Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention programme within the South African context

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DECLARATION

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ABSTRACT

Anxiety disorders constitute one of the most prevalent mental health problems in youth. High incidences of fear and anxiety symptoms have also been reported in research on South African children over the last decade; indicating a need for effective anxiety interventions specifically developed for South African children. However, there have been fewer studies to research the underpinning of cognitive behavioural therapy (CBT) based interventions for specific vulnerable children in the South African context. The study aimed to establish whether this proposed group of vulnerable South African children between the ages of 10 and 13 years possess the skills that are needed for engagement in CBT. The research objectives were twofold, firstly to explore whether a group of vulnerable South African children between the ages of 10 and 13 years could distinguish between thoughts, feelings and behaviours and secondly to determine if feedback during assessment improved performance. The participants consisted of a sample of 52 children between the ages of 10 and 13 years from a poverty-stricken neighbourhood in Stellenbosch, South Africa. A biographical questionnaire was completed by the researcher. The data collection commenced with the researcher asking the children to tell their favourite story. This created a child-friendly environment and was a good introduction to the CBT-based activity. The data collection was conducted in the child's choice of language. As the researcher is not proficient in Xhosa, a translator was used. Taking into account cognitive developmental theory, cognitive behavioural theory as well as ecological systems theory, this activity was analysed quantitatively. Most of the participants could discriminate between thoughts, feelings and behaviours suggesting that they understand the core skills needed for participating in CBT. Conclusions will be drawn about the viability of this CBT-based activity for usage in a future anxiety intervention programme within the South African context.

OPSOMMING

Angs is een van die mees algemeenste geestesgesondheids probleme onder die jeug. Hoë voorkoms van vrees en angssimptome is ook gerapporteer in navorsing oor Suid-Afrikaanse kinders die afgelope dekade. Die behoefte is uitgespreek vir die ontwikkeling van effektiewe angs intervensies spesifiek vir Suid-Afrikaanse kinders. Daar was egter minder studies gedoen om die onderskrywing van kognitiewe gedragsterapie gebaseerde intervensies gemik op spesifiek weerlose kinders in die Suid-Afrikaanse konteks na te vors. Die doel van die huidige studie was om vas te stel of die voorgestelde groep weerbare Suid-Afrikaanse kinders tussen die ouderdomme van 10 en 13 jaar oor die nodige vaardighede beskik vir deelname aan kognitiewe gedragsterapie. Die navorsingsdoelwit was tweeledig, eerstens om te ondersoek of a groep weerlose Suid-Afrikaanse kinders tussen die ouderdomme van 10 en 13 jaar kon onderskei tussen denke, gevoel en gedrag en tweedens om te bepaal of terugvoering gedurende assessering hul prestasie verbeter het. Die deelnemers het bestaan uit ‘n steekproef van 52 kinders tussen die ouderdomme van 10 en 13 jaar woonagtig in ‘n behoeftige woonbuurt in Stellenbosch, Suid-Afrika. ‘n Biografiese vraelys was voltooi deur die navorser. Die data insameling het begin deurdat die navorser die kinders gevra het om hul gunsteling storie te vertel. Hierdie het ‘n kindervriendelike atmosfeer geskep en was ‘n goeie inleiding tot die kognitiewe gedragsterapie gebaseerde aktiwiteit. Die data insameling is gedoen in die kind se keuse van taal. Omdat die navorser nie Xhosa magtig is nie, was daar gebruik gemaak van ‘n vertaler. Met in agneming van die kognitiewe ontwikkelings teorie, die kognitiewe gedrags teorie asook die ekologiese sisteem teorie, was die aktiwiteit kwantitatief ontleed. Die meeste van die deelnemers kon onderskei tussen denke, gevoel en gedrag, wat dui daarop dat hul die kern vaardighede wat nodig is vir deelname aan kognitiewe gedragsterapie begryp. Gevolgtrekkings sal gemaak word oor die lewensvatbaarheid van hierdie kognitiewe gedragsterapie gebaseerde aktiwiteit vir gebruik in ‘n toekomstige angs voorkoming program in die Suid-Afrikaanse konteks.

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CHAPTER 1

INTRODUCTION, MOTIVATION AND AIMS OF THE STUDY

In this chapter a general introduction to the present study will be provided. Additionally, the motivation for this study, research aim and objectives, and an overview of the current study will be presented.

Anxiety is seen as a normal emotional reaction when it does not interfere with the everyday functioning of children (Beesdo, Knappe, & Pine, 2009; Kendall, 2012). However, when anxiety causes significant distress and/or has a negative influence on children's family, school and/or social context, it becomes problematic (Kendall, 2012). Anxiety disorders constitute one of the most prevalent mental health problems in children and adolescents (Merikangas et al., as cited in Mash & Wolfe, 2013) the effects of which are often long-term and might continue into adulthood (Rapee, Schniering, & Hudson, 2009).

Over the last decade, high incidences of fear and anxiety symptoms have also been reported by South African children (Mostert & Loxton, 2008; Muris et al., 2006; Strydom, Pretorius, & Joubert, 2012). South African children's vulnerability to psychological distress is increased by specific psychosocial factors such as the impact of human immunodeficiency virus (HIV) infection on families or the social impact of poverty (Cluver, Gardner, & Operario, 2007; Flisher et al., 2012; Heckler et al., 2012; Skinner et al., 2006; Zwemstra & Loxton, 2011). Research in this area shows a need for an effective anxiety intervention programme specifically developed for South African children (Da Costa & Mash, 2008; Flisher et al., 2012; Loxton, 2004; Mostert & Loxton, 2008; Muris, du Plessis, & Loxton, 2008; Muris et al., 2006; Myer et al., 2009; Strydom et al., 2012; Zwemstra & Loxton, 2011).

Cognitive behavioural therapy (CBT) has emerged as the preferred psychological treatment method used for treating childhood anxiety (Albano & Kendall, 2002; Briesch, Hagermoser Sanetti, & Briesch, 2010; Ishikawa, Okajima, Matsuoka, & Sakano, 2007; Miller,

2008; Mychailyszyn, Brodman, Read, & Kendall, 2012; Reynolds, Wilson, Austin, & Hooper, 2012). The Coping Cat programme (Kendall, 1990) was one of the first CBT intervention programmes developed specifically to treat childhood anxiety. The FRIENDS programme, modelled on the Coping Cat programme, followed later (Briesch et al., 2010).

The FRIENDS for life programme, a sub programme of the FRIENDS programme, was assessed by Mostert and Loxton (2008) amongst 46 South African children (average age of 12 years) from a lower social and economic status (SES) background. Even though the results from Mostert and Loxton (2008) were promising in terms of the prevention of childhood anxiety, it was reported that the participants experienced difficulty in terms of reading and writing (Mostert, 2007). Additionally, Mostert (2007) reported that the children struggled with emotional vocabulary, which possibly impacted negatively on the outcome of the pilot study. Influencing factors which must be considered when conducting such studies are, amongst others, the child participants' developmental level, educational levels and SES. Research results indicated that South African children from a lower SES reported higher levels of anxiety than children from medium to high SES (see for example Muris et al., 2006). Children from low SES may typically also be educationally disadvantaged (Cortina et al., 2013; Flisher et al., 2012) and this could impact on their ability to benefit from universal interventions. Furthermore, South African learners also reported low literacy levels as well as reading problems (Bharuthram, 2012).

Research suggests that CBT is effective for treating anxiety; however, an essential requirement for participation in CBT-based activities is that children can think about their own thinking, as well as being able to identify thoughts, feelings and behaviours as different concepts and realise that they are interrelated (Doherr, Reynolds, Wetherly, & Evans, 2005; Lickel, MacLean, Blakeley-Smith, & Hepburn, 2012; Sauter, Heyne, & Westenberg, 2009).

As such, participation in CBT may be limited if the children have not yet developed meta-cognitive skills; in other words, the ability to think about their thinking.

Although the notion is that only older children are able to participate in CBT, Quakley, Reynolds and Coker (2004) concluded that children as young as four to seven years were able to distinguish between thoughts, feelings and behaviours depending on the use of child-friendly activies and visual cues. This would suggest that young children could participate in CBT, as long as the techniques used are adapted in order to suit the developmental capabilities of the children (Quakley et al., 2004). With the use of developmentally sensitive and childfriendly activities it is possible that children may be able to distinguish between thoughts, feelings and behaviours. Games and play activities are also a nonthreatening way of helping children challenge their inaccurate assumptions which might lead to anxiety (Friedberg, Crosby, Friedberg, Rutter, & Knight, 2000).

1.1. Motivation for this study

The motivation for the study stemmed from the high prevalence of anxiety amongst South African children and the need which was expressed for the development of an intervention programme specifically tailored for South African children. Even though high rates of anxiety were reported by South African children, there seems to be a lack of relevant research (Loxton, 2009). It has consistently been noted that CBT is effective for treating childhood anxiety (Albano & Kendall, 2002; Briesch et al., 2010; Ishikawa et al., 2007; Miller, 2008; Mychailyszyn et al., 2012; Reynolds et al., 2012); however, it is suggested that the assessment of CBT-relevant cognitive capacities might be helpful before starting CBT as this information might be useful to adapt the delivery of CBT interventions to the perceived capabilities of the children (Sauter et al., 2009; Quakley et al., 2004).

Consequently, the current study was based on a CBT-based activity designed and tested by Quakley et al. (2004) to assess children’s ability to distinguish between thoughts,

feelings and behaviours. Quakley et al. (2004) reported that with adequate adaptations and the use of a child-friendly activity young children were able to participate in a CBT-based activity and that performance increased with age (Quakley et al., 2004). However, when assessing an anxiety intervention programme in a group of 12-year-old vulnerable South African children, Mostert (2007) identified difficulties regarding emotional vocabulary. The present study adapted the child-friendly activity used by Quakley et al. (2004) in order to be culturally relevant and focussed on 10 to 13-year-old children; comparing the performance of the different age groups of the participants. Understanding how vulnerable South African children perform on a CBT-based activity will contribute towards designing and improving treatment programmes for this specific population and contribute towards recommendations on how CBT can be developmentally tailored for vulnerable South African children.

The results of this study will contribute towards knowledge regarding vulnerable South African children's understanding of the core skills which are needed for participation in CBT. In doing so, this study adds to the scientific knowledge base by exploring the viability of a CBT-based activity for use in a future anxiety intervention programme. As such, the results from this study will be used as one of the building blocks for a larger project consisting of the planning, implementation and assessment of an anxiety intervention programme in the same community of vulnerable children. Apart from the scientific contribution of the research, particularly towards the development of an anxiety intervention programme, this study is also socially relevant to the South African context where researchers have urged for further investigation of anxiety treatment and its cultural adaptability in the South African context (Flisher et al., 2012; Loxton, 2009; Rosenstein & Seedat, 2011). Expanding the literature base on anxiety intervention content for use in vulnerable children – achieved by this study – should allow for a better understanding of this special population in the South African context and increase the knowledge base needed for the development of an anxiety intervention programme for South African children.

1.2. Research aim and objectives

The aim of this study was to establish whether a proposed group of vulnerable South African children between the ages of 10 and 13 years possess the skills needed for engagement in a CBT-based activity. The research objectives were twofold: (i) to explore whether the children could distinguish between thoughts, feelings and behaviours with the use of a child-friendly activity, and (ii) to determine if feedback during assessment improved performance.

1.3. Overview of the thesis

Chapter 1 provides an introduction to the study. The motivation of the study as well as the research aim and objectives are outlined. The chapter concludes with an overview of the thesis.

Chapter 2 defines key terms and concepts that are relevant to the current study. Relevant literature pertaining to anxiety prevalence, the effects of anxiety, and the need for early intervention as well as the treatment for anxiety is provided. The effectiveness of CBT in treating childhood anxiety is also discussed. The chapter ends with a discussion on the necessary skills children need for effective participation in CBT.

In Chapter 3 the study's theoretical framework is outlined. Theories that are relevant to the study are discussed; these include Piaget's and Vygotsky's theories of cognitive development, Erikson's psychosocial theory as well as Bronfenbrenner's ecological systems theory.

Chapter 4 contains the research methodology that was used to obtain and analyse the data. This chapter includes the research design, biographical information about the participants, the procedure that was followed, as well as a discussion of the measures that were used. Data analyses as well as matters concerning ethics are also discussed.

The results of the present study will be reported in Chapter 5.

Chapter 6 consists of a discussion of the results.

Chapter 7 provides a conclusion on the results. The implications of the research study as well as the limitations are discussed. Recommendations applicable for future research are also provided.

1.4. Chapter summary

In Chapter 1 a general introduction to the study was provided. The motivation for the study and the research aim and objectives were then outlined, followed by an overview of the thesis. In the following chapter key terms and concepts will be defined, followed by the literature review on research findings related to anxiety prevalence, effects of anxiety and the treatment of anxiety is discussed. The chapter concluded with a look at the skills that children need in order to participate in CBT.

CHAPTER 2

LITERATURE REVIEW

In this chapter an overview of relevant literature is provided. The discussion starts by providing definitions of the key terms and concepts which are important to the present research study. Information about the prevalence of anxiety, followed by the effects of anxiety and a discussion on why early intervention is deemed necessary, is also presented. Research concerning the treatment of anxiety as well as a discussion about the effectiveness of CBT follows. The chapter concludes with a discussion of the skills that children need to effectively participate in CBT.

2.1. Defining key terms and concepts

The understanding of some key terms and concepts are important in the present study. They include: (i) anxiety, (ii) cognitive behavioural therapy-based activity, (iii) vulnerable children, and (iv) middle childhood.

2.1.1. Anxiety

Anxiety is an emotion which already exists in infancy and childhood (Beesdo-Baum & Knappe, 2012). When it does not interfere with the functioning of the individual, anxiety is seen as a normal emotional reaction and part of typical development (Beesdo et al., 2009; Kendall, 2012). Anxiety is characterised by an indistinct feeling of uneasiness followed by physical symptoms such as sweating, dizziness, tremors and palpitations that occur in the absence of objective danger (Sadock & Sadock, 2007). In its normal or adaptive form, anxiety alerts an individual to danger and serves as a motivation to adopt certain behaviours to avoid negative experiences or stress (Albano & Kendall, 2002). However, when anxiety causes significant distress and/or has a negative influence on the child's family, school and/or social context, it becomes problematic (Kendall, 2012). Pathological anxiety is characterised by ongoing and far-reaching levels of anxiety and avoidance that are associated with impairment

or subjective distress (Beesdo et al., 2009). Anxious children may experience cognitive distress that includes excessive worry, anxious thinking, and imagining the worse to happen in a situation (Kendall, 2012).

2.1.2. Cognitive behavioural therapy-based activity

Cognitive behavioural therapy (CBT) is an evaluated and preferred intervention used for the treatment of anxiety disorders (Albano & Kendall, 2002; Briesch et al., 2010; Ishikawa et al., 2007; Miller, 2008; Mychailyszyn et al., 2012; Reynolds et al., 2012; Sauter et al., 2009). The nature of CBT, as described by Beck (1979) is based on the rationale that an individual's emotions and behaviours are essentially determined by the way in which the person structures his/her world. Therefore, cognitive therapeutic techniques comprise the self-monitoring of thoughts, feelings, and behaviours as well as cognitive restructuring with the aim to modify anxiety-related thoughts and processes (Kendall, 2012). One of the central aspects of CBT is that the person recognises that thoughts, feelings, and behaviours are different constructs. The skill to be able to distinguish amongst these constructs will enable the person to realise how their beliefs influence their emotions (Lickel et al., 2012).

This principle formed an integral part of the CBT-based activity used in the present study. The activity was based on a task designed and tested by Quakley et al. (2004) used to assess children's ability to distinguish between thoughts, feelings and behaviours. This specific activity was selected because it seems to require skills central for participation in CBT and there seems to be good face validity for the relevance of this activity to CBT (Reynolds, Girling, Coker, & Eastwood, 2006; Sams, Collins, & Reynolds, 2006). According to Reynolds et al. (2006) the ability to distinguish between thoughts, feelings and behaviours is a metacognitive skill, which is a central component of CBT. Another reason for selecting this specific activity was because it is child-friendly and it provides a concrete way of assisting children to understand the underpinning of CBT (Quakley et al., 2004) as well as

introducing abstract concepts such as feeling and thinking (Reynolds et al., 2006). As children might find it difficult to just sit and talk (Withers, 2012), this activity also allowed for active participation and the contents could be adapted for cultural suitability. Quakley et al. (2004) has proven that this activity is effective in investigating children's understanding of the core skills which they may need for participation in CBT interventions.

2.1.3. Vulnerable children

Vulnerability is often deemed a difficult concept to define. According to Skinner et al. (2006) the complexity increases when it is considered that this definition needs to direct work with children in various contexts around the world and needs to avoid being seen as stigmatising. There are many different variables in relation to the children's contexts that need to be taken into account which could influence the vulnerability of children. Contextual factors that contribute to the vulnerability of children include (but are not limited to) the individual, family, and community contexts (Skinner et al., 2006). All of these could accumulate the load that children have to carry. The development and well-being of children could be negatively affected by factors such as family influence, poverty, maltreatment, substance abuse, suicide, Acquired Immune Deficiency Syndrome (AIDS), violence, and death and bereavement, amongst others. These factors could increase the vulnerability of the child for the development of psychological distress (Louw & Louw, 2014).

In South Africa, poverty and the HIV epidemic are creating an environment in which many children become vulnerable (Cluver et al., 2007; Heckler et al., 2012; Flisher et al., 2012; Skinner et al., 2006; Zwemstra & Loxton, 2011). Previous research (Muris et al., 2006) also reported that South African children from lower SES reported higher levels of anxiety than children from medium-high SES. Furthermore, Muris et al. (2008) reported that in South Africa black and coloured children from vulnerable communities displayed higher levels of fear and anxiety compared with white youths. Accordingly, the participants of the present

study consisted of middle-childhood children, aged 10 to 13 years, from a lower SES background living in a township in Stellenbosch. Based on previous research it is possible that these children might be more vulnerable for psychological distress as they are either orphaned or their families are affected by HIV/AIDS (P. D. Qalinge, personal communication, May 27, 2013; July 30, 2013).

2.1.4. Middle childhood as a developmental stage

Developmental texts refer to the period from the age of six years to approximately 12 years as middle childhood (for example Louw & Louw, 2014). During this period physical development slows down in comparison to the rapid growth that took place during the first few years of life. Yet, this is an important period in terms of the cognitive, emotional, as well as the social development of the child. Development during middle childhood prepares the child for the challenges of adolescence and allows for a better understanding of his/her world (Louw & Louw, 2014). During this stage various intrapersonal (including cognitive development), interpersonal, and circumstantial changes occur in family, school, and other contexts. Louw and Louw (2014) suggest that "… balanced development during middle childhood serves as a solid foundation for later development" (p. 225).

Developmental factors need to be taken into consideration when designing, delivering, and evaluating CBT for children (Sauter et al., 2009). In the present study, the participants were between the ages of 10 and 13 years and will therefore fall in the category that is generally referred to as middle childhood. Consequently, the unique developmental characteristics of the middle-childhood period were considered when adapting the child-friendly CBT-based activity.

2.2. Anxiety prevalence

Epidemiological studies conducted in high, middle and low income countries reported that as many as one in five children and adolescents struggle with at least one mental disorder.

Often these mental disorders continue into adulthood (Flisher et al., 2012). Anxiety is reported to be the most prevalent mental health disorder in children and adolescents (Beesdo-Baum & Knappe, 2012; Roberts, Roberts & Chan, 2009; Kessler et al., 2005; Merikangas et al. as cited in Mash & Wolfe, 2013). An American study with 4 175 children aged 11 to 17 years was followed up after a year with 3 134 of the participants to estimate the one-year incidence of a range of psychiatric disorders and associated risk factors (Roberts et al., 2009). This study reported that anxiety is one of the most common disorders among young people. The risk for anxiety disorders was increased by lower family income, high perceived economic stress, poor family support, a low sense of mastery and high neighbourhood stress. The authors noted that an adverse family context was particularly noteworthy in predicting the incidence of psychiatric disorders. Additionally, the risk of anxiety disorders increased with lower family income. This would thus suggest a correlation between SES and the prevelance of anxiety. Consistent with this, Beesdo-Baum and Knappe (2012) reported an association between mental disorders (including anxiety) and adverse experiences in childhood. Such adverse experiences include, but are not limited to, loss of parents, parental divorce, and physical and/or sexual abuse. Low household income and poverty are also identified as risk factors for the development of anxiety disorders in children.

Children and adolescents in sub-Saharan Africa also suffer significantly from mental health problems (Cortina, Sodha, Fazel, & Ramchandani, 2012). In a review of 10 studies conducted on the prevalence of child and adolescent mental health problems in sub-Saharan Africa, including three studies from South Africa, an overall adjusted prevalence of 14.5% for general psychopathology in children and adolescents up to the age of 16 years was indicated (Cortina et al., 2012). This meta-analysis included 9 713 children with ages ranging between 5 to 16 years. Anxiety disorders were amongst the most commonly identified disorders along with emotional problems, post-traumatic stress disorder, as well as conduct behaviour disorder (Cortina et al., 2012). The primary finding of this analysis indicated that child and

adolescent mental health problems are common in sub-Saharan Africa. The following factors were identified as the most influential risk factors for psychopathology in children and adolescents:

(i) Family and marital status disruption,

(ii) stressful occurrences,

(iii) motherly psychopathology, and

(iv) low socio economic factors.

The socio economic factor identified as the greatest risk for children was deprivation, particularly in the children of sub-Saharan Africa (Cortina et al., 2012).

These results confirm the findings of an earlier study by Kleintjes et al. (2006) which reported a prevalence of 17% for mental disorders in children and adolescents in the Western Cape, South Africa. The most common disorder among these participants was generalised anxiety disorder (11%). Furthermore, in a recent South African study, Strydom et al. (2012) reported that 515 grade 11 and 12 participants attending schools in Bloemfontein reported a significantly higher incidence of anxiety symptoms in comparison with children from other parts of the world. The results from this study indicated that 32% of these learners suffered from moderate to severe anxiety symptoms. The majority of these learners were not receiving any treatment to enable them to deal with the anxiety (Strydom et al., 2012). South African children face many challenges and are exposed to stressful changes in their environment which increases vulnerability for the development of fears and mental disorders (Heckler et al., 2012; Zwemstra & Loxton, 2011). Such factors include (Cluver et al., 2007; Heckler et al., 2012; Flisher et al., 2012; Skinner et al., 2006).

(i) HIV infection,

(ii) the loss of a parent through death or desertion,

(iii) poverty,

(iv) urbanisation,

(v) substance use,

(vi) crime; as well as

(vii) exposure to physical or sexual violence.

Vulnerability implies a real risk of long-term damage, which can affect health, education, social, as well as emotional development (Skinner et al., 2006). Children who live in an environment which is characterised by deprivation, poverty and violence, may display higher levels of anxiety and fear since their environment is more stressful and threatening. Additionally, South African children from lower SES reported higher levels of anxiety than children from medium-high SES (Muris et al., 2008).

The HIV epidemic affects many South African children. UNAIDS estimated that in 2014 there were 6.8 million (6.5 million – 7.5 million) people living with HIV in South Africa and 2.3 million (1.1 million – 2.9 million) orphans due to AIDS aged 0 to 17 years (UNAIDS, 2014). It is impossible to tell the specific number of children orphaned because of AIDS or children living in households affected by HIV/AIDS; however these statistics are an indication of the severity of the situation and confirm the serious threat to the psychological wellbeing of South African children. The stress of being part of a household affected by HIV/ AIDS is a risk factor for developing psychological disorders in childhood and adolescence. This risk is further increased when children must also cope with other adverse conditions such as poverty (Cluver, Operario, Lane, & Kganakga, 2011). Indeed, poverty, AIDS orpanhood and parental illness because of AIDS reportedly pose the biggest risk for child mental health (Cluver, Boyes, Orkin, & Sherr, 2013). Louw and Louw (2014) further emphasised that AIDS-orphaned children are inclined to suffer from considerable psychopathology. Anxiety is amongst the most common of these disorders and the negative effects could last for many years.

2.3. Effects of anxiety

Anxiety disorders can affect various aspects of children's lives, including their family life, academic achievement, and their social adjustment (Mash & Wolfe, 2013; Monga, Young, & Owens, 2009; Myer et al., 2009; Strydom et al., 2012) which can be very debilitating for children (Monga et al., 2009). Significant correlations were identified between anxiety and depression, impaired social relations, inattention, poor self-esteem and substance abuse (Briesch et al., 2010; Brückl et al., 2007; Strydom et al., 2012). Furthermore, anxiety can lead to poorer academic performance at school which in turn may result in lower educational achievement (Myer et al., 2009; Strydom et al., 2012). Mental disorders during early childhood and adolescence may influence the development of children as well as their educational achievement. Myer et al. (2009) examined the relationship between early-onset of mental disorders and educational achievement in a representative adult South African sample. The results indicated that the onset age of mental disorders are generally 12.3 years old. For anxiety in specific, the mean age of onset was reported to be 12 years. Additionally, a strong association between the early onset of several disorders and subsequent inability to complete their education was reported.

For children suffering from an anxiety disorder everyday life routines can become increasingly difficult. For example, going to school can become difficult since the child may believe that he/she may not see his/her family again (Masia-Warner et al., 2005). Additionally, the fear of criticism from others or embarrassment may lead to the avoidance of social situations which can lead to forming fewer friendships than are age-appropriate (Masia-Warner et al., 2005). Children who suffer from anxiety disorders also often show somatic symptoms such as restlessness, fatigue, sleep disturbance and irritability. These symptoms may lead to panic attacks or can interfere with the functioning of the child at home and school (Masia-Warner et al., 2005).

