a theoretical basis underlying the scepticism CMC users often hold about the legitimacy of others' online self-presentation and how CMC facilitates such deception. According to Donath (1999:48) the "signalling theory looks at what keeps communication honest".

In the cyberspace it is very easy for people to create fake profiles with fake identities and social cues can be deliberately misleading (Donath 1999:42). Some people in the SNS are dangerous to an individual or a group. According to Donath (1999:48) "it is relatively easy to pass information online as someone else since there are relatively few identity cues". People impersonalise other people's postings easily by creating a profile using the target's name, without using fake handwriting. The cyberspace users rely on facial expression of individuals, and the statement people make on their profiles (Donath 1999, 2007; Ellison, Steinfield & Lampe 2007).

According to Follows (2003) there are many scams in the SNSs. People create fake email addresses and email their targets informing them for example, about good products they are selling, lotto winnings and competitions. The scammers create fake phone numbers to contact and addresses to make the email appear real. Some SNS users believe that they are able to

deal with the spam mail, some through filtering of their work accounts and of their own created accounts. According to Follows (2003) woman are more troubled by these scams while young people are more understanding of the scams.

According to Dunbar (1996:204) as the new communication technologies allow information flow, people need to rely on F2F communication instead of believing the profiles of people in the cyberspace. According to Donath (1999:28) mediated communication is different from F2F communication because the whole environment is constructed. In CMC deliberate design decisions affect every aspect of communication, whether you communicate by typing or speaking, whether your comments are ephemeral or archived, whether you are communicating with one known person or a horde of faceless strangers. These design decisions deeply affect the dynamics of signalling; they determine everything from what will be reliable to how inventive the signallers can be (Donath 1999).

e) Social Identity Model of Deindividuation Effects Theory (SIDE)

SIDE theory explains how people behave in a crowd (Postmes, Spear, Lee & Novak 2005; Walther & Carr 2010). When people are in a crowd they behave differently from when they are communicating individually because of anonymity (Spear et al 2005; Walther 2011). In SNSs when people create a profile they upload the profile pictures and can use a pseudonym to identify themselves (Walther 2011; Postmes & Baray 2005). Even the email addresses they provide do not give more information about the individual. Therefore this allows a person to behave socially. "Anonymity makes users to lose self-awareness and that shapes their behaviour", (Walther 2011:453).

According to Lear and Spears (1995:529), "SIDE theory can explain why people develop romantic relationships online". People online are involved in romantic relationships without knowing the true personality of the other user. The couple share common 'social personalities' but when they meet their personalities may be totally different. According to Walther (2011:452) "cyberspace users rely on the profile pictures other users post and believe they are true". People who communicate romantically online may believe that they love each other interpersonally. According to Walther (2006, 2011) this can be an illusion. Their projection of interpersonal intimacy would be an outgrowth and projection of their similarity or attraction they share on the basis of their social identification rather that interpersonal attraction.

When commenting in a news article online or blog post users can post anything because they are anonymous. According to Wang, Walther & Hancock (2009); Postmes et al (2006) and Spear et al (2005) the SIDE approach retracts its previous assertions that visually anonymous CMC users cannot theoretically relate to one another as individuals.

All of the above theories to some extent show relevance to the learners who are embedding themselves in SNS-speak, both in the rural and the urban school environment that this thesis explores, and in chapter 5.

2.9 Mobile Learning (M-Learning) in education in the 21st century

According to Trinder (2005:6) cellphones are the most popular owned handheld devices. Even the most basic phones provide simple Personal Information Management (PIM) tools such as address books and calendars (Trinder, Magill & Roy 2006). Cellphone sales are surpassing the laptop and PC sales nowadays (Trinder 2005; Thurlow 2006). It is therefore important not to see books as the only available resource for literacy development and getting information. Learners need to be informed how to use the technology they already have and that they will need in future to access learning materials and educational discussion forums (Thurlow 2006, 2007).

The younger generation is already filled with youth who have grown up using technology devices (Braun 2007; Thurlow 2006, 2007). Those devices are used to have convenient access to internet search engines such as Google and sources of information such as Wikipedia allowing them to share and collaborate in discussions and news forums. Those technologies also create freedom for learning. The 21st century generation use mobile devices more than printed literacy materials (Boyd & Ellison 2007; Walton 2009; Brandt & Clinton 2002).

Mobile devices are used also in workplaces to access work related materials and companies or employers use the internet to search for candidates to employ (Ally 2005). Most of the people in the 21st century use the internet to search for work opportunities, joining chat rooms, discussion forums, and accessing national and international news (Lankhear & Knobel 2006; Knobel & Lankhear 2007). M-Learning can be regarded as 'informal learning' and it happens to all learners regardless of their age and geographical location. The tools such

as Electronic learning (E-Learning), blogs and SNSs supports both formal and informal learning and this may make the new generation to be lifelong learners.

There is a very high increase in the use of the cellphone devices in the societies we live in and in business sectors (Barker, Krull & Mallinson 2005:17). As a result this will increase the emphasis on the use of cellphones for Mobile Learning (M-Learning) in training and in education (Ally 2004, 2005; Barker et al 2005). There are organizations already that see M-Learning as essential in the 21st century world (Trinder 2005:17). Teachers are therefore encouraged to develop new strategies for teaching that will favour M-Learning (Ally 2005). They must re-purpose and reposition the existing courses or subjects in the light of M-Learning strategies (Ally 2005; Kukulska-Hulme & Traxler 2005).

Most of the theories of learning are based on the assumption that learning only takes place in the classroom where there is a trained teacher as facilitator (Salmon 2000; Trinder 2005; Ally 2005). Few education philosophers have developed theories based on learning outside the classroom these include Illich (1971), Freire (1972), and Argyris and Schon (1996). However none of them have emphasised the importance of M-Learning (Trinder 2005:8). According to Taylor and Vavoula (2005:4) the theories of learning should be assessed against the following criteria:

- a. Is it different from current theories, workplace or lifelong learning?
- b. Does it account for mobility of learners?
- c. Does it cover both formal and informal learning?
- d. Does it theorise learning as constructive and social process?
- e. Does it analyse leaning as personal and situated activity mediated by technology? (Vavoula 2005:4)

According to Naismith et al (2004:36) the conceptual framework for designing M-Learning should confirm the achievement of learner-centred, highly situated, personal and corroborative M-Learning. It must allow chances for teachers to have the ability and opportunity to understand the challenges in offering a realistic vision for efficient and effective M-Learning and teaching, by taking into consideration the learner's commitment, creativity, critical engagement and communicative abilities. Sharples (2004:4) highlights the fact that learners inhabit a social, cultural and technological environment and that their learning is a constructive process of acting within an environment and reflecting upon it

(Sharples 2004). In that environment the knowledge is constructed and shared as part of a social process (Johnson, Johnson & Smith 1991:11).

Ally (2004) defines M-Learning as the delivery of electronic learning materials on mobile computing devices to allow access anywhere and anytime. According to O'Malley et al (2003:6) M-Learning is the learning that takes place when the learner is not in a fixed, predetermined location, or when the learner takes advantage of the learning opportunities offered by mobile technologies. The M-Learning therefore can have a range of attributes that might contribute to its definition as it can be spontaneous, informal, personal, portable, contextual and available anywhere and be integrated with daily activities that are hardly noticed (Baker 2005). According to Kukulska-Hulme (2005:1) the mobile devices can be carried around with relative ease and used for communication and collaboration, and for teaching and learning activities that are different from what is possible with other media (Kukulska-Hulme 2005).

Ally (2005) notes that mobile devices operate differently and have different capabilities regarding the development and housing of course materials, however Ally (2005:1) suggests that in order to make course materials available on mobile devices as well as on desktop systems a software program is required to allow course materials to be delivered onto a heterogeneous computing platform. Because of the heterogenous computing platforms, some course materials may not be in a format that different mobile device will accept (Ally 2005:1). Designing for cellphones therefore needs to be flexible since different handsets accept different software formats (Kukulska-Hulme2005; Ally 2005).

The task of designing software and appropriate learner support is complex and challenging (Kukulska 2005). There is a need to appraise and evaluate the impact of these new technologies. Ally (2005) wants to design intelligent agent software capable of adapting to the heterogonous mobile computing environment:

The agent software should be able to search for conversion tools according to the desired format and convert the course materials automatically through understanding mobile clients' software capabilities and hardware limitations. Ally (2005:1)

Kukulska-Hulme (2005:1) states that:

M-learning is extremely interesting for educators due to the low cost of many of these devices relative to desktop computers and spontaneous and personal access mobile

devices give to the vast educational resources. When combined with wireless connectivity, learning activities can be monitored and co-ordinated between locations (2005:1)

According to Kukulska-Hulme and Traxler (2005:25) mobile devices open up new opportunities for independent investigations, practical fieldwork, professional updating and on the spot access to knowledge. Trinder (2005), states that the cellphone can provide the mechanism for improved individual learner support and guidance and for more efficient course administration management. However, M-learning, indeed any learning must work within a number of constraints (Kukulska-Hulme & Traxler 2005:25).

2.10 Conclusion

Technology is the result of change in the societies we live in. According to Hilvert-Bruce & Hilvert-Bruce (2006:4) "technology changed the way we live in many ways and it will keep on bringing change as many people invent new ways of doing things, using different materials." Technology has changed the way learners read and write as some parents and scholars would argue that today learners do not read at all.

It is important to show a link between the traditional literacy and CMC as it has introduced new ways of learning, texting and reading to young people and today we call that "New Literacy". Knowing the CMC theories will help to understand why SNS users behave the way they do when they are online and that will help in distinguishing between negative and positive sides of SNSs. Language attitudes people poses offline may not be the same when they are in the online environment, for example SNS users regard tweeting in isiXhosa or updating status in isiXhosa on Facebook as "cute and cool". In SNSs there is no parental control, whereby a parent will tell a user which language to use and which not to use. A user uses the language the way they want as influenced by other online users and that may change the language attitudes they already have. SNSs are the most used sites for today's learners to read news and to express themselves. It is important to understand the online environment as that may benefit the leaner academically, for example there are learners who do their school works (research, home-work) through asking friends online. This is a new way of studying and learners can also form study groups online if they are encouraged by academics and teachers. Their studies may be easy because they will use the language they understand to communicate to each other about a certain subject even if it is of a scientific or mathematical nature.

This thesis will also set out to assess the positive aspects to young people's increased use of written language through SNS. For instance, Butgereit (2008) refers to possibilities for supporting learners using the Mxit chatroom called 'Maths on Mxit' or 'DrMaths' that the Meraka Institute of the CSIR launched in 2007. Learners send mathematics questions to 'Math on Mxit' and enter discussions with tutors who answer questions from the entire high school program of study. This chatroom has proven that a chat support service is effective in supporting learning. Butgereit (2008) took into consideration that students do not only use SNSs for fun, they join SNSs to do school activities on their own and share information about particular classes. They open pages and groups on Facebook to facilitate debates on particular topics of their own. They invite classmates to join the created groups and pages on the SNSs in order to post comments on the wall in support of their side debates. They sometimes post on these pages using isiXhosa.

The chapter that follows will analyse the use of Information and Communication Technology in both a rural and an urban school setting, against the backdrop of ICT studies in South Africa.

Chapter 3

ICT Studies in South Africa

3.1 Introduction

According to Statistics South Africa (Stats SA 2011) there is a noteworthy decrease in persons with no schooling background in South Africa over the past ten years i.e. from 19% in 1996 to 8.7 % in 2011. The number of people who completed matric (Grade 12) or higher increased from 23.4 % in the year 1996 to 40.5 % in the year 2011. However there is still a huge difference between schools in rural areas and schools in urban areas in South Africa, particularly in the Eastern Cape Province.

Learners move from rural to urban areas around the Eastern Cape in search of better education and some move to provinces like Gauteng and the Western Cape (Mfengu 2013). Luhanga (2009) reported that schools in the Eastern Cape are half empty since learners move to urban centres in the Eastern Cape Province or the Western Cape. "We do a quarterly assessment of learner movement; it's been on-going for some time, learners feel that urban schools are better equipped," says Eastern Cape Provincial Education Department spokesperson, as quoted by (Luhanga 2009).

Schools in the Eastern Cape rural areas, particularly in the former Transkei area lack electricity, laboratories, libraries and infrastructure (HSRC 2003; USSASA 2004; Conradie, Morris & Jacobs 2003). However, The Department of Education (DoE) in South Africa (2003:17) stressed that by year 2013 every South African learner whether in general education or in the Further Education group will be capable of using ICT. That means every learner will be using ICT with confidence and creatively to develop their skills and knowledge they need to achieve their own goals and participate in the global community (DoE 2013). It is the year 2013 and still there are schools with no access to ICT as promised by the DoE.

According to UNESCO and Commonwealth Learning (2004:45) the ICT integration in education must be recognised as "using computers to learn, other than learning to use a computer." Many schools that have access to ICT in South Africa focus on learning about ICTs' rather than learning with or through the use of ICTs' (Jonassen, Peck & Wilson 1999; Wilson-Strydom 2005). Hokanson & Hooper (2007:547) state that:

What is important about computers is not being able to word process, or view a multimedia presentation, but the ability to interact with the computer in the manipulation and creation of knowledge through the rapid manipulation of various symbol systems. The value is not in more efficient representation but in improving the capability to generate thought.

This chapter will look at the rate of ICT usage in South Africa, as well as at ICTs in urban and rural High Schools. It will assess the popular ICT devices among students and the problems facing rural schools compared to those in urban areas.

3.2 Literature Review of ICT Studies in South Africa

James, Esselaar & Miller (2001:7) state that there is little trustworthy and visible information available on the state of the ICT industry in South Africa. According to Hodge & Miller (1997:1) an early attempt to fill the gap started in year 1996 and led to the publication of comprehensive reports in 1994. Building on that work was a 1998 report to inform the ICT working group on the National Research and Technology Foresight Study (Day 1998). In 2008 the South African Information Industry Strategy commissioned baseline studies that were published in 2000 (James et al 2001).

According to Tlabela, Roodt & Paterson (2007:1) the current and future capacity of South Africa to generate and sustain access to ICT for its citizens is an important development priority. South Africa established the Universal Service Access and Agency of South Africa (USASSA) which operates under the regulatory and policy framework stipulated in the Telecommunication Act 103 of 1996 (South Africa Constitution 1996), as amended in 2001. The Telecommunication Act 103 of 1996 commands the USASSA to distribute ICTs in under-serviced areas of South Africa, particularly rural, peri-urban and underdeveloped townships. It is important to extend networks into these areas to ensure that benefits of the information society do not, as in South Africa's past, flow to the particular sections of society only (Tlabela et al 2007:1; James 2001).

According to Benjamin (2003:1) the first objective of the Telecommunication Act 103 of 1996 was to facilitate the universal and affordable provision of telecommunication services. The concept of universal services and universal access differ between countries and religions (Butcher 1998). According to Tlabela et al (2007:1) the concept of universal service generally refers to all households in a country having a telephone, so that all individuals can make a

telephone call from home. However many European and North American countries define universal services as based on costs of usage as opposed to network provision (Butcher 1998; Tlabela et al 2007; Hendry 2000). Universal service is taken to refer to three elements: availability, accessibility and affordability (Tlabela 2007:5). According to Pillay (1998:3) in developing countries the universal access is usually defined in terms of specific targets to be reached, for example, access to a phone within a certain travelling distance.

According to Hodge (2004:2006) the annual report of USASSA 2003 in South Africa shows that the goals of universal service and universal access go beyond basic telephony to encompass other advanced services, such as the internet. The access to ICTs and ICT skills in South Africa is very important especially in the working environment. Tlabela et al (2007:1) listed the fundamental developments of the ICTs. These include:

- The promotion of economic growth and development through increased opportunities for employment creation;
- Enabling people to identify work opportunities and take up life-long learning opportunities;
- The consolidation of democracy and human rights through citizens' increased accessibility to information, as well as increased opportunities for communicating freely with each other on matters of civic importance;
- Enabling greater transparency and opportunities of citizen feedback to government;
- Enabling South Africa's people to seize the opportunity and power to contribute to governance and grassroots levels;
- Catalysing local economic development projects (for example, the e-business of SMMEs and co-operatives, e-health, e-education) and lastly;
- Leveraging community resources and promoting social capital through community informatics. (Tlabela et al 2007:1)

In order to achieve the above developments it is necessary to rollout and build ICT infrastructures on a national basis. The South Africa government's aim is to do just that. USASSA has adopted the above developmental strategy (Tlabela 2007). According to USASSA (2004) the organization's aim is to provide universal service, denoting reliable connection to the communication network that enables any form of communication to and from any part of South Africa.

There are places in South Africa that have no access in ICT infrastructures, for example places with no public telephones. According to Tlabela et al (2007) the issues of services and access are very important and must be applied to all citizens. USASSA (2004) describe the places that have no access to ICTs as communities living in rural areas and this has been characterised by poverty, poor infrastructure and a high rate of unemployment and few employment opportunities.

It is essential for all citizens to have access to ICTs. There are still those who cannot have access and those who have more skills than others in terms of ICTs. There is no universal accessibility at this point in South African society. According to Waschauer (2003:9) as the information economy and its associated technologies become more pervasive it is apparent that the ability to access, adapt and create new knowledge using new information and communication technology is critical to social inclusion in today's era (Waschauer 2003).

a. Access to landline and cellphone in South Africa

There is a high usage of cellphone technologies in South Africa that has made it possible to service rural areas at low cost rather than installing fixed lines (Economist Intelligent Unit 2005). However because densely populated black South African Townships make the marketing of services relative and prove to be more profitable to cover than rural areas, operators have focused most of their efforts in the urban areas. HSRC (2003) reported that fixed line rollouts concentrate on urban areas where the general infrastructure and population density is higher. A critical factor is the affordability of telecommunication costs.

According to Tlabela et al (2007:7) if the general telephonic (landline) can be improved in South Africa in the 21st century, then this will bring economic, social and political benefits to that society. Tlabela et al (2007) emphasise that if landline telephones including public phones can be accessed in many places including public schools this will make the communication service better. They make an example of the way in which telephones contribute to the lives of individuals, families, businesses and broader societies. Tlabela et al (2007) list the following points that can make people's lives easier through the use of telephones. They believe that if communication can improve the following can happen:

• A small rural farmer can call the market to find best price for produce to maximise the profitability of his/her business;

- The principal of a school can call the district manager to postpone his/her visit as the local roads are impassable due to the rain;
- A young man living in the city can call his illiterate mother in a deep rural settlement to tell her about his new job;
- A woman at a clinic can call a hospital to summon an ambulance and saves the life of an injured child;
- A corporate executive can convene a teleconference with managers spread across the continent to discuss important decisions;
- A student can call her classmates to discuss the interpretation of an assignment;
- A recent graduate living in an informal settlement outside of Johannesburg is able to arrange a job interview without incurring significant travel costs (Tlabela et al 2007:7).

