CHAPTER 1

INTRODUCTION

1.1 CONTEXT OF RESEARCH

“Since Andrea turned 13, I never see her anymore. She comes home from school and goes straight to her room. She spends her time on the phone, text messaging and changing clothes”

(Leman, 2009)

Social Interaction Technologies (SIT) have broadened the horizon of communication in terms of the way people are able to communicate. It is now possible to interact with others across the world and engage in numerous activities ranging from dating to political movements, hobbies and even professions (Chigona, Chigona, Ngqokelela, & Mpofu, 2009). Adolescents and pre-adolescents especially are inclined to make use of SIT in their social lives with the most popular mode of communication, apart from email, being instant messaging (IM) (Brown, Mounts, Lamborn, & Steinberg, 1993; Bryant, Sanders-Jackson, & Smallwood, 2006; Madden & Rainie, 2003). Adolescents tend to use IM regularly as a tool to maintain relationships and girls especially, use it as a tool to socialise (Jennings & Wartella, 2004; Lenhart, Rainie, & Lewis, 2001).

The mobile phone or cell phone, which is another example of an SIT-based communication, has become an established medium of technical, social and commercial communication in South Africa. It has given rise to the development and vast growth of a mobile youth culture who consider it an essential tool for communicating (Bosch, 2008). In South Africa, instant messages may be sent via mobile phone using one of two methods: MXit and the SMS (short messaging service). MXit and the SMS are considered convenient tools of communication as an ongoing conversation in the form of a text message may be maintained in the present (Yoshii, Matsuda, Habuchi, Dobashi, Iwata, & Kin, 2002).
MXit, which is based in Cape Town and runs on GPRS/3G mobile phones with Java support, is the most popular mobile instant messaging service in South Africa (Bosch, 2008). According to Chigona et al. (2009) there were over 7 million MXit users in 2009 and this number increased at a rate of over 9 000 per day. Most of the members of MXit in South Africa fall between the ages of 12 to 17 years, while the second largest group consists of 18 to 25 year-olds (Thomas, 2006). MXit has gained popularity as it is inexpensive and does not require any subscription fees (Bosch, 2008; Ndebele, 2007).

This chapter has thus far discussed instant messaging and its context within this research study. The next aim of this chapter is to briefly introduce and discuss three topics: communication, relationships and adolescent development. As relationships cannot survive without communication it can be seen to be the link between instant messaging and relationships. In the light of this statement, it becomes necessary to explore and discuss the nature of communication in the context of relationships and instant messaging, relating especially to the world and the experiences of the female adolescent. This chapter will continue with a discussion on communication, relationships and adolescent development.

1.1.1 Communication

“Every teen on the planet loves IM-ing... It’s instant contact with a friend” (Leman, 2009).

It is impossible to exist without communication as it is an essential survival skill that helps one keep in contact with the outside world and it facilitates social functioning (Cherry, 1966; Huebsch, 1995). It is an interactive and dynamic process as the different elements which are involved affect each other in a series of interactions and each time an interaction occurs something new is formed or created (Hannemann & McEwen, 1975; Taylor, Rosegrant, Meyers, & Samples, 1983). Watzlawick, Beavin, and Jackson (1967) suggest five axioms of communication which serve as a guide to this research in terms of the nature of communication and how it may be relevant to female
adolescents using instant messaging as a form of communication in their relationships. These will be discussed in depth in chapter two.

1.1.2 Relationships

“With girls this age, relationships are everything” (Pipher, 1996, p. 254).

Relationships are formed when one has frequent communication with the same individuals over time and anticipate that contact will be ongoing in the future (Argyle & Henderson, 1985). Like communication, it is dynamic as the people involved in the relationship are constantly creating new expectations, reinforcing old ones or changing existing patterns of interaction (Hannemann & McEwen, 1975; Littlejohn, 1999). The ability of the adolescent to communicate is very important as it affects the manner in which relationships are maintained. It also facilitates the development of linguistic, social, emotional and cognitive skills as well as the identity of the adolescent through social interaction with peers and significant others (Guvi, 2007). Littlejohn’s explanation, which refers to relational communication theory and is the link between communication and relationships, is discussed in chapter three as it assists in understanding these two topics within the context of the present research study.

1.1.3 Adolescent Development

“Maturity involves being honest and true to oneself, making decisions based on a conscious internal process, assuming responsibility for one’s decisions, having healthy relationships with others and developing one’s own true gifts. It involves thinking about one’s environment and deciding what one will and won’t accept” (Pipher, 1996, p.256).

Adolescence is the phase between childhood and adulthood, beginning in biology and ending in society (Papalia, Olds, & Feldman, 2002; Peterson, 1988). It is a period during which significant biological, cognitive, social, psychological and emotional changes occur (Lerner, Lerner, De
These major changes occur specifically in four life domains of the adolescent: puberty and physical growth, abstract thinking and reasoning, family and peer relations and the sociocultural environment (Kiuru, 2008; Lerner et al., 2001).

There is diversity in the development of each adolescent as it is a period of continuous change and transition between adolescents and their contexts. The biological, cognitive, psychological and societal factors of the adolescent do not operate in isolation. They tend to influence one another as they are all connected. Other factors such as class, race and/or ethnicity as well as distinct families, communities or sociocultural settings also play a role in shaping the development of the adolescent. All these factors ultimately prevent the possibility of making generalisations regarding the development of adolescents. There is therefore not one major factor responsible for change and as a result, there is variability in even normal adolescent development (Lerner, 1987, 1995; Lerner & Lerner, 1983; Lerner et al., 2001). Society however, acknowledges that this period, regardless of diversity in development, presents specific physical as well as intellectual and professional developmental challenges. Examples of these challenges experienced by each adolescent are pubertal change, the capacity to reproduce, the development of a self-identity and the adult roles that the adolescent is expected to play as a productive and healthy member of society. It has been these challenges that have resulted in growing scientific interest in the study of adolescence (Lerner et al., 2001).

The rest of this section will focus on exploring the development of the teenager in general and how it has an impact on the adolescent’s development of independence, self-esteem and intimacy (Turner, 1996), themes linked to the use of MXit by adolescents.

Cognitive development refers to the development of cognitive abilities and capacities from birth to old age (Colman, 2003). Piaget’s theory is the most popular of all other theories when it comes to studying and viewing cognitive development (McShane, 1991). His theory proposes that logical
thinking develops according to a natural, sequential progression of stages over time (Sternberg, 2006). Adolescents enter the highest level of cognitive development, the formal operations stage, at around the age of 11 years (Papalia et al., 2002). Once they reach this stage, they are able to think in a logical way and at an abstract level without the need to rely on concrete props (Papalia et al., 2002; Sutherland, 1992). The shift to formal reasoning in adolescence is facilitated by two factors: brain maturation and expanding environment opportunities. Both these factors are essential requirements for cognitive development, as adequate brain maturation may permit formal reasoning, but it may not be attained without appropriate environmental stimulation (Papalia et al., 2002). The social context, in particular, is necessary for formal operations to develop (Sutherland, 1992). By moving away from the concrete, by reasoning, concentrating and by trying out hypotheses, adolescents start developing their own identity. They question who they are, what they are thinking and what their attitudes, opinions and assumptions are (Mussen, Conger, Kagan, & Huston, 1984).

During adolescence, friendships with peers become significantly more important than all other relationships (Rubin, 2007). As teenagers become increasingly more independent from their parents and their interests change, it becomes easier for them to turn to their peers for support (Turner, 1996). Their friends are usually experiencing similar issues, can relate to what they are feeling and always seem to be available for support (Gouws, Kruger, & Burger, 2000; Turner, 1996). Adolescent girls use their mobile phones mostly for social networking, to make new friends, for peer support and to receive and give advice to others (Bosch, 2008). The mobile phone has also become an easy way to initiate and explore relationships with the opposite sex. It provides the adolescent girl the opportunity to flirt while still feeling secure and in control and in the process she is also able to avoid the build up of emotional energy that is often generated from contact in face-to-face situations (J. G. Howcroft, personal communication, October 27, 2010).
Relationships serve different functions at different times in a child’s development (Rubin, Chen, Coplan, Buskirk, & Wojlawowicz, 2005). The main function of friendship in adolescent development is that it provides a context of emotional security outside of the family in which adolescents may explore the impact of their behaviours on themselves, their peers and their environments and in the process facilitates the integration of logic, emotions and self-exploration (Rubin et al., 2005). Through peer interactions, adolescents are able to gain experience, attitudes and master social skills such as being open, caring and trusting. It is also through peer relationships that adolescents learn to begin, maintain and terminate relationships (Guvi, 2007; Kiuru, 2008). As peers become less similar to each other or less willing to conform to each other, there is an increase in the number of conflicts and a decrease in the frequency of interactions and finally dissolution of the relationship occurs (Kiuru, 2008).

The development of trust, security, attachment, love, affection, feelings, emotions, temperament, autonomy and concept of self, is collectively referred to as emotional development (Gouws et al., 2000). In the world of the adolescent, acceptance, recognition, approval and support are the currency that purchases confidence and self-esteem. Adolescents gradually begin to value peer acceptance and popularity more and the parent-child relationship, in general, takes a back seat in order to facilitate the development of independence (Kiuru, 2008; Rubin, 2007). Peer acceptance plays an especially important role in adolescent self-identity (Harter, 1997), while support from close friends improves self-esteem. Peer acceptance and support from close friends both have a strong influence on psychological adjustment (La Greca & Harrison, 2005). A lack of friends, on the other hand, may lead to rejection, loneliness, low self-worth and depression (Kiuru, 2008).

The parents of an adolescent nevertheless, still play an important role in helping their child achieve independence, have healthy relationships and develop the ability to cope with life. In order to facilitate optimal adjustment, parents need to encourage their adolescent children to engage in age-appropriate autonomy while keeping strong ties to their family (Lerner et al., 2001). It is crucial
that parents support and be involved with their children as adolescents sometimes unknowingly expose themselves to danger or become involved in risky activities (Papalia et al., 2002).

Erikson’s stage theory of psychosocial development (Erikson, 1968, 1973) and Lerner’s theory of contextualism (Lerner, 1991) are two approaches that assist in conceptualising adolescent development and will be briefly discussed next. They provide a solid grounding of knowledge and a good understanding of adolescent development and are most appropriate for this study.

The theorist, Erik Erikson, refers to eight stages of psychosocial development which extend over the lifespan of an individual, ranging from birth to old age (Hergenhahn & Olson, 1999). In order to attain psychosocial maturity, one has to master in sequence, the crisis presented by each stage (Meyer, Moore, & Viljoen, 2003). Adolescence is usually the fifth stage of psychosocial development which is referred to as Identity versus Identity Confusion (Santrock, 1996). The challenge for the adolescent during this specific stage is to establish a sense of personal identity and avoid the dangers of role diffusion and identity diffusion (Erikson, 1959). Adolescents have to get to know and integrate their skills, interests, needs and wishes in order to develop a coherent sense of identity that can be expressed in a social context (Papalia et al., 2002). Optimal development occurs in young people who are able to solve related developmental tasks, move through the age-appropriate roles and engage in behaviours that lead to major adult roles (Erikson, 1968, 1973). The inability to resolve this crisis in adolescence may result in identity confusion and ultimately problems in reaching psychological adulthood (Papalia et al., 2002; Santrock, 1981).

Richard Lerner’s theory of Contextualism is similar in certain respects to Bandura’s social learning theory and Bronfenbrenner’s systems theory (Bronfenbrenner, 1979; Potgieter, 1998; Thomas, 2005). Developmental changes occur as a result of two-directional relationships between the individual and the active context (Lerner, 1991). In other words, development involves mutually influential relations among the integrated levels of the developmental system (Brandtstädter, 1998, 1999, 2006; Gottlieb, 1997, 1998; Tobach & Greenberg, 1984). Contextualism focuses on four
areas of development: the physical setting, the social environment, personal characteristics and time (Lerner, Ree Noh, & Wilson, 1998). The most significant contexts for young people’s development are the proximal social environments which include family and peer networks (Magnusson & Stattin, 1998). Friendships provide contexts in which social and emotional skills and competencies can be acquired and they serve as precursors to future relationships. Self-worth is increased through the process of support and validation (Bagwell, 2004; Hartup, 1992). Another important aspect is that of developmental diversity (Muuss, 1996). Contextualism emphasises the different ways in which people of various ethnic groups develop throughout life (Dacey & Kenny, 1997). This is especially relevant within a South African context where the participants within the same school will be from different ethnic backgrounds.

1.1.4 Adolescent Relationships and Communication

“Endlessly girls discuss the smallest details of conversations and events – who wore what, who said what, did he smile at her, did she look mad when I did that?” (Pipher, 1996, p.54).

Communication is considered a social resource as well as instrumental in development as it is essential for the maintenance of interpersonal relationships and the construction and maintenance of an individual’s identity (Hannemann & McEwen, 1975; Thiel-Stern, 2008; Thurlow, 2003). In adolescence, interpersonal relationships help the teenager to develop a positive and coherent identity, so that adulthood may be entered into confidently (Craig & Baucam, 2002; Johnson, 2006).
1.2 AIMS OF RESEARCH STUDY

The aim of this research study is to explore the experience of instant messaging (IM) upon adolescent female relationships.

1.3 MOTIVATION FOR THE STUDY

“Until recently adolescent girls haven’t been studied by academics... Because they are secretive with adults and full of contradictions, they are difficult to study. So much is happening internally that’s not communicated on the surface” (Pipher, 1996, p.21).

Africans in general have experienced a wave of technological advancement in the last few years. The number of African mobile subscribers grew with 60 million new members in 2007 and constituted 90 percent of all African phone subscribers (Bosch, 2008). The adolescent population in particular has benefited from the use of technological devices such as mobile phones and the Internet as it has extended their access to communication and interpersonal interaction (Plant, 2000).

A study on adolescent girls' use of mobile social networks such as MXit was conducted recently by Bosch (2008) in Cape Town, South Africa. According to the findings girls talk more than boys on mobile phones and use the mobile phones to maintain interpersonal relationships with their parents and peers. Research also shows that within these relationships there are negative elements such as bullying, hurtful comments and clique formation that find their way into the communication between girls (Thiel-Stern, 2008).

It was noted that IM in particular, has created a worldwide problem, as it has been instrumental in the use of bullying, passing notes and cheating in exams (Bulliet, 2005; Magid, 2001; National Children’s Home, 2005). Vulgar language, inappropriate sexual remarks and words of abuse are more readily communicated via IM, as teenagers are inclined to interact without first establishing the emotions behind the messages when they have indirect contact with one another. The
implications for adolescents who do not have regular direct interaction with others, are that they are unable to develop their social and emotional intelligences, as they are not presented with adequate opportunity to continuously assess their face-to-face responses without hurting the other person (Guvi, 2007). There is, unfortunately, power in peer relationships that generate negative experiences, as they may do more harm to the already sensitive and unsure image of the teenager. Teenagers can be cruel to each other and may display rejection or contempt of another adolescent who expresses a desire to be part of a group. This may then lead to the development of anxiety and avoidant reactions within a social setting as it affects the self-esteem of the rejected adolescent (Mussen et al., 1984; Santrock, 1996).

One of the most significant implications of communications technology is that it could be changing the nature of social interaction and relationships and may thereby have a negative impact on social skills and relationships (Chigona et al., 2009; Guvi, 2007). It has been found that SIT “draw users away from real physical interactions that they had possessed with their family members or with their close friends and acquaintances” (Chigona et al., 2009, p. 4). According to J. G. Howcroft (personal communication, October 27, 2010), a possible consequence of adolescents living in an electronic world of virtual reality and interacting within a cyber community is the development of social isolation rather than the attainment of mature intimate relationships.

The use of communication technology by adolescents in particular is an area of great concern at present. The experts in the industry and academics as well as adolescents are of the opinion that the management of communications technology developments is essential in ensuring that it will not be abused in a manner that will negatively affect the cognitive and physical development of adolescents. Communication via mobile phone influence social skills development such as the inability to express feelings and emotions in the presence of the individual as well as the inability to handle conflict (Guvi, 2007). Adolescence is a crucial time for developing and acquiring adequate
communication skills. The question is whether or not IM is appropriate and instrumental in assisting the adolescent in developing these communication skills.

According to J. G. Howcroft (personal communication, October 27, 2010), the unique social environment created by digital dialogue and the unique effects it has on human communication has not been extensively studied within South Africa. According to Harvey (2007) research needs to be done on the impact that the use of mobile phones and specifically instant messaging has on the well-being, development and relationships of the adolescent girl. It is a fairly new phenomenon that has spread rapidly through the younger generation. Guvi (2007) supports Harvey by stating that the impact the cellphone and other communications technologies are having on adolescents’ development and their subsequent influence on their future social development needs to be identified. In the section below an outline of the study will be provided.

1.4 OUTLINE OF THE STUDY

Chapter two explores the three domains which were selected for research in this study as they are most relevant to exploring the influence of specifically instant messaging on the relationships of adolescent girls: communication, relationships and instant messaging. Chapter three provides an overview of the cognitive, social and emotional developmental issues in adolescence which are grounded within the theoretical frameworks of Erikson’s theory of development (Erikson, 1968, 1973) and Lerner’s theory of contextualism (Lerner, 1991). Chapter four delineates the methodological considerations taken to implement this research study. Chapter five discusses the results of the current study. The conclusions reached as well as the limitations and recommendations are presented in chapter six.
CHAPTER 2

COMMUNICATION, RELATIONSHIPS AND INSTANT MESSAGING

2.1 INTRODUCTION

“We need to do five things every day to improve our mental wellbeing: Connect with others, be active, be curious, keep learning and give to others – and a good conversation delivers all five”

(O magazine, March 2009).

The aim of this chapter is to briefly explore the nature of three topics, namely, communication, relationships and instant messaging. Communication is a common thread running through this research study. Instant messaging on the other hand is a medium used in communication. As relationships cannot survive without communication it can be seen to be the link between instant messaging and relationships. In the light of this statement, it becomes necessary to explore and discuss communication in the context of relationships and instant messaging, relating especially to the world and the experiences of the female adolescent. This chapter will commence with a discussion on instant messaging and continue with the topics of communication and relationships. The world and experiences of the female adolescent will be discussed separately in chapter three as it requires an in-depth exploration.

2.2 INSTANT MESSAGING

Social Interaction Technologies (SIT) have broadened the horizon of communication in terms of the way people are able to communicate. One is now able to communicate with others from across the world and engage in activities relating to dating, social groups, political movements, hobbies and even professions (Chigona et al., 2009). Adolescents and pre-adolescents, more so than adults, make use of SIT in their social lives (Brown et al., 1993; Madden & Rainie, 2003). According to Bryant et al. (2006), the most important means of communication that adolescents use via the internet, apart from email, is instant messaging, which is known in its abbreviated form as
IM. In the United States alone, 74% of online adolescents as opposed to 44% of online adults have
used instant messaging (Lenhart et al., 2001). Livingstone and Bober (2005) conducted a study in
the United Kingdom that yielded similar results. Adolescents tend to use IM regularly as a tool to
maintain relationships and girls, especially, use it as a tool to socialise (Jennings & Wartella, 2004;
Lenhart et al., 2001). At least 65% of American adolescents used IM in 2005 (Lenhart, Madden, &
Hitlin, 2005). A study completed in the United States, found that 48% of the respondents surveyed
felt that the internet assisted in improving their relationships with friends while only 32% used the
internet to make new friends (Lenhart et al., 2001). The mobile phone or cellphone, which is
another example of a SIT-based communication, has become an established medium of technical,
social and commercial communication in South Africa. It has given rise to the development and
vast growth of a mobile youth culture who consider it an essential tool as well as a fashion
accessory. This youth culture which is global developed from the peer-to-peer networks and even
has its own values and language of texting (Bosch, 2008).

In South Africa, a person who wishes to send an IM to someone else by using a mobile phone
may use one of two methods: MXit and the SMS (short messaging service). This form of IM via
mobile phone is sometimes referred to as Mobile Instant Messaging (MIM). Both methods of IM
facilitate instant contact in the form of a text message via a mobile phone to another mobile phone
user as well as an immediate response by the receiver. MXit and the SMS are considered
convenient tools of communication, as an ongoing conversation via typed information, may be
maintained in the present (Yoshii et al., 2002). MIM differs from SMS, however, in that it uses
internet protocol to exchange messages. Another advantage that MXit has above other MIM’s is
that it is network-independent. MXit members do not have to be members of the same cellphone
network in order to communicate (Chigona et al., 2009). It was found that adolescents tend to send
an average of 70 SMS messages a month while a slightly older group (consisting of those in their
twenties) sent an average of 30 SMS messages per month (Yoshii et al., 2002). In a study conducted
in Switzerland by Eldridge and Grinter (2001), it was found that fifteen-year-old girls send an average of 3.3 SMS per day as opposed to boys of the same age who send 2.5 SMS per day (Yoshii et al., 2002).

Teenagers are inclined to use IM immediately after school with the intention of continuing with the day’s events and main topic of conversation. The nature of the conversations are informal and similar to what they would be like in real space, as it is a continuation of discussion of the day’s events, gossip about others, all of which is often with people whom they see at school and have much in common. Conversations may also include chatting and flirting and even breaking up with boyfriends and girlfriends (Grinter & Palen, 2002). Lewis and Fabos (2005) found that teenagers prefer talking to the opposite sex via IM, especially someone they do not know well, rather than by phone or in person, as it was possible to avoid awkward moments. Some participants reported that it is easier to be more open and intimate (Lewis & Fabos, 2005).

IM is mostly used by adolescents to spend time with a friend or merely to pass time when bored (Gross, Juvonen, & Gable, 2002). School activities, homework and chores at home make socialising face-to-face after school difficult for adolescents. IM alleviates this restriction by allowing communication and interaction from home and in the evenings. IM also enables groups of adolescents to efficiently, spontaneously and speedily coordinate and organise social meetings without discussing it far in advance. This is considered most beneficial as there are usually constraints to independent planning due to access to transportation and parental rules and obligations. As the use of IM is less invasive and less obtrusive, parents are more inclined to allow it at home, rather than phone calls or visitors (Grinter & Palen, 2002).
2.2.1 MXit in South Africa

MXit, which is based in Cape Town, is the most popular MIM service in South Africa (Bosch, 2008). It is not only an instant messaging service but a chat facility as well that runs on GPRS/3G mobile phones with Java support (Bosch, 2008; Ndebele, 2007). As of October 2007, MXit reported to have about 3 million users, approximately 5 million log-ons per day, over 100 million messages sent per day and an average growth rate of 10 000 new users per day (Bosch, 2008). In 2009, it was stated that there are over 7 million MXit users and this number increases at a rate of over 9 000 per day (Chigona et al., 2009). MXit has gained popularity as it is cheap and does not require any subscription fees (Bosch, 2008; Ndebele, 2007). Contacts are added at the discretion of the users and there is also no limit to the number of contacts one may add to a contact list (Chigona et al., 2009). One of MXit’s advantages above the SMS is that the maximum length of chat messages are 2048 characters compared to normal SMS which limits one to 160 characters (Bosch, 2008). Another of MXit’s advantages above the SMS is the cost of sending a message via MXit which is about 2 South African cents, whereas an SMS costs around 70 cents to send via a cellphone (Chigona et al., 2009).