2.4. Why early intervention is necessary

Mental health is essential for the emotional, economic, intellectual, educational and social well-being of all individuals (Williams et al., 2008). Since mental disorders can have a profound effect on the well-being of young people (Heckler et al., 2012) childhood and adolescent mental health problems pose a significant threat to public health (Flisher et al., 2012). The core risk phase for the onset of anxiety is the period from childhood through to adolescence. Symptoms may range from mild to full-blown persistent anxiety disorders (Beesdo-Baum & Knappe, 2012; Masia-Warner et al., 2005). If anxiety starts at a very young age, the symptoms often continue into adulthood (Briesch et al., 2010). Failure to intervene effectively at an early age may result in adverse effects on the child's long-term emotional development (Albano & Kendall, 2002; Masia-Warner et al., 2005).

Anxiety disorders in childhood are significant risk factors for the onset of mental disorders (such as anxiety, substance abuse and depression) in adulthood (Brückl et al., 2007; Kendall, Settipani, & Cummings, 2012) which warrants early intervention. Failure to intervene effectively at an early age may result in adverse effects on the child's long-term emotional development (In-Albon & Schneider, 2007) whereas early identification and intervention can help to prevent the chronicity of the disorder as well as preventing secondary problems which are associated with anxiety disorders (Masia-Warner et al., 2005). Treating children with anxiety disorders can help relieve the suffering of children as well as contribute to the prevention and reduction of future suffering adults (In-Albon & Schneider, 2007).

Even though the treatment of anxiety disorders may be preventative of future suffering adults, there are high rates of recurrence, or the development of new anxiety or mood disorders over time (Monga et al., 2009). The maladaptive coping mechanisms of anxious children may become more ingrained over time which in turn may lead to increased anxious symptoms as they get older. If left untreated, these children often encounter short- and long-

term difficulties in their personal, family, school, and social functioning (Sauter et al., 2009). In accordance with the worldwide movement focusing on prevention and treatment of mental health problems, emphasis is placed on the early intervention of childhood and adolescent disorders, especially in developing and low and middle-income countries (Rosenstein & Seedat, 2011).

2.5. Treatment of anxiety in children

Anxiety disorders in children can be treated effectively and evidence for the use of CBT was established (Albano & Kendall, 2002; Briesch et al., 2010; Ishikawa et al., 2007; Miller, 2008; Reynolds et al., 2012; Rosenstein & Seedat, 2011). A meta-analysis of 24 randomised controlled trials was done by In-Albon and Schneider (2007) in order to determine the efficacy of psychotherapy for childhood anxiety disorders. All the studies included in this meta-analysis investigated the efficacy of CBT. The total number of participants across all the studies was 1 275 and the ages of the participants ranged from 6 to 18 years, with the mean age being 10.9 years. The results of this study reflected substantial decline in symptoms, providing evidence that anxiety disorders in children can be effectively treated.

Consistent with the above results, Monga et al. (2009) reported that anxious children, aged 5 to 7 years, who participated in a group CBT programme, improved with treatment on several anxiety measures. This pilot study suggested that CBT can be used effectively in the treatment of anxious children as young as five years old. More recently Reynolds et al. (2012) conducted a meta-analysis that included 55 studies to investigate the effectiveness of psychotherapy for treating a range of anxiety disorders in children and adolescents. The ages of the participants ranged from 2 years to 18 years old. Across all the studies 2 434 participants were included in the treatment group, and 1 824 participants were included in the control group. The majority of the studies included in this meta-analysis assessed a variation

of CBT for the treatment of anxiety. The results clearly suggested that CBT is effective for the treatment of anxiety in children and adolescents. This analysis further provided strong evidence of symptomatic changes in the children and young people that received psychological treatment as opposed to the participants that were randomised to the control group. Reynolds et al. (2012) further reported that younger children (13 years or younger) reported fewer symptom changes than that reported by older children (14 years and older). They hypothesised this could be ascribed to the fact that older children and teenagers might be better at engaging in psychological therapy in general, or it could be that they are better equipped with cognitive and interpersonal skills to be able to engage in CBT. Additionally it could be that the older children and teenagers are better at reporting their symptoms.

CBT is characterised by a combination of different treatments, incorporating psycho-education, skills-building, cognitive restructuring, as well as exposure (Albano & Kendall, 2002; Ishikawa et al., 2007). One of the most important features that set CBT apart from its psychodynamic and behavioural counterparts is the fact that the child actively participates in the exploration of his/her thoughts and beliefs with the assistance of the therapist (Grave & Blissett, 2004). CBT interventions offer structured activities which challenge the child's current way of thinking, acting, and feeling. The goal of treatment is to change the cognitive structure of the child in such a way that he/she will think, feel and behave in a different way (Kendall, 2012). The main aim of CBT is to help the child to recognise the signals of unnecessary anxious arousal and then use these signs as a reminder to use the strategies they have learnt to manage their anxiety (Albano & Kendall, 2002).

A primary requirement of CBT is that individuals have the ability to think about their thinking and be able to realise that thoughts, feelings and behaviours are separate constructs and also recognise that these construct are inter-related. CBT requires the client to participate actively in activities and tasks. Therefore if children have not yet developed metacognitive

skills, meaning the ability to think about their own thinking, their effective participation in CBT will be limited (Doherr et al., 2005; Kendall, 2012; Lickel et al., 2012).

The Coping Cat programme (Mychailyszyn et al., 2012) was one of the first CBT intervention programmes developed specifically to treat childhood anxiety. This programme is designed for use with children and adolescents ranging from 8 to 17 years old. This programme consists of 14 to18 sessions of 60 minutes each and usually runs over a 12 to 16 week period (Kendall, 1990). This period is divided into two sections: The first 6 to 8 sessions involve teaching the child new skills, whilst the second eight sessions give the child the chance to practise these newly learned skills in the sessions as well as outside the therapy room. According to Albano and Kendall (2002) the Coping Cat programme teaches the child to:

(i) identify anxious feelings together with the cognitions that go along with anxiety provoking situations;

(ii) to use the positive self-talk and/or behavioural strategies in order to deal with the anxiety; and

(iii) strengthen the use of cognitive and behavioural strategies.

Over the past two decades the effectiveness of the Coping Cat programme was demonstrated repeatedly (Podell, Mychailyszyn, Edmunds, Puleo, & Kendall, 2010).

Evidence also emerged for the FRIENDS Programme (Briesch et al., 2010; Pahl & Barrett, 2007) – hereafter referred to as FRIENDS. This programme was modelled on the Coping Cat programme, with the difference being that this programme was designed specifically for intervention at a group level by school-based mental health providers or by the school teachers (Pahl & Barrett, 2007). FRIENDS teaches children to be aware of the physical symptoms of anxiety and they are provided with behavioural as well as cognitive skills to be able to combat these symptoms (Pahl & Barrett, 2007). This programme is supported as a

successful programme by the World Health Organization (World Health Organization, 2004). The effectiveness of the FRIENDS amongst South African children was empirically assessed by Mostert and Loxton (2008) and is often favourably referred to by other researchers (see for example Briesch et al., 2010; Mychailyszyn et al., 2012). This study was conducted with 46 children who were 12 years of age and from lower SES backgrounds. The results from this study showed that the FRIENDS appeared to be promising in the prevention of anxiety amongst children from lower SES backgrounds (Mostert & Loxton, 2008). However, as the effect of the intervention on reducing the participants' anxiety symptoms only became statistically relevant over a period of time, a need for follow-up was expressed. The researcher specifically mentioned limitations pertaining to the emotional vocabulary of the participants that hampered the outcome of the study:

> Some of the children in the present study experienced some difficulty regarding reading and writing. Although the mean age of the children was 12 years and 6 months, and the programme was aimed at children between 7 and 11 years, certain concepts, especially emotional vocabulary seemed to be new to some children. Qualitative evaluation of this aspect needs to be addressed in future research (Mostert, 2007, p. 100).

2.6. Skills that children need to participate in CBT

In order to participate in CBT certain cognitive and emotional knowledge is required for the reflection on, as well as description of their own feelings and thoughts for the ability to identify links between thoughts, feelings and behaviours (Reynolds et al., 2006; Sams et al., 2006). Therefore, it is essential to be able to discriminate amongst thoughts, feelings and behaviours in order to examine the cause-effect relationship between these (Reynolds et al., 2006). Lickel et al. (2012) conducted a study to assess the cognitive skills believed to be

necessary for participation in CBT with 80 children between the ages of 7 and 12 years (40 typically developing children and 40 children with autism spectrum disorder). Most of the children achieved a maximum score on a task assessing their ability to differentiate between thoughts, feelings and behaviours.

Although children who suffer from anxiety experience symptoms similar to those of adults, treatment necessitates the recognition of children's developmental differences from adults (Nelson & Tusaie, 2011). Cognitive developmental level must be taken into account when designing an intervention programme. Since the ability to understand and engage with the abstract concepts involved in CBT is essential for the use of this method of treatment for children (Reynolds et al., 2006), the cognitive tasks must be adapted to the developmental capabilities of the children (Quakley et al., 2004).

2.7. Chapter summary

The chapter started with a discussion of the key terms and concepts relevant to the current study, namely anxiety, cognitive behavioural therapy-based activity, vulnerable children and middle childhood. This was followed by a review of research findings related to anxiety prevalence, the effects of anxiety as well as the treatment of anxiety. The chapter concluded with a discussion of the skills that children need in order to effectively participate in CBT.

CHAPTER 3

THEORETICAL FRAMEWORK

Developmental factors may impact on engagement in CBT and as such cognitive developmental level must be taken into account when designing an intervention programme, as the ability to understand and engage with the abstract concepts involved in CBT is essential when adapting this method of treatment for children (Reynolds et al., 2006). In this chapter relevant child developmental theories are discussed, including Piaget's (1972) and Vygotsky's (1962) theories of cognitive development, as well as Erikson's psychosocial theory (1995). Lastly Bronfenbrenner's (1979) ecological systems theory will be explained. These theories will be used as guidelines in assessing and understanding the results of the study. The limitations of the respective theories will also be taken into account.

3.1. Piaget's cognitive development theory

Piaget (1972) postulated that cognitive development takes place in four different stages. The first stage (sensorimotor stage) takes place from birth to 2 years. The next stage (referred to as the preoperational stage) takes place from 2 to 7 years. The stages that are applicable to the age equivalents of the participants of the current study are the concrete operational stage (7 to11 years) and the formal operational stage (12 years and older). During the concrete operational stage, logical thinking starts to develop, while abstract thinking is mainly absent. In the formal operational stage children learn to think abstractly and begin to speculate on hypothetical situations (Piaget, 1972). During this stage children also start to reason deductively about what might be possible (Louw & Louw, 2014). According to Piaget (1972) middle childhood (stretching from about 7 to 12 years) is characterised by the development of logic and perspective-taking skills. Children in this age group start to reason deductively, and in doing so, they increase their problem-solving skills. On the other hand, logical thinking remains fairly concrete and is often dependent on observable activities. This

stage is also characterised by a lessening in egocentrism, enabling children to understand that other people might have thoughts and feelings that are different to their own (Piaget, 1972). During middle childhood metacognitive skills, also referred to as the ability to evaluate and monitor one's own thinking, emerge and children become skilled at identifying information needed to solve problems (Kingery et al., 2006; Sauter et al., 2009). Piaget stated that children are able to start to reason abstractly only when they reach the concrete operational stage (from 7 to 12 years of age) and metacognitive skills mature only during the formal operational period, which is from 12 years of age through to adulthood (Piaget, 1972).

Even though many other theorists have introduced diversity in the field after Piaget, his cognitive development theory remains influential and provides a valid point of reference in examining the relationship between cognitive functioning and CBT (Grave & Blissett, 2004). In view of Piaget's theory it is suggested that children between the ages of 7 to 11 years (concrete operational stage) have not yet developed abstract reasoning skills and therefore will be unlikely to engage in the cognitive components of CBT. Adding the child-friendly visual cues should assist the younger children who are in the concrete operational stage. It is hypothesised that older children should be able to perform better in the CBT-based activity than younger children.

3.2. Vygotsky's cognitive development theory

Vygotsky (1962) emphasised the role of the sociocultural context in development, with focus on the influence of the parents and culture. He focused on the ways that parents would convey the beliefs, customs and skills of their culture to their children. This is very applicable to bear in mind when working in a particular community context such as a multicultural South Africa where children need the intellectual tools provided by their cultures to develop optimally (Louw & Louw, 2014). Additionally, Vygotsky proposed the *zone of proximal development*, referring to tasks that are too difficult for children to do by

themselves, but which can be managed when assisted by an adult or a more skilled child (Vygotsky, 1962). He suggested that working within the child's zone of proximal development will allow the child to respond in a more competent way to his/her environment in comparison to working alone (Vygotsky, 1962). Therefore the zone of proximal development is where learning takes place. Vygotsky also postulated the term *scaffolding* (referring to the level of assistance provided when the child is learning a new task) which can be linked to the zone of proximal development. The child is stimulated to reach a higher level with the help of an adult or another child who is providing assistance with tasks which are beyond the current competence of the child. Learning is promoted when the child is given just enough help, but not more than what is needed (Louw & Louw, 2014).

Vygotsky's theory highlights the significance of a child's potential for intellectual growth rather than focussing on the intellectual capabilities at a specific time (Louw & Louw, 2014). Sauter et al. (2009) suggested that CBT-relevant cognitive capacities should be primed in young people prior to engaging in CBT interventions. Accordingly, if one provides a child with the skills to distinguish between thoughts, feelings, and behaviours one will improve the child's receptiveness to CBT interventions. Priming provided in the proximal zone of development is most likely to be successful. As such priming of cognitive capacities can be referred to as a type of scaffolding for participation in CBT.

3.3. Erikson's psychosocial theory of development

Erikson's psychosocial theory of development covers the entire lifespan and comprises of a sequence of stages, of which each are defined by a distinctive crisis or challenge (Erikson, 1995). The theory includes eight stages that are correlated with age and the challenges that individuals face are reflected in the name of each stage.

Stage four (spanning from age six to adolescence) is applicable to the participants of the proposed study. This stage is referred to as industry versus inferiority. The developmental

crisis during this stage is the conflict between an eagerness to learn and acquire new skills as opposed to inferiority. Inferiority refers to feelings of inadequacy and worthlessness which develop from negative feedback from the self as well as the social environment (Erikson, 1995). The challenge during this stage is to learn basic skills and to learn to work with others (Erikson, 1995). Loxton (2004) hypothesises that children who cannot master social demands could be at risk of developing anxiety problems, while the mastery of new skills can heighten children's sense of worth and promote well-being.

3.4. Bronfenbrenner's ecological systems theory

According to Bronfenbrenner's (1979) ecological systems theory child development is influenced by several interactive systems. These systems include the microsystem, mesosystem, exosytem and macrosystem. Bronfenbrenner (1979) proposed that the child is at the centre of the ecological model and the development of the child will be influenced by his/her interaction with the various systems.

The microsystem comprises of the child and includes the people and environments the child directly interacts with. As such, the microsystem includes the child's parents, siblings, school and childcare staff (Bronfenbrenner, 1979). The mesosystem refers to the interaction which takes place between the various microsystems. For example, the academic progress of the child is not only related to the classroom activities, but will also be influenced by the relationship that exists between the child's parents and the school as well as the academic support the child receives at home from his/her parents (Louw & Louw, 2014). The relationship between the microsystems can thus have a profound influence on the well-being and development of the child (Senefeld & Perrin, 2014). The exosystem describes social settings that can influence the child, even though the child may not be directly involved in these (Bronfenbrenner, 1979). The exosystem might include institutions such as the parent's workplace, the school board, the government, health care systems as well as the media (Louw

& Louw, 2014; Senefeld & Perrin, 2014). The macrosystem refers to the broader cultural context in which the microsystems, mesosystems and exosystems are embedded. When working with children it is important to keep the various sytems and their influences on the development of the child in mind and how it might influence their performance on a CBT-based activity. For treatment to be developmentally orientated, apart from taking developmental level into consideration, the child's social context, the role of the parents as well as other systemic factors that could have an impact on the development of the child, must be taken into account (Kendall, 2012; Stallard, 2002).

3.5. Chapter summary

This chapter presented the theoretical framework relevant to the current study as well as relevant theories of development. Piaget's cognitive development theory was discussed, followed by a discussion of Vygotsky's cognitive development theory and Erikson's psychosocial theory of development. The chapter concluded with a discussion of Bronfenbrenner's ecological systems theory. The following chapter will address the research methods that were used to obtain and analyse the data for the current study.

CHAPTER 4

RESEARCH METHODOLOGY

In this chapter the methodology and procedures that were used to obtain the data for the current study are discussed.

4.1. Introduction

To reiterate, the aim of the study was to establish whether this proposed group of vulnerable South African children between the ages of 10 and 13 years possess the skills that are needed for engagement in a CBT-based activity. The following two research questions were posed: Can children between the ages of 10 and 13 years distinguish between thoughts, feelings and behaviour? Does performance increase with feedback during assessment?

4.2. Research design

The research was cross-sectional in design, as all the data was collected at the same time (Bless, Higson-Smith, & Sithole, 2013). This was a quantitative study (DePoy & Gitlin, 2011) and the two follow-up questions (Which box was easiest to identify? Which box was the most difficult to identify?) elaborated on the results. These questions, as well as the story telling component and the semi-structured interview, allowed for a better understanding and explanation of the perceptions of the children as well as their experience of the activity (Kumar, 2011).

4.3. Participants

A total of 52 middle-childhood children residing in a low SES neighbourhood in Stellenbosch, South Africa, participated in the study. Stellenbosch is a town in the Western Cape which is one of the nine provinces of South Africa. The population of South Africa is 54.96 million and the population of the Western Cape is 6.2 million (Statistics South Africa, 2015). The estimated overall HIV prevalence rate of the total South African population is

approximately 11.2% (Statistics South Africa, 2015). In South Africa more than 300 000 children under the age of 15 years are living with HIV and more than one million have lost at least one parent to AIDS (UNICEF, 2013b). The children who participated in this study are all part of a child sponsorship programme. Their vulnerability for psychological distress might be increased as they are either orphaned or their families are affected by HIV/AIDS.

Displayed in Table 1 are the demographic characteristics of the 52 children who participated in the current study. According to Table 1, of the 52 children who participated in the current study, 25 (48.1%) were male and 27 (51.9%) were female. The ages of the participants ranged between 10 years old (n = 14, 26.9%), 11 years old (n = 11, 21.2%), 12 years old (n = 12, 23.1%) and 13 years old (n = 15, 28.8%). Of the 52 participants, 17 (32.7%) lived with both parents, 25 (48.1%) lived with their mother only, 2 (3.8%) lived with their father only, 3 (5.8%) lived with their grandparents and 5 (9.6%) lived with caregivers or guardians. The home language of the majority of the participants was Xhosa (n = 48, 92.3%). There were two (3.8%) participants whose home language was Afrikaans, one participant who spoke more that one language at home and one participant who spoke English at home. Of the 52 participants, 22 (42.3%) were instructed in Xhosa in their schools, 15 (28.8%) were instructed in English, 3 (5.8%) were instructed in Afrikaans and 12 (23.1%) attended schools were they were instructed in more than one language.

Table 1
Demographic characteristics of the total sample

	Frequency (N = 52)	**Percentage (%)**
Gender:		
Male	25	48.1
Female	27	51.9
Cultural ethnic group:		
African	51	98.1
Coloured	1	1.9
Age:		
10	14	26.9
11	11	21.2
12	12	23.1
13	15	28.8
Living with:		
Both parents	17	32.7
Mother only	25	48.1
Father only	2	3.8
Grandparents	3	5.8
Caregivers or guardians	5	9.6
Home language:		
Afrikaans	2	3.8
Xhosa	48	92.3
More than one	1	1.9
English	1	1.9
Language of tuition:		
Afrikaans	3	5.8
Xhosa	22	42.3
More than one	12	23.1
English	15	28.8

4.4. Measures

The measuring instruments that were used are discussed in the chronological order they were administered in the current study. All measures were administered to participants in their language of choice.

4.4.1. Biographical questionnaire.

Upon assent a biographical questionnaire pertaining to information on age, gender, living conditions and language was completed by the researcher on behalf of each participant (see Appendix A).

4.4.2. Story-telling component.

The data collection commenced with the researcher asking the child to tell his/her favourite story. This created a child-friendly atmosphere and served as a good introduction to the next activity. As stories are a fundamental part of a child's culture the story-telling component helped to make the children feel more comfortable with the unfamiliar experience of research (Friedberg & Wilt, 2010; Loxton, 2009). The story themes from this part of the research will also be used in terms of developing programme content for the development of future anxiety intervention programmes.

4.4.3. CBT-based activity.

The materials for the CBT-based activity were adapted from a child-friendly activity designed and tested by Quakley et al. (2004) as part of a bigger project (Quakley, 2001) to assess children's ability to distinguish between thoughts, feelings and behaviours. Stories equivalent to the stories developed by Quakley et al. (2004) were used, however some of the stories' content were changed in order to be culturally relevant to South African children.

Six stories, consisting of three sentences each, were required for the task (Quakley et al., 2004). As recommended by Quakley et al. (2004) three of the stories represented positive feelings and the other three stories represented negative feelings. This helped to ensure that the participants have an understanding of a range of feelings and also to not cause distress (Quakley, 2001). In each story, one sentence contained a thought, one sentence contained a

feeling and one sentence contained a behaviour or an action. An example of the South African culturally adapted demonstration story is the following:

4.4.3.1. Demonstration story (Behaviour – Feeling – Thought, Positive).

"Nomathemba washed herself before bedtime. Nomathemba was very happy because the school holiday was starting tomorrow. Nomathemba wondered what she and her friends will be doing during the holiday".

Thought: Nomathemba wondered what she and her friends will be doing during the holiday.

Feeling: Nomathemba was very happy because the school holiday was starting tomorrow.

Behaviour: Nomathemba washed herself before bedtime.

In accordance to the method followed by Quakley et al. (2004), each story was read out by the researcher to the participant during the individual assessment. After the story was read, each of the different sentences was read out again, one by one. The sentences were put in an envelope and the participant was asked to draw a sentence from the envelope. The participant was asked to sort the different sentences into three different categories, namely thoughts, feelings and behaviours. After each story was scored, the researcher gave feedback to the participant before the next story was read.

4.4.3.2. Examples of the cards drawn from the envelopes for the demonstration story.

Nomathemba wondered what she and her friends will be doing during the holiday. UNomathemba wayecinga ukuba ngaba bazokwenza ntoni ngeholide yena nabahlobo bakhe.

Nomathemba was very happy because the school holiday was starting tomorrow. Wayonwabile kakhulu uNomathemba kuba kwakuqala iholide yesikolo ngengomso.

Nomathemba washed herself before bedtime. UNomathemba wahlamba phambi kokuba alale.

The participant was then asked to post each sentence into the relevant post box. Three labelled post boxes were provided. The pictures on the post boxes were adapted to be culturally relevant (see Figure 1). Quakley et al. (2004) used pictures of Caucasian children, while in the current research these pictures were changed in order to be culturally relevant to the proposed participants. One box was labelled *thinking sentences / izivakalisi zengcinga* and there were pictures of children with thought bubbles on the box. One box was labelled *feeling sentences / izivakalisi zemvakalelo* and had a picture of a child looking happy and a picture of a child looking sad. The other box was labelled *doing sentences / izivakalisi zokwenza* and had a picture of a child reading and a picture of a child playing soccer. Post boxes were used to ensure that once the participant had given an answer, he or she was no longer able to see his/her answer. Therefore they were not able to refer to their previous answers and in this way contamination was avoided (Quakley, 2001).

Figure 1
Post boxes that were used as visual cues.

Thinking sentences
Izivakalisi zengcinga

Feeling sentences
Izivakalisi zemvakalelo

Doing sentences
Izivakalisi zokwenza

4.4.3.3. Child-friendliness of the activity.

The use of post boxes.

The use of labelled post boxes was a way of making the activity child-friendly and engaging (Quakley et al., 2004). This also allowed for a greater visual emphasis and made the activity playful and inter-active, games are also a useful way to interact with children (Withers, 2012). The fact that the children had to get up and walk to the post box allowed for physical activity, which was very useful as children might find it difficult to just sit still and talk for a long period of time (Withers, 2012).

Cultural relevance of the stories.

Morgan and Roberts (2010) appeal to researchers to consider the culture in which a child is embedded and to use literature that is culturally relevant to the child. Essential cultural and content-related changes have been made to the content of the original stories in order to make it suitable for the relevant participants. This was done in collaboration with consultants from the Child Sponsorship Programme as they are from a similar cultural background as the participants (A. Makoala, personal communication, August 14, 2014; S. Dintsi, personal communication, August 14, 2014; B. Mrali, personal communication, August 14, 2014). Dr N.Z. Somhlaba from the Department of Psychology of Stellenbosch University,

who is familiar with the culture of the participants and also fluent in Xhosa (personal communication, August 14, 2014) also assisted in this regard. Relevant children's literature was also consulted. The characters and the content of the original stories that were developed by Quakley et al. (2004) were adapted.

Characters chosen for the stories.

The main character in the stories was a boy for the boys and a girl for the girls to prevent potential response preference that could be created by gender differences (Quakley, 2001). The names that were chosen for the boy and the girl were changed to traditional Xhosa names which are not really given to children these days. This is in accordance with the recommendation by Quakley (2001) to use names that are not commonly given to children these days in order to prevent children from receiving unasked for attention because their names were used in the activity. The name for the girl was changed from *Mary* to *Nomathemba*, which means *hope*. The name of the boy was changed from *Harry* to *Bukwa* which means *look*.