According to the Economist Intelligent Unit (2005), in South Africa the use of cellphone technologies has made it possible to service rural areas at a lower cost than that of installing fixed lines. Most rural areas have no network coverage. To make a telephone call you have to walk long distances find a place that faces the network line. The cellphone has made communication easier but people have no good network coverage. The cell phone operators focus on urban areas and townships because people living in urban areas make the marketing of services easy and prove more profitable to cover than in rural areas (Benjamin 2002). Below is the table showing a comparison of household's access to telephones and cellphone communication within provinces.

Table 1.1	Comparison	of household	access to	telephone	and cellphone	communication by
province						

Province	Percentage of households	Percentage of households
	with access to cell phones	with access to landlines
Western Cape	46.7	55.3
KwaZulu-Natal	35.2	31.7
Gauteng	48.7	28.5
Free State	33.9	21.8
Northern Cape	20.01	20.0
Mpumalanga	26.3	17.6
Eastern Cape	25.7	15.9

North West	35.3	15.0
Limpopo	26.1	7.1
National average	33.1	23.6

Source: Data taken from HSRC (2003)

Comparing cellphone and landline access figures, table 1.1 shows that the average household's access to cellphones is higher than the average access to the landline. This is the case for all provinces except for the Western Cape, where landline access is approximately 8% higher than cellphone access.

The average usage of cellphones is around 20% higher in Gauteng and North West, and 19 % higher in Limpopo. Both high cellphone and landline usage in Gauteng could possibly be attributed to a higher income level within this province as compared with other provinces. The use of technology can be influenced by a variety of factors: household income, availability of landlines, population density, market size or a combination of these factors could be the cause.

According to Tlabela (2007:7) telephonic communication is a service that carries a cost. Therefore government may not have the resources or the political will to regulate telecommunication sectors in a way that makes access to telephone communication sufficiently cheap to allow universal access. Even though using cellphones requires airtime, the South African population who use cellphone is opening up, because there are cheap cellphones and people who have a low income use prepaid and those who earn more money use contracts. According to Tlabela et al (2007:11) most mobile phones in South Africa are prepaid phones. Tlabela (ibid) continues to point out that 81% are prepaid, 13.6 % are on contract and 1.3% are likely to be purchased by companies or businesses. In rural areas 97% of cellphones are used on a prepaid basis (Gillwald, Esselaar, Burton & Stavrou 2004).

b. Access to computers and the internet in South Africa

Gillwald et al (2004) report from their survey shows that 12% of households in South Africa own a Personal Computer (PC). This corresponds with the HSRC finding that 13.6% of households have access to a PC. Most citizens would not be able to participate effectively in the information economy if they were to depend only on household computer access (Tlabela 2007:21; Hodge 2004).

Province	Percentage	
Western Cape	33.8	
Gauteng	25.2	
KwaZulu-Natal	13.3	
Free State	10.3	
North West	9.9	
Northern Cape	9.8	
Eastern Cape	7.9	
Mpumalanga	7.6	
Limpopo	4.4	
National average	13.6	

Table 1.2 percentage of household access to PCs by province

Source: data taken from HSRC (2003)

There is a massive variation in PC access between provinces (Table 1.2 above). Gauteng and Western Cape have higher access levels than KwaZulu-Natal (KZN) province, with Gauteng virtually double that of KZN. Furthermore, seven provinces have lower access to computers than the national average.

In 2011, Stats SA reported that over half, 64.8% of the households in South Africa have no access to the internet. 16.3 % of those who have access to the internet access it via their cell phones from home. 5% of them access it from elsewhere and 4.7 % from their workplaces. The effective use of ICTs in South Africa can serve as a powerful development tool (USASSA 2004).

3.3 Factors affecting ICT development in South Africa

Jensen (1999) listed barriers to the access of internet and web in South Africa. Even though Jensen's report is 13 years older, the factors outlined still exist even though ICTs have improved in South Africa. There are still people who do not have access to the internet and some do not even know what the internet is. Listed below is the summary of major constraints to networking in Southern Africa.

• Limited telecommunication infrastructure- this is a major constraint (less than 1 phone per 100 people, and the high cost of telephone access);

- Lower computer penetration and literacy;
- National connectivity with countries is minimal and confined to the capital cities, direct connectivity between countries is virtually non-existent;
- International bandwidth is insufficient due to high costs and lack of digital circuits;
- Cost of internet is high;
- Good business models for information distribution are rare;
- Intellectual property issues are poorly understood; and
- The impact of ICTs on culture and heritage, and vice-versa has received little attention (Jensen 1999).

3.4 Opportunities for improved networking in South Africa

It is important to assess how networking in South Africa can be improved as South Africa is a democratic country, emphasising equality for all people. If networking can be improved then there will be development in terms of communication in the remote rural areas. Yes, most people have cellphones but they only use them for making incoming and outgoing calls, text messaging, listening to music, taking photos, and playing games and listening to radio over the phone. Some people in remote areas do not even know how to use the internet on their phones; some buy a phone because they consider it an intelligent move, but they do not know about other features that may help their living standard. It is important therefore not to look at the cell phone and say people have enough communication devices.

Jensen (1999) points to twelve important aspects that the government and ICT designers addess in order to improve networking in South Africa. Those opportunities would not help one area for example the 'business sector', but will be suitable to other sectors and different people in different areas not excluding the ones who live in remote rural area. These include:

- The advantage of reducing technology costs must be explored and undertaken;
- Ensure that local area Networks and dial-up Internet Services are fully implemented to minimise cost and maximise access;
- Use free software and applications- the mature applications and operating systems are available with no costs for example 'Linux'. Most of the internet applications and operating systems in use in many institutions cost nothing at all. Increasingly, it is possible to carry out all types of application-use inside the web browser;
- Exploit the highly scalable nature of ICTs- initiatives can start with minimal costs;

- Focus on capacity buildings through training, support desks and skills transfer;
- Help establish National Network Information Centres for provision of national information, users and service directories, local training and advice;
- Help establish electronic forums for stake-holders in different sectors;
- Workout a means to improve the awareness among the highest levels of decisionmakers in different sectors;
- Make use of the on-going inter-agency collaboration and co-ordinating initiatives, for example, the African Information Society Initiative (AISI) and Partnership for ICTs in Africa (PICTA);
- Examine strategies for reducing internet access costs for the network participants that cannot transfer costs to the end-user;
- Support pilot projects that experiment with new services and new participants;
- Identify priority areas for building electronic information content and applications, especially by digitising existing hard copy information sources and in particular in relation to
- Meteorology
- Scientific journals
- Library holdings
- Directories of researchers and research organizations. (Jensen 1999:2).

Some of the suggestions made by Jensen (1999) have been taken into consideration by government structures in South Africa, for example, most Higher Education Institutions in South Africa have access to computers and students can use the internet and in some business sectors ICT is used and there is a demand for workers with the background of Information Technology (IT) in South Africa. It is also possible to view journals online, and to research organizations via the computer, but this cannot be done and viewed via other cell phone devices because of different software used. The information therefore is not accessible by people who have no access to the PC.

4. Conclusion

This chapter has attempted to explore the background to ICTs in South Africa. The challenges and complexities associated with access to ICTs in urban and rural areas are outlined. The chapter emphasises that there should be equal access to ICTs in South Africa in order to benefit all of its peoples. As will be seen in the chapters that follow, if this were to be

the case, then it would level the playing fields in relation to the impact that ICTs can make in the educational sphere, particularly in rural schools, but in South African more generally.

Chapter 4

Students and ICTs in South Africa

4.1 Introduction

In general, Braun (2007: xiv) regard students as the speakers of technology. Furthermore, that they are not necessarily very fluent in the digital language of computers and the internet. Teachers and librarians are also largely digital immigrants who were not born into the digital world.

The objective of this chapter is to establish what type of language used in the SNSs by learners, and more particularly to explore the background contexts within which these learners operate. In chapter 5 this is taken further to see whether this type of language is also used for school written exercises by learners. Some scholars may regard the language used in the SNS as killing the standard version of a language. Presky (1995) believes that the technology language will not kill the existing languages because it is like learning another language later in life:

We have adopted many aspects of technology, but just like those who learn another language later in life we retain an 'accent' because we have one foot in our native generation. (Presky 1995)

It is another aim of this research to investigate whether SNS have negative or positive effects on written isiXhosa. This will draw attention to issues that affect rural learners who stay in the impoverished arrears with no access to libraries, internet and have to walk long distances to school. For some time it appeared that people did not abbreviate isiXhosa in IM as much as they do in English in South Africa (Deumart & Masiniyana 2008) and worldwide. However it appears that SNSs might now be causing new practises of abbreviating isiXhosa. It is therefore important to look at what theorists say about the SNS language and whether it has an influence on writing. This section will review ICT status in education in South Africa and analyse theorist's views about the language used in the SNS.

The South Africa Department of Education (DoE), now Basic Education, education policies and acts stress that there is equal education in South Africa whereas this is still not the case. The curriculum and the policies for all schools are the same but the quality of education is different (Centre for Education Policy Development [CEPD] 2008:13). The Nelson Mandela Foundation (2005:138) states that, "our study shows that children in rural areas do not have

their constitutional rights to education realised and their rights within education or through education are limited" (Nelson Mandela Foundation 2005:138). There is a huge difference between how learners are taught and how teachers teach them. Schools in remote rural areas for example have no access to electricity, roads to schools are gravelled with potholes and most teachers prefer to stay in urban areas because of the bad living conditions in rural areas.

CEPD (2008:15) highlights that in 1994 the African National Congress (ANC) published a Policy Framework for Education and Training, with a chapter entitled "The Special Case of Rural and Farm Schools". The chapter makes the following policy proposals:

- The state will assume full responsibility for the provision of schooling in rural areas;
- The state will, where necessary, provide transport to schools and establish rights to cross private land to ensure effective access to schooling;
- The physical and service infrastructure of many farm and rural schools needs to be upgraded to ensure minimum standards for example, provision of water, toilets, electricity, library books, office equipment, sports facilities;
- The work of non-governmental organisations (NGOs) which have specialised in preparing learning materials and teaching aids relevant to rural communities will be developed with the assistance of teachers and rural community workers;
- Where possible, schools will operate as Community Learning Centres with a range of after-school activities linked to the social, educational, health and recreational needs of the community, linked to rural development projects; and
- Housing, access to transport, and perhaps other incentives need to be provided to attract and retain effective teachers in rural schools. (CEPD 2008:15)

Much has been done but there are many things that still need to be done to improve schools in rural areas. Most schools in rural areas have no libraries while schools in urban areas and townships have access to multiple libraries (Gardiner 2008:19). Learners in rural areas are far from cities where they can access libraries and other reading materials. It is not uncommon to find that the schools in rural areas even lack teachers (Gardiner 2008; CEPD, 2008). This may be because of the living standard in rural areas and lack of teaching equipments. In South Africa it is common to find that schools in the rural areas lack text books and learners have to share a book or not have that textbook at all till the end of a year, regardless of whether this is in relation to high schools or Junior Secondary Schools. Even the pass rate is

low in disadvantaged rural schools. Those who happen to pass often have bad symbols and their parents often cannot afford to buy them study materials.

Most learners in remote rural schools also have no knowledge of using a computer. In their schools there are no Computer Studies as subject whereas you will find that learners in urban areas are computer literate and Computer Studies is offered as a subject in their schools. The lack of computer knowledge among learners who pass Grade 12 in rural areas forces them to register for Computer Literacy courses in the urban computer schools for 3 months, 6 months or even up to a year. Rural learners depend on the text books for reading, and besides the radio, the only digital ICT they are able to use is the cellphone.

The DoE and Department of Communications (DoC) published their cooperative policy document, 'Strategies for information and communication technology in education' (DoE and DoC 2001). This policy indicates that the departments want to engage in the ICT in education stating the following intended outcomes:

- All schools will possess a means of telecommunication (landline or cell phone);
- With rare exceptions, all schools will have at least one internet linked computer for administration and support purposes;
- Schools will have access to internet-linked facilities for learners and educator use;
- At the end of the Foundation Phase, all learners will have used a computer in the acquisition and enhancement of their numeracy and language skills;
- Learners and educators will have basic competence in the use of word processing, spread sheets, flat database, e-mail, and web-browser applications;
- Learners and educators will have used a host of user-machines interfaces, including keyboards, touch pads and other devices;
- Where practicable, computer facilities will be utilised out of school hours by school and the wider community, with cost-recovery as appropriate;
- Education software will comply with the curriculum 2005 assessment standards and;
- The Department of Education portal, 'Thutong' will provide access to a host of curriculum and support material (DoE and DoC 2001:15-16).

The DoE and DoC (2001:16) furthermore outlined the following objectives in order to achieve the above mentioned outcomes:

• Basic connectivity;

- Wired schools;
- Statement of curriculum objectives, and
- Educator development. (DoE and DoC 2001:16)

According to the DoE (2000, 2003) ICT in South Africa has the potential of making a real improvement to teaching and learning across the curriculum in secondary schools. The DoE sees that ICT is important to education but there is arguably nothing has really been done to show that they want to put ICT in the curriculum. DoE ministers come and go in their positions, arguing that ICT is important, but there is nothing they really do to empower the learners in disadvantaged rural areas. The DoE (2003) emphasised that teaching is a demanding profession, requiring of its members enthusiasm, dedication and commitment. It is common-sense that teachers need to know not only what they teach but also how to teach it most effectively (DoE). If the government finds it difficult to distribute good learning materials in rural schools, then teachers find themselves in dilemma because they have to teach in creatively and sometimes ineffectively without the equipment. They cannot sit and wait for material to arrive and that places pressure on them and the learners because learners wish to pass at all costs.

The White Paper on Education and Training (DoE 1995) placed the education focus on Outcomes Based Education (OBE) i.e. developing problem solving skills, and providing a creative environment in which new technologies are harnessed to produce knowledge products. The DoE (1995), states that its aim is to integrate technology into education strategies in order to advance the country's ability to adopt new technologies to facilitate its growth and development. This is true too of the more recent CAPS educational programme.

According to Howie, Muller & Paterson (2005:3) exposing learners to ICT will provide them with valuable hands-on experience and the opportunity to learn skills that will be useful in an increasingly technology saturated environment. Integrating ICT across the curriculum allows learners to develop research skills and improve personal. It is possible for learners to be creators of their own knowledge (Howie et al 2005:3). When learners start to seek information on the internet and they begin synthesising the information in the form of a presentation or project that makes learners to gain research skills and personal information management, self-regulated learning, communication skills and teamwork skills. These skills are not only market. Through the use of ICTs in schools access to all these skills can be speeded up (Howie et al 2005; Fullan & Smith 1999).

The White Paper from the Department of Arts, Culture, Science and Technology (DACST 1996), states that access to ICT in South Africa is essential for national competitiveness and popular empowerment, DACST (1996) proposes a National System of Innovation, "the process of transforming an idea through research and development, into a new or improved product which relates to real needs of society and which involves scientific, technological, organizational or commercial activities" (DACST 1996:11). According to DACST (1996:12) the knowledge, technologies, products and processes produced must be converted into increased wealth, to buy industry and business, and to improve the quality of life for all members of society (DACST 1996:12).

Howie et al (2005:8) believe that there is a definite pressure in South Africa for inclusion of technology in the education curriculum and for changes in education. They suggest that the following to be considered:

- The workplace increasingly requires employees who are scientifically, technologically and information literate;
- Education of so-called 'knowledge employees' requires an emphasis on problem solving, access to information evaluation, analysis and decision making;
- Learners need a flexible approach to education;
- Learners need to update their knowledge, therefore knowing how to access information is critical;
- There are large disparities in abilities and ages of learners, requiring solutions to lifelong learning;
- There are financial pressures, as there is an increase in the number of learners and a decrease in funding, and
- There are not enough facilities (including classrooms) and there are substantial pressures on teachers in terms of learner rations (Howie et al 1995:8).

Howie et al (2005:8) further observe that the traditional methods of education alone will not meet the above massive learning and training requirements. Therefore it is suggested as important that the following principles should become common goals throughout the system:

- Partnership and collaboration in proving, developing and producing information and information technology in education;
- A co-ordinated audit of resources in ICT on a national basis;
- Learner-centred approach to learning and teaching be adopted;

- Development of a network of community centres, and
- An emphasis on joint development of high quality multi-media courseware (Howie et al 2005:8).

4.2 The Divide: Rural and Urban Schools

There are problems that urban schools consider as basic while their rural contemporaries refers to them as problems that need to be solved in order to compete with urban schools. Those are issues that rural schools need to overcome before any communication facilities and resources can be distributed in rural schools to improve their access to quality education.

Rural schools and communities still lack development. Government have tried to put electricity in rural schools but with no equipment to benefit from this electricity. It is used only for lighting, charging cell phones and operating one computer and photocopying machine that is used for administrative purposes by school clerks in some schools. Below I suggest and outline nine challenges or problems facing rural schools in this time of so-called equality in education.

4.2.1 The lack of infrastructure and stationery

Infrastructure and stationery are basic needs when it comes to education (Jenkin1995:3). Without good school buildings and delivery of stationary it is hard for learners to receive satisfactory teaching (van der Berg 2008:18). There are many rural schools in South Africa, especially in the Eastern Cape Province that lack good infrastructure and stationery for learners to use (van der Berg 2008:18). This may be because of the partial subsidy the state provides for building costs. According to Jenkin (1995:3) community members in rural areas as a result have borne the rest of the costs. Most rural schools are situated in places with extreme poverty and there is an unlikely to be extra funds for infrastructure and resources (Jenkins 1995). Van der Berg (2008:18) states that:

Without good textbooks or other classroom resources, more teachers cannot necessarily improve the quality of learning. Thus studies show great positive effects of more good textbooks, effects that often appear to be larger than those of additional teachers. How resources are combined and how they are used in the classroom, may be of great importance to gain optimal benefit from them (van der Berg 2008:18).