The chief executive of MXit Lifestyle states that at least 95% of MXit’s users utilise this service as an SMS replacement only, the other 5% of users utilised the MXit service facility in order to access chat rooms (Ndebele, 2007). The chatrooms on MXit usually centre on a theme or around a geographical location (Chigona et al., 2009). Before one is able to take part in one of the many chat rooms available, such as ‘Flirt Chatzones,’ ‘Teen Chatzones,’ ‘Topical Chatzones’ and ‘Grown-up Chatrooms’ one has to first become a subscriber and purchase some of MXit’s own virtual currency, Moola, which is in fact equal to a mere one or two South African cents (Bosch, 2008; Chigona et al., 2009). Multimix, a new mode of chatting offered by MXit, allows the user to invite friends to chat together. These friends, however, do not necessarily have to be on each other’s contact list (Chigona et al., 2009).
2.2.2 Adolescents and MXit

Mobile subscribers are growing exponentially in South Africa compared to internet subscribers, as not many Africans have access to the Internet – only one in seven hundred; compared to the one in four Europeans who had access in 2006. It is easy and inexpensive for South Africans to obtain a mobile phone contract, as they are possible to purchase with a store credit card, available at clothing department stores and one receives a mobile phone as part of the mobile phone contract (Bosch, 2008). Adolescents in South Africa have not been left behind in this technological age as there was a cellphone explosion in Africa in the 1990’s (Bosch, 2008; Thomas, 2006). The main group of members who form part of the South Africans who use MXit are between the ages of 12 to 17 years, followed by the second largest group of 18 to 25 year-olds (Thomas, 2006). According to the present author, instant messaging is especially appealing to the adolescent group as it has many more advantages than other forms of communication. It is, for example, possible to make immediate contact with another person, the communication device, namely the mobile phone is accessible to most adolescents and the costs of sending a message are minimal in comparison to other means of communication. The mobile phone does not limit movement and one is thus not bound to specific locations during contact. It is also a way of interacting silently and non-intrusively while in the presence of others. These conversations may be considered private and may even contain an element of intimacy.

Previously on MXit, one was able to only send or receive text messages but, with the latest upgraded version of MXit, one is able to send files such as images, small music clips and documents. It is important to note that this communication is only possible between known contacts (Ndebele, 2007). According to Tufte (2006) and Flanagin (2005), girls in general are inclined to use their cellphones more often than boys. They use it to maintain intimacy in their relationships, to express affection, to be fashionable, for relaxation and entertainment and to socialise (Flanagin, 2005; Tufte, 2003). The mobile phone has become particularly useful for adolescent girls in
initiating and exploring relationships with the opposite sex. It allows them to flirt while still feeling secure and in control as they are able to avoid the emotional energy that often intensifies during direct contact (J. G. Howcroft, personal communication, October 27, 2010). Girls basically use social networking sites to reinforce friendships, while boys use these sites for flirting and making new friends (Takahashi, 2008). South African teenage girls, especially, are beginning to use their mobile phones for entertainment, that is, to chat, but also to listen and to share music, which replaces the iPod or MP3 player which may not be within their financial reach. Local musicians are now releasing and making new tracks on their albums available to be downloaded via MXit. Some musicians, such as Mandoza, a South African kwaito artist, are using MXit to communicate live with fans and thereby promote upcoming performances and albums (Bosch, 2008).

GeminIT conducted a survey and found that over 70% of the chats on MXit were about sex and the balance were about sport, hobbies, education, jokes and politics. This raises cause for concern amongst parents of teenagers who are using MXit, as they are unable to monitor their children’s conversations and actions (Ndebele, 2007). On the other hand, parents may experience a false sense of security that their adolescent has a mobile phone with them while being in unsupervised spaces (Klamer, Haddon, & Ling, 2000). The Sunday Times of 27 May 2007, featured an article headed “MXit at centre of nude teen photos uproar”. In the article a parent is quoted as saying: “I am worried because most of our kids use this thing. I know it’s a cheap way to chat but, gosh, it’s becoming a cheap porn site as well.” According to a spokesperson for the South African Police Service, it is not possible to monitor chat sites and users of MXit as they are unable to determine the location where the person has logged in. The author of the Sunday Times article further mentions that Mxit has responded to these concerns by admitting that they have an educational role to play concerning their teenage users, but are nevertheless encouraging parents to teach their children to know how to be safe and to be constantly on guard when communicating online. A Parent’s Guide to Mxit is now available on the internet (Bosch, 2008).
Grinter and Palen (2002) noted that all participants use IM for homework support, while simultaneously engaged in other activities. This finding was supported by other studies by Lenhart et al. (2001) and Nardi, Whittaker and Bradner (2000). In a recent study conducted on South African adolescents, it was found that the participants consider MXit to be an integral part of their lives and their routines. Some of the participants admitted to being dependent on MXit and indicated high levels of commitment to MXit. It has been suggested that the youth’s use of MXit is “ritualistic as well as instrumental – a natural part of their daily rhythm and something that contributes daily to their lives” (Chigona et al., 2009, p. 8).

This chapter has thus far explored the nature of instant messaging and how it fits within the context of the adolescent’s world. The nature of communication will be now be explored, as well as how instant messaging meets the need for communication.

2.3. COMMUNICATION

“Communication is a means of regulating transactions of all types of behaviour and of maintaining social order and control” (Scheflen, 1974, p. 4)

Communication is considered an important human survival skill that helps one to stay in touch with the outside world (Huebsch, 1995). It is essential for social functioning and therefore impossible to exist without (Cherry, 1966; Huebsch, 1995). As societies and individuals advance, they become more dependent on the complex communication systems and advanced technology that they have developed for the examination, discussion and solution of problems (Dean & Bryson, 1961).

2.3.1. The Process and Nature of Communication

Communication occurs when a person receives, interprets and responds to stimuli, such as information, thoughts, feelings or ideas that are sent by another person (Huebsch, 1995; Taylor et
It is a dynamic process as each time an interaction occurs something new is formed or created (Hannemann & McEwen, 1975; Taylor et al., 1983). It is also an interactive process as the different elements which are involved affect each other in a series of interactions (Hannemann & McEwen, 1975).

In 1942, Gregory Bateson and Paul Watzlawick, members of the Palo Alto group, working at the Mental Research Institute of Palo Alto, California, turned away from the linear model of communication and focused on the retroactive, circular model which was proposed by Norbert Wiener (Littlejohn, 1999; Mattelart & Mattelart, 1998). According to this model, the receiver is as equally important as the sender. They asserted that Wiener’s model was more suited to studying communication in the social sciences whereas the mathematical model was more applicable to the telecommunications engineers by whom and for whom, it was designed (Mattelart & Mattelart, 1998).

In Pragmatics of Human communication, Watzlawick, Beavin and Jackson (1967), all colleagues of the Palo Alto group, suggest five axioms of communication. These five axioms will be discussed below as they serve as a guide to this research in terms of the nature of communication and how it may be relevant to female adolescents using instant messaging as a form of communication in their relationships.

One cannot not communicate

This axiom implies firstly, that all behaviour is communication and secondly, that individuals have an influence on people’s perceptions, regardless of whether it is intentional or not (Littlejohn, 1999; Mattelart & Mattelart, 1998). It needs to be noted, however, that for communication to occur, there has to be at least one person present (Mattelart & Mattelart, 1998).
Every conversation, no matter how brief, involves two messages –

A content message and a relationship message

During interaction the person is giving information or a content message, while simultaneously also ‘commenting’ on the information at a higher level. This process, which is often nonverbal, is referred to as the relationship message or metacommunication. A study on the effect of nonverbal behaviours on perceptions found four behaviours, namely, proximity, smiling, touching and eye contact to be the most significant in metacommunication. Proximity is used to communicate attraction, trust, dominance, persuasiveness and aggressiveness. Proximity, touching and smiling are used to communicate intimacy, while smiling is also used to communicate emotional arousal, composure, formality and liking. Eye contact intensifies the effect of other nonverbal behaviours (Burgoon, Buller, Hale, & deTurck, 1984; Littlejohn, 1999). MXit is only able to convey content messages, which means that the relationship message is lost in this process, as it is nonverbal in nature and not observable via MXit. One respondent in a study reported that “she was able to, not only to talk about a richer variety of topics with her best friend due to the many reference points they shared, but also able to discuss these topics in a ‘softer and sweeter’ tone. She noted her tendency to give shorter, more pointed answers to peers she had less interest in talking to” (Lewis & Fabos, 2005, p. 484). IM also allows one, in an attempt to create a positive image, the opportunity in the communication process, to conceal true emotional reactions which online peers may dislike (Chigona et al., 2009).

Interaction is organised into meaningful patterns by the communicators

The organisation of interaction into meaningful patterns is referred to as punctuation, as interaction sequences are not merely a string of verbal and nonverbal behaviours, but just like sentences, they need to be punctuated. This is because certain behaviours are responses to others and therefore need to be grouped or punctuated into larger units in order to be able to define the
meaning of the entire set of actions. The communicators meanings’ of the interactions may differ, however, as they may group the behaviours differently - according to their personal perceptions (Littlejohn, 1999).

**People use both digital and analogic codes**

Digital signs communicate the content of the message whereas analogic codes communicate feeling and connotations and are essentially the medium for relationship messages. Both these codes are used together and it is not possible to separate them in ongoing communication, as a person will be communicating the content of the message digitally, while simultaneously communicating the relationship analogically (Littlejohn, 1999). One participant in a study by Lewis and Fabos (2005) reported that a disadvantage to using IM, compared to phone conversations or face-to-face contact, is that it is not easy to “communicate sarcasm and other voice tones” (p. 483). She did, however, state that by using various colours and font sizes, one is able to express and indicate to the receiver more emotional content.

**Communicators respond similarly to or differently from one another.**

The relationship during interaction may either be symmetrical or complementary. If the two communicators behave similarly towards each other, the relationship is symmetrical, but if the communicators behave very differently and opposite to one another, the relationship is considered a complementary one. An example of a complementary relationship may be one where one partner is domineering and the other is submissive. A transitional state exists when the partners respond differently, but not opposite to each other (Littlejohn, 1999). It was found by Bosch (2008) that teenage girls are inclined to spend many hours chatting on MXit and that their relationships may be symmetrical in nature. The nature of the conversations centred on giving, asking for advice, gossip and small talk. Johnson (2003) refers to this activity as a mere information carrier which does not
have content or function except to maintain a social bond. One participant in a study by Bosch (2008) explained that their conversations are mostly superficial and that they are inclined to generally gossip, talk about food and relationships.

2.3.2 Elements and Influences in Communication

Winkin (1984) stated that even the most minimal situation of interaction is so complex that it is not possible to reduce it to two or three variables operating in a linear fashion. One needs to consider the levels of complexity, multiple contexts, as well as circular systems when researching communication. Research did not merely focus on a few variables of the situation in isolation but was able to consider the situation of interaction as a whole by combining concepts and models from the systems approach, as well as from linguistics, which is the science and study of language and logic, which is the study of the principles of reasoning (Heinemann, 1984; Mattelart & Mattelart, 1998).

Many elements and influences therefore come to play in the communication process such as the emotive, cognitive, nonverbal and contextual elements as well as the influences of emotion, expectation and language (Cherry, 1966; Fourie, 1996; Taylor et al., 1983). These various elements will be discussed next in order to shed more light on their influence in the communication process.

Nonverbal Elements

Communication is not limited to the verbal elements such as speech and writing, but is enhanced by and includes the nonverbal elements which consist of gestures such as smiles, frowns and handshakes, sign language, facial expressions, voice, culture, space, time, touch, dress, accessories, appearance and even silence (Cherry, 1966; Fourie, 1996; Huebsch, 1995).
Cognitive and Emotive Elements

The factual and informative part of the message is referred to as the cognitive element. The emotive elements in a message reveal the communicator’s personal feelings about that which is being communicated at that time (Fourie, 1996). The emotional influences, on the other hand, refer to the emotional state of the receiver of the message at that specific moment which tends to influence how he/she will perceive the sensations. If, for example, the receiver feels at fault or defensive about something the source of the message did, then a neutral or even positive message may be interpreted as criticism (Taylor et al., 1983).

Context

All communication takes place within a context which influences the meaning of the message sent or received and perceived (Taylor et al., 1983). These contextual elements, which include the situational, physical and psychological circumstances of the receiver and those of the sender of the messages, influence the nature, content, form and meaning of communication (Fourie, 1996). The physical aspects refer to the external elements outside of the sender and receiver, such as the actual physical setting, the number of people present, light, temperature, humidity and background noise. The psychological aspects, which refer to what is happening in the minds of the communicators, influence the perceptions and interpretations of the meanings of the message (Taylor et al., 1983).

Contextual elements may either be positive, as it may be used to interpret messages, or negative, as it may merely hinder the communication process. The effects of a situation on the process of communication may be referred to as noise. Taylor et al. (1983) define noise as “something in the situation which causes intended and perceived messages to differ widely” (p. 12).
Expectations and Language

Expectations influence perception (Taylor et al., 1983). Language, in the form of the labels one gives things, has a significant influence on how one perceives them. Hanneman and McEwen (1975) refer to a statement by Wittgenstein on language: “the limits of my language are the limits of my world” (p.27), which implies that if one does not have a label for an experience, one is unable to recognise it and one’s world is thereby limited.

2.3.3 The Three Levels of Criticism

Content, form and substance are aspects of every message used in communication and therefore need to be considered when discussing communication. “Content is the subject of the communication, the form is the way in which the content is expressed and the substance is the material from which, by means of which and/or on which the message is formed” (Fourie, 1996, p. 13). The form and substance of a message are most important to consider as they always have an effect on meaning. Content, form and substance are known as the three levels of criticism which form the starting point for analysing a message or an act of communication. The analysis is done by critically describing, interpreting and evaluating these three levels as well as their influence on the meaning of the communication act/message (Fourie, 1996).

The three levels of criticism may be employed to analyse the process of communication, in an attempt to explore and describe the effects of IM on relationships of adolescent females.

2.3.4 Classification of Communication

There are four types of communication, namely, mass and media, intrapersonal, extrapersonal and interpersonal communication (Huebsch, 1995). Mass and media communication involves messages being transmitted through the media, such as radio, television, books and internet to a large mass of people. Intrapersonal communication occurs within a person in the form of inner
monologues and reflection and indicates how one will communicate with others. This type of communication affects an individual’s self-image, self-determination and self-motivation as the person constantly evaluates himself/herself according to stimuli from the outside world, such as the perceptions others have of him/her, as well as present and past influences and experiences, which include his/her failures and successes. Extrapersonal communication is the act of communicating with an animal or non-living object (Huebsch, 1995).

The process of two or more people interacting directly with one another is referred to as interpersonal communication (Taylor et al., 1983). It may also be referred to as face-to-face or person-to-person communication (Huebsch, 1995). According to Littlejohn (1999) relationships are at the core of interpersonal communication. As this study intends to explore interpersonal communication specifically, the next section will provide a discussion on relationships.

2.4. RELATIONSHIPS

“Interpersonal relationships are not a luxury. They are a necessity” (Johnson, 2006, p. 12).

Relationships are formed when one has frequent communication with the same individuals over time and anticipate that contact will be ongoing in the future (Argyle & Henderson, 1985). A relationship may therefore be defined as two people who believe that certain behaviours will take place based on the pattern of interaction between them (Littlejohn, 1999). A relationship, like communication, is dynamic as the people involved in the relationship are constantly creating new expectations, reinforcing old ones or changing existing patterns of interaction (Hannemann & McEwen, 1975; Littlejohn, 1999).

According to Argyle and Henderson (1985) it is beneficial to have relationships, such as marriage, a supportive social network and many friends, as it promotes greater contentment, better physical and mental health, as well as longevity. A person lacking relationships is prone to experience loneliness, stress and anxiety and may resort to excessive use of tranquillisers, alcohol,
cigarettes and non-prescription drugs in an effort to numb these negative experiences (Nelson-Jones, 1989).

2.5. THE LINK BETWEEN COMMUNICATION AND RELATIONSHIPS

“In terms of human sexual development; how do you do that without that engagement, without body language? What the body is saying is much more powerful than what the lips are saying” (Guvi, 2007, p. 17).

The ability of the adolescent to communicate is very important as it affects the identity of the teenager as well as the manner in which relationships are maintained. Communication through social interaction with peers and significant others, becomes a catalyst in the development of linguistic, social, emotional and cognitive skills (Guvi, 2007).

In order to justify the exploration and discussion of both communication and relationships in the present research, as well as the value of understanding them, it is necessary to consider a theory that brings the two together. For this purpose, Littlejohn’s explanation on the link between communication and relationships, which refers to the relational communication theory, will be discussed next (Littlejohn, 1999; Montgomery, 1992). The relational theory states the following:

2.5.1 Relationships are always connected to communication and cannot be separated from it.

Communication and relationships are intertwined (Littlejohn, 1999). This means that relationships cannot exist without interpersonal interaction and are therefore considered central to the study of interpersonal communication (Nelson-Jones, 1989).

In her book, Adolescent girls and the world of instant messaging, Thiel-Stern (2008) refers to a study conducted by the Pew Research Center on adolescent Internet use which determined that at least 13 000 000 teenagers use IM. It is the best mode of communication for teenagers who use it to maintain continuous communication and contact with friends while simultaneously surfing the
Web, writing email, watching television and still being in the presence of their parents. This communication tool facilitates a richer social life as it is used to hook up, break up, get information from a friend, organise dates and activities and debrief a friend in need of it. The teenager’s social world is not limited to schools and socials, but may be extended to home life and may be conducted privately, in the comforts of the bedroom and home (Thiel-Stern, 2008). A study conducted by Bryant et al. (2006) yielded the following results regarding the most popular reasons for using IM: 92% used it to keep in touch with friends, 88% used it to make plans with friends and a staggering 60% used it to play a trick on someone and 44% used it to ask someone out. 42% used it to write something you wouldn’t say in person and 38.5% used it to send non-text information. 24% used it to break up with someone.

### 2.5.2 The nature of the relationship is defined by the communication between its members.

The relationship between two people results from his/her interactions but is defined by his/her perceptions (Littlejohn, 1999). One forms expectations about a relationship according to one’s perceptions of the other person’s conduct and their feelings (Littlejohn, 1999). Communicative behaviour is therefore affected by an individual’s experience of the relationship with the other person (Laing, 1967). Behaviour differs from experiences as it is observable, while experiences are internal, as they involve perceptions and feelings (Littlejohn, 1999).

### 2.5.3 Relationships are usually defined implicitly rather than explicitly.

There are two levels of perspectives that define a relationship: direct perspectives and metaperspectives. Direct perspectives refer to behaviours which are directly observable and possible to interpret. If one is able to imagine what the other person is thinking or feeling and to give it meaning, then one is able to experience what they are experiencing. This is referred to as metaperspectives (Laing, Phillipson, & Lee, 1966). Both the communicator’s direct perspectives as
well as his metaperspectives are involved in defining a relationship. The health of a relationship depends upon the accuracy of the communicators’ metaperspectives as well as their perceptual accuracy (Littlejohn, 1999).

Nardi (2005) found that affinity, attention and commitment are three relational aspects of communication that prepare people for further communication. Affinity may be defined as “feelings of connection between people” (Nardi, 2005, p. 99). Activities of social bonding such as touch, eating and drinking, sharing experience in a common space and informal conversation promote affinity. Such bonds are maintained by nonverbal activities involving the body, such as touch, (specifically the type considered as positive within a culture), making eye contact and by low-content informal conversation, such as greetings, jokes and small-talk. Commitment is best established when the person is present, face-to-face, in shared space. Attention is managed through activities such as finding the intended receiver of the message, using eye contact to gain attention and/or determining whether the person is available for interaction.

2.5.4 Relationships develop over time through a negotiation process between those involved.

Communication is at the heart of the initiation, development and decline of all relationships yet what makes each relationship unique, is the quality and quantity of communication (Littlejohn, 1996; Nelson-Jones, 1989).

Taylor et al. (1983) state that one’s self-concept, which consists of specific and general views of oneself, “is the most important variable in communication” (p. 50) and affects one’s levels of social confidence, which in turn, then influences how one communicates with others. By “honing” one’s communication skills, one is able to “develop self-identity, establish social relationships with others and provide the basis for collective social activity” (Haslett & Bowen, 1989, p. 27; Thurlow, 2003, p. 50).
The exchanges of personal information, as well as the element of uncertainty, both play a vital role in the development of all relationships. One requires information from others and one in turn, gives information about oneself. During interactions, in the initial part of a relationship, people will talk a lot in order to gather a lot of information, but as uncertainty diminishes, so does the questioning and other information-seeking strategies (Berger & Kellerman, 1983; Littlejohn, 1996). As the relationship develops, the nature of communication and interaction changes from initial impersonal exchanges of information to more intimate exchanges (Littlejohn, 1999). This process of increasing disclosure and intimacy in a relationship is referred to as social penetration (Taylor & Taylor, 1973).

Social penetration promotes depth, privacy, closeness, familiarity and the security of being able to reveal both one’s strengths as well as one’s vulnerabilities, to another person (Nelson-Jones, 1989). The breadth and depth of exchanges in information increases as the relationship develops. Breadth refers to the variety of topics included when providing information and depth refers to the amount of information that is volunteered concerning each topic. This process of communication is considered to progress through levels increasing in breadth and breadth as the relationship develops and becomes more intimate (Littlejohn, 1996).

According to Feldman and Elliott (1990) young people are of the opinion that reciprocity, similarity, self-disclosure and emotional support ideally form the essential basis for both a relationship as well as for communication. Thurlow (2003) found that it was important to be a “good listener, attentive, responsive and nonjudgmental” (p. 54).

**2.6. GENDER DIFFERENCES IN COMMUNICATION AND RELATIONSHIPS**

“I found girls to be obsessed with complicated and intense relationships. They felt obligated and resentful, loving and angry, close and distant, all at the same time with the same people. Sexuality, romance and intimacy were all jumbled together and needed sorting” (Pipher, 1996, p35).
According to Nelson-Jones (1989) men and women tend to be brought up with different relationship skills, resources and deficits. Argyle (1984) found women to be more socially competent than men in a number of areas. They are better at sending and receiving nonverbal communication, are more rewarding and polite, tend to disclose more, form closer friendships and are better able to reduce the loneliness of others. Women are inclined to use conversation as a tool for facilitating social interaction whereas males prefer to use it to convey information (Baron, 2004). A study conducted by Baron (2004) found that women are indeed more conversational than men.