Development of the content of the stories.

The content of the stories were also changed to be culturally suitable for the target population. Some parts of the original stories were as follows (Quakley et al., 2004, p. 351-355):

Demonstration story: Mary cleaned her teeth before bedtime.

Sample story: Mary bought Emma some chocolate for a present.

Story 1: Mary wished that Father Christmas would bring her a new puppy.

Story1: Mary made a home for the puppy with a blanket and a cardboard box.

Story 2: Mary ran into the school cloakroom to hide from everybody.

Story 5: Last night there was a load thunderstorm.

Story 6: It was teatime on Tuesday.

Story 6: Mary was very glad to hear that she had chips which were her favourite.

The following table highlights some of the changes made in order to be culturally relevant, as recommended by the consultants.

Table 2
Examples of changes made to some of the original stories to be culturally relevant to the South African context.

Adapted stories for the South African context
Demonstration: Nomathemba washed herself before bedtime.
Sample: Nomathemba made her friend a beautiful card for a present.
Story 1: Nomathemba was very excited about her new clothes.
Story 1: Nomathemba put on her new clothes.
Story 2: Nomathemba ran into the toilets to hide from everybody.
Story 5: Last night there was heavy rain.
Story 6: It was lunchtime on Tuesday.
Story 6: Nomathemba were very happy to hear that they were getting chicken which was her favourite.

According to the consultants, many of the children might be scared of dogs, therefore the content of Story 1 was changed accordingly. In story 2 the word “cloakroom” was changed to “toilets” as the participants are more familiar with the term “toilets” rather than “cloakroom”. In story 3, Quakley et al. (2004) refered to Mary’s mum to pick her up from school, this was changed to refer to Nomathemba’s friend, as well as in story 4, Quakley et al. (2004) refered to Mary’s mum, this was changed to Nomathemba’s aunt. The reason for this is because some of the participants are orphaned or live with single parents of caregivers. In story 5 Quakley et al. (2004) refered to a thunderstorm, this was changed to heavy rain as the

Western Cape in renown for heavy rain rather than thunderstorms. Quakley et al. (2004) refered to “teatime” in story 6, this was changed to “lunchtime” as the participants are more familiar with this term. Story 6 also refered to “chips” as being Mary’s favourite food, as suggested by the consultants, this was changed to “chicken”.

Each of the 18 items that were posted were scored as either right (1) or wrong (0). A maximum score of 18 could be achieved. After each story was scored, the researcher gave feedback to the child before reading the next story. It was expected that participants with more advanced skills, assumed to be older children, would obtain higher scores and that continuous feedback would improve performance. For stories see Appendix B and for complete procedural instructions see Appendix C. The procedural instructions that were followed were in accordance to recommendations made by Quakley et al. (2004).

4.4.4. Semi-structured interview.

An individual semi-structered interview (see Appendix D) was chosen as this allowed for a better understanding and perspective of the children’s experience of the activity (Kumar, 2011; Loxton, 2009). At the end of the session, the participants were thanked for taking part in the research process. To ensure objectivity, all the interviews were audiotaped and transcribed verbatim afterwards. Field notes of the childrens’ responses were made to cross-reference with the tape recording afterwards.

4.5. Procedure

The research process consisted of three overarching stages: Obtaining ethical clearance and informed consent; gathering the data; and analysis and synthesizing of the data. During stage one, permission to conduct the research was obtained from the Research Ethics Committee: Human Research (HUMANIORA) of Stellenbosch University (protocol number HS1039/2014) (see Appendix E). After ethical approval, arrangements were made to meet with the Programme Manager (Social Services), who had granted preliminary permission for

the proposed study (see Appendix F). A letter describing the nature and the purpose of the study, as well as informed consent forms were sent to the parents or caregivers of the children. This was available in English (see Appendix G), Xhosa (see Appendix H) and Afrikaans (see Appendix I). Only children with written consent from their parents or caregivers were able to participate in the study.

After informed consent had been obtained from the children's parents or caregivers, the purpose and procedure of the study was explained in a child-friendly manner to the children, upon which they were asked for their assent. Participants under the age of 18 years were also required to give their assent. To ensure that the participant understood the research process and to create a child-friendly environment, the child received an introduction and explanation as to the purpose of the study. It was also explained to the child verbally, as well as in writing on the assent form, that even if his or her parents or caregivers have given consent for participation, he or she still reserved the right to decline the invitation to participate or, not to answer any questions he or she did not feel comfortable answering and that he or she could withdraw from the study at any time without any consequence or penalty. This was presented individually to each child by the researcher in a child-friendly format and was available in English (see Appendix J), Xhosa (see Appendix K) and Afrikaans (see Appendix L).

As the researcher is not proficient in Xhosa, a translator assisted the researcher during this process, as well as during the data collection. Care was taken to make use of a competent translator, who was familiar with the culture of the children and who could relate to the children. The translator was also aware of the ethical procedures of the research process and also signed a declaration (see Appendix M).

Upon assent, stage two of the research process, data collection, commenced. Data was collected individually and took approximately 30 minutes per child. This was done on the

premises of the children's aftercare facility. As this is an environment that is familiar to the children and where they felt safe and comfortable, it contributed towards creating a child-friendly atmosphere (Loxton, 2009). Data collection was conducted in the child's choice of English, Xhosa, or Afrikaans. The researcher was assisted by the translator during data collection.The data collection started with the completion of the biographical questionnaire (see Appendix A), after which the child was asked to tell his/her favourite story. This was followed by the CBT-based activity. See Appendix B for the stories that were used and see Appendix C for the procedural instructions for the CBT-based activity. The data collection was concluded with the semistructured interview (see Appendix D). Stage three of the research process consisted of the analysis of the data.

4.6. Data analysis

The quantitative data gathered from the CBT-based activity was analysed using the Statistical Package for Social Science (SPSS) (Field, 2009; Huizingh, 2010). The independent variables were age and gender and the dependent variables were the number of items that were sorted correctly into the different categories. The categories were thoughts, feelings and behaviours. Descriptive statistics were calculated for the relevant variables. Because the dependent variables were categorical in nature, several Chi-square analyses were conducted to test for differences between the different age groups (10, 11, 12 and 13 years) and between gender groups (male and female) for the categories thoughts, feelings and behaviours. An analysis of errors was also done. The errors were categorised by counting the number of times a card type (for example, a feeling card) was incorrectly placed into a box (for example, a thought box).

4.7. Ethical considerations

The researcher adhered to the ethical principles as set out by the Research Ethics Committee: Human Research (HUMANIORA) of Stellenbosch University (protocol number

HS1039/2014). In keeping with ethical requirements, parental or caregiver consent as well as assent from the participants were obtained prior to data collection.

4.7.1. Confidentiality.

All the information collected from the children was treated as confidential at all times. Hard copy data, which were collected during the study, are stored in a secure and locked filing cabinet for a minimum of five years, as stipulated by HUMANIORA. Access to this data will only be allowed for the researcher and supervisor for research purposes only. Personal details in the study were coded so that confidentiality of the participants is kept in the study and used anonymously.

4.7.2. Anonymity.

Consideration was given to the protection of the identity and name of the aftercare facility and the participants. In reporting the results the children were referred to only by aspects such as gender and age. Complete anonymity will be assured; no names or identifiable information regarding the parents, caregivers, children or the aftercare facility have been or will be used or revealed in the publishing of this thesis or in scholarly journals.

4.7.3. Contingency plans for emotional upheaval that might arise due to the research.

It was explained to the parents or caregivers, as well as the children that, although not foreseen, should the children experience any emotional upheaval or distress due to the research, arrangements would be made to attend to these concerns by consulting with the project supervisor, Professor Helene Loxton, who is a registered Counselling Psychologist. Her contact details were provided on the consent form as well as on the assent form. However, no such incidences occurred.

4.8. Chapter summary

The chapter started with a brief introduction highlighting the aim and objectives of the current study. This was followed by a discussion of the measures that were used to obtain the data. These measurers included a biographical questionnaire, a story-telling component, a CBT-based activity as well as a semistructured interview. This was followed by a discussion of the procedure as well as the data analysis. A discussion of the ethical considerations relevant to the study concluded the chapter. The following chapter will present the results obtained from the analysis of the data.

CHAPTER 5

RESULTS

The chapter starts with a brief presentation of the demographics of the participants. This is followed by descriptive statistics indicating the scoring of performance on the CBT-based activity according to gender and age respectively. Table 3 indicates the order in which the results will be presented:

Table 3
Table indicating the order in which the results will be presented.

5.1. Demographic data
5.2. Descriptive statistics in terms of items scored correctly for Story 1
5.2.1. Story 1 - Scoring of the thought sentence.
5.2.2. Story 1 - Scoring of the feeling sentence.
5.2.3. Story 1 - Scoring of the behaviour sentence.
5.3. Descriptive statistics in terms of items scored correctly for Story 2
5.3.1. Story 2 - Scoring of the thought sentence.
5.3.2. Story 2 - Scoring of the feeling sentence.
5.3.3. Story 2 - Scoring of the behaviour sentence.
5.4. Decsriptive statistics in terms of items scored correctly for Story 3
5.4.1. Story 3 - Scoring of the thought sentence.
5.4.2. Story 3 - Scoring of the feeling sentence.
5.4.3. Story 3 - Scoring of the behaviour sentence.
5.5. Descriptive statistics in terms of items scored correctly for Story 4
5.5.1. Story 4 - Scoring of the thought sentence.
5.5.2. Story 4 - Scoring of the feeling sentence.
5.5.3. Story 4 - Scoring of the behaviour sentence.
5.6. Descriptive statistics in terms of items scored correctly for Story 5
5.6.1. Story 5 - Scoring of the thought sentence.
5.6.2. Story 5 - Scoring of the feeling sentence.
5.6.3. Story 5 - Scoring of the behaviour sentence.
5.7. Descriptive statistics in terms of items scored correctly for Story 6
5.7.1. Story 6 - Scoring of the thought sentence.
5.7.2. Story 6 - Scoring of the feeling sentence.
5.7.3. Story 6 - Scoring of the behaviour sentence.

5.1. Demographic data

The demographic data are provided for the purposes of clarity. A total number of 52 children participated in the study, of which 25 (48.1%) were boys and 27 (51.9%) were girls. The group were divided into age groups. This first age group were the10 year olds and there were 14 participants in this age group. The next age group were the 11 year olds; this group consisted of 11 participants. The following age group were the 12 year olds and consisted of 12 participants. The final age group were the 13 year olds; this group consisted of 15 participants.

5.2. Descriptive statistics in terms of items scored correctly for Story 1

Content of Story 1: "Christmas was coming and Nomathemba was very excited about her new clothes. Nomathemba wondered if her friends would like her new clothes. Nomathemba put on her new clothes".

The descriptive statistics in terms of items scored correctly in Story 1 are presented in Tables 4 to 15.

5.2.1. Story 1 – Scoring of the thought sentence.

Content of the thought sentence in Story 1: Nomathemba wondered if her friends would like her new clothes.

Table 4 indicates the scoring of the thought sentence in Story 1 according to gender.

Table 4
Story1T – Table indicating the scoring of the thought sentence in Story 1(Nomathemba wondered if her friends would like her new clothes) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**22**	**2**	**1**	**25**
	% within Gender	88.0	8.0	4.0	100.0
	% of Total	42.3	3.8	1.9	48.1
Girl	**Count (n)**	**24**	**1**	**2**	**27**
	% within Gender	88.9	3.7	7.4	100.0
	% of Total	46.2	1.9	3.8	51.9
Total	**Count (n)**	**46**	**3**	**3**	**52**
	% within Gender	88.5	5.8	5.8	100.0
	% of Total	88.5	5.8	5.8	100.0

From Table 4 it is evident that of the 25 boys who participated in the activity 22 (88.0%) correctly placed the thought sentence into the thought box. This consisted of 42.3% of the total number of participants. In comparison, 24 (88.9%) of the 27 girls who participated in the activity correctly placed the thought sentence into the thought box. This consisted of 46.2% of the total number of participants. In total 88.5% of all the participants correctly placed the thought sentence into the thought box.

Table 5 shows the results of the chi-square test for the scoring of the thought sentence in Story 1 according to gender.

Table 5
Chi-Square Test for the scoring of the thought sentence in Story 1(Nomathemba wondered if her friends would like her new clothes) according to gender.

	Value	**df**	**p**
Pearson Chi-Square	.678	2	.713

According to Table 5 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = .678, p = .713.

Table 6 indicates the scoring of the thought sentence in Story 1 according to age.

Table 6
Story1T – Table indicating the scoring of the thought sentence in Story 1(Nomathemba wondered if her friends would like her new clothes) according to age.

Age		**Thought Correct**	**Feeling**	**Behaviour**	**Total**
10	**Count (n)**	**11**	**1**	**2**	**14**
	% within Age	78.6	7.1	14.3	100.0
	% of Total	21.2	1.9	3.8	26.9
11	**Count (n)**	**11**	**0**	**0**	**11**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	21.2	0.0	0.0	21.2
12	**Count (n)**	**11**	**1**	**0**	**12**
	% within Age	91.7	8.3	0.0	100.0
	% of Total	21.2	1.9	0.0	23.1
13	**Count (n)**	**13**	**1**	**1**	**15**
	% within Age	86.7	6.7	6.7	100.0
	% of Total	25.0	1.9	1.9	28.8
Total	**Count (n)**	**46**	**3**	**3**	**52**
	% within Age	88.5	5.8	5.8	100.0
	% of Total	88.5	5.8	5.8	100.0

According to Table 6, of the 14 children aged 10 years who participated in the activity 11 (78.6%) correctly placed the thought sentence into the thought box. This consisted of 21.2% of the total number of participants. In comparison all (100%) of the 11 year old children (n = 11) correctly placed the thought sentence into the thought box. This consisted of 21.2% of the total number of participants. Of the 12 children aged 12 years who participated, 11 (91.7%) scored this sentence correct. This represents 21.2% of the total number of participants. Of the 13 year old children (n = 15), 13 (86.7%) correctly placed the thought sentence into the thought box. This consisted of 25.0% of the total number of participants.

Table 7 shows the results of the chi-square test for the scoring of the thought sentence in Story 1 according to age.

Table 7
Chi-Square Test for the scoring of the thought sentence in Story 1(Nomathemba wondered if her friends would like her new clothes) according to age.

	Value	**df**	**p**
Pearson Chi-Square	4.286	6	.638

According to Table 7, there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 4.286, p = .638.

5.2.2. Story 1 – Scoring of the feeling sentence.

Content of the feeling sentence in story 1: Christmas was coming and Nomathemba was very excited about her new clothes.

Table 8 indicates the scoring of the feeling sentence in Story 1 according to gender.

Table 8
Story1F – Table indicating the scoring of the feeling sentence in Story 1 (Christmas was coming and Nomathemba was very excited about her new clothes) according to gender.

Gender		Thought	Feeling Correct	Behaviour	Total
Boy	**Count (n)**	**3**	**21**	**1**	**25**
	% within Gender	12.0	84.0	4.0	100.0
	% of Total	5.8	40.4	1.9	48.1
Girl	**Count (n)**	**3**	**24**	**0**	**27**
	% within Gender	11.1	88.9	0.0	100.0
	% of Total	5.8	46.2	0.0	51.9
Total	**Count (n)**	**6**	**45**	**1**	**52**
	% within Gender	11.5	86.5	1.9	100.0
	% of Total	11.5	86.5	1.9	100.0

From Table 8 it is evident that of the 25 boys who participated in this activity, 21 (84.0%) correctly placed the feeling sentence into the feeling box. This consisted of 40.4% of the total number of participants. In comparison, 24 (88.9%) of the 27 girls who participated in this activity correctly placed the feeling sentence into the feeling box. This consisted of 46.2% of the total number of participants. In total 45 (86.5%) of the 52 participants correctly placed the feeling sentence into the feeling box.

Table 9 shows the results of the chi-square test for the scoring of the feeling sentence in Story 1 according to gender.

Table 9
Story 1F - Chi-Square Test for the scoring of the feeling sentence in Story 1 (Christmas was coming and Nomathemba was very excited about her new clothes) according to gender.

	Value	df	p
Pearson Chi-Square	1.125	2	.570

According to Table 9 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 1.125, p = .570.

Table 10 indicates the scoring of the feeling sentence in Story 1 according to age.

Table 10
Story1F – Table indicating the scoring of the feeling sentence in Story 1 (Christmas was coming and Nomathemba was very excited about her new clothes) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**1**	**12**	**1**	**14**
	% within Age	7.1	85.7	7.1	100.0
	% of Total	1.9	23.1	1.9	26.9
11	**Count (n)**	**0**	**11**	**0**	**11**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	21.2	0.0	21.2
12	**Count (n)**	**3**	**9**	**0**	**12**
	% within Age	25.0	75.0	0.0	100.0
	% of Total	5.8	17.3	0.0	23.1
13	**Count (n)**	**2**	**13**	**0**	**15**
	% within Age	13.3	86.7	0.0	100.0
	% of Total	3.8	25.0	0.0	28.8
Total	**Count (n)**	**6**	**45**	**1**	**52**
	% within Age	11.5	86.5	1.9	100.0
	% of Total	11.5	86.5	1.9	100.0

According to Table 10 of the 14 children aged 10 years who participated in the activity, 12 (85.7%) correctly placed the feeling sentence into the feeling box. This consisted of 23.1% of the total number of participants. In comparison all (100%) of the 11 year old children (n = 11) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants. Of the 12 children aged 12 years who participated, 9 (75.0%) scored this sentence correctly. This represented 17.3% of the total number of

participants. Of the 13 year old children (n = 15), 13 (86.7%) correctly placed the feeling sentence into the feeling box. This consisted of 25.0% of the total number of participants.

Table 11 shows the results of the chi-square test for the scoring of the feeling sentence in Story 1 according to age.

Table 11
Chi-Square Test for the scoring of the feeling sentence in Story 1 (Christmas was coming and Nomathemba was very excited about her new clothes) according to age.

	Value	**df**	**p**
Pearson Chi-Square	6.561	6	.363

According to Table 11, there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 6.561, p = .363.

5.2.3. Story 1 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 1: Nomathemba put on her new clothes.

Table 12 indicates the scoring of the behaviour sentence in Story 1 according to gender.

Table 12
Story1B – Table indicating the scoring of the behaviour sentence in Story 1 (Nomathemba put on her new clothes) according to gender.

Gender		Thought	Feeling	Behaviour Correct	Total
Boy	**Count (n)**	**1**	**1**	**23**	**25**
	% within Gender	4.0	4.0	92.0	100.0
	% of Total	1.9	1.9	44.2	48.1
Girl	**Count (n)**	**1**	**4**	**22**	**27**
	% within Gender	3.7	14.8	81.5	100.0
	% of Total	1.9	7.7	42.3	51.9
Total	**Count (n)**	**2**	**5**	**45**	**52**
	% within Gender	3.8	9.6	86.5	100.0
	% of Total	3.8	9.6	86.5	100.0

From Table 12 it is evident that of the 25 boys who participated in the activity 23 (92.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of 44.2% of the total number of participants. In comparison, 22 (81.5%) of the 27 girls who participated in the activity correctly placed the behaviour sentence into the behaviour box. This consisted of 42.3% of the total number of participants. In total 45 (86.5%) of the 52 participants correctly placed the behaviour sentence into the behaviour box.

Table 13 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 1 according to gender.

Table 13
Chi-Square Test for the scoring of the behaviour sentence in Story 1 (Nomathemba put on her new clothes) according to gender.

	Value	df	p
Pearson Chi-Square	1.748	2	.417

According to Table 13 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 1.748, p = .417.

Table 14 indicates the scoring of the behaviour sentence in Story 1 according to age.

Table 14
Story1B – Table indicating the scoring of the behaviour sentence in Story 1 (Nomathemba put on her new clothes) according to age.

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**1**	**2**	**11**	**14**
	% within Age	7.1	7.1	78.6	100.0
	% of Total	1.9	3.8	21.2	26.9
11	**Count (n)**	**0**	**0**	**11**	**11**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	21.2	21.2
12	**Count (n)**	**0**	**3**	**9**	**12**
	% within Age	0.0	25.0	75.0	100.0
	% of Total	0.0	5.8	17.3	23.1
13	**Count (n)**	**1**	**0**	**14**	**15**
	% within Age	6.7	0.0	93.3	100.0
	% of Total	1.9	0.0	26.9	28.8
Total	**Count (n)**	**2**	**5**	**45**	**52**
	% within Age	3.8	9.6	86.5	100.0
	% of Total	3.8	9.6	86.5	100.0

According to Table 14 of the 14 children aged 10 years who participated in the activity, 11 (78.6%) correctly placed the behaviour sentence into the behaviour box. This consisted of 21.2% of the total number of participants. In comparison all of the 11 year old children (n = 11) correctly placed the behaviour sentence into the behaviour box. This consisted of 21.2% the total number of participants. Of the 12 children aged 12 years who

participated, 9 (75.0%) scored this sentence correctly. This represents 17.3% of the total number of participants. Of the 13 year old children (n=15), 14 (93.3%) correctly placed the behaviour sentence into the behaviour box. This consisted of 26.9% of the total number of participants.

Table 15 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 1 according to age.

Table 15
Chi-Square Test for the scoring of the behaviour sentence in Story 1 (Nomathemba put on her new clothes) according to age.

	Value	**df**	**p**
Pearson Chi-Square	7.960	6	.241

According to Table 15, there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 7.960, p = .241.

5.3. Descriptive statistics in terms of items scored correctly for Story 2

Content of Story 2: "Nomathemba was very upset at school today. Nomathemba ran into the toilets to hide from everybody. Nomathemba wondered if her friends would come and find her".

The descriptive statistics for Story 2 are presented in Tables 16 to 25.

5.3.1. Story 2 – Scoring of the thought sentence.

Content of the thought sentence in Story 2: Nomathemba wondered if her friends would come and find her.

Table 16 indicates the scoring of the thought sentence in Story 2 according to gender.

Table 16
Story2T – Table indicating the scoring of the thought sentence in Story 2 (Nomathemba wondered if her friends would come and find her) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**25**	**0**	**0**	**25**
	% within Gender	100.0	0.0	0.0	100.0
	% of Total	48.1	0.0	0.0	48.1
Girl	**Count (n)**	**27**	**0**	**0**	**27**
	% within Gender	100.0	0.0	0.0	100.0
	% of Total	51.9	0.0	0.0	51.9
Total	**Count (n)**	**52**	**0**	**0**	**52**
	% within Gender	100.0	0.0	0.0	100.0
	% of Total	100.0	0.0	0.0	100.0

According to Table 16, all the participants (100%) correctly placed the thought sentence into the thought box. Therefore no statistics were computed as the scoring of the thought sentence in Story 2 was a constant.

Table 17 shows the results of the scoring of the thought sentence in story 2 according to age.

Table 17
Story2T – Table indicating the scoring of the thought sentence in Story 2 (Nomathemba wondered if her friends would come and find her) according to age.

Age		Thought Correct	Feeling	Behaviour	Total
10	**Count (n)**	**14**	**0**	**0**	**14**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	26.9	0.0	0.0	26.9
11	**Count (n)**	**11**	**0**	**0**	**11**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	21.2	0.0	0.0	21.2
12	**Count (n)**	**12**	**0**	**0**	**12**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	23.1	0.0	0.0	23.1
13	**Count (n)**	**15**	**0**	**0**	**15**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	28.8	0.0	0.0	28.8
Total	**Count (n)**	**52**	**0**	**0**	**52**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	100.0	0.0	0.0	100.0

According to Table 17, all the participants (100%) correctly placed the thought sentence into the thought box. Therefore no statistics were computed as the scoring of the thought sentence in Story 2 was a constant.

5.3.2. Story 2 – Scoring of the feeling sentence.

Content of the feeling sentence in Story 2: Nomathemba was very upset at school today.

Table 18 indicates the scoring of the feeling sentence in Story 2 according to gender.

Table 18
Story 2F – Table indicating the scoring of the feeling sentence in Story 2 (Nomathemba was very upset at school today) according to gender.

Gender		Thought	Feeling Correct	Behaviour	Total
Boy	**Count (n)**	**1**	**22**	**2**	**25**
	% within Gender	4.0	88.0	8.0	100.0
	% of Total	1.9	42.3	3.8	48.1
Girl	**Count (n)**	**0**	**27**	**0**	**27**
	% within Gender	0.0	100.0	0.0	100.0
	% of Total	0.0	51.9	0.0	51.9
Total	**Count (n)**	**1**	**49**	**2**	**52**
	% within Gender	1.9	94.2	3.8	100.0
	% of Total	1.9	94.2	3.8	100.0

From table 18 it is evident that of the 25 boys who participated in this activity, 22 (88.0%) correctly placed the feeling sentence into the feeling box. This consisted of 42.3% of the total number of participants. In comparison, all the girls (100%) who participated in this activity correctly placed the feeling sentence into the feeling box. This consisted of 51.9% of the total number of participants. In total 94.2% of all the participants scored this sentence correctly.

Table 19 shows the results of the chi-square test for the scoring of the feeling sentence in Story 2 according to gender.

Table 19
Chi-Square Test for the scoring of the feeling sentence in Story 2 (Nomathemba was very upset at school today) according to gender.

	Value	df	p
Pearson Chi-Square	3.438	2	.179

According to Table 19 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 3.438, p = .179.

Table 20 indicates the scoring of the feeling sentence in Story 2 according to age.