4.2.2 Schools situated in inaccessible areas and inexperienced teachers

Rural schools are more isolated than urban schools and this problem needs to be considered in order to sustain the same quality education in South Africa. It is hard to reach most schools in rural areas because they are situated in remote areas and that makes it difficult for useful resources to be delivered in those places (Jenkin 1995; Gardner 2008). Gardner (2008:13) states that, "villages and rural communities are difficult to reach, the physical conditions in schools are inadequate, and learner performance in comparison to schools elsewhere is weak." In rural areas there is scarcity of transport services due to bad roads. Learners have to walk long distances to school (Nelson Mandela Foundation 2005:64). When it is raining the rural gravel roads become dangerous for vans that are used as transport to travel and because of the limited communication resources the rural schools are left behind and forgotten.

It is common in South Africa to find that the highly skilled teachers with much experience reside in urban areas even though the majority of teachers operate in rural areas. According to the M-Web Holdings (1999:1) out of 360 700 teachers in South Africa, 70% ply their trade in urban schools. Jenkin (1995:1) highlights the fact that the result is that the majority of learners are receiving education of inferior quality without appropriate facilities and by teachers who are not properly qualified or even motivated.

According to van der Berg (2008:18) the lack of educational resources in developing countries can sometimes prevent good education. In rich countries it is difficult to attract good teachers in poor schools. Even in South Africa there are few teachers who want to teach in rural areas, each and every person wants to work in a very comfortable environment with all the resources for working in good order and in good condition.

4.2.3 Communication problems

There is a lack of technological communication facilities in rural areas. In order for rural schools to compete with urban schools both local and globally the communication challenges need to be conquered (Herselman 2003:974). Schools that lack communication facilities like computers are left behind in the 21st century. For a school to have access to chat rooms, internet, bulletin boards and educational websites, government and education bodies would need to provide these communication facilities in rural schools (CEPD 2008, DoE 2003).

4.2.4 No telephone services

Telephone services are essential if rural schools are to be kept updated with latest developments in education. In some rural areas there is low network coverage for certain cell phone network providers, thus teachers cannot be reached during working hours on their own cell phones. Jenkin (1995:3) emphasise that the availability of telephone services in rural schools will help to improve a school's access to information and knowledge (Jenkin 1995).

4.2.5 Absence of computer hardware and software

Computers and associated resources also play an important role nowadays in education and business settings. It is therefore difficult for computer illiterate individuals to complete tertiary education and find work without being computer literate. Furlonger (2002:2) states that it is rare to find computer laboratories, and teachers with the knowledge of the internet in most rural schools. In the Solar and Electric Light Fund (2001:3) it is stated that computers and associated resources are central to modern education and are here to stay. Internet therefore can be used to narrow the gap between rural and urban schools through the use of websites, teaching via satellite (Electric Light Fund 2001; Furlonger 2002).

4.2.6 Absence of technical training

Rural schools lack skilful and experienced teachers who have knowledge of technical skills. As a result most rural schools do not offer computer subjects. This makes rural learners to be less prepared to register at tertiary institutions where computer and internet knowledge is very important. Furthermore, it is hard for those learners to find information about tertiary institutions, bursaries and employment. According to Jenkins (1995:3) the lack of internet knowledge on part of rural learners therefore creates gaps between rural and urban contemporaries and these are evident when competing for tertiary positions.

4.2.7 Absence of library services

Libraries are very common in most urban schools and surroundings. According to Burnette (1999:3) "most rural schools do not have libraries and learners do not even know what a library is and let alone what its function is." Building libraries for rural schools will help to improve the illiteracy rate and enhance rural education. The libraries may include computer facilities to train learners to be computer literate (Herselman 2003:948).

4.2.8 Transport services

According to Jenkin (1995:3) in rural areas it is very common for learners to walk long distances to school. Even though the South Africa Department of education has made provision of transport services to rural high schools (CEPD 2008) the service is not running well because primary and secondary senior phase learners in some parts of rural Eastern Cape are not transported at all as the transport service is reserved for high school learners (Jenkin, 2008). When it is raining the service often does not run at all due to the bad gravel roads. Giving those learners access to reliable transport will motivate them to attend school as the majority of them have to walk to school in any kind of weather. Jenkin (1995:3) states that lack of transport is one of the reasons rural learners do not attend schools and this encourages some move to urban schools.

According to the Parliament of the Republic of South Africa (2013) school nutrition is functioning well in both provinces (Eastern Cape and KwaZulu-Natal), with the Eastern Cape indicating that it had resolved learner transport challenges by extending all expired contracts. However, The Department of Education in the Eastern Cape Province hired school buses that are not roadworthy and this has been proven by the number of accidents that cause death in the province (Daily Dispatch 2013; News24, 2013).

4.2.9 Large number of learners in class

Because of the lack of infrastructure, classes in some rural schools are overcrowded. Learners who have learning disabilities also do not find the necessary attention that they need (Herselman 2006:248). The school learner dropout rate and the repetition of classes is very high in rural schools.

4.3 Social network sites and students in South Africa

While most popular SNSs in the United States are Facebook and MySpace, in South Africa SNS access is affected by the high access to cellphones, relative to the lack of access to PC's and laptops. Instant messaging over the cell phone is extremely popular in South Africa (Butgereit 2009). Mobile or cellphone access seems to be pervasive among youth both in rural and urban areas in South Africa (Kreutzer 2009).

Most youngsters in South Africa use Mxit. Mxit stands for "Message Xchange It' and is pronounces as 'mix it'. Mxit is a free cellphone based application, which allows users to use

IM protocols over the cell phone to communicate using the General Packet Radio Service (GPRS). South Africa's younger generation is mobile centric internet users especially those living in urban areas, whose first and primary way of accessing the internet are through GPRS (Walton 2009).

Butgert completed his study in year 2007. By that time she found that Mxit had nearly 5 million users in South Africa (Butgereit 2007). In 2010 Mxit had 18 million registered users. Just like any other SNS application, the Mxit popularity spread through a real world friendship network, and young people adopted the system rapidly to find private space for friendship and relationships away from parental control.

Mxit has an age restriction. One can only download it if you are 13 years or older (Butgereit 2008; Walton 2009). When registering for Mxit person use a phone that has an internet, provide your date of birth, username and password (Walton 2009). It is therefore easy for users to register with false birth dates just to access the application and that cannot be prevented as users use their own phone. When joining private chatrooms on Mxit, there is an age restriction of 18 years. After joining Mxit then the user can invite friends to chat online, download music, play games and even participate in competitions (Walton 2009).

The Mxit application was demonised on its first release by the media because of stories about teens meeting strangers who invite them via the Mxit application. Mxit was used by strangers to transfer pornographic images, stalking and sending scam messages to users. According to Walton (2009) the misuse of Mxit fuelled moral panics to concerned parents and authorities but did little to harm its growth among teens that might have been attracted by it permissive or subversive image (Walton 2009; Kreutzer 2009).

Youngsters value Mxit because it strengthens ties with their friends and develops new ties with their peer groups, while parents value it as a cheap mode of communication (Kreutzer 2009). According to Walton (2009) the use of Mxit by youth is similar to the use of the cell phone by adolescents around the world. Mxit therefore has played a great role in emancipating youth from family constraints and constructing the identity of the teenager.

All SNSs may have a positive influence on young people's written languages. This is verified by Butgereit (2008) who created a group on Mxit called 'Dr Maths'. Dr Maths is a mobile mathematics tutoring system. According to the Council for Science and Industrial Research

(CSIR) Dr Maths was initiated in 2007 by Butgereit. Today the application has 25000 registered users, mainly through word of mouth advertising (CSIR 2013).

Learners can access Dr Maths by registering on Mxit first and adding Dr Maths as their contact. According to the CSIR (2013) Dr Maths has tutors with a strong mathematics background. The tutors are managed similarly to the call centre agents and are available from Sundays to Thursdays between 14:00 and 20:00. Dr Maths has 110 volunteers (tutors) from around South Africa and most of them are engineering students from the University of Pretoria.

Regarding Mxit, Butgereit and the CSIR (2013) explain that learners can access features to make themselves familiar with mathematics. These features include:

- Definition of mathematics terms;
- Definition of mathematics formulae;
- Games and competitions (mathematics); and
- Scientific calculator (CSIR).

In 2009, Vosloo led a project called M4Lit meaning Mobile for literacy (Vosloo 2009). They registered on Mxit as Yoza. The application allows reading and writing engagement over mobile phone. According to Vosloo (2009) Yoza have short stories, poems and classic literature that is published on Mxit and users can comment, vote and enter writing competitions and review stories via Mxit.

Parental involvement to ensure safety use of the SNS by teenagers is very important (O'Keeffe, Clarke-Pearson 2011; Hargittai 2008). This is necessary because it is not easy to remove or forbid youth from the SNS culture (Boyd and Ellison 2007). They may face cyberbullying, sexting, and online harassment but they continue to use SNS. According to O'Keeffe et al (2011:802) "sexting can be defined as sending, receiving or forwarding sexually explicit messages, photographs, or images via cell phone, computer or other digital devices". Cyber-bullying is deliberately using digital media to communicate false, embarrassing, or hostile information about another person and it is the most common online risk for all teens and it represents peer-to-peer risk (O'Keeffe at al 2011:801). According to Lanhart (2007) online harassment is not as common as harassment in the offline environment and being in the SNS does not put all the teens at the risk of cyber-bullying. Cyber-bullying largely occur offline too but online it can happen to anyone and can cause psychosocial outcomes including depression, anxiety, severe isolation, and tragically, suicide (Ybarre & Mitchell 2008).

Teenagers in the online environment can also suffer "Facebook depression" a phenomenon proposed by researchers (O'Keeffe et al 2011:802). Facebook depression is defined as depression that can develop when a person spends too much time on SNS such as Facebook and begins to show signs of depression (Davila et al 2009). Teenagers who suffer from Facebook depression visit dangerous internet websites that may promote substance abuse, unsafe sexual practices, aggressive and self-destructive behaviour (O'Keeffe et al 2011:802).

The SNSs also contain advertisements that may influence teenagers to buy online or get themselves in danger. According to O'Keeffe et al (2011:802) it is important that parents must be aware of behavioural advertisements too because they are common on the SNSs. O'Keeffe et al (2011:802) state that:

Many online venues are now prohibiting ads on sites where children and adolescence are participating. It is important to educate parents, children and adolescence about these practices so that children can develop into media-literate consumers and understand how advertisements can easily manipulate them. (O'Keeffe etal 2011:802)

Arguably, if SNS are used in the right way by teenagers it is possible that they will develop computer literacy skills, and have confidence in their writing skills (Thurlow 2006, 2007; Thurlow & Bell 2009). They would also learn how to express themselves freely. There is no doubt though that the increasing use of technology devices brings with it a new set of literacies or ways of communication and conveying meaning (Walton 2009; Brandt & Clinton 2002). New literacies can be associated with changes in social practices of meaning making (Coiro, Knobel, Lankhear & Leu 2008). According to Antonacci & O'Callaghan (2011:6), the new literacies that result from media and digital technological developments are part of the world of the modern student. This means that we possibly need to rethink our view of literacy, traditionally defined as the "ability to read and write" (Harris & Hodges 1995), which is the main focus of formal education (Heath 1996; UNESCO 2006). Arguably today one would need to explore harnessing the advantages of new technologies to achieve educational goals.

Learners connect with each other sometimes to discuss school work and group projects (Boyd 2008). O'Keeffe et al (2011:801) highlight en example concerning the use of Facebook by learners for educational purposes:

Facebook and similar social media programs allow students to gather outside of class to collaborate and exchange ideas about assignments. Some schools successfully use blogs as teaching tools, which has the benefit of reinforcing skills in English, written expression, and creativity. (O'Keeffe et al 2011:801)

The use of these technologies not only contains important education benefits, but can also contribute to the health of teenagers. Teenagers use SNSs to research diseases like Sexually Transmitted Infections (STDs) because it is a taboo in other cultures to discuss relationships and its consequences with parents, especially with regard to African families (Holtzhausen 2011:149). Using cell phones for IM and text messaging therefore have already shown many improvements in the health care of teenagers, such as increased medication adherence, better disease understanding and fewer missed clinic or doctor appointments (Rishna, Boren & Balas 2009:232).

All SNS have safety tips for registered users to avoid scams and cyber-bullying. The top 10 Mxit Safety Tips follow below:

- Do not share personal information with strangers. This includes profile info, ID numbers, personal details or photographs. If your child is using Mxit set their privacy settings on Mxit to ensure only their approved contacts can see their personal information. User identity remains anonymous when users interact in a (public) Chat Zone.
- Mxit does not condone anti-social behaviour or explicit sex talk in chatrooms. All
 chatrooms contain profanity filters and are moderated daily, with extensive moderator
 presence available in all Teen Zones. If you do not want your child participating in
 chatrooms simply install the chatroom blocking feature (see Mxit / Info [situated on
 Mxit's login menu] / Chat Zone Block).
- A user can set up their own chatroom with their friends and password-protect it. This
 ensures that access is by invitation only and after 36 hours of inactivity the room
 will shut down.

- Typing in a ".rat" command on Mxit chatroom allows a user to report any abuse they may experience. Mxit then receives the authority to see the last 30 strings of this conversation and will follow up within six to 12 working/office hours on these reports received.
- Defamatory material circulating on Mxit must be reported to support@mxit.com
- We have a zero tolerance policy towards cyber bullying. If you or your child is exposed to cyber bullying, they can email support@mxit.com
- If you or your child would like to chat to a counsellor, simply visit: *Tradepost>Mxit Reach>Ask Doc*
- Mxit's Dating Game is age restricted to 18+ and all profiles are randomly moderated: mxchange, the classifieds service of Mxit, is moderated 24 hours around the clock and every post is moderated before it is posted on Mxit.
- Mxit's terms and conditions state that users can only register if they are over the age of 13 years: This is to protect vulnerable users who may not be emotionally mature enough to engage with this type of platform (www.mxit.com)

These rules are for the safety use by registered users. Mxit also have a parent guide for moderating and encouraging their children to be always safe. Children do not just log on SNS just for fun, it is also used from an educational point of view and therefore parents need to be involved.

Understanding the environment in which your child is communicating is of utmost importance to ensure their safety. Just as you wouldn't let your child stay over at a friend's house without knowing the family, so the technology age compels us to be tech savvy and educate our children about potential dangers. Fortunately, keeping your children out of trouble is as simple as getting clued up on what they are doing and teaching them how to be safe online (www.mxit.com)

4.4 Conclusion

It is important to note that the most common device used by both rural and urban learners is the cellphone. Bridging the educational gap between learners in rural and urban areas must be through the use of the technological devices available to them. It is essential for government to intervene regarding the problems facing more especially rural learners in order to seriously boost and sustain equal education. Using expensive devices like computers and tablets may cost lots of money because some parents will not be able to buy tablets for their children and it will be impossible for government to distribute them to all areas. However government is already failing to provide enough text books especially in rural schools. The rollout of technological learning options may be a more sustainable way to go. There is then a call for Computer Science developers to try to develop software that can be used by learners on their cellphones as learners already own and possess such technology. It seems as if M-Learning may be beneficial to both rural and urban learners not only academically but also socially.

It also needs to be noted that parents need to be involved in the online environment to monitor safety of their children and also to encourage them to use the educational site. This may not be done by registering in the SNS but by also talking openly to children about safety and trying to understand the online environment. Teachers must also be exposed to the ICT world through professional training so that they can understand the online environment just like parents and be able to use online services for educational purposes. The South African government needs not to only release education policies and Acts but it must also provide what was promised to all schools in terms of materials and equipments. It is also important to improve the teacher-student ratio, particularly in rural schools.

In this chapter certain background information regarding the development of new technologies is provided. The policies that underpin this development have been outlined. In the chapter that follows, background information regarding the schools is provided as well as specific examples of academic activities related to SNS-speak from the two school sites will be analysed.

Chapter 5

Data analysis and interpretation of results

5 Introduction

In this chapter the background to the two research sites is outlined. Furthermore, an analysis of the data collected in these rural and urban schools is presented.

5.1 Nogemane SSS background

Nogemane SSS was established in 1984. It is in the Eastern Cape Province, under the Libode Mega District. The school is situated in a very disadvantaged rural area in Ngqeleni, Ntibane Location on the wild-coast. The school only has a 3 classroom block (permanent structures) and 3 temporary structure blocks with 3 classrooms each and 1 with science laboratory. The school serves 6 villages: Ntibane, Mphimbo, Mzonyane, Lwandile, Mngcibe and Mamolweni. The school is in the centre of the villages and there are no other High Schools in the other villages. People living in the village are isiXhosa speakers, and learners are encouraged to only use English when at school or chatting in the SNSs.

The village where Nogemane is located together with the villages it serves lack basic services from the municipality such as water and electricity. They have very poor sanitation. The school is the only place with electricity. It has water tanks and it has pit toilets provided by the municipality to the communities in 2012/2013. The area falls under the Nyandeni Local Municipality in the O.R.Tambo District.

Unlike other schools, when entering Nogemane SSS there is no welcoming board. There are no pictures about school events, for example, pictures of learners who excelled at sport, or pictures of high achievers or even Grade 12 farewell pictures. The area between the 3 blocks is used as a school assembly area as well as a parking lot for cars entering the school. There is only one staff-room, a principal's office and a clerk's office next to the principal's office. Every Friday, learners clean the classes before leaving the school premises and there is a list in every class for learners who are responsible for sweeping during the week.

5.1.1 Teachers

There are 16 teachers in the school of which 9 are females and 7 are males. There are only three teachers who are not Xhosa speakers. They are not South African but come from other African countries. Each teacher teaches different subjects in Grade 10 and Grade 12 classes.

There is a high shortage of teachers and teachers have a high workload. They have to mark many papers, from different classes and subjects. This is the case in most schools both in rural and urban High Schools.

Teachers are not from any of the villages. Most of them stay in Mthatha and Ngqeleni. Those who stay in Mthatha spend a minimum of R72 per day in transport to and from the school and those in Ngqeleni spend R36 per day in transport. As a result teachers from the school hire transport that they pay on a monthly basis to transport them to and from school.

5.1.2 Learners

There are 660 learners at Nogemane SSS in total. 278 learners are in Grade 10, 238 in Grade 11 and 144 in Grade 12. The number of learners has increased rapidly from 222 in 2007 to 660 in 2013. All learners are Xhosa mother tongue speakers and are originally from the Ngqeleni villages. The rapid increase of the learners might because of the no-fee policy that was implemented by the Department of Basic Education (DBE) in 2007 (DoE, DBE 2007). The no-fee policy was implemented nationally and 40% of the poorest schools in South Africa were granted no-fee status. Nogemane SSS is one of those schools in quintile 1. This programme helps learners to study because its aim is to make sure that no learner is prevented from getting basic education in public schools because of poverty. Most learners at Nogemane SSS are from very poor family backgrounds as many of the families in the village depend on agriculture for survival, and government support grants. Some family members are doing domestic work in towns far from the village and others work in the mines in the Gauteng province. There are learners from managing families but very few in the school because people who have good jobs and are earning good salaries take their children to schools in urban areas.