Thurlow (2003) observed that teenage boys and girls understand, value and pursue communication differently according to their experiences and socialised values. Noller and Bagi (1985) as well as Coleman and Hendry (1999) suggest that girls are more socially skilled in interpersonal relationships as their relationships are deeper and more emotional and personal. They use language to “establish, nurture and develop personal relationships” (Holmes, 1995, p. 2). Girls tend towards a “more affective notion of real communication and prioritise friendships and the interactional basis of communication which include personal qualities, trustworthiness, problem solving and understanding” (Thurlow, 2003, p. 55). Girls are inclined to establish good communication and friendships based on intimacy while boys’ friendships are based on mutual activity and superficial contact (Catan, Dennison, & Coleman, 1996; Thurlow, 2003). They prefer impersonal contexts and their relationships tend to be instrumental and action-centred. Their conversations are merely “a means to an end” (Holmes, 1995, p. 2). According to Thurlow (2003) boys “tend towards the more effective good communication and prioritise more transactional concerns, thinking in terms of computers and technologies of communication and more technical or formal qualities such for example skilful orator, being knowledgeable and speaking good English” (p. 55).
2.7. ADOLESCENT RELATIONSHIPS AND COMMUNICATION

“The image of myself which I try to create in my own mind that I may love myself is very different from the image which I try to create in the minds of others in order that they may love me” (H. Auden).

Thurlow (2003) considers communication as a social resource as well as being instrumental in development. Communication is essential for the maintenance of interpersonal relationships, as well as the construction and maintenance of an individual’s identity (McEwen, 1975; Thiel-Stern, 2008). In adolescence, interpersonal relationships help the teenager to develop a positive and coherent identity, so that adulthood may be entered into confidently (Craig & Baucam, 2002; Johnson, 2006).

Communication, the process of passing on information, thoughts, feelings or ideas, illuminates the self’s relationship to others (Fogel, 1993; Huebsch, 1995). As adolescents interact socially, they project aspects of their internal identity into a social identity for others to perceive. In order to assess what is appropriate, they draw from situational and interpersonal contextual cues. In other words, social interaction is a negotiation between individual identities in a given environment made possible through communication (Johnson, 2003). Lewis and Fabos (2005) found that when adolescents have “less freedom time in social lives, their use of IM seems to increase. For instance, all of the participants said that IM use decreases in the summer when they are able to see their friends face-to-face more often” (p. 487). A study conducted in the United Kingdom on young people found similar results: ICT (information and communication technology) use was seasonal and adolescents preferred to spend less time indoors and online during summer (Valentine, Holloway, & Bingham, 2000).

One of the most significant implications of communications technology is that it could be changing the nature of social interaction and relationships and may thereby, have a negative impact on social skills and relationships (Chigona et al., 2009; Guvi, 2007). According to certain studies,
SIT (socially interactive technologies) “draw users away from real physical interactions that they had possessed with their family members or with their close friends and acquaintances” (Chigona et al., 2009, p. 4). Social isolation rather than the formation of mature intimate relationships may possibly result from living in an electronic world of virtual reality and interacting within a cyber community (J. G. Howcroft, personal communication, October 27, 2010). It is reported that the benefits of online interactions are of short duration. After approximately two to three years users usually start feeling down, alone and social interaction eventually decreases (Kraut, Kiesler, Boneva, Cummings, Helgeson, & Crawford, 2002).

2.8 CONCLUSION

This chapter discussed instant messaging, specifically MXit, as well as communication and relationships. The aim of this chapter was to explore the nature of these three topics in order to gain a better understanding of how they are connected and affected by each other. The next chapter aims to explore and discuss adolescent development in the context of relationships and communication.
CHAPTER 3

THE DEVELOPING ADOLESCENT AND THEORETICAL FRAMEWORK

3.1. INTRODUCTION

“How long is a girl a child? She is a child, and then one morning you wake up she’s a woman, and a dozen different people of whom you recognize none” (Louis L'Amour).

The word ‘adolescence’ is derived from ‘adolescere’ which means, ‘to grow into maturity’ in Latin. It is the phase between childhood and adulthood which begins at the age of about 12 years and continues until approximately the 18th year. Characteristics that are considered childlike, develop during adolescence into those that are considered adultlike (Lerner et al., 2001; Papalia et al., 2002). Peterson (1988) refers to it as a period beginning in biology and ending in society, during which time significant biological, cognitive, social, psychological and emotional changes occur (Lerner et al., 2001; Papalia et al., 2002; Santrock, 1981). Kiuru (2008) mentions that many major changes occur specifically in four life domains of the adolescent: puberty and physical growth, abstract thinking and reasoning, family and peer relations and the sociocultural environment. These dramatic changes all require adjustment changes in the adolescent, in the family, in the peer group and even institutional changes (Lerner et al., 2001). According to Pipher (1996) the best way to understand adolescents is to think of them as continually on LSD as they present with similar behaviour: they are intense, unpredictable, internal, often cryptic or withdrawn and dealing with a different reality.

According to Offer (1969) there are many pathways through adolescence. There is diversity in the development of each adolescent as it is a period of continuous change and transition between adolescents and their contexts. The biological, cognitive, psychological and societal factors of the adolescent do not operate in isolation. They tend to influence one another as they are all connected. They play a role in interindividual (between-person) differences as well as intraindividual (within-person) changes in the development of each teenager. Other factors such as class, race and/or
ethnicity as well as distinct families, communities or sociocultural settings, also play a role in shaping the development of the adolescent. All these factors ultimately prevent the possibility of making generalizations regarding the development of adolescents. There is therefore not one major factor responsible for change and as a result, there is variability in even normal adolescent development (Lerner, 1987, 1995; Lerner & Lerner, 1983; Lerner et al., 2001).

There has, however, been growing scientific interest in the study of adolescence as society acknowledges that this period, regardless of diversity in development, presents specific physical, as well as intellectual and professional developmental challenges. Examples of these challenges experienced by each adolescent are pubertal change, the capacity to reproduce, the development of a self-identity and the adult roles that the adolescent is expected to play as a productive and healthy member of society (Lerner et al., 2001).

This chapter will focus on exploring the development of the teenager in general and how it has an impact on the adolescent’s development of independence, self-esteem and intimacy (Turner, 1996), domains which are linked to the use of MXit by adolescents.

3.2. COGNITIVE DEVELOPMENT

“No longer a child; not yet an adult” (Kimmel & Weiner, 1995).

Cognitive development refers to the development of cognitive abilities and capacities from birth to old age (Colman, 2003). According to research on cognitive development, interconnected multilevel changes in thinking occur during adolescence (Graber & Petersen, 1991). The study of cognitive development in childhood is a relatively new field of research that began in the late nineteenth century by G. Stanley Hall. He was one of the first researchers to encourage and study child development in a scientific manner and through his activities, he played a founding role in psychology as a scientific discipline (McShane, 1991). Adolescence, a two-volume series of his work, was published in 1904 (Theokas et al., 2005). He became the first president of the American
Psychological Association as well as the founder and first editor for both the *American Journal of Psychology* as well as for the *Pedagogical Seminary*, which is a journal devoted to child studies (McShane, 1991).

Alfred Binet, at about the same time in Europe, was one of the first to conduct experimental studies on children. He founded and edited *L’Année Psychologique*. But his greatest claim to fame is possibly the Binet-Simon scale, which was the very first standardised intelligence test that he designed along with Theodore Simon (Colman, 2003). James Mark Baldwin, on the other hand, was the first modern developmental theorist and in 1895, he published a work on cognitive development titled *Mental Development in the child and the Race*. Baldwin co-founded and co-edited, along with James McKeen Cattell, the *Psychological Review* and *Psychological Bulletin*, both of which focused on theory. Jean Piaget, largely influenced by Baldwin’s research, presented his own theory, now referred to as *Piaget’s theory*, in three volumes in the 1930s. It became the most popular theory of its time, but only in Europe, as an American, John B. Watson, founded behaviourism, which became the dominating theory in America from the 1920s to the 1960s (McShane, 1991). The radical behaviourist theory, proposed by B. F. Skinner in the 1940s, assumes that behaviour results from environmental influences and has nothing to do with internal factors (Colman, 2003; Meyer et al., 2003).

Until the 1960s, no other significant theories on cognitive development emerged. The modern theories that became salient thereafter were Piaget’s theory and the information processing theories of cognition (McShane, 1991). Piaget’s theory stimulated much empirical research, as it was the only developmental theory of cognition that held an integrative view of human nature and nurture at that time (Lerner et al., 2005). As scientists began testing Piaget’s theory in the 1960s, they discovered that some of their results could not be accounted for by his theory. They then began to draw from the theories of the information processing approach for new theoretical interpretations. This approach, which is a combination of various disciplines
(communication theory, the theory of computation, artificial intelligence and linguistics), is not considered an alternative to Piaget’s theory but rather a complementary theory. Piaget’s theory is the most popular of all other theories when it comes to studying and viewing cognitive development. It will thus be discussed next in an attempt to understand adolescent cognitive development (McShane, 1991).

Piaget’s theory proposes that logical thinking develops according to a natural, sequential progression of stages over time (Sternberg, 2006). Children progress through three stages of thinking, starting with sensorimotor activity at birth, progressing to pre-operational thinking and finally operational thinking. These three stages of development are universal in all cultures. The rate at which the children move through the various stages differs, however, from culture to culture, depending on the quality of environmental stimulation. It was noted that formal operations are non-existent in some non-western cultures that do not include abstract thinking. The environment is important for the development of each of the stages which the child progresses through, as it provides mental stimulation and aids in sustaining that development. A study conducted among the French-speaking in Martinique demonstrated there was a four-year delay in the acquisition of operational thought compared to the French-speaking in Switzerland and for the Teheran, in Iran, there was a two-year delay. These findings suggest that cognitive development results from two factors: internal maturation of the child and external stimulation by the environment (Sutherland, 1992).

Adolescents enter the highest level of cognitive development, the formal operations stage, at around the age of 11 years (Papalia et al., 2002). Once they reach this stage, they are able to think in a logical way and at an abstract level without the need to rely on concrete props which means that their thinking is no longer limited to reality or to personal experience (Papalia et al., 2002; Sutherland, 1992). The ability to think in symbolic terms is not present in the preceding concrete stage but emerges during this stage. For the first time the adolescent is able to employ deductive
reasoning, deduce an implication from a general rule, understand and use formulae in physics and grasp historical concepts of time, allegories and other similar literary forms. Previously difficult religious concepts such as the Holy Trinity can now also be understood (Sutherland, 1992). In general, teenagers are capable of performing mental tasks quicker, more efficiently and with less effort than before (Mussen et al., 1984). As adolescents begin to reason about moral problems at a more abstract level, they no longer understand rules and authority in absolute terms. They begin to challenge the values that they internalised from significant others as children during the preoperational stage (Sutherland, 1992). They have a more stable intellectual view than before, are capable of making complicated moral judgements as well as realistic plans for the future despite the fact that they may appear immature in some ways (Papalia et al., 2002; Sutherland, 1992).

The shift to formal reasoning in adolescence is facilitated by two factors: brain maturation and expanding environment opportunities. Both these factors are essential requirements for cognitive development, as adequate brain maturation may permit formal reasoning, but it may not be attained without appropriate environmental stimulation (Papalia et al., 2002). The social context, in particular, is necessary for formal operations to develop (Sutherland, 1992). This new way of thinking, that is, formal operational thinking is inclined to bring with it a few problems of its own for adolescents (Mussen et al., 1984). They become very aware of themselves as they begin to reflect upon and examine themselves and their relationships (Sutherland, 1992). They are suddenly conscious of their audience and particularly concerned with how others perceive them (Papalia et al., 2002; Rankin, Lane, Gibbons, & Gerrard, 2004). They become inwardly reflective, analytical and egocentric, as they become absorbed with their own thoughts and even thought itself. This intensifies their self-awareness of self as they assume that others are as critical of them as they are of themselves (Mussen et al., 1984).

By moving away from the concrete, by reasoning, concentrating and by trying out hypotheses, adolescents start developing their own identity. They question who they are, what they are thinking,
what their attitudes, opinions and assumptions are (Mussen et al., 1984). Teenagers, in their search for their own identity, are inclined to engage differently with peers than they would with adults. They may include slang expressions in their language in an attempt to develop an independent identity that separates them from the adult world. In this manner, they display their generation’s unique view on values, tastes and preferences. They develop the skill of perspective taking, which means that they are able to understand other’s point of view and level of knowledge and are able to alter their speech accordingly (Papalia et al., 2002).

3.3. SOCIAL DEVELOPMENT

“A friend is one to whom one may pour out all the contents of one’s heart, chaff and grain together knowing that the gentlest of hands will take and sift it, keep what is worth keeping and with a breath of kindness blow the rest away” (Arabian proverb).

The ability to cope with the process of sexual maturation, the skill of being able to cooperate, interact and participate in healthy peer relationships along with developing independence from parents, are major tasks which teenagers need to succeed at before they are truly considered adults (Rubin, 2007).

During adolescence, friendships with peers become significantly more important than all other relationships (Rubin, 2007). As teenagers become increasingly more independent from their parents and their interests change, it becomes easier for them to turn to their peers for support (Turner, 1996). Peer relationships become important, as they tend to fill that void of feeling misunderstood and unloved (Gouws et al., 2000). Their friends are usually experiencing similar issues, can relate to what they are feeling and always seem to be available for support (Gouws et al., 2000; Turner, 1996). They prefer to seek their peers’ advice and engage in activities that include their peers, rather than adults or acquaintances (Coleman & Hendry, 1999; Kiuru, 2008). Adolescent girls in general
are considered by Pipher (1996) to make a shift from focusing on achievement to focusing on affiliation.

Adolescent peer relationships operate on three levels: dyads, cliques and crowds. Best friendships and romantic relationships operate on the dyadic level and consist of reciprocal peer interaction. Peer groups, which fall in the clique level, consists of a small group of peers who ‘hang around’ together and have a close relationship. The crowd level consists of peer groups who join collectively as a result of being similarly stereotyped individuals. Adolescents who share the same sociodemographic, behavioural and personal characteristics are often peers who belong to the same group. Peer groups may also shape and reinforce adolescents’ behaviour as the members may either have a positive or negative influence on their peers. Friendships between antisocial young people may, for example, facilitate deviancy training for delinquent and antisocial behaviours (Kiuru, 2008).

A friendship may be distinguished from all other relationships as a close, reciprocal and voluntary dyadic mutual relationship. Its function in adolescent development is to facilitate the integration of logic, emotions and self-exploration. But perhaps its most important function is that it provides a context of emotional security outside of the family in which adolescents may explore the impact of their behaviours on themselves, their peers and their environments (Rubin et al., 2005). Through peer interactions, teenagers are able to gain experience, attitudes and master social skills, such as being open, caring and trusting. It is also through peer relationships that adolescents learn to begin, maintain and terminate relationships (Guvi, 2007; Kiuru, 2008).

According to Kiuru (2008), an adolescent’s development may be influenced by the quality of the friendship and the characteristics of their friends. A high quality friendship is one where the needs for companionship and support are met and where there is respect and admiration for each other (Berndt, 1996; Bukowski, Hoza, & Boivin, 1994). Sullivan and Piaget both believe that mutual respect, equality and reciprocity develop from peer relationships. Sullivan, however, further
suggests that relationships with close friends in particular, are important for the emergence of these qualities (Rubin et al., 2005). Reciprocity, which involves giving and supporting one’s friends and receiving the same in return, is particularly important in a friendship (Krappmann, 1996; Laursen, Noack, Wilder, & Williams, 2000; Mokhtari, 2008). Other relationship qualities valued by adolescents are that friends have similar interests and are understanding and empathetic (Hartup, 2001). In comparison to boys, adolescent girls are inclined to rate their friendship quality more positively, engage more in disclosure in their peer relations, consider peer groups more important and are more connected to their peer networks (Kiuru, 2008).

Adolescents who lack interpersonal skills struggle to establish and maintain friendships (Mokhtari, 2008). Interpersonally competent teenagers are able to start and sustain interesting conversations, attempt contacting and spending time with friends outside of school, engage in appropriate self-disclosure, display empathy towards others and are able to manage conflict effectively (Buhrmester, 1996). According to Oswald, Clark, and Kelly (2002) positivity, supportiveness, openness and interaction are behaviours that are necessary to maintain a friendship. Positivity refers to behaviours that friends engage in to have fun and make friendship enjoyable, while supportiveness refers to behaviours that provide support in the friendship, such as emotional support. Openness refers to meaningful conversation, such as sharing personal thoughts and interaction includes behaviours, which friends do together, such as going to parties. Newcomb and Bagwell (1995) found that in order to maintain a relationship, one has to be able to manage and resolve conflict.

When one person self-discloses personal/emotional information and the other person responds warmly, a special bond or connection develops, which is referred to as intimacy. Most adolescents consider intimacy an important characteristic in a friendship (Laurenceau, Rivera, Schaffer, & Pietromonaco, 2004). Intimate conversations with close friends promote well-being, an increase in sense of self-worth, academic success and the ability to understand people accurately. It is also a
buffer against maladjustment (Kiuru, 2008). Most of the intimate conversations amongst adolescents are generally about themselves and life events and the most popular topics of conversation range from their appearances, their feelings, their activities, the peers they either like or dislike, family relationships, to sexuality and life plans (Coleman & Hendry, 1999; Woodhead, Faulkner, & Littleton, 1998). Compared to boys, girls are inclined to gossip more about their peers and to have a higher level of disclosure in their friendships (Buhrmester, 1996; Woodhead, Faulkner, & Littleton, 1998).

Friendships do not stay the same and may even change from casual friendship, to intimate friendship, or even the other way around (Mokhtari, 2008; Rosenblatt & Hows, 1995). Adolescent relationships are constantly changing because different friends meet the needs of the adolescent at different stages of development (Brown et al., 1997). In other words, relationships serve different functions at different times in a child’s development (Rubin et al., 2005). The following changes usually occur in relationships during adolescence: peer relations stabilise, peer subcultures develop and romantically and sexually oriented relationships begin to develop (Brown, Dolcini, & Leventhal, 1997). As peers become less similar to each other or less willing to conform to each other, there is an increase in the number of conflicts and a decrease in the frequency of interactions and finally dissolution of the relationship occurs (Kiuru, 2008).

Bosch (2008) found that teenage girls use their mobile phones for social networking, to make new friends, for peer support and to receive and give advice to others. Social networking is made possible for the teenager, in the privacy of her own room, when face-to-face interaction, such as going to parties and social events are prohibited or not possible. An adolescent may have up to 200 MXit friends, most of which they do not know within any other context other than through MXit (Bosch, 2008). These friends are referred to as casual friends and not close friends as they do not maintain frequent contact, engage on a less intimate level and are usually less voluntary in selection. They are merely a source of situational assistance, support and companionship (Adler &
One participant in the study conducted by Bosch (2008) reported having 3 groups of school friends: the first group consists of the friends from her school, the second group is those outside her school and the third group is her old friends from primary school. She then had a fourth group of friends whom she referred to as the ‘come alongs’ – people whom she is friends with but whom she met through another friend. Another participant reported being able to develop a friendship by connecting with them and getting to know them, over MXit. One participant reported that MXit provides a medium for reaching out to others when feeling sad and lonely. It enables her to connect with friends she believes cares about her, especially when her parents criticise her. She is able disclose to her friends and receive advice from them, especially regarding relationships.

MXit has a role to play as part of the teenager’s identity and being part of a group of young people. Teenage girls consider MXit exclusively suitable to the youth and believe that it is only acceptable to communicate with their friends via MXit. Some of the participants expressed horror at the thought of parents using MXit as a communication tool and even more so, them communicating with their parents via MXit. Some of the participants even suggested that there be an age limit to who may log on (Bosch, 2008). According to a study by Ling and Yttri (2002) the mobile phone was seen as a tool for creating a sense of group membership, especially in reference to the older generation.

3.4. EMOTIONAL DEVELOPMENT

“Adolescence is the most influential time in the lives of women and the choices that they make during adolescence have many implications for the rest of their lives” (Pipher, 1996, p. 72).

The development of trust, security, attachment, love, affection, feelings, emotions, temperament, autonomy and concept of self, is collectively referred to as emotional development (Gouws et al., 2000). The brain circuits that are under construction during the teenage years have to
do with impulse control, management of aggression, emotional regulation and self regulation (Walsh, 2004).

Adolescence is a period in which teenagers struggle to cope with the many physical, cognitive and social changes and adjustments, as they all occur simultaneously (Hammar, Ozolins, Idvall, & Rudebeck, 2009; Kinsbourne, 2002; Papalia et al., 2002). They are met with the task of having to reacquaint themselves with their rapidly changing physical attributes and as a result, become preoccupied with their bodies and their images, which further complicates the challenge of developing a positive and independent self (Hammar et al., 2009; Kinsbourne, 2002; Mussen et al., 1984). According Pipher (1996) most adolescent girls are self-absorbed. She states that it is not a character flaw but a developmental stage. As they are acutely aware of their constantly changing bodies and their perceptions of self are not always objective, they come to rely greatly on the responses that they receive from the environment (Huebner, 2000; Mussen et al., 1984). The feedback and opinions from significant others, such as parents and peers in particular, are integrated in this process (Huebner, 2000). Positive parental and peer appraisal is especially important in order to gain confidence and a positive self-image of their new physical self (Mussen et al., 1984). Teenagers are inclined to experiment during this time, with new behaviours and new roles. They ultimately attempt to develop a stable sense of self (Lerner, 2002). The development of a stable sense of sense is important, as the formation of an identity is only possible if one is able to develop a clear sense of self, which has shown to be consistent and relatively stable for some time (Mussen et al., 1984). Adolescents, who are unable to establish a true self-identity, may experience delayed development of, or the hampering of independence, as they are unable to confidently let go of their security of childhood reliance on others (Rubin, 2007). They facilitate the development of independence within the parent-child relationship as they gradually begin to value peer acceptance and popularity. Confidence and self-esteem are both acquired through recognition, approval and support and as time spent with parents decreases, time spent with peers increases (Kiuru, 2008;
Rubin, 2007). Pipher (1996) states that “with adolescent girls relationships are everything” (p. 254). Peer relationships gradually become more established, intimate, powerful and supportive, independence develops as they increasingly assume more responsibility for their decisions and ultimately develop into productive citizens of society (Kiuru, 2008). While peer acceptance in adolescence is important in the development of self-identity and support from close friends boosts self esteem, both have a strong influence on psychological adjustment (Harter, 1997; La Greca & Harrison, 2005). A lack of friends, on the other hand, may lead to rejection, loneliness, low self-worth and depression (Kiuru, 2008).