Table 20
Story2F – Table indicating the scoring of the feeling sentence in Story 2 (Nomathemba was very upset at school today) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**0**	**12**	**2**	**14**
	% within Age	0.0	85.7	14.3	100.0
	% of Total	0.0	23.1	3.8	26.9
11	**Count (n)**	**0**	**11**	**0**	**11**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	21.2	0.0	21.2
12	**Count (n)**	**0**	**12**	**0**	**12**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	23.1	0.0	23.1
13	**Count (n)**	**1**	**14**	**0**	**15**
	% within Age	6.7	93.3	0.0	100.0
	% of Total	1.9	26.9	0.0	28.8
Total	**Count (n)**	**1**	**49**	**2**	**52**
	% within Age	1.9	94.2	3.8	100.0
	% of Total	1.9	94.2	3.8	100.0

According to Table 20 of the 14 children aged 10 years who participated in the activity, 12 (85.7%) correctly placed the feeling sentence into the feeling box. This consisted of 23.1% of the total number of participants. In comparison all (100%) of the 11 year old children (n = 11) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants. Of the 12 children aged 12 years who participated,

100% scored this sentence correctly. This represents 23.1% of the total number of participants. Of the 13 year old children (n = 15), 14 (93.3%) correctly placed the feeling sentence into the feeling box. This consisted of 26.9% of the total number of participants.

Table 21 shows the results of the chi-square test for the scoring of the feeling sentence in Story 2 according to age.

Table 21
Chi-Square Test for the scoring of the feeling sentence in Story 2 (Nomathemba was very upset at school today) according to age.

	Value	**df**	**p**
Pearson Chi-Square	8.086	6	.232

According to Table 21 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 8.086, p = .232.

5.3.3. Story 2 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 2: Nomathemba ran into the toilets to hide from everybody.

Table 22 indicates the scoring of the behaviour sentence in Story 2 according to gender.

Table 22
Story2B – Table indicating the scoring of the behaviour sentence in Story 2 (Nomathemba ran into the toilets to hide from everybody) according to gender.

Gender		Thought	Feeling	Behaviour Correct	Total
Boy	**Count (n)**	**2**	**0**	**23**	**25**
	% within Gender	8.0	0.0	92.0	100.0
	% of Total	3.8	0.0	44.2	48.1
Girl	**Count (n)**	**1**	**2**	**24**	**27**
	% within Gender	3.7	7.4	88.9	100.0
	% of Total	1.9	3.8	46.2	51.9
Total	**Count (n)**	**3**	**2**	**47**	**52**
	% within Gender	5.8	3.8	90.4	100.0
	% of Total	5.8	3.8	90.4	100.0

From Table 22 it is evident that of the 25 boys who participated in the activity 23 (92.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of 44.2% of the total number of participants. In comparison, 24 (88.9%) of the 27 girls who participated in the activity correctly placed the behaviour sentence into the behaviour box. This consisted of 46.2% of the total number of participants. In total 47 (90.4%) of the 52 participants correctly placed the behaviour sentence into the behaviour box in Story 2.

Table 23 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 2 according to gender.

Table 23
Chi-Square Test for the scoring of the behaviour sentence in Story 2 (Nomathemba ran into the toilets to hide from everybody) according to gender.

	Value	df	p
Pearson Chi-Square	2.281	2	.320

According to Table 23 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 2.281, p = .320.

Table 24 indicates the scoring of the behaviour sentence in Story 2 according to age.

Table 24
Story2B – Table indicating the scoring of the behaviour sentence in Story 2 (Nomathemba ran into the toilets to hide from everybody) according to age.

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**1**	**0**	**13**	**14**
	% within Age	7.1	0.0	92.9	100.0
	% of Total	1.9	0.0	25.0	26.9
11	**Count (n)**	**1**	**1**	**9**	**11**
	% within Age	9.1	9.1	81.8	100.0
	% of Total	1.9	1.9	17.3	21.2
12	**Count (n)**	**1**	**1**	**10**	**12**
	% within Age	8.3	8.3	83.3	100.0
	% of Total	1.9	1.9	19.2	23.1
13	**Count (n)**	**0**	**0**	**15**	**15**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	28.8	28.8
Total	**Count (n)**	**3**	**2**	**47**	**52**
	% within Age	5.8	3.8	90.4	100.0
	% of Total	5.8	3.8	90.4	100.0

According to Table 24 of the 14 children aged 10 years who participated in the activity, 13 (92.9%) correctly placed the behaviour sentence into the behaviour box. This consisted of 25.0% of the total number of participants. In comparison 9 of the 11 year old children (81.8%) (n = 11) correctly placed the behaviour sentence into the behaviour box. This was 17.3% of the total number of participants. Of the 12 children aged 12 years who

participated, 10 (83.3%) scored this sentence correctly. This represented 19.2% of the total number of participants. All (100%) of the 13 year old children (n = 15) correctly placed the behaviour sentence into the behaviour box. This was 28.8% of the total number of participants.

Table 25 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 2 according to age.

Table 25
Chi-Square Test for the scoring of the behaviour sentence in Story 2 (Nomathemba ran into the toilets to hide from everybody) according to age.

	Value	**df**	**p**
Pearson Chi-Square	4.107	6	.662

According to Table 25 there is no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 4.107, p = .662.

5.4. Descriptive statistics in terms of items scored correctly for Story 3

Content of Story 3: "It was time to walk home from school and Nomathemba's friend was not at the gate. Nomathemba walked to the playground to look for her friend. Could it be that her friend has forgotten about her? Nomathemba was very worried."

The descriptive statistics for Story 3 are presented in Tables 26 to 35.

5.4.1. Story 3 – Scoring of the thought sentence.

Content of the thought sentence in Story 3: Could it be that her friend has forgotten about her?

Table 26 indicates the scoring of the thought sentence in Story 3 according to gender.

Table 26
Story3T – Table indicating the scoring of the thought sentence in Story 3 (Could it be that her friend has forgotten about her?) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**24**	**0**	**1**	**25**
	% within Gender	96.0	0.0	4.0	100.0
	% of Total	46.2	0.0	1.9	48.1
Girl	**Count (n)**	**25**	**0**	**2**	**27**
	% within Gender	92.6	0.0	7.4	100.0
	% of Total	48.1	0.0	3.8	51.9
Total	**Count (n)**	**49**	**0**	**3**	**52**
	% within Gender	94.2	0.0	5.8	100.0
	% of Total	94.2	0.0	5.8	100.0

From table 26 it is evident that of the 25 boys who participated in the activity 24 (96.0%) correctly placed the thought sentence into the thought box. This consisted of 46.2% of the total number of participants. In comparison, 25 (92.6%) of the 27 girls who participated in the activity correctly placed the thought sentence into the thought box. This consisted of 48.1% of the total number of participants. In total 49 (94.2%) of the 52 participants correctly placed the thought sentence into the thought box in Story 3.

Table 27 shows the results of the chi-square test for the scoring of the thought sentence in Story 3 according to gender.

Table 27
Chi-Square Test for the scoring of the thought sentence in Story 3 (Could it be that her friend has forgotten about her?) according to gender.

	Value	df	p
Pearson Chi-Square	.277	1	.599

According to Table 27 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 1) = .277, p = .599.

Table 28 indicates the scoring of the thought sentence in Story 3 according to age.

Table 28
Story3T – Table indicating the scoring of the thought sentence in Story 3 (Could it be that her friend has forgotten about her?) according to age.

Age		Thought Correct	Feeling	Behaviour	Total
10	**Count (n)**	**14**	**0**	**0**	**14**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	26.9	0.0	0.0	26.9
11	**Count (n)**	**11**	**0**	**0**	**11**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	21.2	0.0	0.0	21.2
12	**Count (n)**	**12**	**0**	**0**	**12**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	23.1	0.0	0.0	23.1
13	**Count (n)**	**12**	**0**	**3**	**15**
	% within Age	80.0	0.0	20.0	100.0
	% of Total	23.1	0.0	5.8	28.8
Total	**Count (n)**	**49**	**0**	**3**	**52**
	% within Age	94.2	0.0	5.8	100.0
	% of Total	94.2	0.0	5.8	100.0

According to Table 28, all the 10 year old (100%), all the 11 year old (100%) as well as all the 12 year old (100%) participants correctly placed the thought sentence into the thought box. In comparison only 12 (80.0%) of the 13 year old participants (n = 15) correctly placed the thought sentence into the thought box.

Table 29 shows the results of the chi-square test for the scoring of the thought sentence in Story 3 according to age.

Table 29
Chi-Square Test for the scoring of the thought sentence in Story 3 (Could it be that her friend has forgotten about her?) according to age.

	Value	**df**	**p**
Pearson Chi-Square	7.853	3	.049

According to Table 29 there was a significant association between age and performance on this task with Pearson Chi-Square (52, 3) = 7.853, p = .049.

5.4.2. Story 3 – Scoring of the feeling sentence.

Content of the feeling sentence in story 3: Nomathemba was very worried.

Table 30 indicates the scoring of the feeling sentence in Story 3 according to gender.

Table 30
Story3F – Table indicating the scoring of the feeling sentence in Story 3 (Nomathemba was very worried) according to gender.

Gender		**Thought**	**Feeling Correct**	**Behaviour**	**Total**
Boy	**Count (n)**	**4**	**21**	**0**	**25**
	% within Gender	16.0	84.0	0.0	100.0
	% of Total	7.7	40.4	0.0	48.1
Girl	**Count (n)**	**1**	**26**	**0**	**27**
	% within Gender	3.7	96.3	0.0	100.0
	% of Total	1.9	50.0	0.0	51.9
Total	**Count (n)**	**5**	**47**	**0**	**52**
	% within Gender	9.6	90.4	0.0	100.0
	% of Total	9.6	90.4	0.0	100.0

From Table 30 it is evident that of the 25 boys who participated in this activity, 21 (84.0%) correctly placed the feeling sentence into the feeling box. This consisted of 40.4% of the total number of participants. In comparison, 26 (96.3%) of the 27 girls who participated in this activity correctly placed the feeling sentence into the feeling box. This consisted of 50.0% of the total number of participants. In total 47 (90.4%) of the 52 participants correctly placed the feeling sentence into the feeling box in Story 3.

Table 31 shows the results of the chi-square test for the scoring of the feeling sentence in Story 3 according to gender.

Table 31
Chi-Square Test for the scoring of the feeling sentence in Story 3 (Nomathemba was very worried) according to gender.

	Value	**df**	**p**
Pearson Chi-Square	2.258	1	.133

According to Table 31 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 1) = 2.258, p = .133.

Table 32 indicates the scoring of the feeling sentence in Story 3 according to age.

Table 32
Story3F – Table indicating the scoring of the feeling sentence in Story 3 (Nomathemba was very worried) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**1**	**13**	**0**	**14**
	% within Age	7.1	92.9	0.0	100.0
	% of Total	1.9	25.0	0.0	26.9
11	**Count (n)**	**0**	**11**	**0**	**11**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	21.2	0.0	21.2
12	**Count (n)**	**1**	**11**	**0**	**12**
	% within Age	8.3	91.7	0.0	100.0
	% of Total	1.9	21.2	0.0	23.1
13	**Count (n)**	**3**	**12**	**0**	**15**
	% within Age	20.0	80.0	0.0	100.0
	% of Total	5.8	23.1	0.0	28.8
Total	**Count (n)**	**5**	**47**	**0**	**52**
	% within Age	9.6	90.4	0.0	100.0
	% of Total	9.6	90.4	0.0	100.0

According to Table 32 of the 14 children aged 10 years who participated in the activity, 13 (92.9%) correctly placed the feeling sentence into the feeling box. This consisted of 25.0% of the total number of participants. In comparison all (100%) of the 11 year old children (n = 11) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants. Of the 12 children aged 12 years who participated, 11 (91.7%) scored this sentence correctly. This represented 21.2% of the total number of participants. Of the 13 year old children (n = 15), 12 (80.0%) correctly placed the feeling sentence into the feeling box. This consisted of 23.1% of the total number of participants.

Table 33 shows the results of the chi-square test for the scoring of the feeling sentence in Story 3 according to age.

Table 33
Chi-Square Test for the scoring of the feeling sentence in Story 3 (Nomathemba was very worried) according to age.

	Value	**df**	**p**
Pearson Chi-Square	3.153	3	.369

According to Table 33, there was no significant association between age and performance on this task with Pearson Chi-Square (52, 3) = 3.153, p = .369.

5.4.3. Story 3 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 3: Nomathemba walked to the playground to look for her friend.

Table 34 indicates the scoring of the behaviour sentence in Story 3 according to gender.

Table 34
Story3B – Table indicating the scoring of the behaviour sentence in Story 3 (Nomathemba walked to the playground to look for her friend) according to gender.

Gender		Thought	Feeling	Behaviour Correct	Total
Boy	**Count (n)**	**0**	**0**	**25**	**25**
	% within Gender	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	48.1	48.1
Girl	**Count (n)**	**0**	**0**	**27**	**27**
	% within Gender	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	51.9	51.9
Total	**Count (n)**	**0**	**0**	**52**	**52**
	% within Gender	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	100.0	100.0

According to Table 34 all the participants (100%) correctly placed the behaviour sentence into the behaviour box. Therefore no statistics were computed as the scoring of the behaviour sentence in Story 3 was a constant.

Table 35 indicates the scoring of the behaviour sentence in Story 3 according to age.

Table 35
Story3B – Table indicating the scoring of the behaviour sentence in Story 3 (Nomathemba walked to the playground to look for her friend) according to age.

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**0**	**0**	**14**	**14**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	26.9	26.9
11	**Count (n)**	**0**	**0**	**11**	**11**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	21.2	21.2
12	**Count (n)**	**0**	**0**	**12**	**12**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	23.1	23.1
13	**Count (n)**	**0**	**0**	**15**	**15**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	28.8	28.8
Total	**Count (n)**	**0**	**0**	**52**	**52**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	100.0	100.0

According to Table 35 all the participants (100%) correctly placed the behaviour sentence into the behaviour box. Therefore no statistics were computed as the scoring of the behaviour sentence in Story 3 was a constant.

5.5. Descriptive statistics in terms of items scored correctly for Story 4

Content of Story 4: “Nomathemba went to the shop with her aunt. Nomathemba was very pleased with her new top. Nomathemba hoped that her top would match her pants.”

The descriptive statistics for Story 4 are presented in Tables 36 to 47.

5.5.1. Story 4 – Scoring of the thought sentence.

Content of the thought sentence in Story 4: Nomathemba hoped that her top would match her pants.

Table 36 indicates the scoring of the thought sentence in Story 4 according to gender.

Table 36
Story4T – Table indicating the scoring of the thought sentence in Story 4 (Nomathemba hoped that her top would match her pants) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**15**	**9**	**1**	**25**
	% within Gender	60.0	36.0	4.0	100.0
	% of Total	28.8	17.3	1.9	48.1
Girl	**Count (n)**	**15**	**10**	**2**	**27**
	% within Gender	55.6	37.0	7.4	100.0
	% of Total	28.8	19.2	3.8	51.9
Total	**Count (n)**	**30**	**19**	**3**	**52**
	% within Gender	57.7	36.5	5.8	100.0
	% of Total	57.7	36.5	5.8	100.0

From Table 36 it is evident that of the 25 boys who participated in the activity 15 (60.0%) correctly placed the thought sentence into the thought box. This consisted of 28.8% of the total number of participants. Of the 27 girls who participated in the activity 15 (55.6%) correctly placed the thought sentence into the thought box. This consisted of 28.8% of the total number of participants. In total only 30 (57.7%) of the 52 participants correctly placed the thought sentence into the thought box in Story 4.

Table 37 shows the results of the chi-square test for the scoring of the thought sentence in Story 4 according to gender.

Table 37
Chi-Square Test for the scoring of the thought sentence in Story 4 (Nomathemba hoped that her top would match her pants) according to gender.

	Value	**df**	**p**
Pearson Chi-Square	.309	2	.857

According to Table 37 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = .309, p = .857.

Table 38 indicates the scoring of the thought sentence in Story 4 according to age.

Table 38
Story4T – Table indicating the scoring of the thought sentence in Story 4 (Nomathemba hoped that her top would match her pants) according to age.

Age		**Thought Correct**	**Feeling**	**Behaviour**	**Total**
10	**Count (n)**	**8**	**6**	**0**	**14**
	% within Age	57.1	42.9	0.0	100.0
	% of Total	15.4	11.5	0.0	26.9
11	**Count (n)**	**7**	**3**	**1**	**11**
	% within Age	63.6	27.3	9.1	100.0
	% of Total	13.5	5.8	1.9	21.2
12	**Count (n)**	**7**	**4**	**1**	**12**
	% within Age	58.3	33.3	8.3	100.0
	% of Total	13.5	7.7	1.9	23.1
13	**Count (n)**	**8**	**6**	**1**	**15**
	% within Age	53.3	40.0	6.7	100.0
	% of Total	15.4	11.5	1.9	28.8
Total	**Count (n)**	**30**	**19**	**3**	**52**
	% within Age	57.7	36.5	5.8	100.0
	% of Total	57.7	36.5	5.8	100.0

According to Table 38 of the 14 children aged 10 years who participated in this activity only 8 (57.1%) correctly placed the thought sentence into the thought box. This consisted of 15.4% of the total number of participants. In comparison 7 (63.6%) of the 11 year old children (n = 11) correctly placed the thought sentence into the thought box.This accounted for 13.5% of the total number of participants. Of the 12 children aged 12 years who participated, only 7 (58.3%) correctly placed the sentence into the thought box. This accounted for 13.5% of all the participants. Of the 13 year old children (n = 15), only 8 (53.3%) scored this sentence correctly. This consisted of 15.4% of the total number of participants.

Table 39 shows the results of the chi-square test for the scoring of the thought sentence in Story 4 according to age.

Table 39
Chi-Square Test for the scoring of the thought sentence in Story 4 (Nomathemba hoped that her top would match her pants) according to age.

	Value	**df**	**p**
Pearson Chi-Square	1.788	6	.938

According to Table 39 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 1.788, p = .938.

5.5.2. Story 4 – Scoring of the feeling sentence.

Content of the feeling sentence in Story 4: Nomathemba was very pleased with her new top.

Table 40 indicates the scoring of the feeling sentence in Story 4 according to gender.

Table 40
Story4F – Table indicating the scoring of the feeling sentence in Story 4 (Nomathemba was very pleased with her new top) according to gender.

Gender		Thought	Feeling Correct	Behaviour	Total
Boy	**Count (n)**	**1**	**24**	**0**	**25**
	% within Gender	4.0	96.0	0.0	100.0
	% of Total	1.9	46.2	0.0	48.1
Girl	**Count (n)**	**0**	**26**	**1**	**27**
	% within Gender	0.0	96.3	3.7	100.0
	% of Total	0.0	50.0	1.9	51.9
Total	**Count (n)**	**1**	**50**	**1**	**52**
	% within Gender	1.9	96.2	1.9	100.0
	% of Total	1.9	96.2	1.9	100.0

From Table 40 it is evident that of the 25 boys who participated in this activity, 24 (96.0%) correctly placed the feeling sentence into the feeling box. This consisted of 46.2% of the total number of participants. Of the 27 girls who participated in this activity, 26 (96.3%) correctly placed the feeling sentence into the feeling box. This consisted of 50.0% of the total number of participants. In total 50 out of the 52 participants (96.2%) correctly placed the feeling sentence into the feeling box in Story 4.

Table 41 shows the results of the chi-square test for the scoring of the feeling sentence in Story 4 according to gender.

Table 41
Chi-Square Test for the scoring of the feeling sentence in Story 4 (Nomathemba was very pleased with her new top) according to gender.

	Value	df	p
Pearson Chi-Square	2.006	2	.367

According to Table 41 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 2.006, p = .367.

Table 42 indicates the scoring of the feeling sentence in Story 4 according to age.

Table 42
Story4F – Table indicating the scoring of the feeling sentence in Story 4 (Nomathemba was very pleased with her new top) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**1**	**13**	**0**	**14**
	% within Age	7.1	92.9	0.0	100.0
	% of Total	1.9	25.0	0.0	26.9
11	**Count (n)**	**0**	**11**	**0**	**11**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	21.2	0.0	21.2
12	**Count (n)**	**0**	**12**	**0**	**12**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	23.1	0.0	23.1
13	**Count (n)**	**0**	**14**	**1**	**15**
	% within Age	0.0	93.3	6.7	100.0
	% of Total	0.0	26.9	1.9	28.8
Total	**Count (n)**	**1**	**50**	**1**	**52**
	% within Age	1.9	96.2	1.9	100.0
	% of Total	1.9	96.2	1.9	100.0

According to Table 42 of the 14 children aged 10 years who participated in the activity, 13 (92.9%) correctly placed the feeling sentence into the feeling box. This consisted of 25.0% of the total number of participants. In comparison all (100%) of the 11 year old children (n = 11) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants. Also all (100%) of the 12 children aged 12 years

who participated scored this sentence correctly. This represented 23.1% of the total number of participants. Of the 13 year old children (n = 15), 14 (93.3%) correctly placed the feeling sentence into the feeling box. This was 26.9% of the total number of participants.

Table 43 shows the results of the chi-square test for the scoring of the feeling sentence in Story 4 according to age.

Table 43
Chi-Square Test for the scoring of the feeling sentence in Story 4 (Nomathemba was very pleased with her new top) according to age.

	Value	**df**	**p**
Pearson Chi-Square	5.245	6	.513

According to Table 43 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 5.245, p = .513.

5.5.3. Story 4 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 4: Nomathemba went to the shop with her aunt.

Table 44 indicates the scoring of the behaviour sentence in Story 4 according to age.

Table 44
Story4B – Table indicating the scoring of the behaviour sentence in Story 4 (Nomathemba went to the shop with her aunt) according to age.

Gender		Thought	Feeling	Behaviour Correct	Total
Boy	**Count (n)**	**0**	**1**	**24**	**25**
	% within Gender	0.0	4.0	96.0	100.0
	% of Total	0.0	1.9	46.2	48.1
Girl	**Count (n)**	**0**	**0**	**27**	**27**
	% within Gender	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	51.9	51.9
Total	**Count (n)**	**0**	**1**	**51**	**52**
	% within Gender	0.0	1.9	98.1	100.0
	% of Total	0.0	1.9	98.1	100.0

From Table 44 it is evident that of the 25 boys who participated in the activity 24 (96.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of 46.2% of the total number of participants. In comparison, all the girls (100%) who participated in the activity correctly placed the behaviour sentence into the behaviour box. This consisted of 51.9% of the total number of participants. In total 51 of the 52 participants (98.1%) correctly placed the behaviour sentence into the behaviour box in Story 4.

Table 45 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 4.

Table 45
Chi-Square Test for the scoring of the behaviour sentence in Story 4 (Nomathemba went to the shop with her aunt) according to age.

	Value	df	p
Pearson Chi-Square	1.101	1	.294

According to Table 45 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 1) = 1.101, p = .294.

Table 46 indicates the scoring of the behaviour sentence in Story 4 according to age.

Table 46
Story4B – Table indicating the scoring of the behaviour sentence in Story 4 (Nomathemba went to the shop with her aunt) according to age.

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**0**	**0**	**14**	**14**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	26.9	26.9
11	**Count (n)**	**0**	**0**	**11**	**11**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	21.2	21.2
12	**Count (n)**	**0**	**1**	**11**	**12**
	% within Age	0.0	8.3	91.7	100.0
	% of Total	0.0	1.9	21.2	23.1
13	**Count (n)**	**0**	**0**	**15**	**15**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	28.8	28.8
Total	**Count (n)**	**0**	**1**	**51**	**52**
	% within Age	0.0	1.9	98.1	100.0
	% of Total	0.0	1.9	98.1	100.0

From Table 46 it is evident that of the 14 children aged 10 years who participated in the activity, all (100%) correctly placed the behaviour sentence into the behaviour box. This was 26.9% of the total number of participants. Also all (100%) of the 11 year old children (n = 11) correctly placed the behaviour sentence into the behaviour box. This was 21.2% of the total number of participants. Of the 12 children aged 12 years who participated, 11 (91.7%)

scored this sentence correctly. This represented 21.2% of the total number of participants. All (100%) of the 13 year old children (n = 15) correctly placed the behaviour sentence into the behaviour box. This was 28.8% of the total number of participants.

Table 47 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 4 according to age.

Table 47
Chi-Square Test for the scoring of the behaviour sentence in Story 4 (Nomathemba went to the shop with her aunt) according to age.

	Value	**df**	**p**
Pearson Chi-Square	3.399	3	.334

According to Table 47 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 3) = 3.399, p = .334.

5.6. Descriptive statistics in terms of items scored correctly for Story 5

Content of Story 5: "Last night there was heavy rain. The rain coming down sounded a bit like stones falling on the roof to Nomathemba. Nomathemba was very scared. Nomathemba hid under the bed".

The descriptive statistics for Story 5 are presented in Tables 48 to 59.

5.6.1. Story 5 – Scoring of the thought sentence.

Content of the thought sentence in Story 5: The rain coming down sounded a bit like stones falling on the roof to Nomathemba.

Table 48 indicates the scoring of the thought sentence in Story 5 according to gender.