It is common to find that other learners are breadwinners in their homes as the village is that of a skip-generation where you find learners staying with their siblings only because their parents passed always mostly because of the HIV/AIDS epidemic and other conditions. Some parents also leave their children behind in order to seek jobs in the big cities. Most of the time when a mother leaves the child, the child is left with the grandmother.

5.1.3 School transport for learners

As indicated in the introduction of this chapter, at Nogemane SSS most learners are from villages within a 5 Km radius of the school. Some learners from those villages hired transport to take them to and from school. Most pay R200 per month. Other learners use the school

bus. The school bus is free and was provided by the DoE. The reason for other learners to hire transport is because when it is very wet the bus does not fetch the learners and they have to walk a long distance to school.

The bus only takes Grade 10 and 11 learners. Grade 12 learners are encouraged by the SGB to rent near the school so that they can have time to study, even on weekends. Very few homesteads manage that because they cannot afford to maintain two homesteads (own home and rental) and they find it hard to pay rent. Some parents do not want their children to rent because of possible security issues. Some prefer their daughters to stay with them to prevent them from being free at nights and having boyfriends. Others think the village is not safe for children to stay alone and some do not want to bother relatives that are near the school. Some parents who use public transport think the transport is not safe. Learners often arrive home at night because the bus has encountered a mechanical problem. At the time of doing research in the school, the bus for example collided, killing 5 pupils and injuring 30 pupils.

It is therefore important for the DoE to provide good transport for learners in rural areas just as it is doing in urban areas. The road from town to the village is a gravel road and it becomes muddy when it is wet. It is then very difficult for the bus and some vans to travel and to navigate the road.

5.1.4 School subjects and laboratories

The school offers only 9 subjects see (Table 2). IsiXhosa and English are compulsory for all learners. Each subject is taught by double or multiple teachers in different grades. Only Tourism as a subject has 1 teacher (Table 2). He teaches the subject alone and from Grades 10-12. He also teaches mathematics in the Grade 12 class. There are 5 teachers responsible for Teaching English in the school, but because each teacher has other subjects to teach too, sometimes the teacher does not attend the English class. This affects the learner's English which in turn affects the writing of examinations and the completion of class exercises. For physical science there are only 3 teachers responsible for all classes within the different grades.

Subjects	Number of Teachers per subject
isiXhosa 1 st Language	4
English 1 st additional language	5
Mathematics	4
Mathematic Literacy	2
Physical Science	3
Life Science	4
History	4
Geography	4
Tourism	1

Table 2: Subjects at Nogemane SSS and number of teachers per Subject

There is no computer laboratory in the school. There is only one computer and it is used by the clerk for administration purposes. At the time of doing the research there was no clerk in the school. Management said he was deployed to another school and a teacher had to do clerical duties. The school has 1 science laboratory in a temporary structure building but it has never been used. The principal said he regarded it as 'under construction' as there are no chemicals in the laboratory. Learners confirmed that since they registered at Nogemane SSS the lab has never been used, and some were in the school for more than 3 years.

A science laboratory is important especially for learners who are doing Physical Science and Life Science as they are supposed to conduct experiments in all grades. Access to technology in such laboratories is also fundamentally important. The absence of laboratories might then affect the pass rate and the commitment of learners to the science subject. Most learners at Nogemane SSS do Mathematics literacy because they do not want to do Physical Science and Mathematics, they also prefer History. If there can be laboratories and learners were able to do practical work and experiments, obtain information online, the pass rate at the school can be improved. A computer laboratory would also help all learners to be familiar with the computers as they need to know how to use it when they are in tertiary institutions and workplaces. Some learners said that after matric they will take computer lessons in town, usually for up to 3 months or more in order to have a computer literacy certificate before seeking work, since most jobs require people with the knowledge of computers.

5.1.5 ICTs in Rural Schools

Most schools in rural areas have no landline telephones. Teachers use cellphones to communicate with the district office and they use their own airtime. The schools have no internet connections. The clerks or administrators in schools like Nogemane use a computer for data capturing and typing. They do not have access to the internet and as a result, when a person wants information, example application forms and so on, they go straight to the school. There is little or no information on the internet about rural schools and events happening at rural schools.

Learners also use their cellphones to communicate with each other or to communicate with the teacher when necessary and they often lack airtime. The only way of communicating with all the learners is through the assembly which is addressed by teachers in the morning. There are not even notice boards on the school premises.

5.2 Nombulelo SSS: Background

Nombulelo SSS is in the Grahamstown Township called Joza, in the Eastern Cape Province and it falls under the Makana Municipality. The school starts from Grade 8 to Grade 12. The school has very good infrastructure. It has a parking lot for teachers and visitors and there are many offices at the institution, for example, a principal's office, Head of Department offices and a clerk's office. There are people who are hired to clean the school classrooms, staffrooms, offices, including the toilet facilities. This is unlike the rural schools where it is the learners who clean classrooms. There area where Nombulelo is situated has different races but most people are isiXhosa speakers. Learners are exposed to different languages even at school because teachers are a mixture of races and language groups.

When entering Nombulelo SSS there is a signage board on which is written: "Welcome to Nombulelo Senior Secondary School" and there is a large entrance area. The school has a very high pass rate and as a result it was one of the schools in the township regarded as a "model C". The school is not far from the local police station, the public library, post office and public clinic.

5.2.1 Teachers

There are 36 teachers in the FET phase (Grades 10-12). There are 11 males and 36 females. Each teacher teaches at least two subjects in different Grades in the School. They also have a high workload as they teach a very large number of learners in the classrooms. There is a shortage of teachers in the institution and this is a problem of most schools in South Africa at large.

Teachers live around the township and some in town which is not far from the school. They use their own transport to go to work as most teachers have cars. Those who do not have cars are dropped near the school in the morning by their relatives who stay with them at home.

5.2.2 Learners

In 2013 there were 722 learners (Grades 10-12). 302 learners are in Grade 10, 199 in Grade 11 and 221 in Grade 12. Most learners in the school are isiXhosa mother tongue speakers and are all doing isiXhosa as a 1st language. Most learners live in the township and are not far from the school. Some takes a taxi home from school and some choose to walk. There are only 23 learners who live on the farms far from the school. There is a school bus to transport them which is paid for by the government. Some of the learners were not born in Grahamstown but study there because of relatives who are working in Grahamstown. The learners pay school fees as it is a fee paying school.

5.2.3 School subjects and laboratories

There are 15 subjects (Table 3) offered at Nombulelo SSS. A learner has a very good choice in terms of choosing and preparing themselves to study at a tertiary institution. Learners also do practical work, especially in all the science subjects as well as in economics. They also do needle work meaning that learners who are not good in theory can choose different fields of study that require them to do hand-work. There are learners in Grade 12 who are also doing Visual Art. That means that at Nombulelo SSS learners are well equipped in the subjects they will need in the future for their studies. The Visual Arts subject alone indicates that the school is prepared to let learners develop their own talents. That in turn may open many opportunities for them when they want to do studies that require Visual Arts, unlike learners who are attending rural schools and who are tied to do only a limited range of subjects. The availability of subjects for learners to showcase their own skills at Nombulelo SSS may have been influenced by the Grahamstown National Arts Festival that happens every year in the city. It is here where learners see how people use their own hands to come up with something and this may encourage them to take those studies. The study of Visual Art needs to be introduced in rural schools because learners have talents but some cannot showcase these because there are no subjects that allow them to do so. They end up living in their homes after passing matric whereas if they were equipped with hand-work skills at school, then at least they would have something to do even without being formally hired.

Table 3: Subjects offered at Nombulelo SSS

Subjec	ts
1.	Accounting
2.	Business Studies
3.	Consumer Studies
4.	Economics
5.	Geography
6.	History
7.	Life Orientation
8.	Life Science
9.	Mathematics Literacy
10.	Mathematics
11.	Physical Science
12.	Tourism
13.	Visual Arts
14.	IsiXhosa Home Language
15.	English 1 st Additional Language

There are 2 Biology laboratories, 2 science laboratories and 2 Consumer Studies laboratories. In total there are 6 laboratories in the school. All the laboratories are functioning with all the chemicals and equipment needed to conduct experiments and practical work.

5.2.4 ICTs in urban High Schools

There are landline telephones in the school. The school is equipped which a photocopying machine, a fax machine and there is a computer laboratory. The computer laboratory is used by learners in all Grades. Any teacher can take learners to the computer laboratory to search the internet for certain work given and also for typing. The learners are taught how to use computers and how to use the search engines. The school has good internet connection. There

are also computers at the reception, in the clerk's office, the principal's office and in other offices.

5.3 Summary of the rural and urban schools education backgrounds

There is clearly no equal education in South Africa. Unlike during the apartheid era where schools were separated because of race, during the democracy era schools are separated because of the region in which the school is situated as well as access to funding. If a school is in the poor community like Nogemane SSS the government has not developed good infrastructure in such areas. Teachers who teach in rural areas prefer to live in urban areas because of lack of basic needs and some live in urban areas because it is the only place where the working class can get subsidised housing.

The education policy and curriculum is the same, but schools do not enjoy the same status. There are few schools in urban areas that have the problem of learning and teaching resources. Learners in rural schools, where there are no science laboratories are expected to pass, but this is difficult if learners are not introduced to doing experiments and practical work in properly equipped laboratories. Learners in urban areas are also exposed to many languages and as a result they adapt easily to English classes. Learners in rural areas are only exposed to one language, which is their mother tongue and they only learn or use English at school. The use of English only in learning is affecting those learners who are not exposed to other languages. It is important therefore for government to implement policies that allow the learner to learn in their own languages i.e. to allow the content subjects to be taught and examined in the mother tongue. That may increase the pass rate in the high school and also the knowledge or cognition a learner seeks will be improved. Presently learners in rural schools have to memorise work in English without necessarily understanding the content of the subject. These linguistic skills also influence the use of SNS-speak among different learners.

Creating terminologies, for example using isiXhosa for ICT and Science will be very good for uplifting learner's knowledge. This will also make learners to understand experiments and questions better in the class because most learners do not fail because they do not know the question but because they do not understand the language used. The availability of ICTs that at least have isiXhosa capable software to connect learners from different schools might help them to chat about their difficulties. It will also help them to assist each other and sometimes they can practice and do work online. The importance of ICTs in education and the use of the mother tongue will be further discussed in the next section.

The use of SNSs by Learners

5.3.1 Summary of the participants

As shown in Table 4, learners from Nogemane SSS and Nombulelo are males and females between the ages of 14 to 25.

Age range (Years)	% of participants from	% of learners from
	Nombulelo SSS N=30	Nogemane SSS N=30
14-17	46.6	33.3
18-20	36.6	36.6
21-23	13.3	23.3
24-25	3.3	6.6

Table 4: Age range of the participants

Most learners are using Nokia phones (Table 5) especially in rural schools. They use the cheap Nokia phones with internet capability, while in urban High school most learners use the most expensive fashionable Nokia phone. My sample shows that 83.3 % of learners are Nokia users. In the urban school 56% use Nokia. 10 % of rural learners are using Samsung while 26.6 % in urban areas are using Samsung. Only 3.3 % in the rural high school are using Blackberry phones while 16.6 % in the urban high school are using Blackberry. 3.3 % of learners in the rural High School are using the Huawei phone. The Huawei is the double simcard phone purchased in the Chinese and Indian shops in town. They are cheap although they have good features.

Learners from the urban high school use smart phones and most of them confirmed that a relative or parent had bought the phone for them as a present after passing primary school. In the rural areas the few learners with smart-phones have them due to a parent or sibling who originally owned the phone having passed away. The family then decided to give the phone to the learner. Most learners from the rural school state that they did not get their phones as

brand new phones. They obtained them when a parent or sibling was upgrading a phone, and then usually the old cell phone was given to the learner. None of the learners stated they obtained a phone as a reward for passing a certain grade. Male participants who are using smart Nokia phones in rural areas stated they sometimes obtained the phone because they had helped a neighbour herd cattle while the neighbour was away during the year.

Table 5: Cellphone	manufacturers
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Cellphone Manufacturer	Participant from Nogemane	Participants from Nombulelo
	SS N=30	SSS N=30
Nokia	83.3	56.6
Samsung	10	26.6
Blackberry	3.3	16.6
Huawei	3.3	0

5.3.2 Learners and the internet

All learners who took part in the study use cellphones with internet capability (Table 6). While learners from the rural high school depend on the cellphone only to access the internet, their urban counterparts use different sources. There is internet in the computer lab in their school but they use it only when a teacher instructed them and only for that time and classroom purpose. Learners in urban high schools are not far from internet cafes and some of them use the internet café to do their school work, while only 6.6 % of learners from the urban high school use a PC in their homes to access the internet.

Table 6: Participant's access to the internet

SOURCE	% of learners from Urban	% of learners from Rural
	High School (Nombulelo)	High School (Nongomane)
	N=30	N=30
Cellphone	100	100

Internet café	60	0
Home PC	6.6	0
School	100	0

In contrast learners from disadvantaged rural schools have nowhere to use the internet other than from a cellphone, while urban learners can use different channels. As indicated earlier the only computer available in the rural school is used by the clerk for administration purposes, while learners in the urban school have acomputer lab in their school and all of them are given a chance to practice and to use the search engines. In the rural areas there are no internet cafes, they are only found in urban areas which is a 2 hours taxi journey from the rural village. That will cost them a lot to travel to an internet café and also to go to the library to access books. Since the learners in the rural high school have no electricity, they write all their work by hand and they have not even learned how to type.

5.4 The use of cellphones by learners (Call-Back,SMS and SNSs)

5.4.1 Call-Backs (CBs)

All participants who took part in the study specified that they use the CBM services offered by all cellphone Service Providers (SP) in South Africa. You can send CB from different SPs, which means if you are an MTN customer you can send to Vodacom, Cell C and vice versa. Most learners who took part in the study are MTN users, and others use Vodacom. Most learners in the rural school use the MTN network because of network coverage problems and the availability of airtime in the local shop. Vodacom has 10 free CB per day while MTN have 5. To send a CB from Vodacom you dial *140*Number#, from MTN you dial *121*Number# and then press OK/Yes button to send.

CB has a personalising option (Table 7), whereby you can personalise your name or nickname so that a person you sent the message to can know who is sending the CB. This is if they do not have your number or just to indicate that it is you who is sending the message. To personalise CB only 10 characters are used with no spacing. This clearly indicates that the SPs aims were for subscribers to write their names, but most people use the service to send very short messages to the receiver. This nature of the service allows learners to be innovative because they use a different language. They omit vowels and consonants and also use punctuation marks to indicate spacing in the message. The omission of vowels and

consonants is also done in isiXhosa when personalizing and the receiver understands the language.

Personalization	Standard format of language
1. Log'in.lv	Log in love
2. Buivalelen	Ubuyivaleleni?
	'Why did you switch off your phone?'
3. I'RLY'MC.U	I really miss you
4. Owm'ngwe	Owamnguwe
	'You are mine i.e. we are together and you
	are the only one'
5. Ucctandwa	Usisithandwa
	'You are my love'

 Table 7: Example of a Call-Back personalization

To a person who is not familiar with the language used by young people in the technological world, they cannot understand the personalised messages and some may think the person has used a foreign language. Some adults may think that the sender does not know how to spell and how to use the punctuation marks. For example, the 4th example in Table 7 is totally incorrect in isiXhosa because when writing in isiXhosa, the clicks are usually followed by a vowel or 'h' consonant, for example icici (ear-ring), umchamo (urine). The writing indicates that a receiver has to read the 'cc' as if he is spelling in English because if it is interpreted in isiXhosa the receiver may encode the message as ucctandwa instead of usisithandwa.

The learners indicated that they often do not send CBs to their parents because sometimes they personalised something that their parents would not appreciate to see because of cultural taboos. For example if you send a CB to a parent with a love personalization example "usisithandwa" meaning (you are my sweetheart) a parent will think you have been sending the message to a boyfriend or girlfriend. Discussing love affairs, especially between children

is a taboo topic in amaXhosa culture (Mfazwe 2003; Mbangana 2004). In amaXhosa culture, parents do not discuss love affairs with their children, especially parents in rural areas, who are still tied by traditional norms and culture. Some parents who stay in urban areas adopt the western culture easily, and as a result some discuss love affairs with their children. However boundaries are drawn. It is usually the parents who have to initiate the topic and not a child. Further discussion on this topic will be undertaken in the SNS section. There other reasons for learners not to send CBs to their parents. They know their parents sometimes do not have airtime and this will create stress. They will then need to borrow money for airtime because they saw a CB from a child who is at school. Even if it happens that the parent calls after receiving a CB, a child has to make sure that they had a valid reason to send the CB.

5.4.2 Short Message Service (SMS) and Social Network Sites (SNSs)

According to Thurlow and Poff (2011:2) texting refers to a brief typed message sent using the SMS of a mobile cellphone, PDAs (Personal Digital assistance), smart-phones or web browsers. The word SMS can therefore be used as a noun which refers to a text message that someone sent or received and it can be a verb referring to sending a message via SMS to someone else. Sending an SMS in South Africa, costs around R0.75c both the MTN and Vodacom networks during the day. The price decreases during the Off Peak hours usually between 20:00 weekdays and over the weekends. Most learners indicated that they usually send the SMSs during the Off Peak times to save airtime and sometimes they use free SMS that they obtain after making a call for a certain amount of time as an incentive from their network SPs.

When asking learners why they send text messages, they state that it is because they want a message to reach a certain person. SMSs on the phones seems very private to them. The first thing most of the learners said that they can do when they had to swap cellphones with anyone is to delete the messages in the Inbox and Outbox. Furthermore, they also log out on Mxit and Facebook. This clearly shows that, what learners' text is private like anyone else who owns a cellphone. This is the reason I let them write down their SMS because I did not want to invade their privacy since they would not want to forward the message to my number.

Code-mixing is used in the SMS by learners most of the time. Code-switching refers to the use of words from two languages in a single speech act or in a written text (Kachru 1978; Muyksen 2000). Bhartia and Ritchie (1999:244) define code-switching as:

The mixing of various linguistic units, (words, phrases, clauses, and sentences) primarily from two participating grammatical systems across sentence boundaries within a speech event. In other words, code switching is motivated by social and psychological factors.