The parents of an adolescent, nevertheless, still play a crucial role in helping their child achieve independence, have healthy relationships and develop the ability to cope with life. In order to facilitate optimal adjustment, parents need to encourage their adolescent children to engage in age-appropriate autonomy while keeping strong ties to their family (Lerner et al., 2001). Teenagers are inclined to engage in major self-exploration and experimentation, which could be problematic, as it may result in great turmoil within, or risky behaviour, due to their immaturity and inexperience concerning life and adult matters (Papalia et al., 2002). It has been proven that parental influence and involvement has a protective factor and is a deterrent particularly against adolescent high-risk activities (Rai et al., 2003). It is thus crucial that parents support and be involved with their children, as adolescents sometimes unknowingly expose themselves to danger or become involved in risky activities. Some of the parental concerns that are characteristically prevalent during adolescence are pregnancy and a high mortality rate resulting from suicides, accidents and homicides (Papalia et al., 2002).

Adolescents, in general, do experience a constant warm and accepting relationship with their parents (Guerney & Arthur, 1984). Parent-child relationships frequently charged with emotion are rare, as conflict seldom occurs over major dilemmas, but rather over every-day issues such as chores and privileges (Guerney & Arthur, 1984; Santrock, 1996). Parents should thus be alerted
when major parent-adolescent conflicts occur frequently, as they are not normal (Galambos & Almeida, 1992; Smetana, 1988). Loving, caring and trusting parents, who are in constant contact with their children and actively participate in their development, are assisting and supporting them to develop optimally. Parents who are unreceptive towards their children, reject and neglect them will cause them to be poorly adjusted (Mussen et al., 1984). Teenagers, who experience dissatisfaction, exploitation, neglect, or a lack of understanding or affection from a parent, may go on to experience problems such as delinquency, feelings of alienation, lack of direction, problems at school and eventually engage in alcohol or drug abuse, running away, or even commit suicide (Mussen et al., 1984).

There are three common styles of parenting: Permissive, Authoritarian and Authoritative. Permissive parents accept the desires and actions of their children and are non-punitive in approach. Authoritarian parents take the opposite approach in that they demand obedience and enforce punitive measures. Behaviour and attitudes are monitored and strictly controlled (Rai et al., 2003). Adolescents may reject their authoritarian parents, as development is limited and restricted as result of the strict rules enforced by their parents. The teenager is inclined turn to peers and others for support and understanding, regardless of whether it may have a positive or negative influence on their behaviour (Papalia et al., 2002). Authoritative parenting is considered the most successful parenting style (Turner, 1996). Supervision and limit setting is done with affection, acceptance and involvement (Rai et al., 2003). Authoritative parenting promotes responsibility, trustworthiness and respect for authority, through the laying down of rules, norms and values. The child is encouraged to negotiate after receiving an explanation but also taught to be cooperative and sensitive to the needs of others. Displeasure expressed at the behaviour of an adolescent has shown to be far more effective than actual harsh punishment (Turner, 1996). This style of parenting is effective as it is a form of socialisation where, through parent-child interaction, the parent models suitable social behavior of rules and standards which the children observe and internalise, leading to self-regulated,
moral members of society (Shantz & Hartup, 1992). It has been proven that this parenting style facilitates academic success in adolescents and is inversely related to children’s smoking behaviours. It has also been reported that adolescent girls who experience less parental support, are more inclined to engage in substance use behaviours (Li, Galbraith, Cottrell, Pack, Harris, D’alessandri, & Burns, 2003; Rai et al., 2003). Authoritative parents facilitate the development of a teenager’s self-image by being actively involved with them, providing structure and supporting the development of independence (Papalia et al., 2002). The development of independence is highly valued in the Western world where society regards self-reliance as important. Teenagers in the Western world may therefore feel greater pressure to resolve this psychosocial developmental crisis than those in a collectivist society (Guvi, 2007).

An area that is of great concern at present is the use of communication technology by adolescents. According to Guvi (2007), experts in the industry, academics and adolescents, are of the opinion that the management of communication technology developments is essential in ensuring that it will not be abused in a manner that will negatively affect the cognitive and physical development of adolescents. Experimenting in the virtual setting with social interactions and identity, may, on the one hand, enable teenagers to explore and get to know themselves, help them work through problems and discover better ways of interacting with others. Communication via mobile, on the other hand, may cause problems in social skills development, such as the inability to express feelings and emotions in the presence of the individual, as well as the inability to handle conflict. Conflict in particular, seems to be manifesting in urban schools as adolescents find it increasingly difficult to communicate and resolve conflicts with others without resorting to violence (Guvi, 2007).

Vulgar language, inappropriate sexual remarks and words of abuse are more readily communicated via IM, as teenagers are inclined to interact without first establishing the emotions behind the messages when they have indirect contact with one another. The implications for
adolescents who do not have regular direct interaction with others, are that they are unable to develop their social and emotional intelligences, as they are not presented with adequate opportunity to continuously assess their face-to-face responses without hurting the other person (Guvi, 2007). It was noted that IM, in particular, has created a worldwide problem, as it has been instrumental in the use of bullying, passing notes and cheating in exams (Bulliet, 2005; Magid, 2001; National Children’s Home, 2005). It was found, however, that IM did not enable or cause any significant change in lying behaviour in comparison to in-person communication (Hancock, Thom-Santelli, & Rithchie, 2004). An article featured in the Citizen, which is headed “MXit ‘slut’ list causes heartbreak” has brought the negative use of MXit to light (Penny, 2009). It mentions that teenagers are using this site to spread rumours and intentionally harm the reputation of peers by circulating an illegal list containing the names, addresses and telephone numbers of girls in Springs who are allegedly ‘slutty’ and ‘willing.’ This article further implies that MXit has the potential to ‘ruin lives’ and that this kind of activity is an ‘abuse of the site and contrary to the terms and conditions’ of the MXit Lifestyle service (Harvey, 2007). Adolescence is a crucial time for developing and acquiring adequate communication skills. The question is whether or not IM is appropriate and instrumental in assisting the adolescent in developing these communication skills.

There is, unfortunately, power in peer relationships that generate negative experiences, as they may do more harm to the already sensitive and unsure image of the teenager. Teenagers can be cruel to each other and may display rejection or contempt of another adolescent who expresses a desire to be part of a group. This may then lead to the development of anxiety and avoidant reactions within a social setting as it affects the self-esteem of the rejected adolescent (Mussen et al., 1984; Santrock, 1996). Adolescence is often perceived as a time of intense social growth but it may also be a time of intense loneliness (Mussen et al., 1984).

It has been suggested that close friendships have a protective mental health function, as their positive qualities are associated with lower levels of social anxiety (La Greca & Harrison, 2005).
According to a study by Gross, Juvonen, and Gable (2002), who researched correlations between measures of social anxiety and closeness of IM partners, participants who felt socially anxious and/or lonely at school on a regular basis, were more inclined to communicate with others whom they were not close to through IM. This result may possibly explain why some teenagers seek interaction with someone other than their peers through MXit. McKenna, Green, and Gleason (2002) stated that those who are socially anxious and lonely are able to express themselves more easily on the internet than they can with those they know off-line. They further explain that there are benefits to this activity as it reduces loneliness and depression and after approximately two years on internet interaction, one’s social circle tends to increase. IM plays an important role in that through self-disclosure to strangers, relationships deepen within a short amount of time (Bargh, McKenna, & Fitzsimons, 2002).

Another concern that has been raised by parents and teachers is that adolescents are too preoccupied with their mobile phones. It has become a problem in schools, as lessons are disrupted and schoolwork and preparations for exams and tests have been negatively affected (Harvey, 2007; Ling, 2000). Schools have even gone as far as to impose fines on such disruptive behaviour (Harvey, 2007). The addictive nature of these interactive technologies is not only isolating adolescents from public places but it has also resulted in a dependency syndrome and withdrawal symptoms manifesting, should these devices be taken away from teenagers (Guvi, 2007). Research conducted on internet-dependent individuals by Young (1998) found that approximately half of this group admitted that they had spent so much time online that they had developed severe work- or school-related problems. Internet-dependent students tended towards a high score on measures of disinhibition. Decreased impulse control and procrastination were traits which were found to be able to predict problematic internet use and abuse (Davis, Flett, & Besser, 2002). The above-mentioned research concerning internet usage may be applicable to instant messaging as well, as both are forms of cyber communication.
A study conducted by Bosch (2008) on South African teenage girls in Cape Town revealed that some of the participants admitted to occasionally spending most of the day on MXit. One participant reportedly spent from seven o’clock in the evening to eight o’clock the next morning, chatting non-stop to a male friend. The girls are able to and do in fact, according to the study, engage in this activity late at night or early in the morning hours when family members are asleep. The benefit of the messages being private means that they do not have to reveal any possible romantic activity to their parents. Participants in two other studies reported that they may be addicted to MXit and instant messaging via computer as they log on whenever they are bored or have any free time (Guvi, 2007; Lewis & Fabos, 2005). One participant reported being on MXit for so long that she developed pins and needles in her hand and lost feeling in her fingers for at least fifteen minutes. Another participant reported being on MXit for up to six hours at night during her December holiday, talking to a friend. She also suffered painful wrists and sore thumbs thereafter. Another participant stated that she would be lost without her phone. She mentioned that she was once without her phone for a whole day and it made her excessively anxious knowing that she was unable to maintain social contact (Guvi, 2007).

Bosch (2008) revealed that parents were most concerned about their daughters who were spending a large amount of time engaged on MXit and were in fact addicted to it. One participant in the study reported that parents consider it to be “totally bad, irritating invention from hell, because it’s very time consuming” (p.12). The teenagers were so determined to communicate via MXit, that if their mobile phones were confiscated, or they were out of airtime, they would download the MXit package on their parents’ or siblings’ phones, in order to carry on communicating with their friends (Bosch, 2008). In a study by Lewis and Fabos (2005), a participant reported that she felt anxious at the thought of not being able to contact her friends via instant messaging, as she might be left out or not kept up to date with what was happening in her friends’ lives. One school has already
established a support group for self-identified MXit ‘addicts’. The learner-addicts are encouraged to discuss and write essays about their personal experiences on MXit (Bosch, 2008).

Having explored the findings of adolescent development, they will now be grounded within a theoretical framework which for this present study includes Erikson’s theory of psychosocial development (Erikson, 1968, 1973) and Lerner’s theory of contextualism (Lerner, 1991).

3.5. THEORETICAL FRAMEWORK

The aim of theory is to explain and predict a phenomenon (De Vos et al., 2005) and the focus of this section will be briefly on Erikson’s theory of psychosocial development (Erikson, 1968, 1973) and Lerner’s theory of contextualism (Lerner, 1991). The findings of adolescent development discussed in the previous section will be referred to within the theoretical framework of these two theories thereby providing a formal ‘lens’ or understanding of specifically the aspects of cognitive, social and emotional development of the adolescent which are relevant to the present study.

3.5.1 Erikson’s Theory

“Maturity involves being honest and true to oneself, making decisions based on a conscious internal process, assuming responsibility for one’s decisions, having healthy relationships with other and developing one’s own true gifts. It involves thinking about one’s environment and deciding what one will and won’t accept” (Pipher, 1996, p.256).

The theorist, Erik Erikson, refers to eight stages of psychosocial development, which extend over the lifespan of an individual, ranging from birth to old age (Hergenhahn & Olson, 1999). Psychosocial development is defined as “the manner in which a child is socialized into a particular culture” (Turner, 1996, p. 343). In order to attain psychosocial maturity, one has to master in sequence, the crisis presented by each stage. The inability to resolve a crisis at any stage may create problems in the ability to resolve the crises in the following stages. There is, however, always the
opportunity for the individual to master the unresolved crisis of any stage at a later stage (Meyer et al., 2003).

Adolescents find themselves in the fifth stage of psychosocial development according to Erikson’s theory, namely, Identity versus Identity Confusion (Santrock, 1996). They become aware of the crisis of having to develop and attain a clear sense of self, as well as becoming a valuable contributing member of society (Thomas, 2005). They have to establish a sense of personal identity and avoid the dangers of role diffusion and identity diffusion. This requires effort in evaluating all positive and negative attributes of oneself and learning how to use these to achieve a clearer concept of who one is and what one wants to be (Erikson, 1959). Adolescents have to get to know and integrate their skills, interests, needs and wishes in order to develop a coherent sense of identity that can be expressed in a social context (Papalia et al., 2002).

According to Erikson (1968, 1973), optimal development occurs in young people who are able to solve related developmental tasks, move through the age-appropriate roles and engage in behaviours that lead to major adult roles. The inability to resolve this crisis in adolescence may result in identity confusion and ultimately problems in reaching psychological adulthood (Papalia et al., 2002; Santrock, 1981). It may lead to the development of feelings of inadequacy, isolation and indecisiveness (Turner, 1996). Behaviors such as intolerance, the need to belong to a clique, unkind treatment of those who are different, as well as inappropriate hero and idol affiliation, may be displayed later on in life (Thomas, 2005).

3.5.2 Lerner’s Theory

“It is the common wonder of all men, how among so many millions of faces, there should be none alike” (Sir Thomas Browne).

Richard Lerner’s theory of Contextualism is similar in certain respects to Bandura’s social learning theory and Bronfenbrenner’s systems theory (Bronfenbrenner, 1979; Potgieter, 1998;
Thomas, 2005). Contextualism focuses on the reciprocal interactions between the external and internal factors, which are embedded in one another and which influence the internal state of the adolescent and the surrounding environment. These factors can only be understood when referring to the constant interactions between them (Becvar & Becvar, 2003; Dacey & Kenny, 1997). Research according to Contextualism should therefore focus on the reciprocal influence of factors on each other. Poor self-esteem, for example, may lead to poor peer relationships, but poor peer relationships also feed into an individual’s low self-esteem (Dacey & Kenny, 1997).

Developmental changes occur as a result of two-directional relationships between the individual and the active context (Lerner, 1991). In other words, development involves mutually influential relations among the integrated levels of the developmental system (Brandtstädter, 1998, 1999, 2006; Gottlieb, 1997, 1998; Tobach & Greenberg, 1984). Positive development, for example, is explained by developmental systems theory, as a life-span process, in which the individual and context are dynamically merged across time in reciprocal beneficial interactions (Lerner, 2002). As there is a constant dynamic interaction that occurs between the individual and the context, development is not deterministically based. There is thus the potential for plasticity in human development, which implies that every individual has the potential for positive, healthy change across the life span (Baltes, Lindenberger, & Staudinger, 1998; Brandtstädter, 1998; Lerner, 1998).

Contextualism focuses on four areas of development: the physical setting, the social environment, personal characteristics and time. Examples of the physical setting are the home or school. The social environment includes, for example, the parents and siblings in the family setting or the adolescent’s teachers and peers in the school setting. Personal characteristics include, amongst others, the adolescent’s physical attributes or manner of speaking. Time includes the short-term as well as long-term; such as the adolescent’s daily programme and the impact of history on the social and physical setting (Lerner et al., 1998).
The most significant contexts for young people’s development are the proximal social environments, which include family and peer networks (Magnusson & Stattin, 1998). The role of family is central in childhood, but in adolescence, the role of peers becomes more significant. Peer relationships become central to an adolescent’s development as they provide a context in which support, social comparisons and sharing ideas are encouraged, while developing their own identities and independence from their parents (Kiuru, 2008). According to Piaget (1932) the relationships teenagers have with their peers are different to those they have with their parents. The adult-child relationship is characteristically hierarchical and one of dominance and power assertion whereas the relationship with peers is egalitarian and there is a balance of dominance and power assertion. Within a peer relationship, conflicting ideas and explanations can be explored, various perspectives can be discussed and negotiated and a compromise or rejection of the opinions of peers may be reached (Kiuru, 2008; Rubin et al., 2005). Friendships provide contexts in which social and emotional skills and competencies can be acquired, self-worth is increased through the process of support and validation and they serve as precursors to future relationships (Bagwell, 2004; Hartup, 1992).

It is suggested that there are various levels of social complexity (within individuals, in interactions, in relationships and within groups), which are influenced by peers. They are in constant interaction with each other and some of the lower levels of social complexity are rooted in the higher levels. Peer influence is lowest in individual functioning. Interactions consist of two people engaging in dyadic behaviour, which is reciprocal in nature. Relationships consist of a series of interactions between two people who know each other. The highest level of social complexity is found in groups, where each group is defined according to the relationships between the group members. Group properties such as cohesiveness, hierarchy, heterogeneity and norms are not applicable to lower levels of social complexity (Kiuru, 2008).
Contextualists refer to probabilistic statements, which describe their predictions about behaviour. It suggests that one cannot say how an individual will behave, but only how they might behave (Dacey & Kenny, 1997). When the reciprocal interactions between individual and context facilitate the well-being of both, they are termed ‘adaptive developmental regulations’ (Brandtstätter, 1998, 1999, 2006; Heckhausen, 1999; Lerner, 2004). Teenagers who are consistently adaptively functioning within their environments are seen as enhancing and contributing to the positive development of self, family and society. They are referred to as thriving and in the process of developing an idealised personhood (Dowling et al., 2003; Lerner, 2004). Positive development and adaptive functioning is thus facilitated by the integration of the internal and external setting conditions (Lerner, 2004).

In addition, contextualism speaks of goodness-of-fit, which refers to the relationship of the individual adolescent and the biological, psychological and social demands of the setting in which the person is found (Dacey & Kenny, 1997). A young person’s development is influenced by individual characteristics as well as various social contexts such as family, neighbourhood, school and community (Bronfenbrenner, 1979). In the case of thriving adolescents, there is a good fit between individual and context. In the absence of integration, where the adolescent is not adaptively functioning within the various levels of the system then there is not adaptive fusion and poor fit between individual and context (Lerner, 2002).

Another important aspect is that of developmental diversity (Muuss, 1996). Contextualism emphasises the different ways in which people of various ethnic groups develop throughout life (Dacey & Kenny, 1997). This is especially relevant within a South African context where the participants within the same school will be from different ethnic backgrounds.

Erikson’s stage theory, which deals with the developing adolescent, combined with a contextual view of the adolescent’s world, are two approaches that assist in conceptualising adolescent
development and are thus the most appropriate for this study. It provides a solid grounding of knowledge and a good understanding of the adolescent and development.

### 3.6. CONCLUSION

The development of the adolescent was explored and discussed in the chapter. The focus was specifically on the cognitive, social and emotional development of the adolescent. Two theories relating to adolescent development were also discussed as they provide the theoretical knowledge which may be applied to this study. The following chapter will report on the research design and methodology of this research study as well as the ethical considerations and dissemination of results.
CHAPTER 4
RESEARCH METHODOLOGY

4.1. INTRODUCTION

This chapter provides an overview of the aim of this research study, the research design and methodology that was utilised during the research. It also includes discussions on the use of a qualitative design, the participants and sampling procedure, the method of data gathering, the research procedure and data analysis. It concludes with an outline of the ethical issues that the researcher employed, as well as information regarding the dissemination of the results.

4.2. AIM OF RESEARCH STUDY

The general aim of this research study was to explore the experiences of adolescent girls using instant messaging in their relationships in order to gain knowledge and understanding of this phenomenon. The broad goal of this study is to generate knowledge and enhance understanding which according to de Vos, Strydom, Fouche, and Delport (2005) is usually derived from basic research. This was achieved by focusing on, exploring and discussing the nature of four topics: communication, relationships, instant messaging and adolescent development within the context of relationships and communication, as well as conducting a study on a sample of adolescent girls.

4.3. RESEARCH DESIGN AND METHODOLOGY

Choosing an appropriate research design is important in order to achieve the aims of a study. A research design refers to the strategy, plan, or blueprint of how to conduct the research (Elmes, Kantowitz, & Roediger, 1999; Mouton, 2001). A research design, which falls under one of two research orientations: quantitative research and qualitative research, provides specific guidelines such as how data should be collected and analysed, how to control unwanted variation and what conclusions can be drawn (Elmes et al., 1999; Harling, 2002). The research orientation most suited
for this study is qualitative research, as it seeks to construct knowledge and aims to enhance understanding. Quantitative research, on the other hand, seeks to discover knowledge, aims to explain and the role of the researcher is more impersonal (Stake, 1995).

4.3.1 Using a Qualitative Research Design

A qualitative framework was adopted for this study with the purpose of exploring the experiences of adolescent females using instant messaging in their relationships as a literature research revealed limited information regarding this phenomenon. The use of a qualitative research design is suggested if little is known about a group of people experiencing some social phenomenon and the intention is get to know more about them, as it allows for in-depth data to be obtained (Creswell, 1998; Elmes et al., 1999). The researcher attempts to reconstruct the participant’s reality which is made possible through qualitative research as it allows participants to express themselves and to give an insider’s perspective (Creswell, 1994; Silverman, 2004). A quantitative design, on the other hand, assumes a statistical approach and is expected to yield objective results (Elmes et al., 1999; Harling, 2002).

The main contribution of qualitative research is that it stimulates further research topics relating to specific phenomena (Mullins, 1995). Qualitative research, which is descriptive by nature, is usually used when a need exists to explore a phenomenon. It also allows the researcher to build abstractions, concepts and hypotheses from details and to develop theories which are inductive (Creswell, 1994). The nature of this study does not allow for causal links to be made, but the exploration of this new and worldwide phenomenon that affects many adolescents rather intends to establish a knowledge base, offer richer insights and hopefully be an inspiration and springboard for further research into this specific area.
There has been some criticism aimed at the qualitative approach such as the high cost of this type of research in terms of time and money, the significant ethical risks involved in the research process, the new questions it raises instead of solving and its slow and tedious contributions to disciplined science (Harling, 2002). Furthermore, Crabtree and Miller (1999) assert that the work also needs to be reliable enough to enable someone else to have the same experience as the original observer and to confirm the truth of the account. It has been argued, however, that qualitative research is on the same level as the most rigorous quantitative research and should not be viewed as an easy substitute for quantitative study as it is supported by a strong inquiry procedure with well established protocols, which ensures that the work is trustworthy (Creswell, 1998; Harling, 2002).

Exploratory Research as the Objective of this Study

Very little research has been conducted regarding the topic of this research study, particularly within a South African context. Exploratory research was employed in order to find out more about the experiences of South African adolescent girls using MXit in their relationships. Exploratory research is usually employed in studies where problems are in a preliminary stage, when a topic or phenomenon being researched in the study is new, or when it is necessary to study complex relationships between variables as it offers the flexibility to do so (Babbie, 1989; Neuman, 2003; Schiller, 2000). It explores, for example, how people get along in a specific setting, what meanings they attribute to their actions and what issues concern them (Schutt, 2006). Exploratory research is considered essential in research even though it may not result in specific answers, as it may help define problems, suggest hypotheses, and ultimately create a foundation for further inquiry (Gravetter & Forzano, 2003; Neuman, 2003; Schutt, 2006).
A Collective Case Study as the Strategy of Inquiry

A case study is a holistic investigation of an existing phenomenon within its natural setting (Harling, 2002). The phenomenon may be a programme, an event, activity, problem, an individual, or individuals and the natural setting refers to the context in which the phenomenon exists (de Vos et al., 2005; Harling, 2002). In this study, the phenomenon refers to the experiences of adolescent girls using MXit in their relationships and the setting or context is the adolescent girl interacting with her friends via MXit. A case study approach is usually considered when the purpose of the study is to answer ‘how’ and ‘why’ questions, when the behaviour of the participants cannot be manipulated, when contextual conditions are included as they are believed to be relevant to the phenomenon being researched, or when the boundaries between the phenomenon and context are not clear (Yin, 2003).