Table 48
Story5T – Table indicating the scoring of the thought sentence in Story 5 (The rain coming down sounded a bit like stones falling on the roof to Nomathemba) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**18**	**1**	**6**	**25**
	% within Gender	72.0	4.0	24.0	100.0
	% of Total	34.6	1.9	11.5	48.1
Girl	**Count (n)**	**18**	**3**	**6**	**27**
	% within Gender	66.7	11.1	22.2	100.0
	% of Total	34.6	5.8	11.5	51.9
Total	**Count (n)**	**36**	**4**	**12**	**52**
	% within Gender	69.2	7.7	23.1	100.0
	% of Total	69.2	7.7	23.1	100.0

From table 48 it is evident that of the 25 boys who participated in the activity 18 (72.0%) correctly placed the thought sentence into the thought box. This consisted of 34.6% of the total number of participants. In comparison, 18 (66.7%) of the 27 girls who participated in the activity correctly placed the thought sentence into the thought box. This consisted of 34.6% of the total number of participants. In total only 36 (69.2%) of the 52 participants correctly placed the thought sentence into the thought box in Story 5.

Table 49 shows the results of the chi-square test for the scoring of the thought sentence in Story 5 according to gender.

Table 49
Chi-Square Test for the scoring of the thought sentence in Story 5 (The rain coming down sounded a bit like stones falling on the roof to Nomathemba) according to gender.

	Value	df	p
Pearson Chi-Square	.924	2	.630

According to Table 49 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = .924, p = .630.

Table 50 indicates the scoring of the thought sentence in Story 5 according to age.

Table 50
Story5T – Table indicating the scoring of the thought sentence in Story 5 (The rain coming down sounded a bit like stones falling on the roof to Nomathemba) according to age.

Age		Thought Correct	Feeling	Behaviour	Total
10	**Count (n)**	**9**	**2**	**3**	**14**
	% within Age	64.3	14.3	21.4	100.0
	% of Total	17.3	3.8	5.8	26.9
11	**Count (n)**	**8**	**1**	**2**	**11**
	% within Age	72.7	9.1	18.2	100.0
	% of Total	15.4	1.9	3.8	21.2
12	**Count (n)**	**8**	**0**	**4**	**12**
	% within Age	66.7	0.0	33.3	100.0
	% of Total	15.4	0.0	7.7	23.1
13	**Count (n)**	**11**	**1**	**3**	**15**
	% within Age	73.3	6.7	20.0	100.0
	% of Total	21.2	1.9	5.8	28.8
Total	**Count (n)**	**36**	**4**	**12**	**52**
	% within Age	69.2	7.7	23.1	100.0
	% of Total	69.2	7.7	23.1	100.0

According to Table 50 of the 14 children aged 10 years who participated in the activity 9 (64.3%) correctly placed the thought sentence into the thought box. This consisted of 17.3% of the total number of participants. Of the 11 year old children (n = 11), 8 (72.7%) correctly placed the thought sentence into the thought box. This accounted for 15.4% of the total number of participants. Of the 12 children aged 12 years who participated, 8 (66.7%)

correctly placed the sentence into the thought box. This accounted for 15.4% of all the participants. Of the 13 year old children (n = 15), 11 (73.3%) scored this sentence correctly. This consisted of 21.2% of the total number of participants.

Table 51 shows the results of the chi-square test for the scoring of the thought sentence in Story 5 according to age.

Table 51
Chi-Square Test for the scoring of the thought sentence in Story 5 (The rain coming down sounded a bit like stones falling on the roof to Nomathemba) according to age.

	Value	**df**	**p**
Pearson Chi-Square	2.619	6	.855

According to Table 51 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 2.619, p = .855.

5.6.2. Story 5 – Scoring of the feeling sentence.

Content of the feeling sentence in Story 5: Nomathemba was very scared.

Table 52 indicates the scoring of the feeling sentence in Story 5 according to gender.

Table 52
Story5F – Table indicating the scoring of the feeling sentence in Story 5 (Nomathemba was very scared) according to gender.

Gender		Thought	Feeling Correct	Behaviour	Total
Boy	**Count (n)**	**2**	**18**	**5**	**25**
	% within Gender	8.0	72.0	20.0	100.0
	% of Total	3.8	34.6	9.6	48.1
Girl	**Count (n)**	**2**	**23**	**2**	**27**
	% within Gender	7.4	85.2	7.4	100.0
	% of Total	3.8	44.2	3.8	51.9
Total	**Count (n)**	**4**	**41**	**7**	**52**
	% within Gender	7.7	78.8	13.5	100.0
	% of Total	7.7	78.8	13.5	100.0

From Table 52 it is evident that of the 25 boys who participated in this activity, 18 (72.0%) correctly placed the feeling sentence into the feeling box. This consisted of 34.6% of the total number of participants. In comparison, 23 (85.2%) of the 27 girls who participated in this activity correctly placed the feeling sentence into the feeling box. This consisted of 44.2% of the total number of participants. In total 41 (78.8%) out of the 52 participants correctly placed the feeling sentence into the feeling box for story 5.

Table 53 shows the results of the chi-square test for the scoring of the feeling sentence in Story 5 according to gender.

Table 53
Chi-Square Test for the scoring of the feeling sentence in Story 5 (Nomathemba was very scared) according to gender.

	Value	df	p
Pearson Chi-Square	1.821	2	.402

According to Table 53 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 1.821, p = .402.

Table 54 indicates the scoring of the feeling sentence in Story 5 according to age.

Table 54
Story5F – Table indicating the scoring of the feeling sentence in Story 5 (Nomathemba was very scared) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**2**	**11**	**1**	**14**
	% within Age	14.3	78.6	7.1	100.0
	% of Total	3.8	21.2	1.9	26.9
11	**Count (n)**	**0**	**10**	**1**	**11**
	% within Age	0.0	90.9	9.1	100.0
	% of Total	0.0	19.2	1.9	21.2
12	**Count (n)**	**1**	**9**	**2**	**12**
	% within Age	8.3	75.0	16.7	100.0
	% of Total	1.9	17.3	3.8	23.1
13	**Count (n)**	**1**	**11**	**3**	**15**
	% within Age	6.7	73.3	20.0	100.0
	% of Total	1.9	21.2	5.8	28.8
Total	**Count (n)**	**4**	**41**	**7**	**52**
	% within Age	7.7	78.8	13.5	100.0
	% of Total	7.7	78.8	13.5	100.0

According to Table 54 of the 14 children aged 10 years who participated in the activity, 11 (78.6%) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants. In comparison 10 (90.9%) of the 11 year old children (n = 11) correctly placed the feeling sentence into the feeling box. This consisted of 19.2% of the total number of participants. Of the 12 children aged 12 years who participated,

9 (75.0%) scored this sentence correctly. This represented 17.3% of the total number of participants. Of the 13 year old children (n = 15), 11 (73.3%) correctly placed the feeling sentence into the feeling box. This consisted of 21.2% of the total number of participants.

Table 55 shows the results of the chi-square test for the scoring of the feeling sentence in Story 5 according to age.

Table 55
Chi-Square Test for the scoring of the feeling sentence in Story 5 (Nomathemba was very scared) according to age.

	Value	**df**	**p**
Pearson Chi-Square	3.087	6	.798

According to Table 55 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 3.087, p = .798.

5.6.3. Story 5 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 5: Nomathemba hid under the bed.

Table 56 indicates the scoring of the behaviour sentence in Story 5 according to gender.

Table 56
Story5B – Table indicating the scoring of the behaviour sentence in Story 5 (Nomathemba hid under the bed) according to gender.

Gender		Thought	Feeling	Behaviour Correct	Total
Boy	**Count (n)**	**0**	**1**	**24**	**25**
	% within Gender	0.0	4.0	96.0	100.0
	% of Total	0.0	1.9	46.2	48.1
Girl	**Count (n)**	**1**	**2**	**24**	**27**
	% within Gender	3.7	7.4	88.9	100.0
	% of Total	1.9	3.8	46.2	51.9
Total	**Count (n)**	**1**	**3**	**48**	**52**
	% within Gender	1.9	5.8	92.3	100.0
	% of Total	1.9	5.8	92.3	100.0

From Table 56 it is evident that of the 25 boys who participated in the activity 24 (96.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of 46.2% of the total number of participants. In comparison, only 24 (88.9%) of the 27 girls who participated in the activity correctly placed the behaviour sentence into the behaviour box. This consisted of 46.2% of the total number of participants. In total 48 (92.3%) participants correctly placed the behaviour sentence into the behaviour box in Story 5.

Table 57 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 5 according to gender.

Table 57
Chi-Square Test for the scoring of the behaviour sentence in Story 5 (Nomathemba hid under the bed) according to gender.

	Value	df	p
Pearson Chi-Square	1.258	2	.533

According to Table 57 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 1.258, p = .533.

Table 58 indicates the scoring of the behaviour sentence in Story 5 according to age.

Table 58
Story5B – Table indicating the scoring of the behaviour sentence in Story 5 (Nomathemba hid under the bed) according to age.

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**1**	**0**	**13**	**14**
	% within Age	7.1	0.0	92.9	100.0
	% of Total	1.9	0.0	25.0	26.9
11	**Count (n)**	**0**	**1**	**10**	**11**
	% within Age	0.0	9.1	90.9	100.0
	% of Total	0.0	1.9	19.2	21.2
12	**Count (n)**	**0**	**2**	**10**	**12**
	% within Age	0.0	16.7	83.3	100.0
	% of Total	0.0	3.8	19.2	23.1
13	**Count (n)**	**0**	**0**	**15**	**15**
	% within Age	0.0	0.0	100.0	100.0
	% of Total	0.0	0.0	28.8	28.8
Total	**Count (n)**	**1**	**3**	**48**	**52**
	% within Age	1.9	5.8	92.3	100.0
	% of Total	1.9	5.8	92.3	100.0

According to Table 58 of the 14 children aged 10 years who participated in the activity, 13 (96.9%) correctly placed the behaviour sentence into the behaviour box. This consisted of 25.0% of the total number of participants. Of the 11 year old children (n = 11), 10 (90.9%) correctly placed the behaviour sentence into the behaviour box. This was 19.2% of the total number of participants. Of the 12 children aged 12 years who participated, 10

(83.3%) scored this sentence correctly. This represented 19.2% of the total number of participants who scored this item correctly. All (100%) of the 13 year old children (n = 15) correctly placed the behaviour sentence into the behaviour box. This consisted of 28.8% of the total number of participants who scored this sentence correctly.

Table 59 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 5 according to age.

Table 59
Chi-Square Test for the scoring of the behaviour sentence in Story 5 (Nomathemba hid under the bed) according to age.

	Value	**df**	**p**
Pearson Chi-Square	7.271	6	.296

According to Table 59 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 7.271, p = .296.

5.7. Descriptive statistics in terms of items scored correctly for Story 6

Content of Story 6: "It was lunchtime on Tuesday. Nomathemba wondered what they were getting for lunch. Nomathemba asked to find out. Nomathemba was very happy to hear that they were getting chicken, which were her favourite".

The descriptive statistics for Story 6 are presented in Tables 60 to 71.

5.7.1. Story 6 – Scoring of the thought sentence.

Content of the thought sentence in Story 6: Nomathemba wondered what they were getting for lunch.

Table 60 indicates the scoring of the thought sentence in Story 6 according to gender.

Table 60
Story6T – Table indicating the scoring of the thought sentence in Story 6 (Nomathemba wondered what they were getting for lunch) according to gender.

Gender		Thought Correct	Feeling	Behaviour	Total
Boy	**Count (n)**	**25**	**0**	**0**	**25**
	% within Gender	100.0	0.0	0.0	100.0
	% of Total	48.1	0.0	0.0	48.1
Girl	**Count (n)**	**26**	**1**	**0**	**27**
	% within Gender	96.3	3.7	0.0	100.0
	% of Total	50.0	1.9	0.0	51.9
Total	**Count (n)**	**51**	**1**	**0**	**52**
	% within Gender	98.1	1.9	0.0	100.0
	% of Total	98.1	1.9	0.0	100.0

From Table 60 it is evident that all (100%) of the 25 boys who participated in this activity correctly placed the thought sentence into the thought box. This consisted of 48.1% of the total number of participants. In comparison, 26 (96.3%) of the 27 girls who participated in the activity correctly placed the thought sentence into the thought box. This consisted of 50.0% of the total number of participants. In total 51 (98.1%) of the 52 participants correctly placed the thought sentence into the thought box in Story 6.

Table 61 shows the results of the chi-square test for the scoring of the thought sentence in Story 6 according to gender.

Table 61
Chi-Square Test for the scoring of the thought sentence in Story 6 (Nomathemba wondered what they were getting for lunch) according to gender.

	Value	df	p
Pearson Chi-Square	.944	1	.331

According to Table 61 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 1) = .944, p = .331.

Table 62 indicates the scoring of the thought sentence in Story 6 according to age.

Table 62
Story6T – Table indicating the scoring of the thought sentence in Story 6 (Nomathemba wondered what they were getting for lunch) according to age.

Age		Thought Correct	Feeling	Behaviour	Total
10	**Count (n)**	**14**	**0**	**0**	**14**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	26.9	0.0	0.0	26.9
11	**Count (n)**	**10**	**1**	**0**	**11**
	% within Age	90.9	9.1	0.0	100.0
	% of Total	19.2	1.9	0.0	21.2
12	**Count (n)**	**12**	**0**	**0**	**12**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	23.1	0.0	0.0	23.1
13	**Count (n)**	**15**	**0**	**0**	**15**
	% within Age	100.0	0.0	0.0	100.0
	% of Total	28.8	0.0	0.0	28.8
Total	**Count (n)**	**51**	**1**	**0**	**52**
	% within Age	98.1	1.9	0.0	100.0
	% of Total	98.1	1.9	0.0	100.0

According to Table 62 all the 10 year old, all the 12 year old as well as all the 13 year old participants correctly placed the thought sentence into the thought box. Of the 11 children aged 11 who participated in this activity 10 (90.9%) correctly placed the thought sentence into the thought box.This accounted for 19.2% of the total number of participants.

Table 63 shows the results of the chi-square test for the scoring of the thought sentence in Story 6 according to age.

Table 63
Chi-Square Test for the scoring of the thought sentence in Story 6 (Nomathemba wondered what they were getting for lunch) according to age.

	Value	**df**	**p**
Pearson Chi-Square	3.800	3	.284

According to Table 63 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 3) = 3.800, p = .284.

5.7.2. Story 6 – Scoring of the feeling sentence.

Content of the feeling sentence in Story 6: Nomathemba was very happy to hear that they were getting chicken, which were her favourite.

Table 64 indicates the scoring of the feeling sentence in Story 6 according to gender.

Table 64
Story6F – Table indicating the scoring of the feeling sentence in Story 6 (Nomathemba was very happy to hear that they were getting chicken, which were her favourite) according to gender.

Gender		**Thought**	**Feeling Correct**	**Behaviour**	**Total**
Boy	**Count (n)**	**0**	**25**	**0**	**25**
	% within Gender	0.0	100.0	0.0	100.0
	% of Total	0.0	48.1	0.0	48.1
Girl	**Count (n)**	**0**	**26**	**1**	**27**
	% within Gender	0.0	96.3	3.7	100.0
	% of Total	0.0	50.0	1.9	51.9
Total	**Count (n)**	**0**	**51**	**1**	**52**
	% within Gender	0.0	98.1	1.9	100.0
	% of Total	0.0	98.1	1.9	100.0

From Table 64 it is evident that all (100%) of the 25 boys who participated in this activity correctly placed the feeling sentence into the feeling box. This consisted of 48.1% of the total number of participants. In comparison, 26 (96.3%) of the 27 girls who participated in this activity correctly placed the feeling sentence into the feeling box. This accounted for 50.0% of the total number of participants. In total 51 (98.1%) of the 52 participants correctly placed the feeling sentence into the feeling box.

Table 65 shows the results of the chi-square test for the scoring of the feeling sentence in Story 6 according to gender.

Table 65
Chi-Square Test for the scoring of the feeling sentence in Story 6 (Nomathemba was very happy to hear that they were getting chicken, which were her favourite) according to gender.

	Value	**df**	**p**
Pearson Chi-Square	.944	1	.331

According to Table 65 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 1) = .944, p = .331.

Table 66 indicates the scoring of the feeling sentence in Story 6 according to age.

Table 66
Story6F – Table indicating the scoring of the feeling sentence in Story 6 (Nomathemba was very happy to hear that they were getting chicken, which were her favourite) according to age.

Age		Thought	Feeling Correct	Behaviour	Total
10	**Count (n)**	**0**	**13**	**1**	**14**
	% within Age	0.0	92.9	7.1	100.0
	% of Total	0.0	25.0	1.9	26.9
11	**Count (n)**	**0**	**11**	**0**	**11**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	21.2	0.0	21.2
12	**Count (n)**	**0**	**12**	**0**	**12**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	23.1	0.0	23.1
13	**Count (n)**	**0**	**15**	**0**	**15**
	% within Age	0.0	100.0	0.0	100.0
	% of Total	0.0	28.8	0.0	28.8
Total	**Count (n)**	**0**	**51**	**1**	**52**
	% within Age	0.0	98.1	1.9	100.0
	% of Total	0.0	98.1	1.9	100.0

According to Table 66 of the 14 children aged 10 years who participated in the activity, 13 (92.9%) correctly placed the feeling sentence into the feeling box. This consisted of 25.0% of the total number of participants. All of the 11 year old (100%), all of the 12 year old (100%) as well as all of the 13 year old (100%) participants correctly placed the feeling sentence into the feeling box.

Table 67 shows the results of the chi-square test for the scoring of the feeling sentence in Story 6 according to age.

Table 67
Chi-Square Test for the scoring of the feeling sentence in Story 6 (Nomathemba was very happy to hear that they were getting chicken, which were her favourite) according to age.

	Value	**df**	**p**
Pearson Chi-Square	2.768	3	.429

According to Table 67 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 3) = 2.768, p = .429.

5.7.3. Story 6 – Scoring of the behaviour sentence.

Content of the behaviour sentence in Story 6: Nomathemba asked to find out.

Table 68 indicates the scoring of the behaviour sentence in Story 6 according to gender.

Table 68
Story6B – Table indicating the scoring of the behaviour sentence in Story 6 (Nomathemba asked to find out) according to gender.

Gender		**Thought**	**Feeling**	**Behaviour Correct**	**Total**
Boy	**Count (n)**	**9**	**2**	**14**	**25**
	% within Gender	36.0	8.0	56.0	100.0
	% of Total	1.9	1.9	44.2	48.1
Girl	**Count (n)**	**5**	**0**	**22**	**27**
	% within Gender	18.5	0.0	81.5	100.0
	% of Total	9.6	0.0	42.3	51.9
Total	**Count (n)**	**14**	**2**	**36**	**52**
	% within Gender	26.9	3.8	69.2	100.0
	% of Total	26.9	3.8	69.2	100.0

From Table 68 it is evident that of the 25 boys who participated in the activity only 14 (56.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of

44.2% of the total number of participants. In comparison, 22 (81.5%) of the 27 girls who participated in the activity correctly placed the behaviour sentence into the behaviour box. This consisted of 42.3% of the total number of participants. In total only 36 (69.2%) of the 52 participants correctly placed the behaviour sentence into the behaviour box in Story 6.

Table 69 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 6 according to gender.

Table 69
Chi-Square Test for the scoring of the behaviour sentence in Story 6 (Nomathemba asked to find out) according to gender.

	Value	**df**	**p**
Pearson Chi-Square	4.851	2	.088

According to Table 69 there was no significant association between gender and performance on this task with Pearson Chi-Square (52, 2) = 4.851, p = .088.

Table 70 indicates the scoring of the behaviour sentence in Story 6 according to age.

Table 70
Story6B – Table indicating the scoring of the behaviour sentence in Story 6 (Nomathemba asked to find out) according to age

Age		Thought	Feeling	Behaviour Correct	Total
10	**Count (n)**	**6**	**1**	**7**	**14**
	% within Age	42.9	7.1	50.0	100.0
	% of Total	11.5	1.9	13.5	26.9
11	**Count (n)**	**1**	**0**	**10**	**11**
	% within Age	9.1	0.0	90.9	100.0
	% of Total	1.9	0.0	19.2	21.2
12	**Count (n)**	**3**	**1**	**8**	**12**
	% within Age	25.0	8.3	66.7	100.0
	% of Total	5.8	1.9	15.4	23.1
13	**Count (n)**	**4**	**0**	**11**	**15**
	% within Age	26.7	0.0	73.3	100.0
	% of Total	7.7	0.0	21.2	28.8
Total	**Count (n)**	**14**	**2**	**36**	**52**
	% within Age	26.9	3.8	69.2	100.0
	% of Total	26.9	3.8	69.2	100.0

According to Table 70 of the 14 children aged 10 years who participated in the activity, only 7 (50.0%) correctly placed the behaviour sentence into the behaviour box. This consisted of 13.5% of the total number of participants. In comparison 10 (90.9%) of the 11 year old children (n = 11) correctly placed the behaviour sentence into the behaviour box. This accounted for 19.2% of the total number of participants. Of the 12 children aged 12 years who participated, 8 (66.7%) scored this sentence correctly. This represented 15.4% of the total number of participants. Of the 13 year old children (n = 15), 11 (73.3%) correctly placed the behaviour sentence into the behaviour box. This consisted of 21.2% of the total number of participants.

Table 71 shows the results of the chi-square test for the scoring of the behaviour sentence in Story 6 according to age.

Table 71
Chi-Square Test for the scoring of the behaviour sentence in Story 6 (Nomathemba asked to find out) according to age.

	Value	**df**	**p**
Pearson Chi-Square	6.203	6	.401

According to Table 71 there was no significant association between age and performance on this task with Pearson Chi-Square (52, 6) = 6.203, p = .401.

5.8. Chapter Summary

This chapter presented the main findings of the current study. Firstly the demographic characteristics of the participants were provided after which the descriptive statistics were provided for each of the six stories. The descriptive statistics were provided in terms of the independent variables of gender and age. Table 72 provides a summary of the performance on all 6 stories according to gender.

Table 72

Table indicating a summary of the performance on all 6 stories presented according to gender.

	Story 1			Story 2			Story 3			Story 4			Story 5			Story 6		
Gender	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**
Boys	88.0%	84.0%	92.0%	100%	88.0%	92.0%	96.0%	84.0%	100%	60.0%	96.0%	96.0%	72.0%	72.0%	96.0%	100%	100%	56.0%
Girls	88.9%	88.9%	81.5%	100%	100%	88.9%	92.6%	96.3%	100%	55.6%	96.3%	100%	66.7%	85.2%	88.9%	96.3%	96.3%	81.5%
Total	88.5%	86.5%	86.5%	100%	94.2%	90.4%	94.2%	90.4%	100%	57.7%	96.2%	98.1%	69.2%	78.8%	92.3%	98.1%	98.1%	69.2%

Table 73 provides a summary of the performance on all 6 stories according to age.

Table 73

Table indicating a summary of the performance on all 6 stories presented according to age.

	Story 1			Story 2			Story 3			Story 4			Story 5			Story 6		
Age Group	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**	**Thought Correct**	**Feeling Correct**	**Behaviour Correct**
10	78.6%	85.7%	78.6%	100%	85.7%	92.9%	100%	92.9%	100%	57.1%	92.9%	100%	64.3%	78.6%	92.9%	100%	92.9%	50.0%
11	100%	100%	100%	100%	100%	81.8%	100%	100%	100%	63.6%	100%	100%	72.7%	90.9%	90.9%	90.9%	100%	90.9%
12	91.7%	75.0%	75.0%	100%	100%	83.3%	100%	91.7%	100%	58.3%	100%	91.7%	66.7%	75.0%	83.3%	100%	100%	66.7%
13	86.7%	86.7%	93.3%	100%	93.3%	100%	80.0%	80.0%	100%	53.3%	93.3%	100%	73.3%	73.3%	100%	100%	100%	73.3%
Total	88.5%	86.5%	86.5%	100%	94.2%	90.4%	94.2%	90.4%	100%	57.7%	96.2%	98.1%	69.2%	78.8%	92.3%	98.1%	98.1%	69.2%

These results will be further discussed in chapter 6.

CHAPTER 6

DISCUSSION

In this chapter the results of the current study will be discussed. Firstly, the overall findings regarding the participants' ability to distinguish between thoughts, feelings and behaviours will be discussed, followed by a discussion of this ability according to gender. The participants' ability to distinguish between thoughts, feelings and behaviours according to age are discussed next. This is followed by a discussion relating to the improvement after feedback. A discussion of the analysis of the errors will follow and finally attention will be drawn to the qualitative aspects of the study.

6.1. Overall findings of participants' ability to distinguish between thoughts, feelings and behaviours

As far as the researcher could ascertain, the present study was the first study conducted in South Africa to explore the underpinning of CBT-based intervention for vulnerable children. The results of the current study are encouraging, as a large percentage of the participants were able to complete the CBT-based activity with accuracy. These data suggest that vulnerable South African children between the ages of 10 and 13 years are able to make a distinction between thoughts, feelings and behaviours, suggesting that they possess the skills needed for engagement in CBT-based activities. This finding that children from as young as 10 years old can participate in CBT is consistent with previous research (Lickel et al., 2012; Quakley et al., 2004).

6.2. Findings regarding the participants' ability to distinguish between thoughts, feelings and behaviours according to gender[1]

There was no significant association between gender and performance on any of the 18 scored tasks. This finding is in keeping with previous research as Quakley et al. (2004) reported no significant main effect for gender with participants aged 4 to 7 years.Similarly Reynolds et al. (2006) reported no gender differences when assessing 6-to 7-year-old participants' ability to distinguish between thoughts, feelings and behaviours using a similar activity. Furthermore, Lickel et al. (2012) reported no gender differences in the ability of participants aged 7 to 12 years to differentiate between thoughts, feelings and behaviours.