Learners who took part in the study switch between English and isiXhosa. The common reason for them to mix English and isiXhosa is to show their level of education to their peers. Learners see others who cannot use English as not well taught or as being left behind. This is because of language attitudes that Xhosa learners have towards isiXhosa (de Klerk 2000). They undertake code-switching to make their sentences short in the conversation because sometimes isiXhosa words are very long and double the space in a conversation and that may make a sentence uninteresting. They do code-switching when they want to replace a certain word that they forgot, whether is it is in English or isiXhosa. English words are also used in isiXhosa conversation to replace taboo words. Taboo words or forbidden words are those words that are deemed to be rude in a certain language (Afolayan 2004; Guzana 2000; Gqola 2001a).

Taboo words are usually replaced by words that are not rude and these are referred to as euphemisms (Fandrych 2012). In the isiXhosa culture there are many taboo topics and words depending on gender and marital status, for example when a man goes to circumcision school he uses euphemisms or a particular language of avoidance (Kaschula 1995; Mkonto 1996; Hirst 1997; Cain, Schensul, & Mlobeli 2011). This language cannot be understood by a person who has never been in the circumcision school. These words are also gender-specific. Married women in isiXhosa culture also use euphemisms or 'hlonipha' language, which is also gender-specific (Herbert 1990; Cain et al 2011). This is used as a form of respect to the elders of that homestead, particularly the father-in-law and also the husband. A further reason why learners code-mix English words such as 'love' or 'baby' is because this is seen as coming from a modernised individual. IsiXhosa is largely seen as unromantic in terms of romantic terminology and unable to express such sentiments in the same way as with the English terms. In isiXhosa, when referring to a partner the common word is 'sithandwa' and this is the most used word, but other words with similar meanings are not used because they are perceived as too long and clumsy. Anyone who uses these phrases or poetic language is considered as being old fashioned. Examples include:

- Sithuthu sam sokujika emadrayini 'lit. my motorbike which helps me navigate the curves'
- Sigqamama sam 'lit. possessing something large'
- Thambo lam lekhentakhi 'lit. my Kentucky bone'

All the above phrases in English refer to "my love or my sweetheart". Learners in schools make use of the English phrases. They express a loving relationship, even when used in English. It is easier however to shorten such phrases when making use of text messaging.

Table8: Code-mixed text in isiXhosa and English used by learners in both schools

SMS – Code-mixed short-hand format		Extended format	
		1.	Hi love, ndicela xa ifowuni yam
1.	Hi lv wam ndcla xa ifounym ivaliwe undfouneleklenumbbcozndynike omny umnt waseNtsundwane so ute uzoza nao nglwsihlanu		ivaliweundifowunelekulenumberbecauseiphonendiyinikeomnyeumntuwaseNtsundwanesoutheuzoza
2.	Bby wam ndiaktanda nba seknjani ndawo yako inkulu kum.	2.	nayo ngolwesihlanu Baby wam, ndiyakuthanda noba
3.	Hai ndyakcela swtwam ndcela uzpa emgaqwen apa ngasekaya ngk plz lv.		sekunjani, indawo yakho inkulu kum.
4.	Elo,ntombzana 2dae ndfuna kukbona nakanjni ngoba kungenzeka uba ndingabiko kuleveki kdwa uhlale usozi uba uyatanduandm,owko	3.	Hi, ndiyakucela sweetie wam uzapha emgaqweni ngasekhaya ngoku please love.
	umieni ndm owm umfazi ngwe.	4.	Hellow ntombazana, today ndifuna ukuboba nakanjani ngoba kungenzeka ukuba ndingabikho kule veki kodwa uhlale usazi ukuba uyathandwa ndim, owakho umyeni ndim kwaye owam umfazi nguwe.

When chating on Mxit and Facebook learners indicated that they use pictorgams and logograms. That means they use single letters for a sentence. For one word they can use numeral and typographic symbols to represent this word, part of a word or even an action. Logograms in texting may be used alone or in a combination for example: b4-before, 2day – today, zzz-sleeping. Crystal (2008:38) argues that there is a difference between a logogram and an emoticon, also referred to as smiles:

...it is the pronunciation of the logogram which is the critical thing, not the visual shape. That is the essential difference with the graphic devices called emoticons (or smileys), where the meaning is entirely a function of the shape of the symbols (when read side ways with the head to the left) (Crystal 2008:38).

Logogram	Correct format
1. Olwe2	Olwethu 'name of a person'
2. Mfe2	Mfethu (mfo wethu) 'my brother/friend'
3. Cc	Sisi 'sister'
4. B3	Battery
5. 2la	Thula 'keep quiet'
6. Zzzz	Sleeping
7. Xxx	Kisses
8. b4	Before
9. 4ta	Fota 'take a photograph'

Table9: Examples of Logograms used by learners in both schools

The use of logograms is also available in isiXhosa. Most of the time as indicated in the examples in Table 9 numerals are used and consonants that have the same sound as the word replaced. It is therefore important to imitate sounds when reading, for example when a person is laughing, instead of writing the ancronym such as LOL, people use tltltl, gagaga,hahaha. The laughing sound may differ from language to language. When tltltl or gagaga are used

when chatting with someone whose language is English, they may not understand and miscommunication may occur. In Afrikaans it may mean something else because 'ga' is pronounced as 'rha'. In isiXhosa the use of 'rha' word be considered an insult. The 'tltltl' may also be intepreted as 'till till till' by an English speaker.

Pictograms are also used to indicate the mood of a person or they are used as an image instead of a word for something that people are chatting about in the conversation. According to Crystal (2008:38) pictograms are visual signs or images that are used to represent objects or concepts. The emoticons that are used when chatting via the technology devices are in fact pictograms. It is very common to find the use of emoticons when people are chatting on the SNSs. The most popular emoticons are:

- [©]-smiling face
- 🐵-sad face
- ;-) wink

Ancronyms are also used in the SNSs where words are reduced to their initial letter. This is common in English words but there are ancronyms in isiXhosa that are inverted in the SNSs. The most common acroynmy is LOL –Laughing out loud. Upper case is used most of the time but in some circumstances a lower case is used. This is because SNS chatting is not grounded by grammatical rules.

Words	Meaning
GPY	Gilikith iphantsi yintsini
	`Equivalent of Laughing out Loud'
KFC	Khawufan'ucinge
	'Can you imagine?'
	This is also a skit on the Kentucky Fried
	Chicken Logo
NNN	Ndahleka ndade ndasuza
	'I laughed until I passed wind'
СС	Sisi

Table 10: IsiXhosa ancronyms in SNSs used by learners in both schools

	'Sister'
Pan	Phuhlu amehlo ngaphandle
	'Wide eyes are outside'
	Refers to someone who has been astounded.

There are ancronyms that stand for a whole sentence (Table 11) and there are also acronyms that stand for a single word (Table 12). Most of the ancroynyms in isiXhosa as illustrated in Table 10 stand for a whole sentence, but there are those that stand for a single word, for example 'cc' for 'sisi'. That 'cc' is written like that because of the sound it presents. It is noted that in logograms the pronunciation of the word and its interpretation depends mainly on the sound made when uttering the the acronym.

Acronym	Meaning	Acronym	Meaning
AMS	Ask me something	WCWCA	What can we chat about?
BRB	Be right back	WB	Welcome back
HUD	How are you doing?	WTV	Watching Television
LOL	Laughing out loud	WUD	What are you doing?
LIB	Lying in bed	WUW	Who are you with?
NVM	Never mind	L2M	Listening to music

Table 11: Ancronyms used by learners in bot	th schools that stand for a sentence
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Table 12: Acronyms that stand for single word

Acronym	Meaning	Acronym	Meaning
Ayt	Alright	SWT	Sweet
Bt	But	U	You
Cul/kul	Cool	UR	Your

Neh/nah	No	Xap	sharp
Nyc	Nice	B4	before
Nun	None	Gr8	great
R	Are	8t	Hate

There are a few words in isiXhosa that are reduced in their initial letter. The common thing learners do when chatting in isiXhosa is to omit letters, and usually vowels, in the middle of a word or they omit the last vowel. The letter 'h' is omitted most of the time in isiXhosa writing and that deletion of 'h' is not just common in SNSs but also in formal writing whereby you find people's surnames written without an 'h' and sometimes place and rivernames are written without the 'h' as well.

- Dlutu = Dluthu, Umtata=Mthatha,
- Lutambo= Luthambo, Makaula= Makhawula. Mtakatye River = Mthakatye River.

It is very common to find surnames in Identity Documents misspelled. The names of other places in South Africa were also misspelled by the officials for example Mtata instead of Mthatha. Learners sometimes see the omission of 'h' as correct and they need to be taught that they must retain 'h' in a word that is supposed to have it. Learners sometimes misspell consciously and sometimes unconsciously, especially if there were not taught how to read and write. They would not be able to use the cellphone technology, by using it that means a person has a basic grounding in using the standard isiXhosa and the Standard English. They study English as a second language and it is used as a medium of instructions in both high schools. Some learners who are using SNSs or sending text messages are good in spelling and some will be bad in future just like the ones who are not using the SNSs. Some learners use correct spelling and then also make common mistakes when writing class activities like those who are not introduced to the technology. There are also words that are abbreviated by omitting one of the meaningful elements. Here are the most common English examples that are also used in some cases in formal writing and also in the SNSs.

- Exam- examination
- Max-Maximum
- Mob-mobile
- Incl-including

Esp- especial

Learners also abbreviate the names of the subjects they are doing at school when chatting in the SNSs. Some of the abbreviations are adopted officially, for example, LO-Life Orientation, Maths-Mathematics, Maths lit, Mathematics literacy, Geo-Geography. The shortening of words in technology helps the users to save time and money.

5.5 Reasons for abbreviating and misspelling on the SNSs

Learners mentioned that the first reason for them to use a shorthand language form is because they want to save money. In the SMS for example, the longer it is the more the SP charges for that SMS. Usually one SMS is 160 characters long including spacing. Learners mentioned that by saving the space that means they have saved money. If you typed more than the requisite characters, the SP will charge double or more for the SMSs.

They also save time and accommodate other peers, for example when they are chatting on Mxit or Facebook, usually there are many friends online and they all want to chat, so to chat with some of them you need to be quick. Abbreviating is then the best option. Sometimes they are chatting on MXit during school break time and in order to be quick you need to make messages very short and straightforward. Learners mentioned that, it is very boring to read a long chat message, they regard long messages as 'poems or essays' so if a person is writing very long texts in the SNSs there are chances that some people will not read it. This is very common when updating a status message, if the status on Facebook is very long, people will comment that you have written an essay and they have no time to read essays and poems. Even jokes need to be very catchy so that people can comment.

5.6 Why learners join SNSs

There are many reasons why learners join the SNSs. The primary reason they all mentioned is that they want to keep strong ties with their friends and former classmates. SNSs are the most convenient way to make contact with friends. For example if they only had to use a phone without the SNSs, when the phone is lost, that means they have lost all their contacts. It will then be difficult to re-access numbers after buying another phone. But when that person is a member of SNSs he can log onto Facebook for example or somewhere else, for example at an internet cafe or they can borrow a phone from a friend and update a status that they have lost on a phone. In that case those who used to call or send SMS know and chat only on the SNS.

All the SNSs have an option that allows its user to write their feelings, activities or what is happening. All these activities are called 'status updates', for example when a user logs onto Facebook, there is a box in the beginning on the home-page written: "What is on your mind" and to update the status, a user has to write in the box and click 'share'. On Mxit the status update box is written: "What are you doing". After updating, friends will be able to see what the user is doing. On Facebook there is an option where you choose who you want to see your status update. Learners use those boxes not only for updating what they are doing, but also for what is happening in society. They sometimes write their opinions and want friends to engage in the chat or debate or sometimes they make a joke or they update with current news.

Learners join SNSs to make new friends and find long lost friends. Some have indicated that they have friends in their profiles, who they never met in person but when chatting to them it is like they are chatting with people they have known for very long. Learners who urbanised or relocated indicated that they use the SNSs to keep their friendship with peers they left in the rural areas. There are learners who are originally from rural areas who went to urban schools to seek better education opportunities. The SNSs help them to stay in touch with relatives and to keep up with area events and community news. Learners who are in rural areas also want to be updated of what is happening in urban areas and they indicated that when chatting with other learners who study in urban schools they became more knowledgeable about subjects which were taught in their schools. The SNSs helped them to discuss important school activities and also enable them to apply to universities and get information from urban friends on what courses are offered at which universities.

Learners also indicated that they joined in order to get opinions or help from other people. One mentioned that he had an illness and searched on the internet for the causes of the illness. He had a chat with other people with the same illness in the fan pages and groups on the SNS. Learners find it better to seek advice from a person they do not know who has the same problem. Learners search for side effects of the medications they received from the doctor or clinic on the internet. This may help them to use the medication correctly as they would now have more knowledge about the medication. Learners find it hard to discuss certain illnesses with parents and even with peers in their schools and community because of the fear of stigma that is attached to certain illnesses. Learners do not discuss for example Sexually Transmitted Infections (STIs) with parents. They also do not feel comfortable to discuss such situations with a nurse at the clinic because some nurses may know learners and stay in close proximity to them. The fear would be that they might tell the parents. They find that a better way is to search the internet and join social groups on Facebook and on Mxit that they may find relevant to their needs. There are few learners in the rural school that indicated that they check medication and illnesses on the internet. This might be because they have limited access to the internet and have less knowledge about the internet. They generally use it for chatting with friends.

5.7 Reasons for abbreviating when writing text SMSs/chatting on the SNSs

Learners were divided into groups to discuss the advantages and disadvantages of SNSs. All learners from both rural and urban schools listed common factors for abbreviating when writing in the SNSs:

- Saving time;
- Saving space;
- Accommodating a large number of friends;
- Saving money and
- Multi-tasking.

Learners indicated that when they are on the SNSs they also do other chores such as cooking, reading, exercising and house chores. This requires that conversations be kept short and they do this by shortening words in the texts. Learners from rural schools also indicated that they do not spend too much time on the SNSs at home because they are saving battery life since they do not all have electricity in their homes. Phones are charged for free in their school and during vacation they have to spend R5 to charge a phone in a few homesteads that have electricity. Sometimes they give their phones to a relative going to town to charge the phone for R5 in phone-shops in town. That means urban learners spend more time on SNSs that rural learners because they have no major barriers except access to airtime. SNSs also consume less airtime so it assists with saving money.

During the focus group discussions, learners also gave the full version of abbreviated words in each SNS. They understand the language used as they can all read a sentence with understanding without asking each other the meaning of a certain word. This means that in terms of the theory and literature review presented in chapters 2 and 3 that they can be considered as part of the new literacy paradigm. The focus groups also came up with their own words and these were presented by a group member from each group.

5.8 Learner's essays

Writing is the most important component when it comes to literacy development. Written essays were collected during the study to see how learners write academic essays and how they use the language. Language is the most important tool for accessing learner's class performance. When a learner fails isiXhosa mother tongue in any Grade, that learner cannot be promoted to another Grade. In Grade 12, learners have to pass at least two languages, a Home Language and an Additional Language.

From the essays collected in both the rural and urban High School, learners have common misspellings. They omit vowels and consonants. The omission of vowels and consonants in isiXhosa makes the writing very uninteresting, because the sentences largely lack meaning to the untrained eye.

Learners use the social dialects when writing school essays. Learners from Nogemane SSS use isiMpondo dialectal lexical items or words that are used in the community. Learners from Nombulelo SSS use words that are used when people are speaking i.e. a more urban dialect of isiXhosa. Those social dialects are not accepted in the standard isiXhosa at schools. Examples of writing are contained in Appendix A.

Learners do not follow a good format of writing an essay. Most learners in both rural and urban schools do not write introductions and they go straight to the point and very few write good conclusions.

Learners exaggerate when writing and that clearly shows that they do not do proper research before writing their essays. They write incorrectly for example, a Grade 10 learner was given an essay titled "Iilwimi zaseMzantsi Afrika" – 'Languages of South Africa':

- Amalwimi Alishuminanye (11) esizithethoyo emakhaya
- Iilwimi ezikhoyo eMzantsi Afrika zilishuminanye.
- Iphondo nga linyelinelwimi elizithetha emakhaya.
- Amasiko ahambelana neelwimi zethu.
- eMpumalanga kuthethwa isiNdebele, isiZulu, isiTshangane kunye nezinye iilwimi.

In this context the learner uses incorrect grammar at they used iilwimi as 'amalwimi'. They further state that there are 11 languages spoken at homes in South Africa. These statements show that the learner knows that there are 11 official languages in South Africa and that each

province has its official languages for example in the Eastern Cape these are English, isiXhosa and Afrikaans. The learners use the statement to refer to languages spoken in homes and not in official environments. That makes the essay very poor as it confuses official languages with spoken languages, of which there are many more than eleven.

Grade 12 learners were asked to write an essay titled: "izinto ezifanelekileyo xa ulipolisa" – Essential aspects of being a policeman'. The learner wrote the essay as if they were already a policeman rather than commenting on what it would be like to be a policeman – in other words the use of tense was incorrect:

Thina singamapolisa sithunye ukuba makhe ingene kwimiphakathi ekhoyo apha eRhini sikhe sibone ababantu benza izinto ezingekhomthethweni mna ngethamsanqa ndiyendathunyelwa kule ndihlalakuyo indawo" (Grade 12 learner)

The leaner imagines himself as a policeman whereas the essay requests him to write about things that a policeman should do. The paragraph has no punctuation marks (comma and full stops). The words highlighted in red are misspelled, "sithunye" is supposed to be spelled "sithunywe" and "ingene" should be "singene".The learners omitted consonants and that is common in most essays. The learner did not split words such as "ababantu" into the correct form of two words "aba bantu" where the demonstrative form should stand on its own. This is common in most essays too whereby learners do not split demonstrative pronouns with nouns.

Learners have very strong arguments but they put their arguments incorrectly. Their grammar and spelling contains many errors. For example, Grade 12 learners were given an essay titled: "Izinto ezinokwenziwa ngumfundi webanga le-12 ukuze aphumelele emagqabini" – 'Things that a Grade 12 learner can do in order to achieve good results'. The learner's points made were very strong but the spelling and use of proverbs is misplaced. For example, "ilizwe liphethwe ngabadla egusheni" – this indicates a corrupt person alluding to the fact that present leadership is corrupted. This indicates that the learner knows that there is 'amadlagusha'in isiXhosa, i.e. those who kill and eat other people's sheep – but the idiom is incorrectly written. This is also verified by the written work and the answers to questionnaires, examples of which are contained in Appendix A.