A collective case study approach was considered the best strategy of inquiry for this research study as the intention of this study was to compare the various cases in order to gain familiarity with and to produce an in-depth description of adolescent female’s experiences of instant messaging in relationships. The purpose of a multiple case study, which is also referred to as a collective case study, is to increase the understanding of a social issue or of the target research population and ultimately to obtain a general understanding of the phenomenon being researched (de Vos et al., 2005; Harling, 2002). The generalisations that are made are analytical in nature, as opposed to statistical generalisations in quantitative research (Yin, 1999). The question may arise regarding how many cases to use in a multiple case study as generalisation is not possible if too few cases are used, and if too many are used, then is becomes difficult to achieve depth of understanding (Harling, 2002).
The Role of Theory in Case Study

There are various opinions regarding the importance of theory in case study. According to Stake (1995) theory is not necessary in studies which focus on describing a case and its issues. Yin (1994) on the other hand, asserts that theory is useful in guiding a case study in an exploratory way. Creswell (1994) states that theory developed in the case study may be compared and contrasted with other theories researched at the end of a study in order to gain perspective after theory development. A literature review, which was conducted at the beginning of the study, was used to structure the research and to guide the researcher’s questions for the interview, as is suggested by Harling (2002) who believes that theory is part of the preparation of the research and gives direction and structure to the initial set of questions the researcher asks. The theory is also used to filter and organise data received during questioning. In this way, existing theory is confirmed, however, care should be taken to ensure that existing theory does not predetermine the result. It is suggested that the researcher look into paradoxes between the case situation and theory if they do occur (Harling, 2002).

4.3.2 Research Procedure

Research commenced after obtaining approval from Faculty Research, Technology and Innovation (FRTI) Committee and Human Research Ethics Committee at the Nelson Mandela Metropolitan University (NMMU). The first participant was requested to provide contact details of other participants who had verbally agreed to participate. The following letters and forms were given to the potential participants and their parents:

- A letter from the NMMU Department of Psychology (see Appendix A) introducing the research.
- A letter of introduction (see Appendix B -2) introducing the research and the researcher, requesting parents to allow their child to participate in the study.
- A consent form (see Appendix D) for the parents to complete.
- A letter of introduction (see Appendix B -1), introducing the research and the researcher, requesting the potential participants to participate in the study.
- An assent form (see Appendix E) and biographical questionnaire (see Appendix C) for the participants to complete.
It was not necessary to obtain permission from the Department of Education before commencing with the study as the research was conducted privately without the participation of the schools required. A suitable time and venue was arranged with the participants for each of the individual interviews. An interview schedule (see Appendix F) was used to guide the interview. The participants were informed at the end of the interview of the opportunity to have another meeting with the interviewer if they felt the need to ask questions or discuss the interview process. No participants, however, requested another meeting. The data was collected, transcribed and analysed and according to Tesch’s (1990) model of content analysis (see Appendix G). Lincoln and Guba’s (1985) model of trustworthiness (See Appendix H) was employed to determine its trustworthiness.

4.3.3 Participants and Sampling

A sample, which is part of a whole, is studied in an attempt to understand the population which the researcher is interested in (Bless & Higson-Smith, 1995). In this study, the sample represents part of the population consisting of female adolescent girls between the ages of 14 and 17 years using instant messaging in their relationships. In qualitative research, participants are purposefully selected in order to ensure that the best answers to the research question will be given (Creswell, 1994).

The advantages of non-probability sampling are that it is more convenient and cost effective than random sampling as the participants are usually easy to access for interviewing (Cozby, 2004). There is, however, always the concern with this type of sampling method that selection bias may occur as the participants are not randomly selected. The findings or conclusions that are drawn from the results are therefore only tentative and no generalisations are made from the sample to the general population. The focus during the present study was on the quality of the information gathered, rather than on quantity (de Vos et al., 2005).
Polit and Hungler (1993) emphasise the importance of clearly stipulating the eligibility or inclusion criteria as well as carefully defining and describing a population. It was decided that the target population would be girls between the ages of 14 and 17 years. A sample of ten participants was purposefully selected, as they had to meet certain criteria in order to be suitable for the study: They had to be females between the ages of 14 to 17 years, who possess a mobile phone which they use for daily communication with their friends and/or boyfriends via MXit and they must be willing to answer questions honestly during the interview.

The snowball sampling method was used in this study. It is a process whereby the first participant for the study is identified and approached in order to obtain information on other persons who may be potential participants. This process continues until the researcher has identified a sufficient number of cases to make up the sample (Baker, 1988). The first participant had already been identified for this research study and was the contact to other potential participants. A biographical information questionnaire was administered to the potential participants with the assent forms in order to confirm that each participant met the criteria for the study. The sample that was eventually used consisted of ten English-speaking girls residing in the Nelson Mandela Metropole who met the abovementioned criteria. They all attended one of two schools and were friends with at least one of the other participants. They are average to strong school achievers and communicated clearly in the interviews.

Data saturation was evident after the tenth interview as the researcher began to hear the same information and was not learning anything new (de Vos et al., 2005). It was also possible to answer the question posed by de Vos et al. (2005): “Are there sufficient numbers to reflect the range of participants and sites that make up the population so that others outside the sample might have a chance to connect to the experience of those in it?” (p. 294). The answer was ‘yes’ as no new information was emerging during the interviews. No more participants were selected or interviewed thereafter.
4.3.4 Data Collection

The Nature of Qualitative Data

Qualitative data, which are descriptive and non-numerical in nature, are usually collected when doing exploratory and phenomenological research (Creswell, 1994; Silverman, 2005). Qualitative data are presented in written form and includes phrases, symbols and pictures, describing or representing people, actions and events in social life (Creswell, 1994; Elmes et al., 1999). Exploratory research data are mostly used to investigate social phenomena (Schutt, 2006).

Interviewing as the Data Gathering Technique

The data gathering process for this study consisted of interviewing the participants individually. Interviewing, which is the most common data collection technique in qualitative research, is used to gather information from participants through conversation and questioning, to describe the participants’ experiences, as well as reflect on the description. Interviews allow for the collection of individual, detailed, in-depth information and emphasis is on the qualitative rather than the quantitative aspect of information (de Vos et al., 2005).

The semi-structured interview, which is also referred to as a guided interview (Tutty, Rothery, & Grinnell, 1996), was employed in order to gather data for this study. An interview schedule consisting of a semi-structured questionnaire (see Appendix F) was followed to ensure that all relevant items were covered while retaining the flexibility and exploratory nature of qualitative research. Predetermined open-ended questions or key words, which are used as a guide in the interview, are usually employed when the researcher intends to either compare information between people or to understand each participant’s experience (Tutty, Rothery, & Grinnell, 1996). The interview was thus not structured but was rather guided by the information that each participant provided. Certain questions were, however, prepared by the researcher prior to the interviews in order to direct conversation and provide information which was required for the study. The
interview schedule consisted of one main question and a few subquestions which served as a guide throughout the interviews. A voice recorder was used during the interviews as it allows for information to be collected directly and verbatim from the source, the participant, without any distortion. The recorded data was later transcribed in preparation for data analysis.

### 4.3.5 Data Analysis

Data analysis is the process of organising, structuring and making sense of the large volume of data collected (de Vos et al., 2005). Knowledge is discovered in the data by focusing on the situation, pulling it apart, putting it back together and interpreting the synthesis until meaning emerges (Harling, 2002). This is achieved by analysing data without any explicit expectations but rather looking for patterns, expected and unexpected, among numerous variables, attempting to discover interesting or atypical features and by studying and confirming relationships and associations (Amaratunga & Cabrera, 2004; Cabrera & McDougall, 2001; Harling, 2002; Schutt, 2006). According to Rubin and Rubin (1995) analysis is exciting because “you discover themes and concepts embedded throughout your interviews” (p. 226).

An aspect of qualitative research that requires consideration is that it does not make data analysis explicit or open to inspection. It is therefore necessary to be clear and systematic, using a step-by-step approach during the data analysis process (Elmes et al., 1999). One such approach is thematic analysis which is popular but lacks consensus on what it actually is and how one should go about doing it. In order for readers to be able to evaluate, compare and/or synthesise a research study with other studies on a similar topic, the researcher needs to be clear on process and practice of method and also needs to include information in the research study such as how data analysis was conducted and what assumptions the analysis was based on (Braun & Clarke, 2006).

The data in the current study was analysed by means of a process of thematic content analysis, which consists of pattern recognition and reporting within the data in order to delineate recurring
themes emerging after numerous readings of the texts (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006; Patton, 2001). A theme represents either a patterned response or meaning within the data that has significant importance relating to the research question. It is up to the researcher to determine what a theme is as there are no rules regarding what actually qualifies as a theme. It is suggested, however, that the themes that are considered capture something important in relation to the overall research question (Braun & Clarke, 2006). The themes that emerge are firstly named as far as possible by actual words used by participants and secondly grouped in a way that they reflect the texts as a whole (Anderson, 2007). Even though sorting and naming themes require some degree of interpretation, all attempts are made to keep interpretation of the meaning to a minimum as interpretation of the data is kept till later in the research study, usually in the discussion (Anderson, 2007).

Tesch’s model of content analysis (Tesch, 1990) (see appendix G), which includes eight steps during the data analysis process, was employed during this research study and conducted in the following manner: The researcher read through all the transcribed material in order to gain a sense of the whole. Each document was then studied individually. Topics that were salient were noted, organised and clustered. The segments in the text were allocated the appropriate codes which matched the themes identified and the topics were then grouped and placed in categories under headings with a suitable name.

Knowledge is created from the data in the process of data analysis as the researcher makes interpretations by analysing, synthesising, making observations and subjective conclusions, while being aware of her own influences all the time. As knowledge is constructed, one can only assume that reality is only what one has come to accept as true. The results that are finally produced merely reflect the individual researcher and various realities. Knowledge is thus what everyone agrees upon as the best explanation of reality (Harling, 2002).
Lincoln and Guba’s model of trustworthiness (see appendix H) provides four constructs against which all qualitative research is tested in order to determine its trustworthiness (Lincoln & Guba, 1985). This model is reasonably well developed conceptually and has been used by qualitative researchers for many years (Krefting, 1991). The four constructs, credibility, transferability, dependability and confirmability (de Vos et al., 2005), were applied in this research study in order to test its trustworthiness.

The credibility of a qualitative study, which is the alternative to internal validity, is determined according to how accurately the study presents a description or interpretation of an experience in a way that others who share that experience would immediately recognise the descriptions (de Vos et al., 2005; Sandelowski, 1986). The credibility of a study may be influenced by variables such as the quality of data which differs for each study, as the data obtained from some participants is better than others, especially when the informants know the situation very well or have experienced it (Miles & Huberman, 1994).

Transferability, which is the alternative to external validity or generalisability, is determined according to the degree of similarity or goodness of fit between the study and contexts outside of the study situation (de Vos et al., 2005; Krefting, 1991). Dependability, which is the alternative to reliability, refers to the attempts of the researcher to “account for changing conditions in the phenomenon being researched as well as changes in the design created by increasingly refined understanding of the setting” (de Vos et al., 2005, p. 346). In reference to reliability in qualitative research, the concept of replication is thus difficult as “qualitative research emphasises the uniqueness of the human situation so that variation in experience rather than identical repetition is sought” (Krefting, 1991, p. 216). Confirmability, which is the alternative to objectivity, seeks to determine whether the finding of the study could be confirmed by another (de Vos et al., 2005; Lincoln & Guba, 1985). This is achieved when credibility and transferability are established. Qualitative researchers attempt to increase the worth of the findings by reducing the distance
between the researcher and the participants by extending contact with participants (Lincoln & Guba, 1985). Credibility of a research study may be improved by avoiding errors such as those that are based on participants responding according to social desirability rather than on personal experience (Kirk & Miller, 1986). An independent coder was employed to ensure trustworthiness of the data analysis process.

4.4. ETHICAL CONSIDERATIONS

Graziano and Raulin (2000) state that one’s research plan is an essential part of the “pre-observation decision-making process in research” (p. 64) and that it is imperative that it stands up to ethical evaluation. Scientific honesty is required when conducting research as it is considered an important ethical responsibility. Dishonest conduct includes, for example, the manipulation of design and methods and the retention or manipulation of data (Brink, 1996). The researcher ensured honesty and avoided manipulation of data by transcribing the interviews verbatim.

Certain ethical aspects relating to the participants and their parents were considered, such as maintaining the participants’ well-being and ensuring that their trust was not abused (Harvey & MacDonald, 1993). During the interview, participants volunteered all information and were under no obligation to answer questions with which they felt uncomfortable. The researcher, who conducted the interviews, provided the participants with contact numbers if they felt the need for psychological services, counselling or information regarding the study after the interview. Aspects such as the right to informed consent, anonymity and confidentiality (Burns & Grove, 1993) were also considered.

Informed consent, which refers to the potential participant’s agreement to take part voluntarily in a study after being appropriately informed about the study (Burns & Grove, 1993), was established with the participants and their parents. This allowed the participants and their parents the right to voluntarily consent or decline to participate and to withdraw from the study at any time.
The researcher provided the participants and their parents with a formal letter from the department of psychology, cover letters and a letter of consent and assent informing them of the procedure of the interview and the study, thereby ensuring that they had been given enough information in order to freely give consent or refuse to participate as they have a right to know what is going to be done to them (Graziano & Raulin, 2000). All the abovementioned information was also read to the participant before the interview in order to ensure that the participant was aware of and clear regarding the study and interview. The cover letter contains information regarding the interview and the research study such as the reason for the research, the intended aims of the research and the method of obtaining the necessary data and analysing it, as well as how the findings of the research will be recorded and disseminated. Information regarding the researcher and the institution under which the research will be conducted was provided. It was made clear that participation is voluntary and can be terminated at any time during the research if desired. All participants would remain anonymous throughout the research. It was noted that a recording device would be used to record all that was said and would later be transcribed and analysed by the researcher and an independent coder. No individual feedback would be given to any participants or their parents in order to safeguard confidentiality and anonymity. The participant was granted sufficient time to assimilate and reflect upon the information provided and to ask any questions that developed during the process. A letter of consent was given to the parents and a letter of assent was given to the participants to sign.

Anonymity, which is achieved when the participant cannot be linked with her response (Burns & Grove, 1993), was observed by omitting the participant’s name in the transcripts. Confidentiality was maintained by ensuring that the participants could not be identified by either the information that they provided or that which was publicly reported (Polit & Hungler, 1995). In other words, all data that was collected was kept confidential and any information, by which participants could be identified and linked to the research, was withheld from any public documents (Burns & Grove,
Privacy and confidentiality was considered throughout the interviews and the research process (Cohen & Manion, 1994).

4.5 DISSEMINATION OF RESEARCH RESULTS

The results of the study will be made available in the form of a treatise that will be placed in the NMMU library. The results of the research will also be submitted in the form of a draft manuscript to be reviewed for publication purposes.

4.6 CONCLUSION

This chapter provided an overview of the aim of this research study as well as the research design and methodology that was utilised during the research. The use of a qualitative design, the participants and sampling procedure, the method of data gathering, as well as the research procedure and data analysis was discussed. It concluded with an outline of the ethical issues that the researcher employed as well as information regarding the dissemination of the results.

The findings of this study as well a discussion on these findings and the relevant information from the literature reviews in chapters two and three are presented next in chapter five.
CHAPTER 5
RESULTS AND DISCUSSION

5.1. INTRODUCTION

The purpose of this study was to explore adolescent females’ experiences of mobile instant messaging in relationships. Mobile instant messaging has become a popular means of communication worldwide, especially amongst the female adolescent group. Cyber communication is a relatively new phenomenon which has not been extensively researched to date. In order to achieve the research goals, a qualitative approach was utilised. Interviews were conducted with the aid of a semi-structured questionnaire, recorded, and transcribed. The sample consisted of adolescent girls who volunteered their time and information. Data was analysed and interpreted according to Tesch’s (1990) model of content analysis. An independent coder was employed to ensure trustworthiness of the data analysis process. Literature consulted included information on adolescent development, communication, instant messaging and relationships. Erikson’s theory of identity formation and Lerner’s theory of contextualism provided the theoretical framework for this research study (Erikson, 1968, 1973; Lerner, 1991). A description of the participants included in the present study will now be discussed. A description of the interview context as well as the results of the study will also be presented.

5.2. THE PARTICIPANTS

The participants consisted of 10 adolescent females living within the Nelson Mandela Metropole, who are between the ages of 14 to 17 years old. They attend public schools and are all fluent in English. They were selected using the non-probability snowball sampling method. The researcher had one contact that she interviewed and whom she then requested to find more participants that were suitable to be interviewed. This created the snowballing effect and continued
until 10 participants had been interviewed. The participants were all volunteers who offered their time and information with no overt benefit in return.

They had to meet the following criteria before they were interviewed: They had to be female, between the ages of 14 and 17 years, must possess a mobile phone, have access to MXit on their mobile phone, use MXit daily as a form of communication with close friends such as a boyfriend and/or friends, and must be willing to answer questions honestly related to the research. Parental consent was also required before each interview commenced. All participants met these criteria.

5.3. INTERVIEW CONDITIONS

The interviews were conducted over a four week period as the participants were identified and became available to be interviewed. The interviews were recorded and later transcribed by the same transcriber. All the participants were eager and motivated to participate in the study. Rapport was established prior to each interview and the participants appeared relaxed and able to disclose without feeling uncomfortable. Each interview was conducted with the aid of a semi-structured questionnaire in order to keep the conversation flowing and to provide a minimal amount of structure to the interview. The duration of the interviews ranged between 15 minutes and 25 minutes.

5.4. RESULTS

The aim of this research study is to explore the experience of instant messaging upon adolescent female relationships. The results of this study which addresses these aims will now be presented.

The main themes that emerged during the course of the research were Communication, Interpersonal Relationships and Development of the Self. The subthemes that emerged fall under these three main themes. In order to obtain an overall view of the findings the main themes and
subthemes were placed in a summary table. The remainder of this chapter will discuss the themes that emerged and will follow the summary table of themes. Each subtheme will be discussed and will include quotes of the participants of the research study as well as the relevant information of the literature review in chapters two and three. Each main theme will end with a summary and conclusion of the subthemes previously discussed. The main themes and subthemes are as follows:

<table>
<thead>
<tr>
<th>Main Themes</th>
<th>Subthemes</th>
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<tr>
<td>4.1 Communication</td>
<td>4.1.1 Communication tool in relationships</td>
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<td></td>
<td>4.1.2 Unique communication advantages</td>
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<td></td>
<td>4.1.3 Communication disadvantages</td>
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<tr>
<td>4.2 Interpersonal relationships</td>
<td>4.2.1 The nature of the relationships</td>
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<td></td>
<td>4.2.2 Development of relationships</td>
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<td>4.3 Development of the self</td>
<td>4.3.1 Identity and self-esteem</td>
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<td>4.3.2 Social skills</td>
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**5.4.1 Communication**

One of the main themes that emerged during the course of the research is Communication. The following subthemes which are relevant to this main theme are included in a table below:

<table>
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<tr>
<th>Subthemes</th>
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<tbody>
<tr>
<td>4.1.1 Communication tool in relationships</td>
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<tr>
<td>4.1.2 Unique communication advantages</td>
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<tr>
<td>4.1.3 Communication disadvantages</td>
</tr>
</tbody>
</table>
Communication Tool in Relationships

One of the themes that emerged from the present study is that instant messaging is primarily used by the participants in their relationships as a communication tool. They reported using instant messaging to ask questions, relay answers, organise events and to generally keep in touch through social networking. One participant stated: “It is quite important to me, kind of thing, ‘cause I have like a lot of friends that I can keep in touch with over MXit.” According to another participant “everybody uses it [MXit] so it’s an easy way to communicate.” Communication is essential as a survival skill as well as for social functioning as it helps one maintain contact with the outside world (Cherry, 1966; Huebsch, 1995). In South Africa, the cellphone particularly, has become instrumental in technical, social and commercial communication. It is considered an essential tool by the youth who have generated a large mobile youth culture in the process (Bosch, 2008). Instant messaging is used as a communication tool to hook up, break up, get information from a friend, debrief a friend in need of it and organise dates and activities, thereby enhancing social life (Thiel-Stern, 2008).

Most of the participants in the present study reported being more enthusiastic about using instant messaging in their relationships when they were younger. As they matured the novelty of using instant messaging in their relationships appeared to decrease and they preferred to use other modes of communication. One of the participants reported the following experience: “There was a point in my life where MXit was everything and I’d be like really addicted to it... now I’m just like grown out of it.” Another participant remarked that “the whole MXit thing is now really overrated and everyone thinks; “Ok, well I need a phone that can take MXit” and I’ll be like... Ok, why don’t you just buy yourself free SMS’s and then SMS? But ja, I’d rather phone a person than speak over MXit.”
Unique Communication Advantages

The participants stated that the primary reasons for using Mxit in their relationships are that they consider it a very cheap and accessible mode of communication. The cost of communication is far less in comparison to the use of other modes of communication. One of the participants reported the following: “I have family and friends like... all over, like, like South Africa, in East London and stuff. So it’s also easier... as I said, cheaper to communicate with them if I want to.” Another participants stated that “it’s so much easier to communicate with people rather, ‘cause a lot of people when you SMS them, they won’t SMS back ‘cause they don’t have air time but they can go on MXit.” There has been a substantial growth in mobile subscribers in South Africa compared to the growth of internet subscribers as out of seven hundred Africans only one has access to internet compared to the one in four Europeans who had access in 2006. MXit specifically, has gained popularity as it is cheap and does not require any subscription fees (Bosch, 2008; Ndebele, 2007). The cost of sending a message via MXit is about 2 South African cents, whereas an SMS costs around 70 cents to send via a cellphone. There were over 7 million MXit users in 2009 and this number is growing at a rate of over 9 000 per day (Chigona et al., 2009).