Even though there was no significant association between gender and performance, some findings are interesting. In the current study the girls performed slightly better than the boys on the scoring of the feeling sentences in almost all the stories. It was only in story 6 that the boys scored slightly higher on the scoring of the feeling sentence. Then again, the boys performed slightly better on the scoring of the thought sentences in all six stories. The results from the scoring of the behaviour sentence was mixed, as the boys did better in story 1, story 2 and story 5, whereas the girls did better in story 4 and story 6. All the boys as well as all the girls scored the behaviour sentence of story 3 correctly.

6.3. Findings regarding the participants' ability to distinguish between thoughts, feelings and behaviours according to age[2]

There was no significant correlation between age and performance on 17 of the scored tasks. However, there was a significant association ($p = .049$) between age and ability to

[1] Please refer to Table 72.
[2] Please refer to Table 73.

identify the thought sentence in story 3. All the 10-year-old participants, all the 11-year-old participants as well as all the 12-year-old participants scored this item correctly. However, 20% of the 13-year-old participants scored this item incorrectly. The reason for this is not readily apparant and it is possible that this effect was coincidental or due to sample size.

Even though there was no significant relationship between age and performance on most of the scored tasks it was found that the older children performed slightly better on the majority of the tasks. In almost all of the 18 scored tasks the 13-year-old participants performed slightly better than the 10-year-old participants. This result encouraged us to conclude, although cautiously, that performance improved with age. Therefore the hypothesis that older children would perform better was supported.

This finding, that performance improved with age, though not significantly, is in keeping with previous research indicating that age is positively correlated with the ability to distinguish between thoughts, feelings and behaviours (Lickel et al., 2012; Quakley et al., 2004). Additionally, it is in accordance with the main developmental theories discussed in Chapter 3 which also proposes that children's meta-cognitive abilities only develop at a later stage.

6.4. Findings relating to improvement with feedback[3]

The study revealed that performance did improve with feedback. If the performance of all the participants on the tasks in story 1 is compared to their overall performance on the tasks in story 2, it is evident that their performance did improve. In story 1, of the total number of 52 participants, 88.5% (n = 46) scored the thought sentence correctly, 86.5% (n = 45) scored the feeling sentence correctly and 86.5% (n = 45) scored the behaviour sentence

[3] Please refer to Table 72 and Table 73.

correctly. After feedback the performance on all the tasks in story 2 improved and were as follows: 100% (n = 52) scored the thought sentence correctly, 94.2% (n = 49) scored the feeling sentence correctly and 90.4% (n = 47) scored the behaviour sentence correctly. In story 3 the performance on all the tasks was also better than the performance on the tasks in story 1. The performance on the tasks in story 3 was as follows: 94.2% (n = 49) scored the thought sentence correctly, 90.4% (n = 47) scored the feeling sentence correctly and 100% (n = 52) scored the behaviour sentence correctly. This would suggest that performance did improve after feedback.

Taking Vygotsky's (1962) cognitive development theory into consideration, this might suggest that 10 to 13-year-old children are in the *zone of proximal development* for improvement of skills in their ability to distinguish amongst thoughts, feelings and behaviours. Sauter et al. (2009) refer to this as the *priming* of CBT-relevant cognitive capacities and suggest that this is likely to be most helpful when learning takes place in the child's zone of proximal development. The authors further suggest that this priming of cognitive capacities can thus be seen as a type of *scaffolding* for cognitive therapy (Sauter et al., 2009) and recommend the enhancement of CBT-relevant cognitive capacities prior to formally commencing with CBT interventions.

However in story 4, even though there was an improvement from story 1 in terms of the correct scoring of the feeling sentence, 96.2% (n = 50), as well as the correct scoring of the behaviour sentence, 98.1% (n = 51), only 57.7% (n = 30) scored the thought sentence correctly in story 4. This indicates a poorer performance than in story 1. In story 5, again, there was an improvement in the correct scoring of the behaviour sentence, 92.3% (n = 48), however, only 69.2% (n = 36) scored the thought sentence correctly and only 78.8% (n = 41) scored the feeling sentence correctly. The performance on two of the tasks in story 6 also improved, those were the scoring of the thought sentence, 98.1% (n = 51) as well as the

scoring on the feeling sentence, 98.1% (n = 51). However, only 69.2% (n = 36) of the total number of participants scored the behaviour sentence correctly in story 6. These errors will be discussed in the following section.

6.5. An analysis of the errors

An analysis of the errors allowed for a better understanding in terms of which aspects of the activity were the most difficult for the children. Table 74 depicts the mean number of errors made within each story. The errors were calculated by counting the number of times a card was incorrectly put into a box.

Table 74
Analysis of errors according to story.

	Thought card into feeling box	**Feeling card into thought box**	**Thought card into behaviour box**	**Behaviour card into thought box**	**Feeling card into behaviour box**	**Behaviour card into feeling box**
Story 1	3	6	3	2	1	5
Story 2		1		3	2	2
Story 3		5	3			
Story 4	**19**	1	3		1	1
Story 5	4	4	**12**	1	7	3
Story 6	1			**14**	1	2
TOTAL	27	17	21	20	12	13

From Table 74 it is evident that there seemed to be a clear pattern of errors. Most of the *thought card into the feeling box* errors were made with the scoring of the thought sentence in story 4. This sentence was: *Nomathemba hoped that her top would match her pants*. The analysis of the errors demonstrated that children might confuse the term *hope* with a feeling instead of a thought. In the context of the sentence, the term *hope* was portrayed as a

thought; however, the term *hope* in a different context can also portray a feeling. Therefore, it is possible that this distinction confused the children.

Most of the *thought card into behaviour box* errors were made with the scoring of the thought sentence in story 5. This sentence was: *The rain coming down sounded a bit like stones falling on the roof to Nomathemba*. The scoring of the thought in Story 5 required abstract thinking, which was difficult for most of the participants.

Most of the *behaviour card into thought box* errors were made with the scoring of the behaviour sentence in story 6. This sentence was: *Nomathemba asked to find out*. In story 6 the children struggled to identify that asking is in fact a behaviour and not a thought. A possible explanation could be that *asked* is a verbal action as opposed to a physical action such as *run* or *kicked*. As such it might be difficult for children to recognize it as a behaviour. This information needs to be taken into account when developing an anxiety intervention programme for usage within the South African context.

The content of the stories migrated from concrete to more abstract. The analysis of the errors provide value feedback, suggesting that story content should be kept simple and using abstract words such as *hope* should be avoided. According to Piaget's (1972) cognitive development theory, children are only able to begin to reason abstractly when they reach the concrete operational stage, which stretches from the age of 7 years to 12 years. According to Piaget (1972) metacognitive skills mature during the formal operational stage, stretching from 11 or 12 years of age through to adulthood. These metacognitive skills will allow the young person to reason hypo-deductively and think symbolically (Piaget, 1972). Louw and Louw (2014) suggest that the attainment of these suggested Piagetian skills are influenced by several contextual factors, including schooling, upbringing and the level of education of the child's parents, amongst others. This higlights the importance of recognising the several

interactive systems in which the development of the child is embedded (Bronfenbrenner, 1979) and the need to take these contextual factors and their effect on the cognitive development of the child into account when developing programme content.

6.6. Qualitative aspects of the study

In support of future research additional qualitative research was done. Firstly, the children were asked to tell one of their favourite stories. Secondly they were asked to provide feedback on which boxes were the easiest or most difficult to identify, respectively. In the following section a qualitive analysis of the findings will be discussed.

6.6.1. Content of favourite stories.

Of the 52 participants 20 children told stories about animals, 12 about people, seven told a fairytale, five recounted a television programme they watched, four told of real incidents that happened, whilst three told miscellaneous stories and one participant could not think of a story to tell. It was evident that most of the children liked stories that featured animals. With regard to the category of animals, a variety of animals emerged: Jackal and Wolf (7); Lion and the Mouse (3); Three little Pigs (2); The Three Bears (1); Cat and the Lion (1); Jackal and the Rabbit (1); Cat and a Dog (1); Rabbit and Tortoise (1); A crocodile (1); Wolf and the Rabbit (1) and Pig and the Ostrich (1).

Most of the stories (11) featured either a jackal and/or a wolf. Other prominent animals included lions, mice and rabbits. This information provides valuable insight that can be considered in developing programme content for intervention programmes specifically for South African children. It is suggested that future themes used for CBT-based activities involving a similar group of children includes the aforementioned animals since the children appear to associate better with such stories. Campbell (2007) suggests that with the use of animals in stories, children can be assisted in creating a distance from which they can view

their own situations. However, when developing stories for use in an anxiety intervention programme it is important that the content of these stories should be developmentally as well as culturally appropriate (Nelson & Tusaie, 2011; Friedberg & Wilt, 2010) and should also be culturally sensitive (Campbell, 2007). Stallard (2002) remarked that stories or materials used in the delivering of CBT with children have a greater chance of being effective if the child's developmental level as well as everyday life experiences are taken into account. Furthermore, Friedberg and Wilt (2010) suggested that stories or methaphors should reflect children's language, vocabulary and experiences and that children should be familiar with the content of the stories. They also suggest that the more personally relevant an image is for children, the greater the chance that they will remember it and use it. Nelson and Tusaie (2011) agree that the key to making concepts understandable to children is in finding what gauges them at their level. Therefore, if for example children do not know what kind of animal a koala bear or a kangaroo is, or they have never been to the sea or they have never flown in an aeroplane, it will be difficult for them to relate to such stories and they will be more likely to forget the stories (Friedberg & Wilt, 2010). This reaffirms the importance of keeping the culture and SES of the child in mind when developing programme content for interventions.

In line with Bronfenbrenner's ecological model, for CBT-based interventions to be viable, appropriate and child-friendly, it would be of paramount importance to take the child's culture and social context into account. The role of the parents, as well as other systemic factors that could have an impact on the development of the child, must be taken into account when developing an intervention program (Kendall, 2012; Stallard, 2002).

The importance of using story telling when working with children, either to establish rapport or as a tool for learning is well documented (Friedberg & Wilt, 2010; Loxton, 2009; Stallard, 2002). A story is not only a fun way to introduce and deal with difficult topics, it is also engaging and entertaining and, because children love stories, story telling contributes

towards promoting a good working relationship (Friedberg & Wilt, 2010). The fact that almost all the children enthusiastically told a story serves as proof that this was an effective way to establish rapport with the children and made them feel at ease. This also engaged the children and they were excited to hear the story of the researcher.

6.6.2. The easiest box.

After the CBT-based activity the children were asked which box (thoughts, feelings or behaviours) they found easiest to identify. In general, the response did not differentiate between the three boxes with 14 children indicating the thought box was easiest. Three of the responses in favour of the thought box are indicated below:

> Participant 1: It was easy to find it, because there is a picture there that shows someone is thinking.
>
> Participant 8: I can see that the person on the box is thinking. The picture on the box helped me.
>
> Participant 35: Those pictures on the box are telling me that they are thinking and the bubbles tell me they are thinking.

Fifteen participants indicated that the feeling box was easiest. This is well demonstrated in the words of participant 20: “I knew if a person’s face changing to be sad or happy. I saw the faces and I just knew.”

Similarly 14 children indicated that the behaviour box was easiest. One of the responses in favour of the behaviour box is as follows: “I just think the person if he is doing something, you can easily see that the person is doing something” (Participant 20). The rest of the participants indicated that no one specific box was easier than the other.

The above is indicative of the assistance which visual cues provide. This is in accordance with Piaget's (1972) cognitive developmental theory which suggests that logical thinking remains fairly concrete and is often dependent on observable happenings during middle childhood. The use of materials which have a visual emphasis have also been recommended by researchers. Stallard (2002), as well as Kingery et al. (2006), suggested, for example, that materials used for therapy with children should use concrete tools that have a visual emphasis and recommend the use of images and thought bubbles. Similarly, Kendall (2012) recommends the use of thought bubbles in assisting children to learn to identify anxious thoughts. Grave and Blissit (2004) also recommended that treatment should not be merely verbally based, but should include materials that provide pictorial representations, because this may encourage children to participate in treatment and assit them to relate to therapeutic tasks. Furthermore, Quakley et al. (2004) reported that visual cues improved children's ability to distinguish between thoughts, feelings and behaviours, suggesting that the use of visual cues might be useful when working with children.

6.6.3. The most difficult box.

The children were also asked which box (thoughts, feelings or behaviours) they found the most difficult to identify. Most of the children (19) indicated that the behaviour box was the most difficult to identify. One of the responses on why the behaviour box was the most difficult to identify was: "For me doing would be I'm playing with a ball. For Nomathemba doing was asking someone something, so it was difficult for me" (Participant 2).

Sixteen participants indicated that the thought box was the most difficult as is demonstrated by the following comments:

> Participant 10: Thinking and feeling seems to be one thing for me.

> Participant 11: Nomathemba used words like ‘hoped’ which are not easy to identify.
>
> Participant 15: I was just confused, because thinking is difficult for me.
>
> Participant 42: Because sometimes you can get confused between thinking and feeling.

Additionally, 10 participants indicated that the feeling box was the most difficult. This is demonstrated by Participant 6 who explained why she/he found it the most difficult box: “Because you don’t hear what someone was feeling.” Similarly, Participant 29 explained: “When I hear the word, I don’t understand some of the words in the sentences.”

Six of the participants commented that none of the boxes were difficult to identify and one participant said more than one box was the most difficult to identify.

Although not extensive, the above statements provide valuable insights into aspects of the activity that the children found challenging. It might be that because thinking and feeling are both internal, as opposed to behaviour that is external, children might struggle to distinguish between thoughts and feelings.

This result is consistent with previous research. Alfano, Beidel, and Turner (2006) conducted a study examining the different cognitive phenomena in relation to social phobia among children (aged 7 to 11) and adolescents (aged 12 to 16) separately, comparing a patient sample and a control sample. The authors reported that the younger group of children, regardless of their diagnostic status, more commonly reported emotions when they were questioned about their self-talk, suggesting that they experienced difficulty in differentiating

self-talk (thoughts) from emotions. The authors suggested that this could possibly reflect a developmentally appropriate deficit in the meta-cognitive skills of younger children.

Some of the participants mentioned that they did not understand some of the words. Examples of their comments are indicated below:

> Participant 12: Some words of feeling I don't understand.
>
> Participant 25: I did not understand some of the sentences.
>
> Participant 27: I did not understand some of the words.

These comments from the participants highlight the importance of using age appropriate language in the development of intervention programmes. The importance of using relevant and age appropriate language has been discussed by many reasearchers. Sauter et al. (2009) recommended that language, materials, as well as the activities used for interventions with children, should be tailored to the developmental level of the children. Nelson and Tusaie (2011) highlight the importance of being aware of the language and literacy levels of children when developing CBT interventions and also suggest that CBT should be contextualised to the child's life experiences. This is in keeping with Vygotsky's (1962) cognitive development theory suggesting that psychologicial practices have a social basis. According to this approach, social interactions, in particularly verbal communication, have a significant effect on cognitive development. Beesdo-Baum and Knappe (2012) suggested that a lack of language skills and cognitive capabilities may have a negative effect on children's ability to communicate relevant thoughts, emotions and behaviours. Although language development during middle childhood is characterised by an increase in the complexity of language use (Louw & Louw, 2014) an awareness of the language ability of children needs to be kept in mind when developing programme content for an intervention programme.

In developing an intervention programme specifically for South African children, the reported reading problems as well as low literacy levels among South African learners (Bharuthram, 2012) need to be taken into account. According to Louw and Louw (2014) many of South African children's language development is compromised as instruction at school is different to their mother tongue. Furthermore, the language development of children from lower SES environments could be compromised as little time is spent at home on numeracy- and literacy-related activities due to possible lack of resources. Therefore, when developing an intervention programme all the interrelated systems (Bronfenbrenner, 1979) that can have an impact on the language development of the child must be taken into account. The focus should be on using language that is comprehendable, understandable as well as developmentally appropriate.

6.6.4 Child-friendliness of the activity.

All the participants mentioned that they enjoyed the activity. The activity seemed to be very appropriate for middle-childhood children for the reason that it was playful and interactive. Futhermore, the children enjoyed being physically actively involved (Withers, 2012), the getting up and posting the card allowed for great interaction and fun. As opposed to teaching the children about thoughts, feelings and behaviours, these concepts were introduced with the use of a playful activity that allowed for maximum collaboration (Beidas, Benjamin, Puleo, Edmunds, & Kendall, 2010). Activities involving games can encourage active partaking in the therapeutic process (Sauter et al., 2009), contributing towards building rapport with the child while at the same time teaching the child about CBT in a fun way (Beidas et al., 2010). This active participation and enjoyment of the activity was evident in the behaviour of the participants. Some of the participants got so excited that they wanted to read the sentences drawn from the envelopes themselves. This was allowed by the researcher as one does not want to dampen the enthusiasm of the children, but the sentence was then also

read out aloud by the researcher to account for uniformity in data collection. This eagerness to learn and master new skills ties in with the developmental tasks proposed by Erikson. It was evident that the children thrived on and was stimulated by the positive interaction via response after each question. Feedback provided by the aftercare teacher that the children enjoyed partaking in the research process is apparent in the following comment made by one of the participants: "It was very good to me because it was teaching me how to think and how to know what I am feeling and when I am doing something."

6.7. Chapter summary

In chapter 6 the results of the current study were discussed. The chapter started with a discussion of the overall findings regarding the participants' ability to distinguish between thoughts, feelings and behaviours. This was followed by a discussion of this ability according to gender. The participants' ability to distinguish between thoughts, feelings and behaviour according to age were discussed next. This was followed by a discussion relating to the improvement after feedback. A discussion of the analysis of the errors followed and finally attention was drawn to the qualitative aspects of the study. The following chapter concludes the study with a summary of the findings, a summary of the analysis of the errors as well a summary of the findings related to the qualitative aspects of the study. The chapter concludes with a critical review of the study, focussing on the implications for the South African context, the limitations of the current study, aspects of the study that added value as well as recommendations for future research.

CHAPTER 7

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

The motivation for the present study stemmed from the need for an anxiety intervention programme specifically developed for South African children. The literature review suggested that anxiety disorders constitute one of the most prevalent mental health problems in youth. High incidences of fear and anxiety symptoms have also been reported by South African children over the last decade (Mostert & Loxton, 2008; Muris et al., 2006; Strydom et al., 2012). Children's vulnerability to psychological distress is increased by specific psycho-social factors such as the impact of HIV infection on families or the social impact of poverty (Cluver et al., 2007; Heckler et al., 2012; Flisher et al., 2012; Skinner et al., 2006; Zwemstra & Loxton, 2011). Research in this area shows a need for an effective anxiety intervention programme specifically developed for South African children. Understanding how vulnerable South African children perform on a CBT-based activity will contribute towards designing and improving treatment programmes for this specific population and contribute towards recommendations on how CBT can be developmentally tailored for vulnerable South African children.

In accordance, the aim of this study was to establish whether a proposed group of vulnerable South African children between the ages of 10 and 13 years possess the skills needed for engagement in a CBT-based activity. The research objectives were twofold: (i) to explore whether the children could distinguish between thoughts, feelings and behaviours with the use of a child-friendly activity, and (ii) to determine if feedback during assessment improved performance.

7.1. Findings of participants' ability to distinguish between thoughts, feelings and behaviours

The results of the current study were encouraging, as a large percentage of the participants were able to complete the CBT-based activity with accuracy. There was no significant association between gender and performance on any of the 18 scored tasks, suggesting that boys and girls performed equally well. There was no significant association between age and performance on 17 of the scored tasks. However, there was a significant association ($p = .049$) between age and ability to identify the *thought sentence* correctly in Story 3. The reason for this is not readily apparent and it is possible that this effect was coincidental or due to sample size.

These data suggest that vulnerable South African children between the ages of 10 and 13 years are able to make a distinction between thoughts, feelings and behaviours, suggesting that they possess the skills that are needed for engagement in CBT-based activities. This finding that children from as young as 10 years old can participate in CBT-based activities is consistent with previous research (Lickel et al., 2012; Quakley et al., 2004).

7.2. Analysis of the errors

An analysis of the errors allowed for a better understanding in terms of which aspects of the activity were the most difficult for the children. There seemed to be a clear pattern of errors. The analysis of the errors demonstrated that children might confuse the term *hope* with a feeling instead of a thought. Additionally there was also an indication that the requirement of more abstract thinking proved difficult for the children. For example, words such as *ask* and *sounded* were mistaken as thoughts and behaviours respectively. The analysis of the errors highlighted the importance of using simple understandable language that is developmentally appropriate and futher suggest that children of this age might struggle

grasping abstract concepts. Therefore it is important to incorporate the developmental stage of the child when developing CBT-based tasks. This information needs to be taken into account when developing an anxiety intervention programme for usage within the South African context.

7.3. Findings related to the qualitative aspects of the study

As research is an unfamiliar experience for children, starting the research by asking the children to tell their favourite story proved to be effective in creating a child-friendly environment as well as establishing rapport with the children (Loxton, 2011). Because stories are a central part of most children's culture (Friedberg & Wilt, 2010), this contributed towards creating a child-friendly atmosphere while at the same time assisted collaboration.

The content of the stories told by the participants provided valuable information that can be used in future. In the present study, most of the children recalled stories featuring either a jackal and/or a wolf. Other prominent animals included lions, mice and rabbits. This information provides valuable information that can be considered in developing programme content for intervention programmes spesifically for South African children. It is suggested that future themes used for CBT-based activities involving a similar group of children includes the aforementioned animals since the children appear to associate better with such stories.

It was evident from the children's comments that the visual cues assisted them with the activity. However, it was mentioned that some children struggled to distinguish between thoughts and feelings. The child-friendliness of this activity can be evaluated by taking into account the feedback from the children. All the children mentioned that they enjoyed the activity and their eagerness to learn was evident in the enthusiasm with which they participated in the activity.

7.4. Critical review of the study

The present study is the first to underpin the research for the development of a CBT intervention programme specifically aimed at the South African population. Various implications, limitations as well as valuable aspects of this study are discussed.

7.4.1. Implications for the South African context.

As the current study was the first to assess vulnerable South African children's ability to participate in a CBT-based activity, it is important to note the contribution of this study towards the development of an anxiety intervention programme specifically for the South African population. The current study found that vulnerable South African children between the ages of 10 and 13 years could distinguish between thoughts, feelings and behaviours with the use of a child-friendly activity. Furthermore, performance did improve with feedback. These results suggest that vulnerable South African children as young as 10 years old possess the skills needed for engagement in a CBT-based activity.

7.4.2. Limitations of the current study.

Two main limitations of the current study are important to mention. Firstly, the researcher was not proficient in Xhosa and had to use the services of a translator. However, every effort was made to find a translator that the children could relate to as well as someone who was familiar with the ethical aspects of the research process. Secondly, the study was conducted in only one of the provinces of South Africa; therefore caution should be taken in generalising the findings to the South African population. Despite this limitation, the study provided valuable new information that can be used for further research and in the development of anxiety intervention programmes.

7.4.3. Valuable aspects of the study and recommendations for future research.

As far as the researcher could ascertain the current study was the first of its kind assessing children's ability to distinguish between thoughts, feelings and behaviour in a group of South African children. The results of this study could contribute to the development of an anxiety intervention programme and in doing that contribute towards the philosophy of community psychology in emphasising prevention (Loxton, 2009) of the onset of anxiety disorders.

This study demonstrated the viability of using a child-friendly activity to evaluate the cognitive capabilities pertinent to CBT (Sauter et al., 2009) and considered particular skills that children have relative to CBT. The results provided an indication as to what can be expected in this regard from vulnerable 10 to 13 year old South African children. The childfriendliness of the activity in terms of using stories and providing the visual clues allowed the participants the opportunity to experience concepts central to CBT in a developmentally sensitive way (Friedberg & Wilt, 2010).

Uniquely to this study is the second component; namely whether performance on the CBT-based activity improved with feedback. The study revealed that performance did improve with feedback. Taking Vygotsky's (1962) cognitive development theory into mind, this might suggest that 10 to 13-year-old children are in the *zone of proximal development* for improvement of skills in their ability to distinguish amongst thoughts, feelings and behaviours. This finding can be used directly for the development of an intervention programme.

The child-friendliness of the activity in terms of using stories and providing the visual clues allowed the participants the opportunity to experience concepts central to CBT in a developmentally sensitive way (Friedberg & Wilt, 2010).

The assessment of CBT-relevant cognitive capacities might be useful prior to starting CBT (Sauter et al., 2009). Therefore the information from the current study might be useful to consider in the delivery of CBT interventions for South African children.

The themes that emerged from the stories the participants told, can be useful for the development of programme content for future intervention programmes specifically targeted at South African children. Friedberg and Wilt (2010) suggested that stories that are personally significant are likely to have a greater impact on children and recommend that stories could be an engaging way of teaching children specific skills in relation to CBT.

The social relevance of this study was apparent in feedback received from the aftercare teacher of the participants as well as feedback from the participants themselves. One of the participants commented as follows: "It was very good to me because it was teaching me how to think and how to know what I am feeling and when I am doing something".

Many factors in South Africa increase children and adolescents' vulnerability for psychological distress (Flisher et al., 2012) and a need has been expressed for the development of interventions, in specific the adaptation of CBT to be relevant to South African children (Rosenstein & Seedat, 2011). The current study aimed to contribute towards this and in doing so to add to the improvement of the mental health of South African children. Flisher et al. (2012) argued that by improving the mental health of our children "…we will not only succeed in improving the mental health of South African children and adolescents, but also contribute to the social and economic progress of the country by improving educational outcomes and social functioning in adulthood" (p. 158).