5.9 Learner's attitudes towards using isiXhosa when chatting on the SNSs

Learners have mixed attitudes towards using isiXhosa on the SNSs but most of them have very strong and positive attitudes, especially those from the rural high school. Learners from the urban High School have more neutral attitudes. In the focus groups in the rural High School, 2 groups from Grades 11 and 12 mentioned that using isiXhosa on the SNSs makes the conversation smooth. You do not need to ask the meaning of a certain word from the sender since peers who study in the urban school have a strong command of English. The Grade 12 group from the urban high school mentioned that chatting in isiXhosa is boring sometimes and it makes you feel inferior, while another group from the same class mentioned that using isiXhosa is good. It prevented people from labelling you with words such as 'coconut' as some learners do when chatting in F2F conversation around school.

Learners sometimes update their status messages on the SNSs to seek attention from their friends. They mentioned that once you update in English you get very little attention. People do not even bother to comment sometimes and others will just press 'like' on the Facebook update. When a status is updated in isiXhosa the comments and opinions are many and varied. Learners state that reading Facebook status updates are more interesting and detailed when they are in isiXhosa.

In general chats learners feel it is good to use code-mixing so that the chats can be fast and spacing can be less. Each learner has friends who use different languages so it is important to use English as a linking language only if you want the update to be understood by a large number of people who use English as a lingua franca. On Facebook there are groups that use unedited isiXhosa. If you write in unacceptable English then the group administrator removes your update or when a group member attacks an individual. This is also happening on Mxit chatrooms. In certain instances however, if you enter a chatroom and start using English the members will attack you as if they do not understand English and they encourage people to use isiXhosa to exclude other people from their conversations. Below are the answers from learners when asked their opinions about using isiXhosa on the SNSs:

We must use isiXhosa in the SNSs because we are not fluent in English and SNSs should also be the right place to practice using English. (Nogemane SSS Grade 11 learner)

I am proud of my language, but our grammar in general is very bad, we can't write words and that makes sentences difficult to understand, Facebook is a good place to practice.

(Grade 11, Nombulelo SSS)

The above statements indicate that learners see where they are wrong and are using the SNSs as domains to practice their language abilities and also for checking correct spelling for words from other users. Learners indicated that sometimes using a language on the SNS depends on who you are chatting with, in order to show your education level and so on.

5.10 Teacher's attitudes on using isiXhosa on the SNSs for literacy development

Teachers mentioned that they understand technology is available in society and that it was here to stay in an attempt to uplift communication standards. They also noted that technology was not always good for learners and that it had its challenges. Therefore the learners need to be equipped through teaching in the classrooms about the negatives and positive effects of the SNSs. If learners are not taught in schools that means they will become victims in cyberspace. Teachers suggested that it would be good if there could be a section in language subjects (isiXhosa and English) and also in Life Orientation where learners are taught about how to behave on the SNSs they are using and also to provide them with warning signs of cyber-bullying and how it operates. It will be good because learners will get time to engage concerning their experiences on the SNSs. Parents and teachers could then also know what learners go through in cyberspace without making assumptions. Cyber-bullying that learners encounter in the SNSs may have negative effects on their school work and self-esteem. There are cases on the SNSs where naked pictures of learners are posted by their friends and some end up committing suicide.

Learners therefore should not be taught only how to read and write but also how to be safe on the SNSs. They need to know how and where to report cyber-bullying. They need to be taught how to interact with strangers. The need to know what to share and what not to share and how to be safe on the SNSs is important. In language subjects (isiXhosa and English) dramas could be performed to educate learners about SNSs. Video work and orals or debates as well as written essay work where a learner can be asked to present their experience regarding the SNSs, the advantages and disadvantages of the SNSs must be explored.

5.10.1 Literacy development

There are teachers who see the SNSs as platforms for learners to improve their vocabularies. One of the teachers commented as follows:

"I am amazed to note how my learners use English when they are networking. They use the language freely, gain more vocabulary and the communication skills improve. Their performance in the classroom is different from the way they express themselves on Facebook".

"Their vocabulary improves, they make friends, new relationships and they advance in the use of technology, they get news, they socialise and network".

Learners improve their vocabulary from the SNSs. They use this vocabulary in the classrooms and some gain communication skills on the SNSs and apply it to the classroom environment. Learners who are using SNSs are able to contribute to debates in the classroom because from the SNSs they become familiar with an environment where people debate and have different views. SNSs make learners feel confident about their writing and it encourages them to like writing. It also improves their reading skills because most of the time they expose themselves to reading environments. Reading any article, even if it is online, broadens the mind of a person and sometimes people who read a lot develop and gain more knowledge.

When writing examinations they often misunderstood the questions because of the environment they are living in and their lack of exposure to English. This is especially true of idioms and proverbs, even when used in isiXhosa examinations. A teacher from the rural High School made an example of a Grade 12 paper essay topic entitled: "uWinnie imvumi ephume izandla." Learners' interpreted the statement literally as 'Winnie, a singer that lost arms' and they ended up writing statements that they would help the singer by organising people who will play the music system for her and most learners were sympathising. That means learners need to be taught the idioms in the class because they are not commonly used in the environments they are living in.

Learners fail to provide the meaning of proverbs in the examinations because isiXhosa proverbs are outdated. They are using the old words that are no longer used in the communities, and names of tress of which learners of the 21^{st} do not know. Also the names of the animals that are used in the proverbs are not known by learners because they are not

hunting and there are no zoos where most of them live where they can see wild animals. Learners interpret proverbs incorrectly:

Inyathi ibuzwa kwabaphambile 'The buffalo is asked from those who went before us' – Inyathi iyashiywa yikhwantam 'the Buffalo is left behind by a Quantum taxi' (Answer). This statement indicates that the learner does not know the word 'inyathi' in isiXhosa which means 'buffalo' in English. The inyathi the learner is most exposed to be automobile model that is used as a taxi. 'Ibuzwa kwabaphambile' means is asked from those who may have seen it before. The learner here thinks that the automobile that is speedy or fast is that of the Inyathi taxi automobile. The Inyathi in isiXhosa is considered a most dangerous animal to the hunters so hunters have to ask people they see whether they have seen it i.e. figuratively speaking, 'people who know more and have been before'.

Learners were also given class-work in the form of a topic: "amahlathi aphelile", 'the forests are gone'. Learners wrote about how people cut down trees and the effects of this on the environment. They wrote about climate changes and the negative effects on wild animals as well as the need for trees to create shade. The meaning of this proverb is 'the truth came out' and this was completely ignored by most students.

Teachers therefore see SNSs as a good platform to practice using the proverbs and idioms in the presence of a good teacher because there are teachers who are using the SNSs. Other teachers stated that SNSs have a negative impact because it makes them spell poorly, especially when writing English essays and letters. Other teachers state that they do not see how literacy can be improved by using SNSs because people use slang and there is no one to correct them regarding the grammatical and spelling errors.

5.11 Study groups in the SNSs?

Learners discuss their school activities on the SNSs especially learners who are far from each other. Learners from both rural and urban schools highlighted that they sometimes ask classmates questions they did not understand in the class. They discuss classes on the SNSs and when they want to borrow a text book as most of them are sharing they discuss that on the SNSs. Learners stressed that besides logging onto the SNSs for friendship chats, they have more positive things that they are doing, for example joining Dr Maths for mathematics practices on Mxit and Matric group on Mxit to discuss and participate in discussion forums. Most learners from the urban High School have joined the 'Matrics Uploaded' fan page on Facebook. 'Matrics Uploaded' is a Television show aired between 15:00 and 16:00

weekdays. It is an educational game show to help Grade 10-12s to improve their results in their studies. Even though learners from Nogemane SSS have no TVs in their homes, they see on Facebook and discuss on Mxit what is happening on the TV. There is also an educational program on SABC 1 that targets Accounting, Mathematics, Mathematics Literacy, English, Life Sciences and Physical Science. The breakfast show called "Geleza nathi' is presented between '5:00am and 6:00am' Monday to Friday. Learners from Nombulelo SSS watch the program and some indicated that they like the fan page on Facebook and are able to participate there.

5.12 Conclusion

There is a very large gap between learners in the urban and rural high schools. They are not enjoying equal status in education. Learners from the rural school have to walk long distances and have no access to school libraries. There is no community library in their town 'Ngqeleni'. There is therefore limited access to the internet and this can be accessed only via the cellphone as this chapter has indicated.

The only reading material learners in rural areas have is the academic books provided by schools. Learners indicated that they have no access to magazines and newspapers because they are not sold in the local shop and their teachers have to provide magazines for them when they have projects that require them to cut out pictures or to bring a magazine article. The only local newspaper is Mthatha Fever and it is distributed in Mthatha town every Wednesday. Learners therefore have no access to it except if someone from the community goes to town and gets the paper. Learners from Nombulelo SSS have access to a library in their school. Urban learners also have a community library next to their school and they have access to the Makana Library in central Grahamstown.

Learners at Nombulelo SSS have laboratories and this means they are able to do experiments for science subjects while learners from Nogemane SSS have never done science experiments in their 'science laboratory' because it never has chemicals. Nogemane SSS learners have no computer laboratory as with Nombulelo SSS. There are no internet cafes or Computer Schools around the Community where Nogemane is situated. All accredited training institutions are in Mthatha.

Both learners in Nogemane and Nombulelo have problems in writing isiXhosa. This might be because of the changing curriculum that place more focus on orals in the foundation phase (DoE 2008; Mpiti 2012). When learners reach the intermediate and the senior phase they

have bad writing skills. Some learners use the social dialects when writing essays and others do not follow the appropriate essay structure. Learners are struggling to use isiXhosa idioms and proverbs, and this needs much attention because learners end up answering examination questions incorrectly. Learners have very good arguments, but the challenge is in the written grammar, spelling and misunderstanding the questions.

Teachers agreed that learners need to be taught how to use the search engines in their cellphones effectively. Other teachers have negative ideas about the use of SNSs for literacy development. This is in agreement with the work of Cameron (1995), as well as Luke & Luke (2001). There are teachers who also see SNSs as a good form of practising literacy because it exposes them to written communication and learners end up gaining new vocabulary. These teachers see the technology as something that is available to be used and they apply the CMC theory that sees technology as just another tool for literacy that will not degrade the standard version of a language (Braun 2007; Crystal 2001; Thurlow 2006, 2007; Thurlow & Bell 2009; Thurlow & Poff 2011; Crystal 2001, 2008). This chapter indicates that even though SNS-speak is a reality, there are differing scholarly views as to whether it should be used or not in literacy development.

Chapter 6

Conclusion and Recommendations

6.1 Introduction

Some teachers and people who are not on the SNSs are worried that the language used on the SNSs may ruin the standard language. This study has found that learners are aware of the language differences; they know when to use the SNS language and when to use the standard language. Learners find it hard to write an essay that has idioms or proverbs. This clearly indicates that isiXhosa proverbs are outdated and need immediate attention from the Education Department and African Languages Scholars. Research needs to be done on how they can be updated. Concerning the essays written by learners there are common misspelling errors and grammatical errors that need attention by the teachers. Teachers who teach 'African languages' in particular isiXhosa assume that once a learner reaches high school level they have an ability to read and write isiXhosa fluently because it is their 1st language. This assumption is very dangerous and is the one that cause learners to dislike isiXhosa and consider it as a difficult subject. IsiXhosa that is learned in school is very different from the isiXhosa that is spoken at home i.e. the 'social dialect'. This is clearly indicated on the essays when both learners from Nombulelo SSS and Nogemane SSS use isiXhosa that is spoken in their societies in their essays rather than standard isiXhosa. Learners from Nogemane use isiMpondo words in essays because they do not know the standard isiXhosa words. Learners from Nombulelo use words borrowed from Afrikaans like ikopi (cup/mug), ukuvrurha (waking early) and they use social dialects when they referring to a 'pineapple'. They use 'ijayina', ijoko 'jug' and these words are not used in the standard isiXhosa and are not known in other regions.

Most learners only study isiXhosa in school because it is a compulsory subject in order to pass to another level. They do not see it as the language they can learn at the tertiary level. It is therefore important to use the technology that learners are already using to teach them the standard isiXhosa. This can be done through:

- Having electronic programmed spelling games played involving individualized or cooperative endeavours;
- Written on-line poems that contain previous learned words in spelling;
- On-line crosswords;

- Games made and used in the spelling curriculum made available on-line;
- Labels of charts and graphs with spelling words materials;
- Paragraphs, short stories and outlines containing words being taught in the classroom;
- Summaries and conclusions providing students with practice in using spelling words in contexts made available on-line;
- Creating on-line book reports within current spelling words being taught;
- Creating on-line plays with parts written with new spelling words included;
- Antonyms or synonyms written from a current list of spelling words from the basal text being placed on-line;
- Creating on-line Idioms and Proverbs with pictures that explain the animal or plant origins that they refer to such an idiom and proverb.

All the above should be in isiXhosa and they must be done through mobile cellphone programmes. Spelling and grammar must be a key also in the Further Education and Training Phase band of education.

The Department of Education must build libraries in rural schools because learners from rural schools have no study materials in their homes and have no access to important journals and books as few have cellphones that allow them to open PDF files online. The Department of Basic Education in South Africa must try by all means to make sure that there is equality in education in South Africa and that all learners whether in rural or urban schools have the same access to basic learning materials and computers.

I recommend that schools use the SNSs as a platform to reach learners when they are not in the class in order to do school activities. Instead of telling learners to stop using SNSs because of human trafficking for example, it is important for the curriculum to include teaching about the advantages and disadvantages of SNSs. This includes safety procedures, because learners confirmed that they access more information in the SNSs and make friends there.

6.2 Concluding remarks

In this thesis I have found that language planning and issues around language policies in South Africa are happening but implementing these policies is still difficult and needs attention from government officials, PanSALB and African language scholars. A policy that allows learners to be taught every subject in their mother tongues needs to be implemented and all government and private sectors must have accredited language practitioners.

This study found that ICT is still a problem area in most schools in South Africa especially those in remote rural areas. It is also important for learners to learn using the cellphone devices they already have. Therefore the Department of Basic Education together with Computer Scientists must unite and come up with strategies of M-Learning, where all learners will have access in equal study materials online. School subjects on offer must also be the same in all schools, so that learners can enjoy having different choices of subjects as in urban schools.

Teachers are at the centre of all the changes when it comes to ICT. This study found that teachers are aware of the ICTs and SNSs. It is therefore important for the Department of Basic Education to provide suitable educators with ICT training in order for them to understand. This study also found that learners in the SNSs are facing cyber bullying and scams. It is therefore important to include studies about being safe on the SNSs rather than simply trying to discourage young people from using them.

In summary, the increased use of cellphones and internet networks for low cost messaging has resulted in increased written interactions between people worldwide (Thurlow 2006, 2007; Thurlow & Bell 2009), including in South Africa (Kaschula & Mostert 2009: Kreutzer 2009). Social Networks Sites (SNS) such as Facebook, Mxit, Twitter and 2Go have become popular social spaces, especially for young people. SNS users log onto these sites via internet enabled phones and computers. The increasing use of these technologies brings with it a new set of literacies (Walton 2009; Brandt & Clinton 2002). As indicated in chapter 3, new literacies are linked with the change of technology and knowledge, and thus cannot be easily defined, since technology is invented and developed at an alarming rate (Lankhear & Knobel 2003). This means that we possibly need to rethink our view of literacy, traditionally defined as the "ability to read and write" (Harris & Hodges 1995) which is the main focus of formal education (Heath 1996, UNESCO 2006). Arguably today one would need to explore harnessing the advantages of new technologies to achieve certain educational goals as this thesis suggest.

In language learning, much emphasis has been placed on standard languages (Steinberg 2007). A standard language is the language whose grammar and style is accepted (Hudson 1996; Romaine 2000), following a process called "language standardization", which includes

the development of grammar, spelling books, dictionaries and possibly a literature (Wardhaugh 2003:33). It is mainly around these aspects that language pedagogy is focussed. This is even more important in the context of African languages which have been marginalized from public domains, including education (Alexander 2002). The learning of African languages at schools is important in the development of these languages.

This thesis further suggests that some view the language forms used in SNS as widely 'toxic', inferior or degraded versions of the standard language that have negative impacts on writing and reading skills developed at school (Cameron 1995; Luke & Luke 2001; Tamita 2009). Such perceptions are possibly influenced by descriptive linguistic theories which are mainly concerned with the grammar of the entire language, the phonology, morphology, syntax and lexical features of languages (Chomsky 1981; Halliday 1985; Langacker 1985). While purely linguistic theories permit the formal description of languages, they unfortunately ignore sociolinguistic factors such as the typology of language users and the context of language use, which result in language variation as indicated in chapter 5 of this thesis. Accordingly, divergent linguistic forms are described as bad while their users are condemned by language purists.

However, there are some scholars who regard the linguistic forms of SNS as a new language variety which is not always harmful as some scholars think (Braun 2007; Crystal 2001; Thurlow 2006). As indicated in this thesis, these scholars apply Computer Mediated Communication (CMC) theories which regard computers and other technological devices as interaction contexts which will, to a certain degree, influence the formal aspects of communication. Thus CMC can influence communication patterns and the social aspects of communication, including linguistic forms, given that those involved in the communicative events share certain social identities (Fulk & Collins-Jarvis 2001; Tanis 2003). According to Lee (2004) and Skykes (2005), the CMC modes are based on writing, discussions in the chatrooms and instant messaging. "Based on the computer medium, writing in CMC often involves playing with knowledge, identity and the language itself which can serve both developmental and social purposes" (Daiute 2000:262). SNS therefore develop a form of a sub-culture that reshapes various facets of life. According to Kornblum (2011:68) sub-culture refers to a group of people who hold many values of the larger culture, but also hold certain beliefs, values or norms that set them apart from that culture.