Another theme that emerged is that the participants remain in constant contact with their peers when apart, thereby satisfying their need for social contact. One participant remarked that “there’s like some friends where you come on and they’re still on, you know, and then, you come on 2 hours later and they’re still on and you don’t know if they went off in between but it looks like they’re still on.” Another participant reported that she tends to maintain contact with peers throughout the day: “...in the morning, then after homework, like while I get dressed for school, then when I come home and then after homework.” One of the participants reported using instant messaging to maintain continuous contact with her peers with the intention of merely staying connected socially: “... I go on and off quite a lot, just to see who’s on...” Instant messaging and the SMS are considered convenient tools of communication as it is possible to conduct an ongoing conversation in the
present (Yoshii et al., 2002). Another of MXit’s advantages above the SMS is that the maximum length of chat messages are 2048 characters compared to a normal SMS which limits one to 160 characters (Bosch, 2008). It is therefore possible to have longer typed conversations at a much cheaper rate.

The participants reported that they enjoy the company of their peers via instant-messaging while simultaneously engaged in other activities at home. One participant described her experience the following way: “Well, like usually, I just feel like cleaning up my room or something…. sometimes while I’m doing homework I’ll be on MXit…. while I’m making food… eating…. or…ja…….” With instant-messaging, the teenager has access to the social world when at home in the evenings and in the privacy of her bedroom, thereby alleviating restrictions such as school activities, homework and chores which make socialising face-to-face after school difficult for her (Grinter & Palen, 2002; Thiel-Stern, 2008). It is a popular mode of communication for adolescents who use it to maintain continuous contact with friends while still being in the presence of their parents or simultaneously engaging in other activities such as surfing the Web, writing emails and watching television (Thiel-Stern, 2008). Parents are more inclined to allow it at home as the use of IM is less invasive and less obtrusive in comparison to phone calls or visitors (Grinter & Palen, 2002).

Some of the participants reported that instant messaging enriches their social life as it allows them to organise social activities without being in the presence of each other. One of the participants stated the following: “Well we usually like ask you know, what the plans for the day are, like you know, trying to make plans, trying to find out what people are doing at night and everything...” Instant messaging facilitates groups of adolescents to organise social gatherings promptly, efficiently and spontaneously without much planning in advance. This is considered an advantage as there are usually constraints to independent planning due to parental rules, obligations and limited access to transportation (Grinter & Palen, 2002). Bryant et al. (2006) found that 92
percent of the participants use instant messaging to keep in touch with friends while 88 percent use it to make plans with friends.

Another advantage of MXit according to the participants is that they are able to engage in different conversations simultaneously. Most participants reported generally being involved in two to five conversations at once over MXit but the number of conversations may be as many as ten. According to one of the participants “you don’t have to just talk to one person at a time. If you’re phoning somebody most of the time, you can only talk to one person. On MXit we have many different conversations.” Another participant stated: “At my peak, like you know, between 8 o’clock and 9 o’clock, I talk to about 10 people.”

During social interactions, the participants often use the multimix function available on MXit. This function allows the user to invite friends to chat together. These friends, however, do not necessarily have to be on each other’s contact list (Chigona et al., 2009). Multimix enables them to participate in a conversation with a select group of friends by having access to what each person is saying on MXit at that moment. It is similar to having a group discussion which is not face-to-face but rather over a distance. One of the participants described multimix as follows: “Say I have a friend who goes to [school A] and then I have another friend who goes to [school B] but I don’t have her on MXit and I haven’t spoken to her in say like 2 years, then that person will make a multimix and all the people that I know that I don’t have, she’ll like... select them and then they’ll send an invitation and then you can say ‘yes’ or ‘no’ and once you come you like say ‘hello’ and then everyone on that multimix will get ‘hello.’ So it’s just... like... instead of speaking to just one person, you’ll speak to like 5 people at the same time. So it’s like joined... joined chatting... chat room thingy...” Another participant described multimix in the following way: “Multimix... it’s like when somebody makes a group and then they like add all the friends that want to chat and that are in the room and then you’ll speak and everybody else can see the conversation they can speak in it and umm... like also if there’s fights... like say there’s 2 of you fighting, and someone’s saying
someone said that one said that then you all can go on the same chat room and have like a fight
together.”

One participant reported the following experience regarding multimix “I just got in contact, like
recently with my dad’s godparents... their godparents and my godparents and now we haven’t seen
each other for like 10 years, so I just got in contact with them, so then I made a multimix with both
of them and then my sister and myself. So instead of speaking to them individually, I spoke to them
all together. We just had like a joint conversation. So it is nice...” A second participant reported her
experience with multimix: “I think I’ve used it once but that was to plan with my one best guy
friend and my like best friend. We had no idea what the plans were, so we just like multimixed and
then we were discussing like where we’re gonna go and stuff.”

Two functions that participants report using often on MXit during instant messaging to express
their present mood state are the emoticon function and status function. One participant in the
present study described the emoticon function the following way: “You can have a thing that they
call emoticons, umm... like say you can have your feelings like, you can be sad, angry, grumpy,
sleepy, in love, sick, hot... like all those and then when you send messages, you can send them with
different faces...” Another participant explained the following: “You can write little things on your
status.... statuses (laugh)... I don’t know what to call it... and then you just like “ja, I’m having an
off day” or something like everyone else can read and you can just... you can write anything
basically or you can put on ‘happy,’ ‘sad,’ ‘angry’ or whatever how you’re feeling... you can put it
on.” These functions enable them to inform others of how they are feeling at present.

Relationships are usually defined implicitly rather than explicitly (Watzlawick, Beavin, &
Jackson, 1967). If one is able to imagine what the other person is thinking or feeling and to give it
meaning, then one is able to experience what they are experiencing. This is referred to as
metaperspectives (Laing et al., 1966). The health of a relationship depends upon the accuracy of the
communicators’ metaperspectives as well as their perceptual accuracy (Littlejohn, 1999). According
to the participants the use of these two abovementioned functions improves communication in their relationships and contributes towards a healthy relationship as it improves their perceptual accuracy and they are able to form a metaperspective of their relationship with the person they are communicating with by receiving extra information.

**Communication Disadvantages**

People use digital as well as analogic codes during communication. Digital codes communicate the content of the message while analogic codes, which communicate feelings and connotations, are also essentially the medium for relationship messages. Both these codes are used together and it is not possible to separate them in ongoing communication as a person will be communicating the content of the message digitally while simultaneously communicating the relationship analogically. Every conversation thus communicates two messages: a content message and a relationship message (Littlejohn, 1999). Instant messaging is only able to convey content messages. This means that the relationship message is lost in the process as it is nonverbal in nature and not observable via instant messaging (Lewis & Fabos, 2005).

According to the participants the major disadvantage of using instant messaging in relationships is that it limits expression. They find instant messaging a limited medium with regards to expressing their emotions accurately and clearly as it does not allow for any visual and verbal interaction during communication. In other words face-to-face interaction is absent during communication. One participant reported the following: “Sometimes, it like helps because it’s an easy way to communicate. Other times it’s not really that good ‘cause you can’t tell what the person’s actually saying. You can’t hear their tone of voice or you know their expression, so if they’re joking with you, it could sound serious type of thing, you know. So it sometimes starts a lot of unnecessary fights or arguments.” A second participant explained that “over MXit you can’t like
display your emotions. You can’t make them see how you are feeling, so it’s better in person to show them what’s wrong.”

Language, in the form of the labels one gives things, has a significant influence on how one perceives them. Hanneman and McEwen (1975) refer to a statement by Wittgenstein on language which states “the limits of my language are the limits of my world” which implies that one’s world is limited if one does not have a label for an experience and is thus unable to recognise it (p. 27).

The participants complained that even though the emoticon function and status function enhance communication, they are limited in the degree to which they are able to facilitate communication. According to a participant in the present study “there are certain emoticons that you wish you could have but they don’t have it on there. Then you gotta make it your status, but then people get confused with your status again... Umm... like cold, when you’re cold. And then when you’re crying, they don’t have that, they just have “sad”... it doesn’t mean you’re crying...” Another participant echoed similar experiences with the emoticon function: “MXit must get more emotions because I mean, it’s like pretty simple, like sad, excited, angry, in love... I mean like, there’s no emotion for “cold” or for “irritated” or something like that, which I think is like really lame.” A participant in a study by Lewis and Fabos (2005) reported that it is not possible to “communicate sarcasm and other voice tones” via instant messaging in comparison to phone conversations or face-to-face contact (p. 483). She did, however, state that by using various colours and font sizes, one is able to express and indicate to the receiver more emotional content.

A problem that the participants reported experiencing with instant messaging is that the messages are often misinterpreted. They described this problem as being frustrating as it requires immediate attention and clarification before it is possible to continue further with their interaction. Many of the participants described the following experiences: First participant: “Yeah, well like I said before, people take it the wrong way; you don’t know which way they’re saying it...” Second participant: “Sometimes it’s like a bit confusing because if you say something it may like come out a
different way to the other people, because you have to like... it’s easier when you can hear their tone of voice and see their body language, then you can understand better than, ja, than if it’s written kind of thing.” Third participant: “Sometimes they’ll think that you’re giving them attitude in the meanwhile you’re just playing and being sarcastic. They can’t see that... they can’t hear your tone of voice over MXit.” Fourth participant: “…That’s the only disadvantage and of course getting the message wrong and just reading it wrong.”

Many of the participants experienced conflict in their relationships as a result of the misinterpretation of some of the instant messages. According to one of the participants “with the new MXit you can have status’s and stuff and then you sort of read it wrong. ‘Cause two different people can see it two different ways. And they never say exactly what they want to say, so you read it the wrong way. And you can’t tell if they’re being sarcastic or if they really mean what they saying... so that’s how my fights normally start.” According to a second participant “you can have lots of big fights on MXit. Sometimes when you’re being sarcastic it’s sometimes picked up as the wrong thing because you’re not actually seeing the person face to face and there’s no actual interaction.” Another participant explained the frustration of having to resolve the misunderstandings immediately in the present: “We phone each other and then we fight like vocally... because you can’t like... umm... you can’t really voice your opinion and you can’t hear the tone of voice... so if somebody says something, you’re like ‘are you’re fighting with me?’ It’s kind of lame. So then umm... no we just phone each other and try sort things out.”

A relationship between two people results from their interactions with each. These interactions are organised into meaningful patterns by them and are referred to as punctuation. Certain behaviours are responses to others and therefore need to be grouped or punctuated into larger units in order to be able to define the meaning of the entire set of actions. A relationship, however, is defined by the perceptions of those in the relationship. There is the possibility that communicators’ meanings of the interactions may differ as they may group the behaviours differently, according to
their personal perceptions (Littlejohn, 1999). This may explain why the messages are interpreted inaccurately and why misunderstandings of the messages occur. One of the participants reported that conflict may occur through instant messaging as a result of the misinterpretation of messages even though the difference was previously resolved in person: “Normally in person we’d like sort it out, but then over MXit you’re like still on a bad note, like we’re still fighting and stuff. And everything gets twisted around on MXit... and ja... it just makes things much worse.” The receiver of the messages groups the behaviours according to the way he/she perceives the feedback and attributes his/her own meaning to the interaction. In the process, expectations about a relationship are formed according to the individual’s perceptions of the person’s conduct and their feelings (Littlejohn, 1999). An individual’s experience of the relationship with the other person thus influences communicative behaviour (Laing, 1967). Nonverbal, emotive, cognitive and contextual elements as well as influences such as emotion, expectation and language are all part of the communication process (Cherry, 1966; Fourie, 1996; Taylor et al., 1983). The contextual elements which include the situational, physical and psychological circumstances of the receiver and those of the sender of the messages influence the nature, content, form and meaning of communication (Fourie, 1996). This means that the instant messages are interpreted by the participants within a context and that nonverbal, emotive and cognitive elements influence the interpretation of those messages.

5.4.2 Interpersonal Relationships

One of the main themes that emerged during the course of the research is Interpersonal Relationships. It includes the following subthemes which are relevant to this main theme:

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<th>Subthemes</th>
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<td>4.2.1 The nature of the relationships</td>
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<td>4.2.2 Development of relationships</td>
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The Nature of the Relationships

According to Watzlawick, Beavin and Jackson (1967) the nature of a relationship is defined by the communication between its members. An adolescent may have up to 200 MXit friends, most of which they do not know within any other context other than through MXit (Bosch, 2008). These friends are referred to as casual friends with whom they maintain frequent contact, engage on a less intimate level and are usually less voluntary in selection. They are merely a source of situational assistance, support and companionship (Adler & Adler, 1998). A participant in the present study reported the following experience regarding casual friends: “.... we became friends, like... he is a friend of mine on MXit and I speak to him but further than that...” Another participant stated: “There’s some people that go to like to other schools that I do keep in contact with, but most of them... I don’t really see... like I have some guys that go to [school C], that I’ve known for a while, like R, you know....and people that I’ve met through friends....”

According to Bosch (2008) one participant reported having 3 groups of school friends which consisted of the friends from her school, those outside her school and her old friends from primary school. A fourth group, referred to as the ‘come-alongs,’ consisted of friends whom she met through other friends. The participant in the present study described the friends they have on MXit in a similar way: “Most of the people I have on MXit, I know quite well. Well all of them I know personally obviously and a lot of them I don’t know so well, but like.... I know them, but you have them just in case like something happens.”

According to some of the participants the romantic relationships and friendships that are initiated over instant messaging usually remain on a superficial level. The romantic relationships are also often of short duration. The participants described the following experiences regarding the initiation and nature of relationships: Participant one: “A relationship starts on MXit then it’ll end on MXit.” Participant two: “This guy that I’ve never spoken to - he’s been on my MXit since grade 8... about 3 years now and it’s just... he’s there.” Participant three: “You have them there, kind of
thing, but you don’t actually ever talk to them. So there’s no point in having them there but you just don’t delete them.” Participant four: “There was somebody that asked me out over MXit. Um, ja, it didn’t last that long kind of thing, the relationship.” Participant five: “… one time it was in grade 7 though, so it was like, ja, I broke up with a boyfriend over MXit. Ja... but it wasn’t like a serious relationship kind of thing. I’d seen him like once or twice.”

IM makes it possible for relationships with strangers to grow rapidly as it facilitates self-disclosure. It also facilitates intimate conversations with close friends which ultimately act as a buffer against maladjustment, promote a positive sense of self, academic success and the ability to understand people accurately (Bargh et al., 2002; Kiuru, 2008). Kraut et al. (2002) found that after approximately two to three years the benefits of online interactions decrease and users begin to experience a gradual decline in social interaction which causes them to start feeling down and alone. This observation was echoed by one of the participants in the present study: “It started going down, like he wouldn’t talk to me for as long, he lost interest, he’d always be playing computer and you’d be like “why aren’t you paying attention to me... like you always were on MXit, ‘cause we don’t see each other?” And it would be like he didn’t want to flirt anymore... it took up too much effort just to... you know, try that kind of thing.”

Many of the participants in the present study explained that they also prefer to communicate mostly with their close friends and male friends over MXit. One participant reported that “girls almost always chat to guys. They never talk to girls on MXit unless they’re talking about gossip or something.” Another participant explained her experiences: “I generally talk to more guys than girls. ‘Cause it’s a lot easier to have conversations with guys, besides my close girlfriends.” This comment was echoed by another participant who stated: “I get better along with guys than girls. ‘Cause..... I don’t know....I just find girls so much more like complicated. Sometimes it’s really bitchy with girls and stuff, so.... but I do have girlfriends. But I have more like guy friends.”
The nature of the conversations over MXit appeared to be determined by the nature of the relationship between the subscribers communicating, as well as their gender. One of the five axioms of communication states that communicators respond similarly to or differently from one another and relationships during interaction may either be symmetrical or complementary (Watzlawick, Beavin, & Jackson, 1967). Relationships between teenage girls are generally symmetrical in nature. Their conversations are mostly superficial and centred on small talk. They are inclined to gossip, talk about food and relationships and give as well as ask for advice (Bosch, 2008). Most of the participants in the present study reported that their conversations with their female friends are mostly casual but when interacting with a close friend they may have the odd serious conversation and seek support.

Research conducted on the present study yielded similar findings. The most popular topics of conversation between the participants in the present study and their female friends appeared to be about their male friends, followed by, their activities over the past weekend, upcoming school and social events, gossip, fashion, school, homework, film stars and movies. Participants found instant messaging to be most useful when they want to organise an activity or social gathering in advance or if they need assistance with homework. One participant mentioned the following as common topics of conversation with her female friends: “We chat about guys, and movies, and then we plan a lot...like we spend a whole week planning a Friday night, and just like outfits and where we’re gonna go and how we’re gonna get there, and money.” Another participant described her topics of conversation as centering on “mostly boys... (laugh).... and like what happened during school, like something funny happened, or something serious happened... or... like... gossip... like you know the latest gossip.... or like what did she wear. Just like girls’ stuff.”

According to Grinter and Palen (2002), their conversations are informal and merely a continuation of the discussions of the day’s events and gossip about others, all of which is often with people whom they see at school and have much in common with. Most of their intimate
conversations are about themselves and life events. The most popular topics of conversation range from their appearance, feelings, activities, peers they either like or dislike, family relationships, to sexuality and life plans (Coleman & Hendry, 1999; Woodhead, Faulkner, & Littleton, 1998). According to Johnson (2003), this activity is merely an information carrier. It does not have content or function except to maintain a social bond. Compared to boys, girls are inclined to gossip more about their peers and to have a higher level of disclosure in their friendships (Buhrmester, 1996; Woodhead et al., 1998).

The participants in the present study reported that they generally flirt or have casual conversations with their male friends which include sport or any current events. Some participants reported that they are inclined to have deeper conversations with their male friends than they do with their female friends and this may include for example giving advice regarding a girlfriend or someone they are interested in. The participants mentioned the following topics of conversation as most prevalent in their conversations with the opposite sex: “It’s mostly about sport and who they’re interested in at the moment... or like... what I must do for homework or something...” and “We either talk about their girlfriends, like giving advice and like we’ll talk about a rugby match or what we’re doing tonight.” According to Grinter and Palen (2002) conversations generally include chatting and flirting. One of the participants in the present study echoed this observation and stated: “You flirt... but like... I don’t flirt with like everyone just if I like the guy, like I’ll flirt a little bit and then um... I don’t know, I have like a close relationship with guys. I’m a good friend to them so we just talk about like funny stuff... nothing like bad....”

Many of the participants remarked that they had experienced conflict in their relationships with both genders through instant messaging. They initiated, continued with and ended conflict all through instant messaging. One participant remarked that “a lot of girls start fighting on MXit...you can have lots of big fights on MXit...” Another participant stated: “...I’ve been having a lot of catfights lately... (laugh)... you also have like a lot of fights over MXit...” One of the participants
recalled: “I had a break up thing over MXit once... ‘cause someone did something to me and I didn’t wanna speak to them and then I was on MXit and then they’ll like try sort it out on MXit. But umm... it’s like a lot of little odd fights but it always makes something worse...” A participant remarked that “a lot of girls are bitchy over MXit... not so much the boys, because I’m more like... But a lot of the girls will be bitchy... but I don’t know why... like if I say something wrong then they’ll tune me about it and then I’ll be like ‘ok, whatever!’ and then I delete them.”

Teenagers are inclined to interact without first establishing the emotions behind the messages when they have indirect contact with one another and through instant messaging vulgar language, inappropriate sexual remarks and words of abuse are more easily communicated. Another concern is that adolescents, in the absence of direct contact, may have limited opportunity to develop their social and emotional intelligences as they are not able to directly and continuously assess whether their responses are hurting the other person (Guvi, 2007). Adolescence is a crucial time for developing and acquiring adequate communication skills. Communication via mobile may cause problems in social skills development, such as the inability to express feelings and emotions in the presence of the individual, as well as the inability to handle conflict. The recent comment made by the participant in the present study is an example of such behaviour as she stated that she simply deletes friends from her MXit list when she experiences conflict with them. Adolescents who lack interpersonal skills struggle to establish and maintain friendships. Conflict in urban schools has escalated as teenagers are finding it increasingly difficult to communicate and resolve conflicts without resorting to violence (Guvi, 2007; Mokhtari, 2008). An interpersonally competent adolescent should be able to initiate and maintain interesting conversations as well as contact and activities with friends outside of school, engage in appropriate self-disclosure, display empathy towards others and be able to manage conflict effectively (Buhrmester, 1996).

Participants in the present study reported using instant messaging in their relationships as a means to reaching out to friends in times when they required peer interaction, support and empathy.
One participant said: “I need to talk to people... I can’t just like keep it bottled in inside and not share stories with people or my feelings... like if I’ve had a very bad day and someone’s irritating me then I’ll be on MXit and I’ll just like let all my anger out... like my status will be like “how could you?” and then I’ll be on grumpy and then I’ll be like all angry with people so then it will like help me.” Another participant said: “When I’m very bored or depressed and I want to get something off my chest and there’s nobody there to talk to, so then I’ll go on MXit and I’ll just talk to someone like that.” Participant three: “Sometimes people will pick it up and they’ll be like “what’s your problem, or something?” and I’ll be like “I just had a bad day” and then they’ll be like “I’m sorry!” Like sometimes people will like change that feeling around, so then if I’m like angry or I’m sad, they’ll like pick my spirit up.”

Relationships such as marriage, a supportive social network and many friends are important as they promote greater contentment, better physical and mental health, as well as longevity (Argyle & Henderson, 1985). Friendships with peers become significantly more important than all other relationships during adolescence as they discover that their friends are experiencing similar issues, can relate to what they are feeling and always seem to be available for support (Gouws et al., 2000; Rubin, 2007; Turner, 1996). A participant in a study by Bosch (2008) reported that MXit allows her to reach out to others when feeling sad and lonely. She is able to contact her friends who care about her, disclose to her friends and receive advice from them, especially regarding relationships or when her parents criticise her. According to Oswald et al. (2002) behaviours such as positivity, supportiveness, openness and interaction are considered necessary to maintain a friendship. A lack of friends, on the other hand, may lead to rejection, loneliness, low self-worth and depression (Kiuru, 2008).
Relationship Development

According to participants in the present study instant messaging is used in the establishment, development and maintenance of their relationships. Opportunities are created through frequent contact to become better acquainted with each other and to discover common interests. One of the participants said: “It’s nice that you can get to know each other on MXit and it’s nice to make a plan and then get to see each other out of it too as well. You can see if you have a bond on MXit, like whether you get along as more than friends and then if you see that like this guy is like really nice as a person, and you can get along, and you can see that, then you can say to him like let’s go for coffee.” Another participant commented on the following experience: “It [MXit] always helps in the beginning. It makes it a lot more interesting.... like I said.... it gives you a basis to talk about, ‘cause if I’ve never met you before and I’ve spoken to you over MXit for 5 minutes and I find out you like horse riding, then it gives you that basis to start off with talking about horse riding.... instead of just going up to that person and having no clue what to say to them.... ‘Cause a lot of people can’t do that.” The ability of the adolescent to communicate is very important as it affects the manner in which relationships are maintained (Guvi, 2007). Communication is at the heart of the initiation, development and decline of all relationships yet what makes each relationship unique is the quality and quantity of communication (Littlejohn, 1996; Nelson-Jones, 1989). As a relationship develops, the nature of communication and interaction changes from initial impersonal exchanges of information to more intimate exchanges. The breadth and depth of exchanges in information also increases (Littlejohn, 1996, 1999).