7.5. Concluding remarks

The ability to discriminate between thoughts, feelings and behaviours is not solely a predictor for CBT treatment to be effective, as other factors such as the child's willingness to

change also affects treatment outcome (Sauter et al., 2009). Nonetheless, this study gives an indication of vulnerable South African children between the ages of 10 and 13 years' developmental readiness for engagement in CBT-based activities. This research provided information on one aspect of children's meta-cognitive development (Quakley et al., 2004) as well as a child-friendly activity that can be used to assist children to understand the concepts central to CBT. Teaching children how to discriminate between thoughts, feelings and behaviour may improve their receptivity to CBT interventions and can thus be referred to as a kind of priming (Sauter et al., 2009). This study further highlighted the importance of keeping developmental level as well as cultural factors in mind when selecting language and activities for use in the development of interventions with children.

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APPENDICES

Appendix A: Biographical questionnaire

All the information in this form will be used for research purposes only and your identity will not be exposed in the results of the study. Please answer all of the following questions:

1. What is your name and surname? _____
2. Are you a:
   - ☐ Boy
   - ☐ Girl
3. What cultural/ethnic group do you belong to?
   - ☐ African
   - ☐ Coloured
   - ☐ White
   - ☐ Other (please specify: _____)
4. How old are you? _____
5. In what grade are you? _____
6. Do you live with:
   - ☐ Both parents
   - ☐ Mom only
   - ☐ Dad only
   - ☐ Grandparents (please specify: _____)
   - ☐ Caregiver(s)/Guardian(s)
7. What language do you speak at home?
   - ☐ English
   - ☐ Afrikaans
   - ☐ Xhosa
   - ☐ More than one language (please specify: _____)

☐ Other (please specify: _____)

8. What language do you speak at school in the class?

☐ English

☐ Afrikaans

☐ Xhosa

☐ More than one language (please specify: _____)

Appendix B: Stories used for CBT-based activity

Demonstration story: Behaviour - Feeling - Thought (Positive).

Nomathemba washed herself before bedtime. Nomathemba was very happy because the school holiday was starting tomorrow. Nomathemba wondered what she and her friends would be doing during the holiday.

Xhosa translation:

UNomathemba wahlamba phambi kokuba alale. Wayonwabile kakhulu uNomathemba kuba kwakuqala iholide yesikolo ngengomso. UNomathemba wayecinga ukuba ngaba bazokwenza ntoni ngeholide yena nabahlobo bakhe.

Thought: Nomathemba wondered what she and her friends would be doing during the holiday.

UNomathemba wayecinga ukuba ngaba bazokwenza ntoni ngeholide yena nabahlobo bakhe.

Feeling: Nomathemba was very happy because the school holiday was starting tomorrow.

Wayonwabile kakhulu uNomathemba kuba kwakuqala iholide yesikolo ngengomso.

Behaviour: Nomathemba washed herself before bedtime.

UNomathemba wahlamba phambi kokuba alale.

Sample story: Thought - Behaviour - Feeling (Positive).

Nomathemba knew that it was her friend Bukwa's birthday next week. Nomathemba made her friend a beautiful card for a present. Nomathemba was very happy that she made the card.

Xhosa translation:

UNomathemba wayesazi ukuba kwiveki ezayo ngumhla wokuzalwa komhlobo wakhe uBukwa. UNomathemba wamenzela ikhadi elihle le sipho. UNomathemba yamonwabisa into yokwenza eli khadi ngempumelelo.

Thought: Nomathemba knew that it was her friend Bukwa's birthday next week.

UNomathemba wayesazi ukuba kwiveki ezayo ngumhla wokuzalwa komhlobo wakhe uBukwa.

Feeling: Nomathemba was very happy that she made the card.

UNomathemba yamonwabisa into yokwenza eli khadi ngempumelelo.

Behaviour: Nomathemba made her friend a beautiful card for a present.

UNomathemba wamenzela ikhadi elihle le sipho.

Story 1: Feeling - Thought - Behaviour (Positive).

Christmas was coming and Nomathemba was very excited about her new clothes. Nomathemba wondered if her friends would like her new clothes. Nomathemba put on her new clothes.

Xhosa translation:

Kwakusondela ixesha lekrisimesi uNomathemba wayelingxamele kakhulu. Wayenqwenela ukuba utata wekrisimesi angamthengela iimpahla ezintle ezintsha. Uzimisele ukuqhayisela abahlobo bakhe ngeempahla zakhe ezintsha.

Thought: Nomathemba wondered if her friends would like her new clothes.

Wayenqwenela ukuba utata wekrisimesi angamthengela iimpahla ezintle ezintsha.

Feeling: Nomathemba was very excited about her new clothes.

UNomathemba wayelingxamele kakhulu.

Behaviour: Nomathemba put on her new clothes.

Uzimisele ukuqhayisela abahlobo bakhe ngeempahla zakhe ezintsha.

Story 2: Feeling - Behaviour - Thought (Negative).

Nomathemba was very upset at school today. Nomathemba ran into the toilets to hide from everybody. Nomathemba wondered if her friends would come and find her.

Xhosa translation:

UNomathemba ube khathazekile kakhulu namhlanje esikolweni. Ubaleke waya kuzimela kwindlwana yangasese wazivalela apho ukuze kungabikho mntu umbonayo. Wathi esazimele apho wacinga ingaba ukho umntu ozakundikhangela ade andifumane apha?

Thought: Nomathemba wondered if her friends would come and find her.

Wathi esazimele apho wacinga ingaba ukho umntu ozakundikhangela ade andifumane apha?

Feeling: Nomathemba was very upset at school today.

UNomathemba ube khathazekile kakhulu namhlanje esikolweni.

Behaviour: Nomathemba ran into the toilets to hide from everybody.

Ubaleke waya kuzimela kwindlwana yangasese wazivalela apho ukuze kungabikho mntu umbonayo.

Story 3: Behaviour - Thought - Feeling (Negative).

It was time to walk home from school and Nomathemba's friend was not at the gate. Nomathemba walked to the playground to look for her friend. Could it be that her friend has forgotten about her? Nomathemba was very worried.

Xhosa translation:

Kwaku lixesha lokuphuma kwesikolo, umhlobo kaNomathemba wayengekho esangweni lesikolo uNomathemba wabaleka waye kumkhangela ebaleni lebola. Wamkhangela engamboni wagcinga ezibuza ingaba umntakwabo ulibele ukumlanda? UNomathemba wayekhathazekile kakhulu.

Thought: Could it be that her friend has forgotten about her?

Wamkhangela engamboni wagcinga ezibuza ingaba umntakwabo ulibele kumlanda?

Feeling: Nomathemba was very worried.

UNomathemba wayekhathazekile kakhulu.

Behaviour: Nomathemba walked to the playground to look for her friend.

UNomathemba wabaleka waye kumkhangela ebaleni lebola.

Story 4: Behaviour - Feeling - Thought (Positive).

Nomathemba went to the shop with her aunt. Nomathemba was very pleased with her new top. Nomathemba hoped that her top would match her pants.

Xhosa translation:

UNomathemba kunye nomakazi wakhe bahamba kunye baya evenkileni. UNomathemba wayonwabile kakhulu. Umakazi wamthengela iblawuzi (ihempe) entle. Wayeyithanda kakhulu. UNomathemba waye ngavuya ukuba umakazi waye ngamthengela ibhulukhwe ehambelana iblawuzi (nehempe) yakhe entsha.

Thought: Nomathemba hoped that her top would match her pants.

UNomathemba waye ngavuya ukuba umakazi waye ngamthengela ibhulukhwe ehambelana iblawuzi yakhe entsha.

Feeling: Nomathemba was very pleased with her new top.

UNomathemba wayonwabile kakhulu. Umakazi wamthengela iblawuzi entle. Wayeyithanda kakhulu.

Behaviour: Nomathemba went to the shop with her aunt.

UNomathemba kunye nomakazi wakhe bahamba kunye baya evenkileni.

Story 5: Thought - Feeling - Behaviour (Negative).

Last night there was heavy rain. The rain coming down sounded a bit like stones falling on the roof to Nomathemba. Nomathemba was very scared. Nomathemba hid under the bed.

Xhosa translation:

Kobubusuku budlulileyo bekunetha kakhulu. Ibinetha ngathi kuwa amatye phezu kwendlu. UNomathemba waye soyika kakhulu. Wabaleka wazimela ngaphantsi kwebhedi wazifihla khona yade yayeka ukunetha.

Thought: The rain coming down sounded a bit like stones falling on the roof.

Ibinetha ngathi kuwa amatye phezu kwendlu.

Feeling: Nomathemba was very scared.

UNomathemba waye soyika kakhulu.

Behaviour: Nomathemba hid under the bed.

Wabaleka wazimela ngaphantsi kwebhedi wazifihla khona yade yayeka ukunetha.

Story 6: Thought - Behaviour - Feeling (Positive).

It was lunchtime on Tuesday. Nomathemba wondered what they were getting for lunch. Nomathemba asked to find out. Nomathemba was very happy to hear that they were getting chicken, which were her favorite.

Xhosa translation:

Yayi lixesha lesidlo sasemini uNomathemba waye cinga ingaba namhlanje bazakutya ntoni ngesidlo sasemini. Wabuza kunomathemba wamxelela ukuba bazakutya irayisi nenyama yenkukhu. Wavuya kakhulu uNomathemba kuba inyama yenkukhu nerayisi uyithanda kakhulu.

Thought: Nomathemba wondered what they were getting for lunch.

UNomathemba waye cinga ingaba namhlanje bazakutya ntoni ngesidlo sasemini.

Feeling: Nomathemba was very happy to hear that they were getting chicken.

Wavuya kakhulu uNomathemba kuba inyama yenkukhu nerayisi uyithanda kakhulu.

Behaviour: Nomathemba asked to find out.

Wabuza kunomathemba wamxelela ukuba bazakutya irayisi nenyama yenkukhu.

Appendix C: Procedural instructions for the CBT-based activity

I am going to read to you some stories about a girl, called Nomathemba. In each of these stories there will be something that Nomathemba is doing, something that she is thinking and something that she is feeling. After I have read the story to you, you will draw cards from an envelope one by one. There will be three different cards and on each card there will be a different part of the story.

You need to decide which card tells you what Nomathemba was doing, which card tells you what she was thinking, in other words what her thoughts were, and which card tells you what Nomathemba was feeling. You then need to put the card in the correct box.

(Point to the boxes and explain as follow)

This box is marked “Thinking sentences”. It has pictures of a boy and a girl who are thinking, with thought bubbles above their heads. So, if a card tells you something that Nomathemba was thinking, you need to put that card in this box.

This box is marked “Feeling sentences”. It has a picture of a child looking happy and a picture of a child looking sad. If a card tells you something that Nomathemba was feeling, you need to put that card in this box.

This box is marked “Doing sentences”. It has a picture of a child reading and a picture of a child playing soccer. You can see that they are doing something. If a card tells you something that Nomathemba is doing, you need to put that card in this box.

I will now demonstrate to you.

(Read the demonstration story to the child)

Nomathemba washed herself before bedtime. Nomathemba was very happy because the school holiday was starting tomorrow. Nomathemba wondered what she and her friends would be doing during the holiday.

In this envelope there are three cards to remind us what happened in this story. We need to put these cards in the correct boxes.

Card one: Nomathemba washed herself before bedtime. This is something that Nomathemba was doing, therefore we need to put this card in the box that is marked "Doing sentences".

(Show the correct box and ask the child to put the card in the box).

Card two: Nomathemba was very happy because the school holiday was starting tomorrow. This card tells us how Nomathemba was feeling, therefore we need to put this card in the box that is marked "Feeling sentences".

(Show the correct box and ask the child to put the card in the box).

Card three: Nomathemba wondered what she and her friends would be doing during the holiday. This card tells us about Nomathemba's thoughts and what she was thinking. Therefore this card should go into the box that is marked "Thinking sentences".

(Show the correct box and ask the child to put the card in the box).

I will now read you another story and I want you to try and put the cards into the correct boxes.

(Read the sample story to the child)

Nomathemba knew that it was her friend Bukwa's birthday next week. Nomathemba made her friend a beautiful card for a present. Nomathemba was very happy that she made the card.

In this envelope there are three cards to remind us what happened in the story. We need to put these cards in the correct boxes. You can choose a card from the envelope.

(Read the card out load and then give the card to the child to put into the box that he or she thinks is the correct box).

Card one: Nomathemba knew that it was her friend Bukwa's birthday next week.

Do you think this was something that Nomathemba was feeling or something she was thinking or was it something she was doing?

(If the child puts the card in the correct box, compliment the child and do the next sentence. If the child puts the card in the wrong box, correct the child).

Card two: Nomathemba made her friend a beautiful card for a present.

Do you think this was something that Nomathemba was feeling or something she was thinking or was it something she was doing?

(If the child puts the card in the correct box, compliment the child and do the next sentence. If the child puts the card in the wrong box, correct the child).

Card three: Nomathemba was very happy that she made the card. Do you think this was something that Nomathemba was feeling or something she was thinking or was it something she was doing?

(If the child puts the card in the correct box, compliment the child and continue with the main task. If the child puts the card in the wrong box, correct the child and make sure the child understands the task before carrying on).

Main task:

Read each story out load to the child. After the story has been read, ask the child to pick a card from the envelope and then read the sentence on the card out loud. After reading each card ask the child: “Do you think this was something that Nomathemba was feeling or something she was thinking or was it something she was doing?”

Give the card to the child and ask him or her to put the card into the correct box. After the child has posted all three cards, then give feedback to the child. For example, if all the items were posted correctly, compliment the child and if some of the sentences were posted incorrectly, explain again to the child. The purpose of giving continuous feedback is to enable the child to learn while participating in this activity.

Appendix D: Semi-structured interview

"Do you have any questions?"

"How was the activity for you?"

"Which box was the easiest to identify?" (The child will be asked to elaborate.)

"Which box was the most difficult to identify?" (The child will be asked to elaborate.)

"Is there anything more that you would like to talk about?"

Appendix E: Approval of research by ethics committee

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Approval Notice
Stipulated documents/requirements

10-Jun-2014
WEBBER, Louisa Petronella

Proposal #: HS1039/2014

Title: **Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention programme within the South African context.**

Dear Mrs Louisa WEBBER,

Your **Stipulated documents/requirements** received on **03-Jun-2014**, was reviewed by members of the **Research Ethics Committee: Human Research (Humanities)** via Expedited review procedures on **10-Jun-2014** and was approved.
Sincerely,

Clarissa GRAHAM
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Appendix F: Letter to organisation: Permission to conduct research

XXXXXXX

XXXXXXXXXX

P.O. Box XXX

Stellenbosch

7599

Dear Ms XXXXXXX

RE: REQUEST FOR WRITTEN PRELIMINARY PERMISSION TO CONDUCT RESEARCH AT XXXXXX: LOUISA WEBBER, MA PSYCHOLOGY STUDENT, WORKING UNDER THE SUPERVISION OF PROF HELENE LOXTON

Referring to our previous discussions dated 27 May and 30 July 2013, I hereby take the initiative to approach you in your capacity as the Child Sponsorship Programme Manager at XXXXX, to ask for your preliminary written approval to conduct the following research:

Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention program within the South African context

Anxiety is not just a problem globally (Kessler et al., 2005), South African children are also affected (Kleintjes et al., 2006; Mostert & Loxton, 2008; Muris et al., 2002; Muris et al., 2006; Strydom, Pretorius, & Joubert, 2012). In view of the high incidence of anxiety reported amongst South African children and adolescents, as well as the potential negative effects on the future well-being of children (Mash & Wolfe, 2013; Monga,Young, & Owens,

2009; Myer et al., 2009), a need has been expressed for the development of an intervention program specifically tailored for South African children which is currently lacking (Da Costa & Mash, 2008; Flisher et al., 2012; Loxton, 2004; Mostert & Loxton, 2008; Muris, du Plessis & Loxton, 2008; Muris et al., 2006; Myer et al., 2009; Strydom, Pretorius & Joubert, 2012; Zwemstra & Loxton, 2011).

Research has found that CBT is efficacious for treating anxiety disorders in children (Albano & Kendall, 2002; Briesch et al., 2010; Ishikawa et al., 2007; Miller, 2008; Mychailyszyn et al., 2012; Reynolds et al., 2012), the challenge however is to establish at what age children can start participating and how an intervention program can be made child-friendly (Grave & Blissit, 2004) and developmentally appropriate (Sauter, Heyne & Westenberg, 2009).

The rationale for the proposed research is to contribute towards knowledge regarding vulnerable South African children's understanding of the core skills needed for participation in CBT and eventually contribute towards the development of an anxiety intervention program. All the children between the ages of ten and thirteen years who are part of the XXXXXX will be invited to participate in the research. The children will be asked to partake in an activity to assess their ability to discriminate between thoughts, feelings and behaviour, an essential skill that is needed for effective participation in cognitive behavioural therapy. This activity will be based on research that was done by Quakley, Reynolds and Coker (2004).

I will firstly ask the child to tell me his or her favourite story, thereafter six short stories will be read out loud to the child. Each of the stories will consist of three sentences. A sentence that describes a feeling, a sentence that describes a thought and a sentence that describes an action or behaviour. Three labelled post boxes will be provided. One box will be labelled "feeling sentences" and will have a picture of a boy looking happy and a girl looking sad. Another box will be labelled "doing sentences" and will have a picture of a boy playing soccer and a girl reading. The last box will be labelled "thinking sentences" and will have a picture of a boy and a girl with thought bubbles. After the story is read to the child, each of the different sentences will be read out again. The child will then be asked to post each sentence into the relevant post box.

After the task is completed, I will ask the child the following questions: Do you have any questions? How was the activity for you? Which box was the easiest to identify? Which

box was the most difficult to identify? Is there anything more that you would like to talk about?

The data will be collected individually, one session per child, and will take approximately 30 minutes per child. This will be done at the aftercare facility of the children after school hours.

The ethical principles as set out by the Research Ethics Committee: Human Research (HUMANIORA) of the University of Stellenbosch will be adhered to throughout the research process. Informed parental consent will be obtained from the parents or caregivers of the children. Only children with written consent from their parents or caregivers will be able to partake in the study. The purpose and procedure of the study will be explained in a child-friendly manner to the children, upon which they will be asked for their assent. It will be explained to the child that he or she still reserves the right to decline invitation to participate, to not answer any questions they do not feel comfortable answering and that they can withdraw without any consequence or penalty of any kind.

It will be explained to the parents or caregivers as well as the children that, although not foreseen, should the children experience any emotional upheaval or distress due to the research, arrangements will be made to attend to these concerns by consulting with the project supervisor, professor Helene Loxton, who is a registered Counselling Psychologist.

All the information collected from the children will be treated as confidential at all times. Personal details in the study will be coded so that confidentiality of the participants is kept in the study. In reporting the results the children will be referred to only by aspects such as gender and age. Complete anonymity will be assured, no names or identifiable information regarding the parents, caregivers, children or the aftercare facility will be used or revealed in the publishing of a thesis or in scholarly journals.

The proposal for this study has been approved within the Department of Psychology of the University of Stellenbosch. In order to apply for ethical clearance at the Research Ethics Committee: Human Research (HUMANIORA) of the University of Stellenbosch, your preliminary written approval in your capacity as the Child Sponsorship Programme Manager is required for this research study. I would like to receive your preliminary approval to conduct this research with children aged ten to thirteen years who are part of the XXXXX.

I thank you for your time and consideration of my request. Should you require any further information please feel free to contact me at ilsewebber@gmail.com or on 083 641 0681 or my supervisor, Prof Helene Loxton at hsl@sun.ac.za or on 021 808 3417.

Yours Sincerely

……..

……..

Mrs Louisa Webber	Prof H. S. Loxton
Research Masters Student	Supervisor
Department of Psychology	Department of Psychology
Stellenbosch University	Stellenbosch University

I, …….., in the capacity as the Child Sponsorship programme Manager of XXXXXXXX, hereby grant preliminary permission for the research study entitled "Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention program within the South African context" to be conducted during 2014.

……	……
XXXXXXXXX	Date
XXXXXXXXX	
XXXXXXXXX	
XXXX	

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Appendix G: Parents/Guardians information and consent form (English)

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STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF THE RESEARCH PROJECT: Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention programme within the South African context

Your child is invited to participate in a research study conducted by Louisa Webber from the Department of Psychology at Stellenbosch University. I am currently busy with my Master's degree in Psychology and this study is part of my thesis. Your child was selected as a possible participant in this study because he or she is between the ages of ten and thirteen years.

1. PURPOSE OF THE STUDY

The study wants to assess if 10 to 13 year old children can distinguish between thoughts, feelings and behaviour. The results from this study will be used to contribute towards the development of an anxiety prevention program specifically developed for South African children.

2. PROCEDURES

If you volunteer that your child participates in this study, I would ask your child to do the following things:

I will first ask your child to tell me his or her favourite story, thereafter six short stories will be read out loud to your child. Each of the stories will consist of three sentences. A sentence that describes a feeling, a sentence that describes a thought and a sentence that describes an action or behaviour. Three labelled post boxes will be provided. One box will be labelled "feeling sentences" and will have a picture of a child looking happy and a picture of a child looking sad. Another box will be labelled "doing sentences" and will have a picture of a child playing soccer and a girl reading. The last box will be labelled "thinking sentences" and will have a picture of a boy and a girl with thought bubbles. After the story is read to your child, each of the different sentences will be read out again. Your child will then be asked to post each sentence into the relevant post box. I will give feedback to your child after every story has been scored.

After the task is completed, I will ask your child the following questions: Do you have any questions? How was the activity for you? Which box was the easiest to identify? Which box was the most difficult to identify? Is there anything more that you would like to talk about?

The data will be collected individually during June 2014. The assessment will take place after school hours at the XXXXXXXXXXXX. Only one individual session of approximately 30 minutes will be required. The child's responses will be tape recorded and I will make notes during my interview with the child. The data will be used for data analyses. In the interest of scientific ethics all data has to be stored for a period of five years. The data will be stored securely and only the researcher and the supervisor will have access to it.

3. POTENTIAL RISKS AND DISCOMFORTS

This research is non-therapeutic in nature, therefore no foreseeable psychological and physical discomforts exist that may pose a threat to the wellbeing of your child. Although it is not foreseen, should your child experience any emotional upheaval or distress due to the research, arrangements will be made to attend to these concerns. The study leader is Professor Helene Loxton from the University of Stellenbosch. She is a registered Counselling Psychologist and will be able to help. If your child experiences any signs of emotional discomfort because of the research, she can be contacted at the Department of Psychology on 021 808 3417

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

A noteworthy contribution of the proposed study will be the individual time that will be spent with each child. This research will be beneficial to the children's well-being as it will make the children aware of their emotions and also add value to their emotional vocabulary.

5. PAYMENT FOR PARTICIPATION

You or your child will not be paid to take part in the study. There will be no costs involved for you if your child takes part in the study.

6. CONFIDENTIALITY AND ANONYMITY

Any information that is obtained in connection with this study and that can be identified with your child will remain confidential and will be disclosed only with your permission or as required by law. Only me and my supervisor, Professor Helene Loxton, will have access to this information.
When the results of the study are reported complete anonymity will be assured. **This means that no names or any identifiable information regarding you as the parents or caregivers, the children or the aftercare facility will be used.** The children will only be referred to in terms of age and gender.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether you want your child to be in this study or not. If you volunteer that your child can be in this study, he or she may withdraw at any time without consequences of any kind. Your child may also refuse to answer any questions they don't want to answer and still remain in the study. The investigator may withdraw your child from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact me, Louisa Webber at 083 641 0681 (this number can be contacted any time during day or night). My supervisor, Professor Helene Loxton can be contacted at the Department of Psychology at the Stellenbosch University on 021 808 3417.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me by Louisa Webber in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby give voluntary consent that my child may participate in the study. I have been given a copy of this form.

_____

Name of Subject/Participant

_____

Name of Legal Representative (if applicable)

_____ _____

Signature of Subject/Participant or Legal Representative **Date**

Appendix H: Parents/Guardians information and consent form (Xhosa)

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IYUNIESITHI I-STELLENBOSCH
IMVUME YOKUTHATHA INXAXHEBA KUPHANDO

ISIHLOKO SEPROJEKTHI YOPHANDO: Ukujonga ukwenzeka komsebenzi wonyango lwendlela yokuqonda ukuze usetyenziswe kwinkqubo yexesha elizayo yongenelelo kwinkxalabo kwimeko yaseMzantsi Afrika.

Umntwana wakho umenyiwe ukuba athathe inxaxheba kuphando olwenziwa ngu-Louisa Webber ovela kwiSebe lezifundo ngeNgqondo kwiYunivesithi yase-Stellenbosch. Okwangoku ndixakeke zizifundo zam zesidanga se-Master kwizifundo ngezeNgqondo kwaye olu phando luyinxalenye yethisisi yam. Umntwana wakho wakhethwa ukuba athathe inxaxheba kolu phando kuba uphakathi kweminyaka elishumi nelishuumi elinesithathu ubudala.

1. INJONGO YOLU PHANDO

Olu phando luzama ukuhlola abantwana abaneminyaka eli-10 ukuya kweli-13 ubudala ukuba banakho kusini na ukohlula phakathi kweengcinga, kweemvakalelo nakwindlela ubani aziphatha ngayo. Iziphumo zolu phando ziya kuseteynziselwa ukwenza igalelo kuphuhliso lwenkqubo yokuthintela inkxalabo elungiselelwe ngokukodwa abantwana baseMzantsi Afrika.