SNS users at both the schools used as research sites for the purposes of this thesis use their own slang, abbreviations and codes when writing in a manner that deviates from the standard language as indicated in the previous chapter. According to Crystal (2008:232), some "speech pathologists, literacy specialists, mother tongue teachers have begun to sense the possibilities of the internet as a medium of motivating their population and as a way of facilitating some of their clinical, remedial, or education tasks at least with reference to reading and writing". Craig (2003:125) argues that "the phonetic slang of instant message leads to increased metalinguistic awareness and therefore in tangible increase in overall literacy". Young people are born into digital and multimedia environments which influences the way they receive and create knowledge (Antonacci & O'Callaghan 2011:6). The use of technology tools for social networking is, therefore, an important part of the world they inhabit and as a form of subculture, it may present challenges to the dominant culture and significant possibilities for change (Kester, 1998). The impacts of technology in exposing the young person to forms of reading and writing need to be interrogated. According to a research done by Vosloo (2010), books are generally very expensive for most South Africans. This has led to a poor reading culture among the South African youth. The scarcity of reading materials is even more acute in African languages, implying that reading and writing in these languages continues to lag behind languages such as English. On the contrary, the youth, including school learners at both schools researched in this thesis, are keen users of technologies such as cellphones whose accessibility is on the increase. It is the increasing access to cellphones, particularly among the urban youth, that has increased subscription to SNS which seems to be opening up social spaces for African languages. That in itself may be regarded as a form of language planning from below whereby the linguistic community promotes the use of its language in spite of a range of factors including negative attitudes towards that language (Alexander 1992). The way in which the SNS languages are used by African language speakers has not really been studies and this thesis is an attempt to fill this gap, including the impacts thereof in the learning and development of the concerned languages.

According to Dunlop (2012), the National Association of School Governing Bodies (NASGB) called for a ban on children using cellphones in South African schools as it finds it difficult to manage. Although learners use the cellphones for schoolwork, they also use them for social networking even during class time. It is believed by some that banning cellphones can help learners concentrate on their schoolwork (Jones 2012). It is suggested in this thesis that such an attitude to the use of cellphones is likely to be similar to the negative attitudes

towards SNS language use portrayed by scholars such as Cameron (1995), Luke and Luke (2001), Shaughnessy (2008) and Tamita (2009), referred to in this thesis. Braun (2007) opposes the removal of students from the SNS and does not believe that this may work, arguing that "taking these tools, saying 'you' cannot use them because they might lead to dangerous situations, does not do any good for teens, it only creates the atmosphere of 'us' versus 'them' and an atmosphere in which teens are forced to try to get away from something". Students use SNS without teachers and parental control so, arguably the best way is to encourage them to use the devices for good reasons and warning them where possible. The main endeavour of this research was to explore the challenges and opportunities that SNS present for our efforts of improving isiXhosa writing skills as well as reading skills and attitudes towards the language. Such an endeavour may bring useful insights which have relevance across different African languages.

Appendix A: Sample of interviews and focus groups

Grade: 12 Age: 12

Cell phone Model Blackberry

5 Messages sent	5 messages Received
1 Ungalibali ke boy ngomso neh. 2. Eta invite mehere "lusanelabbé kumzit, ndifuna sthethe nito eserious. 3. Wart ke coz mzit wam songeza. 4. Khofake R2 mf2 nto navvena 5 Sbonisiwe khothume noba ngu-Apinda.	1. Goodluck be cool God

Do you send call-back messages, Why/why not?

Yes S do. Because they usually help me when S don't have arritime.

Your current call-back personalization:

Ndiyeza

Essay:

Stuncedo kakhulu iphone ingakumbi kwizifundo zesizchose ezifana neencwadi ezifundwaya. Ootitshala maza wambi Bibavisis; za sele besifundisis. Smtono-mtono isinceda nakunzebelelwana, kusaphia, kubahlaba kunye noogza abasandelele nam. Wakwazi uthumela umyaleza nokuba umntu aphi na Zilunieda iphone nakwizifundo zezibala (mathematics) kuba mgracisa ibanintsi kakhulu za kuthelekiswa nootitsnata. Sphone isinceda kakhulu nakuphando dubunzi dutuna kuthangene amathamba enggondo. Yonke into iyenca luba kuba ibanisa lanke ulwazi olufunekaya esikatwen:

... Nohia

Do you send call-back messages, Why/why not?

yes. Ndiseyiva Imali Ethayim Ihleli Incinci kuba andiphangeli.

Your current call-back personalization:

knifanni zetten Siyabasebenzisa kaktudu oall back tluna lutoha kuba siye siyidinge kaktud Imali yokuthenga A-Ethayim. kuye kupuneke Ukuba U-Personalise igama laktuo wenzele lomnty upu a akupowunele akwazi ukuba nguwe long. siyayonga ke nemali esemixebini xasicallbekha,

Focus GROW 3 - NOGEMANE GRID Khatane Ulinge (Kfc) GPT - Gilikithi phontsi Mintsini STC - stop the crime NVM - Never mynd MKUba - Kba Kaloku - KIDKU SXUL - School Ingxaki - Ingxki IDC - I don't care TTG - taketym gel UNObangela WOKUba sishungule amagama. - Save money Space Time - Special timing - Accommoderte large NO.

Focus GROUP 2 - NOGEMANE GRID I LAGAK- LAGXAKI 2 Dia - Unula 3 Gpe - Siphe 4 Pelo - Phrcalo 5 Please - Plz 6 (Ihteni - (Ibrithin) a wild - what are you doing St-lelion - Lun TUPP - UPHi 10 Gile - CTIME Unobangtia Workushunguila angana. Unobangeta wokushukaguta amagama kukongaisithuba. September Songe- exercises Siphinde Songe Imati. Unobarge Kurkwenzeka Elmyerezo xa contrumeta emitiviti Unquisime -5

References

Afoloyan, F. 2004. *Culture and customs of South Africa*. United States of America: Greenwood Press.

Alexander, N. 1991. *Language policy and national unity in South Africa/Azania*. Cape Town: Buchu Books.

Alexander, N. 1997. Language policy and planning in the new South Africa. *African Sociological Review*, 1: 82-92.

Alexander, N. 2002. An ordinary country: Issues in transition from Apartheid to democracy in South Africa. Durban: University of KwaZulu-Natal Press.

Alexander, P.A., & Fox, E. 2004. A Historical Perspective on Reading Research and Practice. In R.B. Ruddell, & N.J. Unrau (Eds.). *Theoretical Models and Processes of Reading*. Newark, DE: International Reading Association. pp 33-68.

Ally, M. 2004. *Mobile Learning: Transforming the delivery of education and training.* Edmonton: Athabasca University Press

Ally, M. 2005. Using learning theories to design instruction for mobile learning devices. *Mobile learning anytime everywhere*, 5-8.

Antonacci, P., & O'Collaghan, C.M. 2011. *Developing content area literacy: 40 strategies for middle and secondary classrooms*. London: SAGE Publications.

Argyris, C., & Schön, D. A. 1996. *Organizational learning II: Theory, method, and practice*. Reading, Mass: Addison-Wesley.

Baines, G. 2007. The master narrative of South Africa's liberation struggle: Remembering and forgetting June 16, 1976. *The International Journal of African Historical Studies*, 40(2): 283-302.

Baker. C. 1988. Key issues in bilingualism and bilingual education. *Multilingual Matters*. Vol 35.

Baker, C. 1992. Attitudes and Languages. *Multilingual Matters*. No 83.

Barker, A., Krull, G., Mallison B. 2005. A proposed theoretical model for m-learning adoption in developing countries. *Proceedings of m-Learning 2005*.[Online] Available: www.mlearn.org.za/CD/papers/Baker.pdf. Accessed 03 April 2013.

Barkhuizen, G.P. 1998. Discovering learners' perceptions of ESL classroom teaching/learning activities in a South African context. *Tesol Quarterly*, 32(1): 85-108.

Benjamin, P. 2003. *The Universal Services and Access Agency of South Africa's telecentre program: 1998-2000.* Cape Town: HSRC Publishers.

Bell, G. 2009. *Building social web applications*. United States of America: O'Reilly Media,Inc.

Bhatia, T.K, & Ritchie, W.C. 1999. The bilingual child: some issues and perspectives. In Ritchie, W.C & Bhatia, T.K (Eds). *Handbook of child language acquisition*. San Diego: Academic Press

Boyd, D. M., & Ellison, N. 2007. Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13: 210–230.

Brandt, D. & Clinton, K. 2002. "Limits of the local: Expanding perspectives on literacy as a social practice". *Journal of literacy research*. 34 (3): 337-356.

Braun, Linda. 2007. *Teens technology and literacy or why bad grammar is not always bad.* Westport, CT: Libraries Unlimited.

Bunyi, G. 1999. Rethinking the place of African indigenous languages in African education. *International Journal of Educational Development*, 19(4): 337-350.

Butcher, N. 1998. The possibilities and pitfalls of harnessing ICTs to accelerate social Development: A South African perspective. South African Institute for Distance Education (SAIDE). [Online] Available: www.saide.org.za/conference/unrisd.htm [Accessed 03 April 2013].

Burnette, S. 1999. *A Library against the odd*. Retrieved 04 June 2013. http://:www.teacher.co.za/edutech9910/library.html Butgereit, L. 2007. "Math on MXit: the medium is the message", Proceedings 13th Annual National Congress of the Association of Mathematics Education of South Africa, eds. M. Setati, N. Chitera & A. Essien, *Association of Mathematics Education of South Africa*, pp. 107. Available [Online] http://researchspace.csir.co.za/dspace/handle/10204/1614, Last Accessed, 18 February 2013.

Butgereit, L. 2008. "Dr Maths rocks! Using Instant Messagin to help pupils with Mathematics and homework". IST-Afrika Conference

Cain, D., Schensul, S., & Mlobeli, R. 2011. Language choice and sexual communication among Xhosa speakers in Cape Town, South Africa: implications for HIV prevention message development. *Health Education Research*, 26(3): 476-488.

Cameron, D. 1995. Verbal Hygiene. London: Routledge.

Chomsky, N. 1981. *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris.

Chumbow, B. 1987. Towards language planning model for Africa. *Journal of West African Languages*, 17 (1): 15-22.

Cluver, A. D. D. V. 1992. Language planning models for a post-apartheid South Africa. *Language Problems & Language Planning*, 16(2): 105-136.

Coiro, J., Knobel, M., Lankshear, C. & Leu, D. (eds). 2008. *The Handbook of Research on New Literacies*. Mahwah, NJ: Erlbaum.

Conradie D.P., Morris, C. Jacobs, S.J. 2003. Using information and communication technologies (ICTs) for deep rural development in South Africa, Communication: *South African Journal for Communication Theory and Research*, 29:1-2.

Craig, D. 2003. Instant Messaging: The Language of Youth Literacy. The Boothe Prize Essays. pp. 116-133.

Cresswell, J. 1998. *Qualitative inquiry and Research Design: Choosing among five Traditions*. Thousand Oaks, CA: SAGE Publications

Crystal, D. 2001. Language and the internet. Cambridge: Cambridge University Press.

Crystal, D. 2008. Txtng: The Gr8 Db8. United Kingdom: Oxford University Press.

Crystal. D. 1992. *An encyclopedic dictionary of language and languages*. Cambridge MA: Blackwell.

Daft R. L., & Lengel R. H. 1986. Organizational information requirements media richness and structural design. *Management Science* 32: 554-571.

Daft Richard, L., & Lengel Robert, H. 1984. *Information richness a new approach to managerial behaviour and organizational design. Research in organizational behavior*. An annual series of analytical essays and critical review. 6: 191-233.

Daiute, C. 2000. Writing and Communication Technologies. In Indrisano, R. & Squire, R. (Eds.), *Perspectives on Writing: Research, Theory, and Practice*. New York: International Reading Association.

Day, R.S.1998. The State of the Information and Communications Technologies Sector in South Africa. [Online] Available:www.dacst.gov.za/foresight [Accessed, 03 April 2013]

De Klerk, Vivian. 2000. To be Xhosa or not to be Xhosa ... That is the Question. *Journal of Multilingual and Multicultural Development*, 21(3): 198-215.

De Klerk, Vivian. 2005. Expressing levels of intensity in Xhosa English. *English World-Wide*. 26 (1): 77-95.

De Klerk, Vivian. 2006. Corpus Linguistics and World Englishes: An Analysis of Xhosa English. London, New York: Continuum.

De Lemos Marion. 2002. *Closing the gap between research and practice foundation for the acquisition of literacy*. Australia: Camberwell, Australian Council for Educational Research.

Desai, Z. 2001. Multilingualism in South Africa with particular reference to the role of African languages in education. *International review of education*, 47(3-4): 323-339.

Deumart, A & Masinyana, S.O. Mobile language choice: the use of English and IsiXhosa in text messages (SMS). *English World Wide*. 29 (2) 117-147. John Benjamin Publishing Company.

Department of Education. 2000. *Report on school of needs 2000 Survey*. Pretoria: Department of Education.

Department of Education. 2003. White Paper on e-Education. Transforming Learning and Teaching through Information and Communication Technologies. Pretoria: Department of Education.

Dittimar, Norbet. 1976. Sociolinguistics. London: Edward and Arnold publishers.

Donath, J. 1999. *Identity and deception in the virtual community*. In Smith, M. A. & Kollock, P (eds). *Communities in cyberspace*. New York: Routledge. pp. 29-59.

Donelly, James. H. 1980. 'Service delivery in the 1980s- Academic Perspective''. In. Berry, L.L, James, H (Eds). *Financial Institution Marketing Strategies*. 30-143

Doring, N. 2003. *Have you finished yet! :): Communicative functions of Text Messages.* Retrieved 13 April 2013. www.receiver.vodafone.com

Dowling, T. 2010. 'Akuchanywa apha please' No peeing here please: The language of signage in Cape Town. *South African Journal of African Languages*, 30(2): 192-208.

Dunbar, R. I. M. 1996. *Grooming, Gossip, and the Evolution of Language*. Cambridge, MA: Harvard University Press.

Dunlop, Janine. 2012. *Don't ban cell phones from schools!*. [Online] Available at: http://www.parent24.com/Teen_13-18/development_behaviour/Dont-ban-cell-phones-from-schools-20120515. Last accessed 05 May 2013.

Eagly, A.H. & Chaikein, S. 1993. *The psychology of attitudes*. Fort Work TX Harcourt, Brace: Jovanovich College Publishers.

Eagly, A.H, & Chaiken, S. 2005. *Attitudes research in the 21st century the current state knowledge*. In Albarracin ,D., Johnsonn, B.T., & Zanna, M.P. (eds). *The handbook of attitudes*. pp. 743-768.

Economist Intelligent Unit (EIU). 2005. *South Africa: Telecoms and Technology backgrounds*. [Online] Available: www.ebusnessforum.com. [Accessed 03 April 2013]

Ellison, N. B., Steinfield, C., & Lampe, C. 2007. The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of computer mediated communication*. Available [Online]http://jcmc.indiana.edu/vol12/issue4/ellison.html.Last Accessed 07 February 2013.

Fallows, D. 2003 *.Spam: How it is Hurting Email and Degrading Life on the Internet*. Pew Internet and American life project report. Available [Online].http://www.pewinternet.org/PPF/r/102/report_display.asp.Last Accessed, 08 February 2013.

Fandrych, I. 2012. Between tradition and the requirements of modern life: Hlonipha in Southern Bantu societies, with special reference to Lesotho. *Journal of Language and Culture* Vol. 3(4): 67-73.

Fasold, Ralph.1984 .The sociolinguistics of society. England: Blackwell.

Fern, E.F. 2001. Advanced focus group research. SAGE Publications.

Finlayson, R., & Madiba, M. 2002. The intellectualisation of the indigenous languages of South Africa: Challenges and prospects. *Current issues in language planning*, 3(1): 40-61. Flores, B. 1991. Transforming deficit myths about learning, language, and culture. *Language Arts*, 68(5): 369-79.

Freire, P. 1972. Pedagogy of the Oppressed. United Kingdom, London: Penguin Books.

Fulk, J., & Collins-Jarvis, L. 2001. Wired Meetings. In Jablin, F. & Putnam, L. (Eds.), *The new handbook of organisational communication*. London: Sage. pp. 624-663.

Fullan, M & Smith, G. 1999. Technology and the problem of change. SAGE Publications.

Furlonger, D. 2002. *Rally to read*. Retrieved 13 February 2013. http://:www.freefinancialmail.co.za//rallytoread/rally.htm

Gardner, H. 2008. The mind's new science: A history of a cognitive revolution. Basic Books

Gaur, Alberine. 2003. Literacy and the politics of writing. Great Britain: Intellect Books Ltd.

Gee, James, Paul. 2012. Social linguistics and literacies Ideology in discourse. New York: Routledge.

Gillwald, A. Esselaar, S. Burton P. 2004. *Towards an e-index for South Africa: Measuring household and individual access and usage of ICT*. Johannesburg: Witwatersrand University.

Gordon, Edward & Gordon, H. Elaine. 2003. *Literacy in America: Historical journey and contemporal solutions*. London: Prager.

Gqola, P. 2001. 'Analysing Power, Language and Representation in Metaphors of the New South Africa', *Transformation: Critical Perspectives on Southern Africa* 47: 97–106.

Greiffenstern, Sandra. 2010. *The influence of computers the internet and computer mediated communication on everyday English*. Berlin: Logos Verlag.

Guzana, Z. 2000. 'Exploring Women's Silences in IsiXhosa Oral and Written. Agenda 46: 75–81.

Hagood, Margaret, C. 2009. *New literacies practices designing literacy learning*. New York: Peters Lang Publishing Inc.

Halliday, Michael. 1985. An Introduction to Functional Grammar. London: Arnold.

Hargittai, E. 2008. Digital na (ti) ives? Variation in internet skills and uses among members of the 'net generation'. *Sociology Inquiry*. 80 (1) 70-113

Harris William. 1991. Ancient literacy. United States of America: Harvard University Press.

Harris, R. 1989. *How does writing restructure thought? Language and Communication*, 9, pp. 99–106.

Harris, T. L. & Hodges, R. E. (Eds.). 1995. *The literacy dictionary: The vocabulary of reading and writing*. Newark, DE: International Reading Association.

Heath, S. B. 1996. *The sense of being literate: Historical and cross-cultural features*. In Barr R., Kmil M.L., Mosenthal P., Pearson P.D.(Eds.), *Handbook of reading research*. Vol 2, pp 3-25. Mahwah, NJ: Erlbaum.

Hendry, J. D. 2000. Social inclusion and the information poor. *Library Review*, 49(7): 331-336.

Herbert, R.K. 1990. Hlonipha and the ambiguous woman. Anthropos, 455-473.

Herselman, M.K. & Briton, K.G. Analysing the role of ICT in bridging the digital divide amongst learners. *South African Journal of Education*. 22 (4), 270-274

Heugh, K. 1995. Disabling and enabling: Implications of language policy trends in South Africa. *Language and social history: Studies in South African sociolinguistics*, 328-350.