The participants reported that instant messaging provides an opportunity for shy adolescents to interact with the opposite sex with the intention of establishing a romantic relationship. One participant stated: “I mostly use it if I like guys because I get nervous to walk up and say like I have a crush on you or something. But if we’re on MXit and stuff, like it just works out better and stuff.” Lewis and Fabos (2005) found similar results to the present study and reported that teenagers prefer
talking to the opposite sex via instant messaging rather than by phone or in person, especially to someone they do not know well as it was possible to avoid awkward moments. Some of their participants reported that it is easier to be more open and intimate.

Instant messaging also enables the participants to keep in contact and maintain relationships with the people they already have an established relationship with but whom they do not often see. They use instant messaging particularly to maintain contact with friends whom they do not see at school or who live a long distance away. One participant said: “I normally speak to like my guy friends ‘cause a lot of them like don’t live here ‘cause they’re at university now.” Another participant said: “Some of my friends from Joburg... like I have 4 guy friends that are really, really close and then I moved away and we’re still able to like talk a lot... like they tell me what’s happening in their day... and all that” A third participant said: “It [MXit] kept us a lot more in contact... he didn’t have a home phone as well, so it makes it a lot easier money wise. You can’t SMS and you can’t phone every single day with the rates that we have. And if I wanted to talk to him for 2 minutes I could SMS him to go on line and we could talk for like 4 hours. Ja, it definitely helps.” Girls use instant messaging to socialise while adolescents in general use it regularly to maintain relationships (Jennings & Wartella, 2004; Lenhart et al., 2001).

Even though MXit is a popular mode of communication amongst adolescents, their first option of interaction is face-to-face or via the phone. The participants reported the following experiences: Participant one: “Most of the memories and that come from when we’re actually together. So MXit is just the sideline for talking and that.” Participant two: “I would talk to the person about a thing but I’d rather... even though I’m shy, I’d rather... to hold the relationship, talk in person, because then he can actually hear me, he can see me, he can talk to me and we can have a proper conversation.” Three relational aspects of communication that prepare people for further contact are affinity, attention and commitment. Affinity is promoted by activities of social bonding such as eating, drinking and sharing experiences in a common space. It includes nonverbal activities
involving the body, such as touch and making eye contact as well as low-content informal conversation, such as greetings, jokes and small-talk. Commitment is best established when the person is present, face-to-face, in shared space (Nardi, 2005).

Some of the participants in the present study perceive the act of breaking up with the opposite sex as a negative experience and do not approve of such activity through instant messaging. One participant remarked: “I think it’s pretty pathetic if people break up with each other over MXit... so I mean like, it’s really heartless.” Another participant said: “It’s not nice. I don’t... a lot of guys do it mostly that way. They think it’s easier while they’re actually getting up the courage to go up to a girl and say “you know what, I don’t like it anymore” which really p’s me off because you must have the guts.... If you have the guts to kiss her then you must the guts to at least dump her nicely.” Another participant commented: “No, I think it’s just cheap and like very common to do that.”

Participants are not only inclined to break up through instant messaging but also to end relationships with peers by simply deleting them from their contact list on MXit. The participants explained: “I’m very straightforward. I’ll be like “don’t speak to me that way” or “get mature!” or something or I’ll delete them. I’ve deleted like quite a few people lately.” and “You know, if I get a person’s contact like ‘cause I saw him at a party and I think he’s cute, and I don’t like him a lot, I delete him...” and “A lot of the girls will be bitchy... but I don’t know why... like if is say something wrong then they’ll tune me about it and then I’ll be like ‘ok, whatever’ and then I delete them.” and “... like I’ve got these guy friends that went to primary school and now they’ve really changed in a really bad way, then I’ll delete them like immediately...”

Relationships are dynamic and have different functions at different periods in a child’s development. Individuals within a relationship are constantly creating new expectations, reinforcing old ones or changing existing patterns of interaction (Hannemann & McEwen, 1975; Littlejohn, 1999; Rubin et al., 2005). A friendship may be defined as a close, reciprocal and voluntary relationship. Its main function in adolescence is to provide a context of emotional security outside
of the family in which adolescents may explore the impact of their behaviours on themselves, their peers and their environments. Adolescent relationships, however, are constantly changing as different friends meet the needs of the adolescent at different stages of development (Brown, Dolcini, & Leventhal, 1997; Rubin et al., 2005). As peers grow and have less in common with each other or are less willing to conform to each other, the number of conflicts increase and the frequency of interactions decrease until there is finally dissolution of the relationship (Kiuru, 2008). According to Newcomb and Bagwell (1995) one has to be able to manage and resolve conflict in order to maintain a relationship.

5.4.3 Development of the Self

One of the main themes that emerged during the course of the research is Development of the Self. It includes the following subthemes which are relevant to this main theme:

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<td>4.3.1 Identity and Self-Esteem</td>
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<td>4.3.2 Social Skills</td>
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Identity and Self-Esteem

The participants in the present study reported that some of their peers are inclined to behave differently over MXit in comparison to when they interact face-to-face. One participant observed that “people are very different on MXit.” A second participant remarked that “a person’s personality can definitely change over MXit, like... someone could be like say very happy in person, but on MXit they can be all deppro’ or like... as I said, very flirtatious or... not the way they seem in person.” A third participant commented on the following experiences on MXit: “I just realised that some people can be not who they are... like on MXit as they are in real life. So I’d rather hang out
with someone and be like “ok, well, this is who the guy is.” The theme that emerged is that adolescents are inclined to use instant messaging to experiment with various identities in an attempt to establish their own stable identity.

The teenager attempts to develop a stable sense of self during adolescence by experimenting with new behaviours and new roles (Lerner, 2002). According to Erikson’s theory, this stage of psychosocial development is referred to as Identity versus Identity Confusion (Santrock, 1996). The adolescent is faced with the challenge of establishing a sense of personal identity and avoiding the dangers of role diffusion and identity diffusion. This process requires evaluation of all positive and negative attributes of the self and learning how to use these to achieve a clearer concept of the self as an individual (Erikson, 1990). It is only possible to develop an identity once a clear sense of self, which has shown to be consistent and relatively stable for some time, has been established (Mussen et al., 1984). Communication is essential for the construction and maintenance of an individual’s identity as through the process of passing on information, thoughts, feelings or ideas, the individual’s relationship is revealed to others (Fogel, 1993; Huebsch, 1995; McEwen, 1975; Thiel-Stern, 2008). Social interaction, which is made possible through communication, allows adolescents to project aspects of their internal identity into a social identity for others to perceive. They are able to assess what is appropriate by drawing from situational and interpersonal contextual cues (Johnson, 2003). Interpersonal relationships thus facilitate the development of a positive and coherent identity, so that adulthood may be approached confidently (Craig & Baucam, 2002; Johnson, 2006). The participants in the present study also remarked that some of their peers are inclined to seek attention through instant messaging in the process of experimenting with the various identities. According to one participant: “When you’re on MXit you always just like look for attention, you always just try to say stuff...” Another participant explained that “A lot of people look for attention over MXit.... they’re always like going to sad... like they’ll be “I’m so sad, I’m so depressed” and everything and then they want to get your attention over MXit.” Another participant
said: “A lot of people can like pretend over MXit... like they say they’re sad on MXit and then they can pretend... like... oh, it’s hard to explain it... say their emoticon on MXit is sad, then they can do it just for fun, just to get attention when they’re actually ok...”

Teenagers are able to explore and get to know themselves, work through problems and discover better ways of interacting with others by experimenting in the virtual setting with social interactions and identity (Guvi, 2007). Peer relationships that generate negative experiences, however, may do more harm to the already sensitive and unsure image of the teenager. Teenagers may be cruel by displaying rejection or contempt to another adolescent who expresses a desire to be part of a group. The rejected adolescent may then develop anxiety and avoidant reactions within a social setting and experience low self-esteem (Mussen et al., 1984; Santrock, 1996).

According to a study by Gross, Juvonen and Gable (2002), participants who felt socially anxious and/or lonely at school on a regular basis, were more inclined to use instant messaging to communicate with people they were not close to. This finding may possibly explain why some teenagers seek interaction with someone other than their peers through MXit. Individuals who are socially anxious and lonely are able to express themselves more easily on the internet than they are with those they know off-line. The other benefits of internet interaction are that loneliness and depression are reduced and after approximately two years of engaging in this activity the social circle of the individuals would have grown (McKenna et al., 2002). A participant in the present study related the following experience: “They’re kiff people in person but then they become totally different on MXit, like... there’s this guy that sits next to me in class who’s like never said hello to me once but then when he’s on MXit he’ll go “I’m missing you,” and “I love you” and everything and he’s like “ja, I wanna come visit and everything” and he won’t even say hello to me in person.”

The participants who have low self-esteem reported that instant messaging provides an opportunity for them to interact confidently with the opposite sex. They are able to connect and maintain contact more easily. According to one participant “you’re more confident in MXit and
everything. It’s different like in person... you get more nervous and when you’re on MXit, you can say anything without like being embarrassed.” Another participant described her experiences as follows: “Sometimes I’d be too shy to ask them certain questions so then I can just be like “Ok, MXit....ask them on MXit.” Another participant explained that “they can only say certain things on MXit and when they see the guy, they’re really shy.” An individual’s self-esteem “is the most important variable in communication” (Taylor et al., 1983, p. 50). It affects the individual’s levels of social confidence, which in turn, then influences how he/she communicates with others (Taylor et al., 1983). Instant messaging provides an opportunity, during the communication process, to create a positive image as it is possible to conceal true emotional reactions which online peers may dislike (Chigona et al., 2009).

According to Harter (1997), peer acceptance plays an especially important role in adolescent self-identity while support from close friends improves self-esteem. Confidence and self-esteem both develop from acceptance, recognition, approval and support while independence is facilitated as the adolescent gradually begins to focus more on peer acceptance and popularity and less on the parent-child relationship (Kiuru, 2008; Rubin, 2007). Through peer interactions, teenagers are able to gain experience, attitudes and master social skills such as being open, caring and trusting. It is also through peer relationships that adolescents learn to begin, maintain and terminate relationships (Guvi, 2007; Kiuru, 2008). The parents of an adolescent, however, still play an important role in assisting their child develop healthy relationships, as well as achieve independence and the ability to cope with life by encouraging them to engage in age-appropriate autonomy while maintaining strong bonds with their family members (Lerner et al., 2001).

Teenagers are inclined to engage in major self-exploration and experimentation which could be problematic, as it may result in great turmoil within or risky behaviour due to their immaturity and inexperience concerning life and adult matters (Papalia et al., 2002). It has been proven that parental influence and involvement has a protective factor and is a deterrent particularly against adolescent
high-risk activities (Rai et al., 2003). Loving, caring and trusting parents who are in constant 
contact with their children and actively participate in their development, are assisting and 
supporting them to develop optimally, while parents, who are unreceptive towards their children, 
reject and neglect them, cause them to be poorly adjusted (Mussen et al., 1984).

Most participants stated that their parents are involved in the constant monitoring of their use 
of MXit. They were initially given a set of rules by their parents and are allowed to use MXit on 
condition that they adhere to those specific rules. They understand the importance of the rules and accept them. One participant described her experiences regarding parental involvement: “My uncle first got MXit and then my dad ended up going to do research on it before I got it and he was like “no chat rooms, you must have the good MXit, not the bad MXit.” And now he’s actually ended up... he’s got MXit so if I have an emergency or he has spare time... like say, I went to Stellenbosch then he’ll go on and we’ll talk together. So ja, he’s a very aware father.” Another participant explained that her father constantly involved: “.... my dad, ‘cause he did research on... he’d bring me articles just to make me more aware, so it’s like a click on like every now and again to inform me of what can happen.” A third participant stated: “Every time I do spend too much time on MXit, they take it away.”

Authoritative parenting is considered the most successful parenting style as supervision and limit setting is done with affection, acceptance and involvement (Rai et al., 2003 Turner, 1996). Authoritative parents encourage responsibility, trustworthiness and respect for authority by setting rules, norms and values. The child may negotiate after receiving an explanation but is also taught to be cooperative and sensitive to the needs of others. Harsh punishment has proven to be less effective than expressing mere displeasure at the behaviour of an adolescent (Turner, 1996). This style of parenting is effective for the development of self-regulated, moral members of society as it is a form of socialisation where, through parent-child interaction, the parent models suitable social behavior of rules and standards which the children observe and internalise (Shantz & Hartup, 1992).
The parents facilitate the development of a teenager’s self-image by being actively involved with them, providing structure and supporting the development of independence (Papalia et al., 2002).

Social Skills

One of the most significant implications of communications technology is that it could be changing the nature of social interaction and relationships and may thereby, have a negative impact on social skills and relationships (Chigona et al., 2009; Guvi, 2007). According to certain studies, SIT are inclined to “draw users away from real physical interactions that they had possessed with their family members or with their close friends and acquaintances” (Chigona et al., 2009, p. 4).

Participants consider MXit a useful tool for social interaction with their peers but report that they are inclined to allow it to interfere with their other interpersonal interactions when in the company of others. One of the participants said: “They [parents] get annoyed sometimes... ‘cause sometimes we’ll go out with them and then we’ll be on our phones and it’s like antisocial. Umm... actually a lot of people get irritated like if you’re at their house and then you’re on your phone... it’s like very antisocial and you want to speak to them and “ok, no just hold I’m on MXit.” Another participant explained: “If I went on MXit, it would be really rude... like I’m with them... why should I like try go on MXit or talk to someone else? It’s very rude to go on MXit when you’re around someone... ‘cause then you saying no, the people’s company on MXit is better than like the person you’re sitting with, which is like very, very rude... like one of the rules in my house is that I can’t go on MXit in front of my parents... ‘Cause if I’m on in front of them, then I’m saying the people on MXit are more important than them. And then my dad gets very angry with me.” One participant remarked that “there’s no like interaction between people anymore, only MXit now.” Another participant explained her parents’ perception with regards to her use of instant messaging: “...because I’m being antisocial and they also want to spend time with me.”
Parents and teachers have expressed concern regarding adolescents who are significantly pre-occupied with the mobile phones. Schools have experienced problems such as lessons that are disrupted and its negative effect on schoolwork and exam preparation (Harvey, 2007; Ling, 2000). Some schools have even started to impose fines on such disruptive behaviour (Harvey, 2007). Young (1998), who conducted a study on internet-dependent individuals, found that approximately half of them had developed severe work- or school-related problems as a result of the amount of time spent online. Not only are the addictive natures of these interactive technologies isolating adolescents from public places but they are also creating a dependency syndrome as well as the manifestation of withdrawal symptoms if these devices are withheld from adolescents (Guvi, 2007).

Some participants in the present study reported spending an excessive amount of time on MXit. One participant observed that the true motivation for this behaviour is a desire for social interaction at any opportunity and to remain in constant contact with all their peers as she explained: “... and you go on MXit a lot and then people are like “oh, you’re addicted” but you’re not... you just want to talk to the person. And then if you don’t have anyone to talk to, then you just don’t go on line.” Another participant remarked “… Lots of people are actually getting addicted to it… like I know quite a few friends who go on as they wake up, while they’re on during school, while they’re on the bus on the way to school and then they might log off for say like half an hour and then as school starts up first period, they might be on the whole day. Then they might have sport for 2 hours and then go off and then from the rest from when school’s finished till 12 o’clock midnight, they’ll be on MXit. I know a girl who’s like on till 2 am in the morning.” Another participant described this experience with regards to her use of MXit: “… It affected my schoolwork as well, a lot, ‘cause I’d speak to him a lot on MXit, because we wouldn’t have that… umm… we weren’t that privileged to see each other, so it was more on MXit and phone calls.” Bosch (2008) reported similar experiences by her participants in her study. Some of the participants were occasionally inclined to spend most of the day on MXit. One participant admitted to spending a whole night chatting to a
male friend on MXit. They started at seven o’clock the evening and continued till eight o’clock the next morning. In a study conducted by Guvi (2007) one participant reported that she had lost the feeling in her fingers for fifteen minutes after developing pins and needles in her hand as a result of being on MXit for a long period while another participant recalled having painful wrists and thumbs after spending up to six hours one evening on MXit. A participant in the present study echoed similar experiences with her friends: “I know though some people just are way too MXit obsessed... like they spend like 24 hours on... like this girl that you’ll meet now-now, she spends her whole life on MXit...”

One participant in the present study described how her parents felt about her excessive use of MXit: “Well, there was one stage... I think last year, where I was... sort of a... couldn’t get off it. I was on every single morning and like... just like all the time and they got really frustrated because they thought it was taking away my social life and stuff....” Another participant explained how often she uses Mxit: “I go on during the beginning of school, whatever... and then on the way home from school and then at night.” Bosch (2008) reported that some of the parents of the participants in her study were concerned that their daughters may be addicted to MXit as they spent a significant amount of time on it. Their daughters would attempt to continue communicating with their friends when they did not have access to their own phones by downloading MXit onto their parents’ or siblings’ cellphones. A participant in a study by Lewis and Fabos (2005) reported experiencing anxiety when she was unable to communicate with her friends via instant messaging as she was not able to keep track of her friends’ activities. One school has already established a support group for self-identified MXit ‘addicts’ (Bosch, 2008).
5.5. CONCLUSION

The results of the qualitative analysis were discussed in this chapter. The main themes that emerged during the course of the research were Communication, Interpersonal relationships and Development of the self.

The subthemes that emerged and which fall under the first theme were Communication tool in relationships, Unique communication advantages and Communication disadvantages. The participants reported that they use instant messaging primarily as a tool to communicate and that their interest in the use of instant messaging progressively decreased through the years. The unique communication advantages of instant messaging were noted as well as the communication disadvantages such as the fact that instant messaging limits expression and that the messages are often misinterpreted.

The nature of the relationships and Development of relationships are subthemes that emerged and which fall under Interpersonal relationships. Conversations via instant messaging tend to vary according to the nature of the relationship between the subscribers communicating as well as the genders involved. Participants reported that they generally use instant messaging in the establishment, development and maintenance of their relationships.

Identity and self-esteem and Social skills are subthemes that emerged and which fall under Development of the self. Participants were inclined to use instant messaging to experiment with various identities in an attempt to establish their own stable identity. Participants consider MXit a useful tool for social interaction with peers when alone but report that it is inclined to interfere with interaction when they are in the company of others while simultaneously interacting on MXit.

Literature from previous chapters and current literature related to this study was linked to the themes that emerged. Also, where applicable, emergent themes were linked to the theoretical models discussed in the previous chapter. In the following chapter the conclusions and limitations of the study and recommendations for further research are presented.
CHAPTER 6

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1. INTRODUCTION

The results of the present study were presented and discussed in chapter 5. The aim of this chapter is to highlight the most significant findings, discuss the limitations of the research study as well as its contribution and value and draw conclusions for this study. Recommendations for future research studies will follow as well as a conclusion of this chapter.

6.2. OVERALL FINDINGS AND CONCLUSIONS OF THE STUDY

The aim of this research study was to explore adolescent females’ experiences of instant messaging upon their relationships. The focus of the literature review was specifically on adolescent development, communication, instant messaging and relationships. The study was grounded in the theories of Erik Erikson and Richard Lerner. The following three main themes emerged:

The first main theme that emerged during the course of the research was Communication and the subthemes that emerged and which fall under this theme were Communication tool in relationships, Unique communication advantages and Communication disadvantages.

The second main theme that emerged was Interpersonal relationships and the subthemes that emerged and which fall under this theme were The nature of the relationships and Development of relationships.

The third main theme that emerged was Development of the self and the subthemes that emerged and which fall under this theme were Identity and self-esteem and Social skills. The findings of each main theme along with its subthemes will briefly be discussed next.
6.2.1 Communication

Communication Tool in Relationships

Instant messaging is primarily used by the participants as a communication tool in their relationships. They use instant messaging to ask questions, relay answers, organise events and generally for the purpose of social networking.

The participants reported that their interest in the use of instant messaging progressively decreased through the years. Even though instant messaging is a popular means of communication amongst adolescent girls, many of the participants reported being more enthusiastic about using it in their relationships when they were younger. As they matured the novelty of using instant messaging in their relationships appeared to decrease and they preferred to use other modes of communication.

Unique Communication Advantages

The second sub theme that emerged was that instant messaging and specifically the service provider of instant messaging, MXit, has many communication advantages.

MXit is popular amongst adolescent females who use it in their relationships as it is an inexpensive and accessible mode of communication. The cost of communication is far less in comparison to the use of other modes of communication.

The participants reported that not only are they able to enjoy the company of their peers via instant messaging when apart thereby satisfying their need for social contact, but they are also able to do so while being engaged in other activities at home. They also reported that instant messaging enriches their social life as it allows them to organise social activities when apart.

One of the advantages of MXit is that participants are also able to engage in different conversations simultaneously through MXit. Most participants reported generally being involved in two to five conversations at once but the number of conversations may be as many as ten.
During social interactions participants often use the multimix function which is available on MXit. It enables them to participate in a conversation with a select group of friends by having access to what each person is saying on MXit at that moment.

The emoticon and status functions are often used on MXit by the participants to express their present mood state. These functions enable them to inform others of how they are feeling at the present moment. According to the participants, the use of these two abovementioned functions improves communication in their relationships and contributes towards healthy relationships as it improves their perceptual accuracy.

**Communication Disadvantages**

The third sub theme that emerged under communication is that even though instant messaging has many communication advantages it also has some communication disadvantages.

The major disadvantage of using instant messaging in relationships according to the participants is that it limits expression. They find instant messaging a limited medium with regards to expressing their emotions accurately and clearly as it does not allow for any visual and verbal interaction during communication. Even though the participants have the use of the emoticon function and status function to enhance communication, they report that these functions are limited in the degree to which they are able to facilitate communication as the participants are unable to label their emotions accurately.

A problem that the participants reported experiencing with instant messaging is that the messages are often misinterpreted. They described this dilemma as being frustrating as it requires immediate attention and clarification before it is possible to continue further with their interaction. They also reported experiencing conflict in their relationships as a result of the misinterpretation of some of the instant messages. One of the participants reported that even though the difference may
be previously resolved in person, conflict may occur through instant messaging as a result of the misinterpretation of messages.

6.2.2 Interpersonal relationships

The Nature of the Relationships

The first sub theme that emerged is the nature of adolescent females’ relationships via instant messaging.

Participants are inclined to interact with some of their contacts solely through MXit and do not socialise with them in person. Their romantic relationships and friendships that are initiated over instant messaging usually remain on a superficial level and are also often of short duration.

Many of the participants in the present study explained that they prefer to communicate with their close friends and their male friends through instant messaging. The conversations via instant messaging vary according to the nature of the relationship between the subscribers communicating as well as the genders involved. Their conversations with their female friends are mostly casual but when interacting with a close friend they report the odd serious conversation and an element of support. The most popular topics of conversation between the participants and their female friends appeared to be about their male friends, followed by their activities over the past weekend, upcoming school and social events, gossip, fashion, school, homework, film stars and movies. Participants found instant messaging to be most useful when they want to organise an activity or social gathering in advance or if they need assistance with homework. The participants in the present study reported that they generally flirt or have casual conversations with their male friends which include topics such as sport or any current events. Some participants are inclined to have deeper conversations with their male friends than they do with their female friends. This may include for example, giving advice regarding a girlfriend or someone the male friends are interested in.
The participants reported using instant messaging in their relationships as a means to reaching out to friends in times when they required peer interaction, support and empathy. Many of the participants had also experienced conflict at one time or another in their relationships with both genders and initiated, continued with and ended conflict all through instant messaging.

**Development of Relationships**

The second sub theme that emerged under the theme of interpersonal relationships is the nature of the development of the adolescent females’ relationships via instant messaging.

The participants reported that they use instant messaging in the establishment, development and maintenance of their relationships. Opportunities are created through frequent contact to become better acquainted with each other and to discover common interests. It also provided an opportunity for the shy participants to interact with the opposite sex with the intention of establishing a romantic relationship.

Instant messaging also enables the participants to keep in contact with the people they already have an established relationship with but with whom they do not often see. They use instant messaging particularly to maintain contact with friends whom they do not see at school or who live a long distance away. But even though Mxit is a popular mode of communication amongst adolescents, they prefer face-to-face interaction or communicating via phone.

Some of the participants in the present study perceive the act of breaking up with the opposite sex as a negative experience and do not approve of such activity through instant messaging. Participants are not only inclined to break up through instant messaging but also to end relationships with peers by simply deleting them from their contact list on MXit.
6.2.3 Development of the Self

Identity and Self-Esteem

The first sub theme that emerged as part of the development of the self was the role of identity and self-esteem development of adolescent females using instant messaging in their relationships.

It emerged that the participants were inclined to use instant messaging to experiment with various identities in an attempt to establish their own stable identity. They reported that some of their peers are inclined to behave differently over MXit in comparison to when they interact face-to-face. They also remarked that some of their peers have a tendency to seek attention through instant messaging in the process of experimenting with their identity. The participants who have low self-esteem reported that instant messaging allows them to interact more confidently with male friends.

Social Skills

The second sub theme that emerged is the influence of instant messaging on the development of social skills of adolescent girls. Participants consider MXit a useful tool for social interaction with peers when alone but report that it is inclined to interfere with interaction when they are in the company of others while simultaneously interacting on MXit.

6.3. LIMITATIONS

Certain limitations were noted while conducting this research study. They serve as a valuable contribution to further researchers who wish to conduct similar research in the future.

The first limitation of this study is that the sample was small and consisted of a total of 10 participants. While the researcher is confident that the study has accurately portrayed the experiences of the participants and identified common themes, the possibility exists that they did not accurately represent the female adolescent population as a whole.
The second limitation of this study is the inability to generalise the findings of this study to the general population as the sample is not representative of the larger population. Snowball sampling was employed which means that the participants were purposefully selected and selection bias may have occurred in the process. There is little diversity in the sample as the participants are all peers who attend one of two schools in the Nelson Mandela Metropole. Their experiences of using instant messaging in their relationships may be similar as they are part of a group of friends who share similar academic performance levels, interests and social experiences. These experiences may, however, differ from the larger population in general.

The third limitation of this study is that generalising to the larger population on the grounds of common experiences is virtually impossible as the experiences of adolescent females using instant messaging in their relationships are subjective and therefore vary greatly. Their experiences are diverse as their course of adolescent development and their contexts in which they find themselves influences their experiences. Researchers are thus faced with the challenge of finding universal experiences common to all females who make up the adolescent population.

The fourth limitation of this study is that it is an exploration of the experiences of adolescent females using MXit in their relationships. A narrower research focus on one or two themes relating to this research may produce a clearer and more in-depth description of these phenomena and yield more reliable results.

The fifth limitation of this study is that there was little time available to build rapport with the participants which may have impacted upon data gathering. Time was limited as the participants had to be transported by their parents and the researcher and participants all met for the first time shortly before the interviews were conducted. If there had been sufficient time to build rapport and extend the interviews, more personal and relevant information may have emerged which would have enriched the data that was gathered.
6.4. VALUE OF RESEARCH STUDY

Adolescents, in comparison to adults, are more inclined to make use of SIT in their social lives. It was found that instant messaging, apart from email, was the most important means of communication used by adolescents (Brown et al., 1993; Bryant et al., 2006; Madden & Rainie, 2003). In the United States alone, 74% of online adolescents as opposed to 44% of online adults have used instant messaging (Lenhart et al., 2001). It was found that adolescents are inclined to use their cellphones more often than boys as a social tool (Tufte, 2003; Flanagin, 2005).

South African adolescents have not been left behind in this technological age as there was a cellphone explosion in Africa in the 1990’s (Bosch, 2008; Thomas, 2006). The largest group of South African MXit members consists of adolescents who are between the ages of 12 to 17 years (Thomas, 2006). Instant messaging has become a popular means of communication worldwide, especially amongst the female adolescent group.

This phenomenon is relatively new in South Africa and the experiences South African female adolescents using instant messaging in relationships needs to be explored in order to assess the impact it may have on the development of the adolescent as a whole. There has been limited research conducted on this specific topic. This research study may therefore be considered a valuable contribution towards exploring and researching the experiences of adolescent females using instant messaging in their relationships. It may also be considered a springboard for further and more in-depth research focusing on specific themes that emerged from this research study.

6.5. RECOMMENDATIONS FOR FUTURE RESEARCH STUDIES

One of the most significant implications of communications technology is that it could be changing the nature of social interaction and relationships and may thereby, have a negative impact on social skills and relationships (Chigona et al., 2009; Guvi, 2007). With the dearth of academic literature on the use of instant messaging and its impact on adolescent development, particularly
among young people in South Africa, the present study provides some valuable findings while at the same time highlighting gaps and possibilities for future research. It is recommended by the researcher that more research be conducted with regards to this topic and related issues in this field specifically on South African female adolescents.

The participants of this study provide valuable information with regards to using instant messaging in their relationships but the study’s findings are not generalisable to the larger population due to the small sample and sampling method utilised. The participants in this study met the criteria stipulated for the study but have similar demographics which means that they lack diversity and it is possible that the experiences of other South African female adolescents in the population would be different. A study that incorporates a larger and more diverse sample may provide a more general and more reliable description of this phenomenon.

One of the themes that emerged from this study may inspire other researchers and may be selected as a focus for further research. There are many areas of an adolescent’s development that are impacted upon by instant messaging which require in-depth research. The influence of instant messaging on the development of an adolescent’s social skills, communication skills, relationships, identity and self-esteem are examples that may be recommended as suitable topics for research.

One of the themes that emerged and appeared repeatedly throughout the research was the involvement and experiences of parents regarding their daughters’ use of instant messaging. It was not discussed in depth but merely mentioned in the results and discussion of the present study as the focus was on the experiences of specifically adolescent girls as opposed to the parents’ perspectives and experiences. The experiences of parents with daughters who use instant messaging may be a potential research topic for further exploration.

Another potential research topic for research is exploring the experiences of adolescent females who prefer to interact with the opposite gender through instant messaging and the dynamics of their
relationships. It would also be interesting to explore the actual differences in gender with regards to communication styles in relationships.

Research on the comparison between different races as well as different language groups within a South African context of the experiences of adolescent females using instant messaging in their relationships may be conducted.

Most of the participants reported that they had experienced conflict while engaging in instant messaging. It was briefly discussed in the present study as it emerged as a theme but the nature of the conflict within the adolescent relationship and through instant messaging requires in-depth research. The nature of adolescent romantic relationships and the nature of the attention-seeking behaviour of adolescents through instant messaging are also suitable topics for research.

Mobile phones appeal especially to the adolescent as they provide a sense of excitement, action, control, and freedom which has significant positive and negative consequences that need to be researched (Harvey, 2007).

A final recommendation is for every researcher or academic with an interest in SIT and its use in relationships to keep up to date with regards to trends related to this field and the related research that has developed thus far. Remaining abreast of developments, trends and research in this field is essential as it is a field that is constantly changing and rapidly evolving.

6.6. CONCLUSION

The overall findings and conclusions of the study were discussed. It included the main themes and the subthemes that emerged during the course of research as well as relevant information from the literature review chapters. It was followed by the limitations of the present research study and finally a discussion on recommendations for further research.
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Appendix A:
Formal Letter from Department of Psychology: NMMU

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uclin@live.nmmu.ac.za
Researcher: Antoinette Eberhardt
Antoinette.Eberhardt@live.nmmu.ac.za
Tel: 082 444 9745

Dear

You are being asked to participate in a research study by Antoinette Eberhardt who is a Masters Psychology student at NMMU. She will provide you with the necessary information to assist you in understanding the study and explain what would be expected of you (the participant). These guidelines would include the risks, benefits and your rights as a study subject. Please feel free to ask the researcher to clarify anything that is not clear to you.

To participate, it will be required of you to sign a consent form that will include your signature and date to verify that you understand and agree to the conditions. You have the right to query concerns regarding the study at any time. Immediately report any new problems during the study, to the researcher. Telephone numbers and e-mail address of the researcher are provided above. Please feel free to call these numbers or contact via e-mail.

Furthermore, it is important that you are aware of the fact that the study has been approved by the Research Ethics Committee (Human) of the university. RECH consist of a group of independent experts that have the responsibility to ensure that the rights and welfare of research participants are protected and that studies are conducted in an ethical manner. Studies cannot be conducted without the RECH’s approval. Queries with regard to your rights as a research subject can be directed to the Research Ethics Committee (Human) Research Management by calling the Director: Research at (041) 504 – 4536. If no one could assist you, you may write to: The Chairperson of the Research, Technology and Innovation Committee. PO Box 77000, Nelson Mandela Metropolitan University, Port Elizabeth, 6031.

Participation in research is completely voluntary. You are not obliged to take part in any research. If you do partake, you have the right to withdraw at any given time, during the study. However, if you do withdraw from the study, you should return for a final discussion in order to terminate the research in an orderly manner.

If you fail to follow instructions, or the researcher believes that it is not in your best interest to continue in this study, or for administrative reasons, your participation may be discontinued. The study may be terminated at any time by the researcher, the sponsor or the Research Ethics Committee (Human) that initially approved the study.

Although your identity will at all times remain confidential the results of the research study may be presented as scientific conferences or in specialist publications.

This informed consent statement has been prepared in compliance with current statutory guidelines.

Yours sincerely

Antoinette Eberhardt
RESEARCHER
Prof. G. Howcroft
SUPERVISOR
Prof. L. Stroud
CO-SUPERVISOR
Appendix B-1

Cover Letter to Participants

Dear Potential Participant

I am at present a Psychology Masters student at the Nelson Mandela Metropolitan University.

I am undertaking research concerning adolescent girls who use instant messaging as a primary mode of communication with friends they see regularly.

The aim of the research is to explore the female adolescent and her use of instant messaging in relationships. I require adolescent girls between the ages of 14 to 17 years who meet the specific criteria for participants of the research.

The information needed for the study will be obtained by interviewing each participant for about one hour. The questions asked will be related to the use of specifically one form of instant messaging, namely MXit.

The interview will be recorded, transcribed (recorded in writing) and analysed by the researcher. The information obtained will remain confidential and no personal feedback will be provided as the participants’ identity will not be revealed. A treatise will be made available for study in the NMMU library once the research is completed.

The participants will remain anonymous throughout the research.

Each participant will be respected and no harm is intended toward her.

Your participation and assistance in this research project is appreciated and valued.

Yours sincerely

--------------------------------------------------
Antoinette Eberhardt Prof. G. Howcroft Prof. L. Stroud
RESEARCHER SUPERVISOR CO-SUPERVISOR
Dear Parents

I am at present a Psychology Masters student at the Nelson Mandela Metropolitan University.

I am undertaking research concerning adolescent girls who use instant messaging as a primary mode of communication with friends they see regularly.

The aim of the research is to explore the female adolescent and her use of instant messaging in relationships. I require adolescent girls between the ages of 14 to 17 years who meet the specific criteria for participants of the research.

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Yours sincerely

----------------------------------------
Antoinette Eberhardt                    Prof. G. Howcroft                  Prof. L. Stroud
RESEARCHER                              SUPERVISOR                       CO-SUPERVISOR
Appendix C

BIOGRAPHICAL QUESTIONNAIRE

Please fill in this form with your personal details as accurately as possible.

<table>
<thead>
<tr>
<th>Code name</th>
<th>A code name will be allocated to you by the researcher to ensure anonymity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of interview</td>
<td></td>
</tr>
<tr>
<td>Date of birth</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Grade you are in at present</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
</tr>
<tr>
<td>City you live in</td>
<td></td>
</tr>
<tr>
<td>Average time you are on MXit per day with friends</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D
INFORMATION AND INFORMED CONSENT FORM

<table>
<thead>
<tr>
<th>Title of the research project</th>
<th>The experience of instant messaging upon adolescent female relationships.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference number</td>
<td></td>
</tr>
<tr>
<td>Principal investigator</td>
<td>Antoinette Eberhardt</td>
</tr>
<tr>
<td>Address</td>
<td>23 The Vines</td>
</tr>
<tr>
<td></td>
<td>Luneville Road, Lorraine</td>
</tr>
<tr>
<td></td>
<td>Port Elizabeth</td>
</tr>
<tr>
<td></td>
<td>6070</td>
</tr>
<tr>
<td>Contact telephone number</td>
<td>082 444 9745</td>
</tr>
</tbody>
</table>

A. DECLARATION ON BEHALF OF PARTICIPANT

<table>
<thead>
<tr>
<th>I, as parent of the participant</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of parent</td>
<td></td>
</tr>
</tbody>
</table>

A.1 I HEREBY CONFIRM AS FOLLOWS:

1. I, the parent of the participant, was invited to allow my daughter to participate in the above-mentioned research project that is being undertaken by NMMU in the Department of Health Sciences

2. The following aspects have been explained to me, the parent:
2.1 **Aim**: Antoinette Eberhardt is studying the experiences of adolescent females using instant messaging in relationships. The information will be used to: Further the knowledge of the profession of Psychology.

2.2 **Procedures**:  
I understand that the interviewing process will take place for approximately an hour.  
I may withdraw my daughter at any point that I may wish. Non-participation or withdrawal in the study will not have any negative consequences for my daughter or for me in any way. The interview will be audio-recorded and later transcribed. The transcription will not be included in the appendix of the final work. Feedback regarding the study's outcomes will be made available in the form of a treatise in the NMMU library.

2.3 **Risks**: No risks have been identified.
2.4 **Possible benefits:** As a result of participation in this study the research findings are intended to contribute to the knowledge of the profession of psychology.

2.5 **Confidentiality:** The participant’s identity will not be revealed in any discussion, description or scientific publications by the investigators.

2.6 **Access to findings:** Any new information/or benefit that develops during the course of the study will be shared as follows: through a treatise submitted to NMMU and made available in its library. An article may be published in a journal of psychology.

2.7 **Voluntary participation/refusal/discontinuation:**

   My daughter’s participation is voluntary
   [ ] YES [ ] NO

   My decision whether or not my daughter participates will in no way affect my present or future lifestyle
   [ ] TRUE [ ] FALSE

3. The information above was explained to me/the parent of the participant by Antoinette Eberhardt in [ ] Afrikaans [ ] English and I am in command of this language.

   I was given the opportunity to ask questions and all these questions were answered satisfactorily.

4. No pressure was exerted on me to consent to my daughter’s participation and I understand that I may allow my daughter to withdraw at any stage without penalisation.

5. Participation in this study will not result in any cost to myself.

**A.2.1 HEREBY VOLUNTARILY CONSENT TO MY DAUGHTER’S PARTICIPATE IN THE ABOVE-MENTIONED PROJECT**

Signed/confirmed at [ ] Date

--------------------------------------------------------
Signature of participant
--------------------------------------------------------
Signature of witness --------------------------------------------------------------

--------------------------------------------------------
Full name of witness --------------------------------------------------------------
B. STATEMENT BY OR ON BEHALF OF INVESTIGATOR(S)

I, Antoinette Eberhardt declare that:

- I have explained the information given in this document to

- she was encouraged and given ample time to ask me any questions;

- this conversation was conducted in
  and no translator was used

- I have detached Section C and handed it to the participant

Signed/confirmed at

------------------------------------------
Signature of interviewer

------------------------------------------
Signature of witness

------------------------------------------
Full name of witness

C. IMPORTANT MESSAGE TO PARENT

Dear parent

Thank you for allowing your daughter’s participation in this study. Should, at any time during the study:
  - an emergency arise as a result of the research, or
  - you require any further information with regard to the study

Kindly contact Antoinette Eberhardt

at telephone number 082 444 9745
### Title of the research project
The experience of instant messaging upon adolescent female relationships.

<table>
<thead>
<tr>
<th>Reference number</th>
<th>Antoinette Eberhardt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal investigator</td>
<td>Antoinette Eberhardt</td>
</tr>
</tbody>
</table>
| Address | 23 The Vines  
Luneville Road, Lorraine  
Port Elizabeth  
6070 |
| Postal Code | 23 The Vines  
Luneville Road, Lorraine  
Port Elizabeth  
6070 |
| Contact telephone number | 082 444 9745 |

### A. DECLARATION BY PARTICIPANT

<table>
<thead>
<tr>
<th>Initial</th>
</tr>
</thead>
</table>

I, the participant

Address (of participant)

### A.1 HEREBY CONFIRM AS FOLLOWS:

1. I, the participant, was invited to participate in the above-mentioned research project that is being undertaken by NMMU in the Department of Health Sciences.

2. The following aspects have been explained to me, the participant:

   2.1 **Aim:** Antoinette Eberhardt is studying the experiences of adolescent females in instant messaging in relationships. The information will be used to: Further the knowledge of the profession of Psychology.

   2.2 **Procedures:**
   
   I understand that the interviewing process will take place for approximately an hour.
   
   I may refuse to answer any questions and may withdraw at any point that I may wish. Non-participation or withdrawal in the study will not have any negative consequences for me in any way. The interview will be audio-recorded and later transcribed. The transcription will not be included in the appendix of the final work. Feedback regarding the study's outcomes will be made available in the form of a treatise in the NMMU library.

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2.6 Access to findings: Any new information/or benefit that develops during the course of the study will be shared as follows: through a treatise submitted to NMMU and made available in its library. An article may be published in a journal of psychology.

2.7 Voluntary participation/refusal/discontinuation:

My participation is voluntary

<table>
<thead>
<tr>
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</thead>
</table>

My decision whether or not to participate will in no way affect my present or future lifestyle

<table>
<thead>
<tr>
<th>TRUE</th>
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<table>
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<th>English</th>
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</table>

and I am in command of this language.

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5. Participation in this study will not result in any cost to myself.

A.2 | HEREBY VOLUNTARILY CONSENT TO PARTICIPATE IN THE ABOVE-MENTIONED PROJECT
<table>
<thead>
<tr>
<th>Signed/confirmed at</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Signature of participant**

---

**Signature of witness**

---

**Full name of witness**

---

B. STATEMENT BY OR ON BEHALF OF INVESTIGATOR(S)
I, Antoinette Eberhardt declare that:

- I have explained the information given in this document to

- she was encouraged and given ample time to ask me any questions;

- this conversation was conducted in Afrikaans and no translator was used

- I have detached Section C and handed it to the participant

Signed/confirmed at

------------------------------------------------------
Signature of interviewer

------------------------------------------------------
Signature of witness

------------------------------------------------------
Full name of witness

C. IMPORTANT MESSAGE TO PARTICIPANT

Dear participant

Thank you for your participation in this study. Should, at any time during the study:
- an emergency arise as a result of the research, or
- you require any further information with regard to the study

Kindly contact Antoinette Eberhardt at telephone number 082 444 9745

Appendix F – Interview Questionnaire

INTERVIEW SCHEDULE
What are your experiences using instant messaging in your relationships?

Possible questions to guide the interview:

1. Tell me why you communicate through MXit.
2. How much time per day do you spend on MXit?
3. How popular is MXit amongst your friends?
4. Tell me about the friends you communicate with on MXit.
5. What do you chat with your friends about on MXit?
6. How many people do you speak to at one time on MXit?
7. How do you feel after you have been on MXit?
8. What would happen if you were not allowed to use MXit?
9. Tell me about the times when you use MXit the most.
10. Tell me how you manage your time and activities since using MXit.
11. How central is MXit to your social life and friendship?
12. How is your social life affected if you can’t use MXit?
13. Do you communicate with your parents on MXit?
14. How do your parents feel about MXit?
15. Tell me about the functions available on MXit.
16. Tell me anything about MXit that you think I don’t know.
17. What problems have you experienced with MXit?
Appendix G

Tesch’s Eight Steps to Data Analysis
(Tesch, 1990, p. 142-145)

1. Get a sense of the whole. Read through all of the transcripts carefully. Perhaps jot some ideas as they come to mind.

2. Pick one document (one interview) - the most interesting, the shortest, the one at the top of the pile. Go through it, asking yourself: what is this about? Do not think about the “substance” of the information, but rather its underlying meaning. Write thoughts in the margin.

3. When you have completed this task for several informants, make a list of all topics. Cluster together similar topics. Form these topics into columns that might be arrayed as major topics, unique topics, and leftovers.

4. Now take this list and go back to your data. Abbreviate the topics as codes and write the codes next to the appropriate segments of the text. Try out this preliminary organising scheme to see whether new categories and codes emerge.

5. Find the most descriptive wording for your topics and turn them into categories. Look for reducing your total list of categories by grouping topics that relate to each other. Perhaps draw lines between your categories to show interrelationships.

6. Make a final decision on the abbreviation for each category and alphabetise these codes.

7. Assemble the data material belonging to each category in one place and perform a preliminary analysis.

8. If necessary, recode your existing data.
Appendix H

Lincoln and Guba’s Model of Trustworthiness (1985) asks the following questions:

1. How credible are the particular findings of the study? By what criteria can we judge them?
2. How transferable and applicable are these findings to another setting or group of people?
3. How can we be reasonably sure that the findings would be replicated if the study were conducted with the same participants in the same context?
4. How can we be sure that the findings are reflective of the subjects and the inquiry itself, rather than a creation of the researcher’s biases or prejudices?