Heugh, K. 1999. Languages, development and reconstructing education in South Africa. *International journal of educational development*, 19(4): 301-313.

Heugh, K. 2000. *The case against bilingual and multilingual education in South Africa* (Vol. 3). Cape Town: PRAESA.

Hilvert-Bruce, L, & Hilvert-Bruce, A. 2006. *How does it work? Music and Technology*. United States of America: Apple Media.

Hirst, M. 1997. A river of metaphors: Interpreting the Xhosa diviner's myth. *African Studies*, 56(2): 217-250.

Hodge 1,J. 2004. Universal service through roll-out targets and licence conditions: lessons from telecommunications in South Africa. *Development Southern Africa*, 21(1): 205-225.

Hodge, J & Miller, J. 2007. *Information Technology in South Africa: The state of the Art and Implications for National IT Policy*. Working Paper Number 3.University of Cape Town. [Online] Available: http://www.sn.apc.org/nift/dpruwp.htm [Accessed 25, March 2013]

Hokanson, B., Miller, C., & Hooper, S. 2007. The roles of design: A new method of instructional design. In M. R. Simonson (Ed.), Proceedings of selected research paper presentations at the 2007 annual convention of the Association for Educational Communications and Technology. Anaheim, CA. pp. 545-548.

Howie, H.L, Glogaure, L.M & Magdalene, S. The N.Gonorrhea type IV Pilus stimulates mechanosensitive pathways and cytoprotection through a PiLT-dependent mechanism. *Plos Biology*. 3 (4) 100-130.

HRSC (Human Resource Council). 2003. South African Attitude Survey 2003. HSRC: Pretoria.

Hudson, R.A. 1996. Sociolinguistics (2nd ed). Cambridge: Cambridge University Press.

Illich, I. 1971. Deschooling Society. New York.

James, T., Esselaar, P., & Miller, J. 2001. *Towards a better understanding of the ICT sector in South Africa: problems and opportunities for strengthening the existing knowledge base*. Cape Town: Tina James Consulting and Miller, Esselaar and Associates: Mimeo.

Jenkin, T. 1995. *The rural development strategy of the government of national unity*. Retrieved 08 June 2013, from http//:www.polity.org.za/govdocs/rdp/rural117.html.

Jensen, M, 1999. Access to the Web and its use in Southern Africa. *South African Journal of Information Management*, Vol 1, issue 2, 1-3.

Johnson, B & Johnson, C. 1994. The learning economy. *Journal of Industrial Studies*. 1 (2), 23-42

Jonassen, D.H, Peck, K.L. & Wilson, B.G. 1999. *Learning with Technology: a constructivist perspective*. Upper Saddle River, N.J: Merrill.

Jones, L. 2012. Recruiting adolescent girls into follow-up study: Benefits of using Social Networking Sites. *Contemporary Clinical Trials*. 32 (2), 268-272.

Kachru, B.B. 1978. "Code-mixing as a communicative strategy in India". *International Dimensions of Bilingual Education*. 107-124.

Kamwangamalu, N.M. 2000. A new language policy, old language practices: Status planning for African languages in a multilingual South Africa. *South African Journal of African Languages*, 20(1): 50-60.

Kaschula, R. H. 1995. Preachers and poets: oral poetry within the religious cosmology of the Xhosa. *South African Journal of African Languages*, 15(2): 65-73.

Kaschula, R. & Mostert, A. 2009. The influence of cellular phone 'Speak' on isiXhosa rules of Communication. *Stellenbosch papers in linguistics PLUS*. Vol 37: 69-88.

Kester, Grant. H. 1998. *Art,Activism,and Oppositionality: Essays from Afterimage*. United States of America: Duke University Press.

Knobel, M. & Lankshear, C. (eds). 2007. A New Literacies Sampler. New York: Peter Lang.

Kornblum, W. 2011. *Sociology in the changing world* (9th ed). United States of America: University of New York.

Kress, Guther R & van Leeuwen, Theo. 2006. *Reading images: the grammar of visual design* .USA: Routledge.

Kreutzer, T. 2009. Assessing cell phone usage in South African township school. International Journal of Education and Development using Information and Communication Technology. 5 (5)

Krishna, S., Boren, S.A., & Balas, E.A. 2009. Healthcare via cell phones: a systematic review. *Telemedicine and e-Health*, 15(3): 231-240.

Krueger, R.A & Casey, M.A. 2000. A practical guide for Applied Research.

Krull, G.E., Mallinson, B.J., & Sewry, D.A. 2006. Describing online learning content to facilitate resource discovery and sharing: the development of the RU LOM Core. *Journal of Computer Assisted Learning*, 22(3): 172-181.

Kukulska-Hulme, A., & Traxler, J. (Eds.). 2005. *Mobile learning: A handbook for educators and trainers*. Routledge.

Lamberd, Wallance E. 1967. The social psychology of bilingualism. *Journal of social issues*. 23: 91-109.

Langacker, R. 1985. Observations and speculations on subjectivity. *Iconicity in syntax*, edited by John Haiman, 109-150. Amsterdam and Philadelphia: John Benjamins.

Lankshear, C, and Knobel, M. 2003. *New Literacies: changing knowledge and classroom learning*. United Kingdom, Buckingham: Open University Press.

Lankshear, Collin & Knobel, Michele. 2006. *New literacies: everyday practice and classroom learning*. 2nd ed. England: Open University Press.

Lea, M, Spears, R., & de Groot, D. 2001. Knowing me, knowing you: Anonymity effects on social identity processes within groups. *Personality and Social Psychology Bulletin.*, 27: 526–537.

Lee, T.H. The design of CMOS radio-frequency integrated circuits. Cambridge: Cambridge University Press.

Lenhart, A. 2007. *Teens, Privacy & Online Social Networks: How teens manage their online identities and personal information in the age of mySpace*. Pew: International and American Life Project.

Levin, M. E. 2008. Language as a barrier to care for Xhosa-speaking patients at a South African paediatric teaching hospital. *South African Medical Journal*, 96(10): 1076.

Luke, A. & Luke, C. 2001. Adolescence lost/childhood regained: On early intervention and the emergence of the techno-subject. *Journal of Early Childhood Literacy*. 1 (1): 91-120.

Luhanga, M.L. 2009. *The courage for change: Re-engineering the University of Dar Es Sallam*. African Book Collective.

Mabeqa, T. 2012. *Why is the Xhosa language undermined?* Independent Education: The Official Magazine of the Independent Schools Association of Southern Africa. Available [Online]: http://www.ieducation.co.za/why-is-the-xhosa-language-undermined/. Last accessed 28 January 2013.

Mbananga, Nolwazi. 2004. Cultural clashes in reproductive health information in schools. *Health Education*. 104 (3), 152-162.

Makhudu, P.D.K. 2012. "Sol Platjie and Setswana: Contribution towards language development. PhD Dissertation: University of Limpopo.

Mapi, T. 2011. *Dispel language snobbery: The future of African languages is very shaky if young people are not interested in them*. Mail & Guardian. Available [online]: http://mg.co.za/article/2011-04-29-dispel-language-snobbery/. Last accessed 28 January 2013

Mfazwe, Lungelwa,Rose. 2003. *Strategies for the translation of the taboo words into isiXhosa*. PhD Dissertation. University of Free State.

Mesthrie, R. (Ed.). 1995. *Language and social history: Studies in South African sociolinguistics*. South Africa, Claremont: David Philip Publishers.

Mkonto, B. B. 1996. The positive side of obscene language usage in Xhosa literature: a libertarian view. *South African Journal of African Languages*, 16(3): 93-96.

Mpiti, T. 2012. *Nature of spelling errors of grade three isiXhosa background learners in English first additional language* (Doctoral dissertation), University of Fort Hare).

Muysken, P. 2000. Bilingual speech: A typology of code-mixing. Vol 11. Cmabridge: Cambridge University Press.

Naismith, L., Sharples, M., Vavoula, G., & Lonsdale, P. 2004. *Literature review in mobile technologies and learning*. Birmingham: University of Birmingham.

Nelson Mandela Foundation. 2005. *Emerging Voices: A report on Education in South African Rural Communities*. Pretoria: HSRC Press.

Norman, R. 1975. Affective-cognitive consistency attitudes conformity and behaviour. *Journal of personality and social psychology*. 32: 83-91.

Nuttall, S., & Coetzee, C. (Eds.). 1998. *Negotiating the past: The making of memory in South Africa*. Cape Town: Oxford University Press.

O'Keeffee, G.S & Clarke, P. 2008. The impact of social media on Children, Adolescents and Families. *Pediatrics*. 77-709

O'Malley, J.M. 2003. *The Calla Handbook: Implementing the cognitive Academic language learning approach*. Reading, MA: Addison-Wesley Publishing Company.

Pearson, P. D. & Stephen, D. 1994. Learning about literacy a 30 year journey In Ruddell R.B, Ruddell, M.R & Singer, H. (eds). *Theoretical models and processes of reading.* 4th ed. New York de international reading association. pp. 22-42.

Petty, R.E., & Cacioppo, J.T. 1981. Attitudes and persuasion: Classic and contemporary approaches. Dubuque, IA: William C. Brown.

Phillipson, R. 1996. Linguistic imperialism: African perspectives. *ELT journal*, 50(2): 160-167.

Pillay, K. 1998. Discussion paper on definition of universal service and universal access in telecommunications in South Africa. *Government Gazette*, 400(19397): 1-14.

Postmes, T., &Baym, N. 2005. Intergroup dimensions of Internet. In J. Harwood & H. Giles (eds). *Intergroup communication: Multiple perspectives*. New York: Peter Lang. pp. 213-238.

Postmes, T., Spears, R., Lee, A. T., & Novak, R. J. 2005. Individuality and social influence in groups: Inductive and deductive routes to group identity. *Journal of Personality and Social Psychology*. 89: 747–763.

Rheigngold, Howard. 1993. *The virtual community homesteading on the electronic frontier*. United States of America: Addison-Wesley.

Romaine, S. 2003. *Language in society: An introduction to sociolinguistics* (2nd ed). United States: Oxford University Press.

Roodt, J., Paterson, A., & Weir-Smith, G. 2007. *Mapping ICT access in SouthAfrica*. Pretoria: HSRC Press.

Salmon, G. 2000. *E-Moderating- The key to teaching and Leaning Online*. London: Kogan Page.

Sapir, E. 1985. Selected writings of Edward Sapir in language, culture and personality (Vol. 342). University of California Press.

Stats, SA (Statistics, South Africa). 2004. GCP Skills Review Interview. Pretoria: Stats SA

Stats, SA .2011. "Census 2011: methodology and highlights of key Results". Pretoria: Stats SA.

Setati, M., Adler, J., Reed, Y., & Bapoo, A. 2002. Incomplete journeys: Code-switching and other language practices in mathematics, science and English language classrooms in South Africa. *Language and education*, 16(2): 128-149.

Sharples, M.J. & Vavoula, G. 2005. Towards a theory of Mobile Learning. *Proceedings of mLearning*. 1 (1) 1-9

Spitzberg, B. H. 2006. Preliminary development of model and measure of Computer-Mediated Communication (CMC) competence. *Journal of Computer Mediated Computer mediated communication*. 11, (2): 629:666.

Sproull, L., & Kiesler, S. 1986. Reducing Social Context Cues: Electronic Mail in Organizational Communication. *Management Science*, 32(11): 1492-1512.

Statistics South Africa. 2011. *South African Statistics*. [ONLINE] Available at: http://www.statssa.gov.za/publications/statsdownload.asp?PPN=SAStatistics&SCH=5067. [Accessed 25 March 2013].

Steinberg, S. 2007. *Introduction to communication studies*. Cape Town, South Africa: Juta & Co, Ltd.

Stroud, C. 2001. African mother-tongue programmes and the politics of language: Linguistic citizenship versus linguistic human rights. *Journal of Multilingual and Multicultural Development*, 22(4): 339-355.

Synder, I. 2002. *Silicon literacies: communication innovation and education in electronic age*. London: Routledge.

Tamita, D.K. 2009. *Text Messaging and Implications for its use in Education*. Available: http://etec.hawaii.edu/proceedings/2009/Tomita.pdf. Last accessed 02 May 2013.

Tanis, M. 2003. *Cues to Identity in CMS: The impact on Person Perception and Subsequent Interaction Outcomes*. Thesis University of Amsterdam. Enschede: Print Partners Ipskamp.

Taylor, M & Vavoula, G. Mobile Learning. Netherlands: Springer

Thibault, Paul, J. 2010. Face-to-face communication and body language. In Anosgerd &Ventola, Eiga (eds). *Handbook of interpersonal communication*. Berlin/New York de Gruyter Mouton. pp. 285-330.

Thimm, Caja, 2010. Technical mediated interpersonal communication. In Anos, Gerd & Ventola, Eija (eds). *Handbook of interpersonal communication*. Berlin, New York: deGruyter Mouton pp. 331-354.

Thurlow, C. 2006. From statistical panic to moral panic: the metadiscursive construction and popular exaggeration of new media language in print media. *Journal of Computer-Mediated Communication*. 11 (3): 667-701.

Thurlow, C. 2007. Fabricating youth: New-media discourse and the technologization of young people. InS. Johnson & A. Enslin (*Eds.*), *Language in the media: Representations, identities, and ideologies*. London: Continuum. pp 213-233.

Thurlow, C. & Bell, K. 2009. Against techologizing: Young people's New Media Discourse as creative cultural practice. *Journal of Computer-Mediated Communication*. 14 (4): 1038-1049.

Thurlow, C., & Poff, M. 2011. *Text messaging. forthc.): Pragmatics of Computer-Mediated Communication*. Berlin/New York: Mouton de Gruyter.(= Handbooks of Pragmatics 9). [Online] Available// http://faculty.washington. edu/thurlow/papers/thurlow&poff, 282010, 29. [Accessed 15 December 2012]

Thurlow, Crispin., Lengel, Laura., & Tomic, Alice. 2004. *Computer Mediated Communication: Social Interaction and the Internet*. London: SAGE Publications Ltd.

Tlabela, K. et al. 2006. Mapping ICT Access in South Africa. Pretoria: HSRC Press.

Tonkin, A. 1995. English proficiency standards for overseas students: who needs what level? *Journal of International Education*, 6(3): 37-61.

Traxler, J. 2005. 'Defining mobile learning". In, IADIS International Mobile Learning. Suomen Kuntalitto, pp 251-266.

Trevino, L.K., Lengel R.H., Bodensteiner, W. Edwin, Gerloff, E. Muir, N.K. 1990. The richness imperative and cognitive style: The Role of Individual Differences in Media Choice Behaviour. *Management Communication Quarterly*, 4 (2): 176-197.

Trinder, J. J. 2005. Mobile technologies and systems. In Traxler, J. & Kukulska-Hulme, A. (Eds.) *Mobile Learning: A Handbook for Educators and Trainers*. Abingdon: Routledge.

Trinder, J. J., Magill, J. V. & Roy, S. 2006. A Call to Arms for Handheld Devices. In Danson,
M. (Eds). 10th International Computer Aided Assessment Conference. Loughborough.

UNESCO. 2002. Information and Communication Technologies in Teacher Education. A Planning Guide, Paris: UNESCO.

UNESCO and Commonwealth of Learning. 2004. Schoolnet Toolkit. Bangkok.

UNESCO. 2006.*Literacy: the core of Education for All*. Education for All Global Monitoring Report. [Online] Available: http://www.unesco.org/education/GMR2006/full/chapt1_eng.pdf. Last accessed 23 January 2013.

Universal Services and Access Agency of South Africa (USAASA). 2004. *Promoting universal access to ICT services in South Africa: Background*. Retrieved, 25 March 2013, http://www.usaasa.org.za.

Valdes, J. M. (Ed.). 1986. *Culture bound: Bridging the cultural gap in language teaching*. Cambridge: Cambridge University Press.

Van der Berg, S. 2008. "How effective are poor schools? Poverty and education outcomes in South Africa. *Studies in Educational Evaluation*, 34 (3), 145-154

Vavoula, G.N., 2005. *D4d: A study of Mobile Learning Practices*. [Online] Available:www.mobilearn.ogg/download/results/public_delivarables/mobilear_D44_final.pdf . [Accessed, 30 April 2013].

Verhoef, M. 1998. In pursuit of multilingualism in South Africa. Multilingua, 17: 181-196.

Vosloo, S. 2010. *IsiXhosa: Yoza Excites African Teenagers to Love Reading Using Mobile Phones*. [Online] Available: https://inveneo.org/ictworks/tags/isixhosa. Last accessed 7 May 2012.

Walther, Joseph. B. 1992. Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19: 52–90.

Walther, Joseph. B. 2011. Theories of Computer Mediated Communication and Interpersonal Relations. In Knapp, Mark, L. & Daly, John A. (Eds) 4th edition. *The Sage Handbook of Interpersonal Communication. Sage Publications*. Pp. 443-479.

Walton, M. 2009. *Mobile Literacies and South African Teen: Leisure reading, writing, and Mxit chatting for teens in Langa and Gugulethu*. Available: http://marionwalton.wordpress.com/tag/literacy/. Last accessed 6 May 2013

Wang, Z., Walther, J. B., & Hancock, J. T. 2009. Social identification and interpersonal communication in computer-mediated communication: What you do versus who you are in virtual groups. *Human Communication Research*, 35: 59–85.

Wardhaugh, R. 2003. Productivity and popular attitudes towards Welfare Recipients in Saskatchewan. *Parie Forum*, 28 (2)

Wardhaugh, R. 2010. *An introduction to sociolinguistics*. (6th ed). Malden, MA: Blackwell Publishing.

Warschauer, M. 2003. *Technology and social inclusion: Rethinking the digital divide*. Cambridge, MA: MIT Press.

Williams, F. 1974. The identification of linguistic attitudes. *International Journal of the Sociology of Language*. 3:21-32.

Wilson-Strydom, M. 2005. *Evaluation of Intel Teach to the Future in South Africa*. Johannesburg: Neil Butcher and Associates.

Winch, G., Johnston, R.R., March, P., Ljungdahl, L. & Holliday, M. 2006. *Literacy: Reading, writing and children's literature*. Melbourne: Oxford University Press.

Ybarra, M.L & Mitchell, K.J. 2008. How risky are Social Networking Sites? A comparison of places Online where youth sexual solicitation and harassment occurs. *Pediatrics*, 121 (2), 350-357.