2. IINKQUBO

Ukuba uyavuma ukuba umntwana wakho athathe inxaxheba kolu phando, ndiza kucela ukuba umntwana wakho enze ezi zinto zilandelayo:

Okokuqala ndiza kukucela umntwana wakho ukuba andichazele ibali lakhe alithanda kakhulu, emva koko, kuza kufundwa amabali amafutshane amathandathu ngokukhwaza. Ibali ngalinye liza kuba nezivakalisi ezintathu. Isivakalisi esichaza imvakalelo yomntu, isivakalisi esichaze ingcinga yomntu kunye nesivakalisi esichaza into ethile eyenziwa ngumntu okanye umkhwa womntu. Kuza kubakho iibhokisi ezintathu zeposi eziphawuliweyo. Enye ibhokisi iza kuphawulwa "izivakalisi zemvakalelo" kwaye inomfanekiso womntwana owonwabileyo nomfanekiso womntwana oqumbileyo. Enye ibhokisi iphawulwe "izivakalisi zokwenza" kwaye inomfanekiso womntwana odala ibhola ekhatywayo nomfanekiso womntwana ofundayo. Ibhokisi yokugqibela iphawulwe "izivakalisi zengcinga" kwaye inemifanekiso yabantwana abanamagaqa okucinga. Emva kokuba umntwana wakho efundelwe ibali, kuza kufundwa isivakalisi ngasinye kwakhona kwezo zohlukileyo. Emva koko umntwana wakho ua kucelwa ukuba afake isivakalisi ngasinye kwibhokisi efanelekileyo. Ndiza kunika ingxelo ebuyayo ngomntwana wakho rhoqo emva kokuba kufunyenwe amanqaku kwibali ngalinye.

Emva kokuba ugqityiwe lo msebenzi, ndiza kubuza umntwana wakho le mibuzo ilandelayo: Ingaba unayo imibuzo? Ubunjani umsebenzi kuwe? Yiyiphi ibhokisi ekube lula ukuyichonga? Yiyiphi ibhokisi ekube nzima kakhulu ukuyichonga? Ingaba ikho enye into onqwenela ukuba sithethe ngayo?

Ezi nkcukacha ziya kuqokelelwa nganye ngo-Juni 2014. Olu hlolo luza kwenziwa ukuphuma kwesikolo kwiZiko XXXXXXXXXXX. Kufuneka iseshini enye yomntu omnye eza kuthatha malunga nemizuzu

engama-30. Iimpendulo zomntwana ziya kushicilelwa kwaye ndiza kubhala amanqakwana ngexesha ndinodliwano-ndlebe nomntwana wakho. Ezi nkcukacha ziza kusetyenziselwa ukuphicotha ulwazi olugciniweyo. Ngokweemfuno zemigaqo yobunzululwazi zonke iinkcukacha kufanele zigcinwe isithuba seminyaka emihlanu. Ezi nkcukacha ziya kugcinwa ngokukhuselekileyo kwaye ngumphandi nomphathi wakhe kuphela abaya kufikelela kuzo.

3. IKHO KUSINI NA INTO EMBI NOKUNGAPHATHEKI KAKUHLE OKUNOKWENZEKA

Olu phando alunanto idibanisa nonyango, ngoko ke akubonwa mpatheko imbi inokwenzeka ngokwasengqondweni nasemzimbeni ezinokuba nobungozi kwimpilo yomntwana wakho. Nangona kungekabonwa nto ngoku, xa kunokwenzeka umntwana wakho azive engaphathekanga kakuhle emoyeni okanye exinzelelekile ngenxa yolu phando, kungenziwa amalungiselelo okuba kujongwe lo meko ixhalabisayo. Inkokeli yophando nguNjingalwazi Helene Loxton weYunivesithi iStellenbosch. UnguGqirha oThuthuzela izifo zeNgqondo obhalisiweyo kwaye uya kukwazi ukukunceda. Ukuba umntwana wakho ufumana naziphi iimpawu zokungaphatheki kakuhle ngenxa yolu phando, ungaqhagamshelana naye kwiSebe lezifundo zeNgqondo kule nombolo: 021 808 3417.

4. IKHO KUSINI NA INTO ENDINGAYIZUZA NJENGOMNTU EKWENZIWA KUYE UPHANDO OKANYE ULUNTU LWASEKUHLALENI

Igalelo elibalulekileyo lolu phando lucetywayo iya kuba lixesha lomntu ngamnye elichithwa nomntwana wakho. Olu phando luya kuba yinzuzo kwintlalo-ntle yomntwana njengoko luya kwenza abantwana babe nolwazi ngeemvakalelo zabo kananjalo longeze ixabiso kwisigama sabo ekuchazeni iimvakalelo zabo.

5. INTLAWULO NGOKUTHATHA INXAXHEBA

Wena okanye umntwana wakho anisayi kuhlawulelwa ukuthatha inxaxheba kolu phando. Akusayi kubakho zindleko zibandakanyekayo kuwe ukuba umntwana wakho uthatha inxaxheba kolu phando.

6. UKUGCINWA KWEMFIHLO NOKUNGAZIWA KWAKHO

Naziphi iinkcukacha ezifunyenweyo ngokunxulumene nolu phando nezinokwayanyaniswa nomntwana wakho ziya kuhlala ziyimfihlo kwaye ziya kuchazwa kuphela ngemvume yakho okanye xa zifuneka ngokomthetho. Ngumphathi wam kuphela, uNjingalwazi Helene Loxton, nam abaya kufikelela kwezi nkcukacha.
Xa sele iziphumo zolu phando zichazwe njengezigqityiweyo akusayi kuchazwa gama lakho kwaye uyaqinisekiswa ngalo nto. **Oku kuthetha ukuba akukho magama okanye nkcukacha zokwazisa ezinxulumene nani njengabazali okanye abantu abakhulisa umntwana ngokusemthethweni, abantwana okanye iziko eligcina abantwana eziya kusetyenziswa.** Abantwana baya kukhankanywa kuphela ngokuphathelene neminyaka yabo yobudala nesini sabo.

7. UKUTHATHA INXAXHEBA NOKURHOXA

Uvumelekile ukukhetha ukuba uyafuna na ukuba umntwana wakho athathe inxaxheba kolu phando okanye awufuni. Ukuba uzikhethela ukuba umntwana wakho athathe inxaxheba kolu phando, uvumelekile ukuba arhoxe nanini na ngaphandle kweziphumo zalo naluphi na uhlobo. Umntwana wakho unakho ukwala/ukungavumi ukuphendula imibuzo angafuniyo ukuyiphendula ahlale ekulo olu phando. Umphandi unakho ukumrhoxisa umntwana wakho kolu phando ukuba kuvela iimeko ezigunyaziswa ukuba kwenziwe njalo.

8. UKUCHONGWA KWABAPHANDI

Ukuba unemibuzo okanye iinkxalabo ngophando, ukhululekile ukuba uqhagamshelane nam, uLouisa Webber kwa-083 641 0681 (le nombolo kungaqhagamshelwana nayo nanini na emini okanye ebusuku). Umphathi wam, uNjingalwazi Helene Loxton kungaqhagamshelwana naye kwiSebe lezifundo zeNgqondo kwiYunivesithi iStellenbosch kwa-021 808 3417.

9. AMALUNGELO ABO KWENZIWA UPHANDO KUBO

Uvumelekile ukuba uyirhoxise imvume yakho nani na kwaye ungaqhubeki nokuthatha inxaxheba kolu phando ngaphandle kwesohlwayo. Awuncami malungelo akho asemthethweni, amalungelo okanye ukulungiswa ebekunokwenziwa ngenxa yokuthatha inxaxheba kwesi sifundo sophando. Ukuba unemibuzo ephathelene namalungelo akho njengomntu ekwenziwa kuye uphando, qhagamshelana noNkszn. Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] kwiCandelo loPhuhliso loPhando (Division for Research Development).

UTYIKITYO LOMNTU EKWENZIWA UPHANDO KUYE OKANYE UMMELI WAKHE OSEMTHETHWENI

Iinkcukacha ezingasentla ndizichazelwe ngu-Louisa Webber ngesiNgesi kwaye ndiyalwazi olu lwimi okanye ndiluguqulelwe ngokwanelisayo. Ndanikwa ithuba lokubuza imibuzo kwaye le mibuzo yaphendulwa ngokwanelisayo.

Ngenxa yoko ndinika imvume yam ngokuzithandela yokuba umntwana wam angathatha inxaxheba kolu phando. Ndiyinikiwe ikopi yolu xwebhu.

_____

Igama lalowo kwenziwa kuye uphando/umthathi-nxaxheba

_____

Igama loMmeli oseMthethwnei (xa kufanelekile)

_____ _____

Utyikityo lomzali/lomntu okhathalela umntwana okanye ummeli osemthethweni **Umhla**

Appendix I: Parents/Guardians information and consent form (Afrikaans)

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

UNIVERSITEIT VAN STELLENBOSCH
INWILLIGING OM DEEL TE NEEM AAN NAVORSING

TITEL VAN NAVORSINGSTUDIE: Navorsing oor die toepaslikheid van 'n kognitiewe gedragsterapie aktiwiteit vir gebruik in 'n toekomstige angs intervensie program in die Suid-Afrikaanse konteks.

U kind word uitgenooi om deel te neem aan 'n navorsingstudie uitgevoer deur Louisa Webber van die Departement Sielkunde aan die Universiteit van Stellenbosch. Ek is tans besig met my Meesters graad in Sielkunde en hierdie studie vorm deel van my tesis. U kind was gekies as 'n moontlike deelnemer aan hierdie studie omdat hy of sy tussen die ouderdomme van tien en dertien jaar is.

1. DOEL VAN DIE STUDIE

In hierdie studie word daar gekyk of 10 tot 13 jaar oue kinders in staat is om te kan onderskei tussen denke, gevoelens en gedrag. Die resultate van hierdie studie gaan gebruik word om 'n bydrae te lewer tot die ontwikkeling van 'n angs voorkomende program spesifiek gerig op Suid-Afrikaanse kinders.

2. PROSEDURES

Indien u inwillig dat u kind aan die studie deelneem, sal ek u kind vra om die volgende te doen:

Ek sal begin deur u kind te vra om sy of haar gunsteling storie aan my te vertel. Hierna sal ek ses kort stories hardop aan u kind voorlees. Elke storie sal uit drie sinne bestaan. Een van die sinne sal 'n gevoel beskryf, een sin sal 'n gedagte beskryf en een sin sal 'n aksie of 'n gedrag beskryf. Drie gemerkte karton houers sal verskaf word. Een van die houers sal 'n prentjie op hê van 'n kind wat hartseer is, asook 'n prentjie van 'n kind wat bly is. Hierdie houer sal gemerk wees "gevoel". 'n Ander houer sal gemerk wees "gedrag" en sal 'n prentjie opgeplak hê van 'n kind wat sokker speel en 'n kind wat lees. Die laaste houer sal "denke" gemerk wees. Op hierdie houer sal 'n prent wees van kinders met geheue wolkies bo hul kop. Nadat ek die storie hardop aan u kind voorgelees het, sal elke sin weer apart voorgelees word. U kind sal dan gevra word om elke sin in die korrekte houer te plaas. Ek sal terugvoer aan u kind gee na elke storie.

Na afloop van die aktiwiteit sal ek die volgende vrae aan u kind stel: Het jy enige vrae? Hoe was die aktiwiteit vir jou? Watter houer was vir jou die maklikste? Watter houer was vir jou die moeilikste? Is daar nog enige iets waaroor jy wil praat?

Die data sal individueel ingesamel word gedurende Julie 2014. Die aktiwiteit sal na skool in die middag by die XXXXXXXXXXXX plaasvind. Slegs een individuele sessie van 30 minute word benodig. U kind se antwoorde sal opgeneem word met 'n bandopnemer en ek sal ook aantekeninge maak tydens ons sessie. Die data wat ingesamel word, sal gebruik word vir data analise. Soos wat deur etiese standaarde vereis word, sal die data vir 'n periode van vyf jaar gestoor word. Slegs ek en my studieleier sal toegang tot hierdie data hê.

3. MOONTLIKE RISIKO'S EN ONGEMAKLIKHEID

Hierdie navorsing is nie terapeuties van aard nie, daarom word daar nie voorsien dat u kind enige sielkundige of fisiese ongemak sal ervaar nie. Alhoewel nie voorsien nie, indien u kind wel emosionele angs of ongemak ervaar, sal daar aandag hieraan geskenk word.
Die studieleier is Professer Helene Loxton van die Universiteit van Stellenbosch. Sy is 'n geregistreerde Voorligting Sielkundige en sal van hulp kan wees. Indien u kind enige tekens van emosionele ongemak toon weens hierdie navorsing, kan u haar gerus skakel by die Sielkunde Departement. Hul nommer is 021 808 3417.

4. MOONTLIKE VOORDELE VIR DEELNEMERS EN/OF DIE SAMELEWING

'n Opmerkenswaardige bydrae van hierdie studie is die individuele tyd wat met elke kind spandeer sal word. Hierdie navorsing sal bydra tot die kinders se welstand aangesien dit hul bewus sal maak van hul emosies asook hul emosionele woordeskat sal uitbrei.

5. BETALING VIR DEELNAME

U of u kind sal nie betaal word om aan die studie deel te neem nie. Daar sal geen onkostes vir u wees indien u kind deelneem aan die studie nie.

6. VERTROULIKHEID EN ANONIMITEIT

Enige inligting wat deur middel van die navorsing verkry word en wat met u kind in verband gebring kan word, sal vertroulik bly en slegs met u toestemming bekend gemaak word of soos deur die wet vereis. Slegs ek en my studieleier, Professor Helene Loxton, sal toegang hê tot hierdie inligting. Anonimiteit sal verseker word met die opskryf van die resultate. **Dit beteken dat geen name of enige identifiseerbare inligting rakende u as ouers of pleegouers, die kinders of die nasorg fasiliteit sal gebruik word met die opskryf van die resultate nie.** Daar sal slegs na die kinders verwys by wyse van ouderdom en geslag.

7. DEELNAME EN ONTTREKKING

U kan self besluit of u kind aan die studie wil deelneem of nie. Indien u inwillig dat u kind aan die studie deelneem, kan hy of sy enige tyd daaraan onttrek sonder enige nadelige gevolge. U kind kan ook weier om op bepaalde vrae te antwoord, maar steeds deelneem aan die studie. Die navorser mag ook u kind onttrek aan die studie indien nodig.

8. IDENTIFIKASIE VAN ONDERSOEKERS

Indien u enige vrae of besorgdheid rakende die navorsing het, staan dit u vry om my, Louisa Webber, te kontak by 083 641 0681 (hierdie nommer kan enige tyd gedurende die dag of nag geskakel word). My studieleier, Professor Helene Loxton, kan gekontak word by die Sielkunde Departement van die Universiteit van Stellenbosch by 021 808 3417.

9. REGTE VAN PROEFPERSONE

U kan ter eniger tyd u inwilliging terugtrek en u kind se deelname beëindig, sonder enige nadelige gevolge vir u of u kind. Deur deel te neem aan die navorsing doen u geensins afstand van enige wetlike regte, eise of regsmiddel nie. Indien u enige vrae het oor u regte as proefpersoon by navorsing, skakel met Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] van die Eenheid Navorsingsontwikkeling.

VERKLARING DEUR OUER OF VOOG VAN DEELNEMER

Die bostaande inligting is aan my beskryf in Afrikaans en ek, die ouer/voog van die deelnemer, is die taal magtig. Ek is die geleentheid gebied om vrae te stel en my vrae is tot my bevrediging beantwoord.

Ek willig hiermee vrywillig in dat my kind kan deelneem aan die studie. 'n Afskrif van hierdie vorm is aan my gegee.

_____

Naam van kind

_____

Naam van ouer of voog

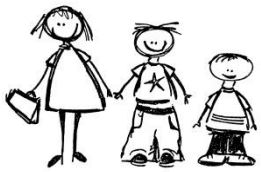
_____ _____

Handtekening van ouer/voog van deelnemer Datum

Appendix J: Participant information leaflet and assent form (English)

	STELLENBOSCH UNIVERSITY

PARTICIPANT INFORMATION LEAFLET AND ASSENT FORM



TITLE OF THE RESEARCH PROJECT: Exploring the viability of a cognitive behavioural therapy-based activity for usage in a future anxiety intervention programme within the South African context.

RESEARCHERS NAME(S): Louisa Webber

ADDRESS: Department of Psychology, Stellenbosch University, Private Bag X1, Matieland, 7602.

CONTACT NUMBER: 083 641 0681

What is RESEARCH?
Research is something we do to find **NEW KNOWLEDGE** about the way things (and people) work. We use research projects or studies to help us find out more about children and teenagers and the things that affect their lives, their schools, their families and their health. We do this to try and make the world a better place!

What is this research project all about?
We want to find out if children who are between ten and thirteen years old can distinguish between something they are thinking and something they are feeling and something they are doing. “Distinguish” means to be able to tell the difference between things.

Why have I been invited to take part in this research project?
You are invited to take part because you are between 10 and 13 years old.

Who is doing the research?
I will be doing the research. The reason I am doing this research is because I am studying for my master’s degree in psychology at the University of Stellenbosch and this research will be part of my thesis.

What will happen to me in this study?

I will firstly ask you to tell me your favourite story. Thereafter, I will read six short stories to you. Each story will have one sentence that describes something the person is feeling, one sentence that describes something the person is doing and one sentence that describes what the person is thinking.
Here are three post boxes with pictures on. The one box is labelled “feeling sentences” and has a picture of a child who is happy and a picture of a child who is sad. The other box is labelled “doing sentences” and has a picture of a child playing soccer and a picture of a child reading. The last box is labelled “thinking sentences” and has pictures of children with thought bubbles.
After I have read the story to you, I will read the sentences one at a time and you must post the sentence in the box where you think the sentence fits best. After the task is completed, I will ask you the following questions: Do you have any questions? How was the activity for you? Which box was the easiest to identify? Which box was the most difficult to identify?
I will tape record your responses and make notes during our interview. This will help me to remember what happened.

Can anything bad happen to me?
If you take part in the study nothing bad can happen to you, but if you feel that you don’t want to take part in the study anymore, you can stop and nothing bad will happen to you.

Can anything good happen to me?
Yes, you can learn how to distinguish between something you are feeling, something you are thinking and something you are doing. This can help you to deal with your thoughts, feelings and behaviour in everyday life.

Will anyone know I am in the study?
The only people who will know that you are in the study are your parents or caregivers, the researcher and you. All the information will be treated confidential, this means that nobody will know your name or what your answers were.

Who can I talk to about the study? If you have any questions about the study, you can talk to me, the researcher. My name is Louisa Webber and you can phone me on 083 641 0681 or send me an email at ilsewebber@gmail.com.
Or you can talk to Professor Helene Loxton, she is a psychologist who works at the Stellenbosch University. You can phone her on 021 808 3417 or send her an email at hsl@sun.ac.za

What if I do not want to do this?
If you do not want to take part in the study you can do so, even if your parents or caregivers said that you are allowed to take part. You can also stop being part of the study at any time without getting into trouble. If you say yes to take part in this study, but change your mind later, nothing bad will happen to you.

Do you understand this research study and are you willing to take part in it?

YES NO

Has the researcher answered all your questions?

YES NO

Do you understand that you can STOP being in the study at any time?

YES NO

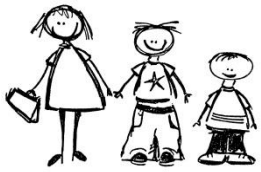
_____ _____

Signature of Child Date

Appendix K: Participant information leaflet and assent form (Xhosa)

	1. IYUNIVESITHI ISTELLENBOSCH

IPHETSHANA ELINEENKCUKACHA LALOWO UTHATHA INXAXHEBA NEFOMU YESIVUMELWANO



ISIHLOKO SEPROJEKTHI YOPHANDO: Ukujonga ukwenzeka komsebenzi wonyango lwendlela yokuqonda ukuze usetyenziswe kwinkqubo yexesha elizayo yongenelelo kwinkxalabo kwimeko yaseMzantsi Afrika.

AMAGAMA OM(ABA)PHANDI: Louisa Webber

IDILESI: Department of Psychology, Stellenbosch University, Private Bag X1, Matieland, 7602.

INOMBOLO YOQHAGAMSHELWANO: 083 641 0681

2. **Yintoni UPHANDO?**

Uphando yinto esiyenzayo ukufumanisa **ULWAZI OLUTSHA** ngendlela izinto (nabantu) ezisebenza ngayo. Sisebenzisa iiprojekthi okanye izifundo zophando ukusinceda sikwazi ukufumanisa ezinye izinto ngabantwana nabantwana abafikisayo nezinto ezichaphazela ubomi babo, izikolo zabo, iintsapho zabo nempilo yabo. Senza oku ukuzama nokwenza ilizwe ibe yindawo engcono!

3. **Imalunga nantoni na le projekthi yophando?**

Sifuna ukufumanisa ukuba ingaba abantwana abaphakathi kweminyaka elishumi nelishumi elinesithathu ubudala banakho na ukohlula phakathi kwento abayicingayo nento abayenzayo. “Ukohlula” kuthetha ukukwazi ukuxela umahluko phakathi kwezinto.

4. **Kutheni ndimenyiqw ukuba ndithathe inxaxheba kule projekthi yophando?**

Umenyiwe ukuba uthathe inxaxheba kuba uphakathi kweminyaka elishumi nelishumi elinesithathu ubudala.

Ngubani owenza uphando?

Ndim oza kwenza uphando. Isizathu ndisenza olu phando kukuba ndifundela isidanga sam se-Master's kwisifundo ngezengqondo (psychology) kwiYunivesithi iStellenbosch kwaye olu phando luza kuba yinxalenye yethisisi yam yophando.

Kuza kwenzeka ntoni kum kwesi sifundo?
Okokuqala ndiza kukucela ukuba undichazele ibali lakho olithanda kakhulu. Emva koko, ndiza kukufundela amabali amafutshane amathandathu. Ibali ngalinye liza kuba nesivakalisi esinye esichaza into ethile eviwa ngumntu, isivakalisi esinye sichaze into enye eyenziwa ngumntu ze esinye isivakalisi esinye sichaze into ethile ecingwa ngumntu.
Nazi iibhokisi ezintathu zeposi ezinemifanekiso. Enye ibhokisi iphawulwe "izivakalisi zemvakalelo" kwaye inomfanekiso womntwana owonwabileyo nomfanekiso womntwana oqumbileyo. Enye ibhokisi iphawulwe "izivakalisi zokwenza" kwaye inomfanekiso womntwana odala ibhola ekhatywayo nomfanekiso womntwana ofundayo. Ibhokisi yokugqibela iphawulwe "izivakalisi zengcinga" kwaye inemifanekiso yabantwana abanamagaqa okucinga.
Emva kokuba ndikufundele ibali, ndiza kukufundela izivakalisi esinye ngexesha kwaye ke kuza kufuneka ukuba ufake isivakalisi ebhokisini apho ucinga ukuba singena khona ncam. Emva kokuba ugqityiwe umsebenzi, ndiza kukubuza le mibuzo ilandelayo: Ingaba unayo imibuzo? Ubunjani lo msebenzi kuwe? Yiyiphi ibhokisi ekube lula ukuyichonga? Yiyiphi ibhokisi ekube nzima kakhulu ukuyichonga? Ndiza kuzishicilela iimpendulo zakho ndenze amanqakwana ngexesha sinodliwano-ndlebe. Oku kuya kundinceda ndikhumbule ukuba kwenzeke ntoni na.

Ikhona into embi enokwenzeka kum?
Ukuba uthatha inxaxheba kolu phando akukho nto imbi ingenzeka kuwe, kodwa ukuba uziva ukuba awusafuni kuthatha inxaxheba kolu phando, ungayeka kwaye akukho nto imbi iza kwenzeka kuwe.

Ikhona into entle enokwenzeka kum?
Ewe, ungafunda ukohlula phakathi kwento eyimvakalelo kuwe, into oyicingayo nento oyenzayo. Oku kungakunceda ujongane neengcinga, neemvakalelo zakho nendlela oziphatha ngayo kubomi bemihla ngemihla.

Ukhona na umntu oza kundazi ukuba ndikwesi sifundo?
Kuphela kwabantu abaya kwazi ukuba ukolu phando ngabazali bakho okanye abo bakugcinileyo, umphandi nawe. Zonke iinkcukacha ziya kugcinwa ngokuyimfihlo, oku kuthetha ukuba akukho mntu uya kulazi igama lakho okanye ukuba zithini iimpendulo zakho.

Ngubani endinokuthetha naye ngesi sifundo?
Ukuba unemibuzo ngolu phando, ungathetha nam, umphandi. Igama lam ngu-Louisa Webber kwaye unganditsalela umnxeba ku-083 641 0681 okanye undithumelele i-imeyile ku-ilsewebber@gmail.com.

Okanye ungathetha noNjingalwazi uHelene Loxton, ungugqirha wengqondo osebenza kwiYunivesithi iStellenbosch. Ungamtsalela umnxeba kwa- 021 808 3417 okanye umthumelele i-imeyile ku-hsl@sun.ac.za

Kuza kwenzeka ntoni ukuba andifuni kukwenza oku?
Ukuba awufuni ukuthatha inxaxheba kolu phando ungenza njalo, nokuba abazai bakho okanye abo bakugcinileyo bathe uvumelekile ukuthatha inxaxheba kulo. Kananjalo unakho ukuyeka ukuba yinxalenye yolu phando nani na ngaphandle kokuba sengxakini. Ukuba uthe ewe uza kuthatha inxaxheba kolu phando, kodwa utshintshe ingqondo yakho kamva, akukho nto imbi iza kwenzeka kuwe.

Uyasiqonda na esi sifundo sophando kwaye unomdla na wokuthatha inxaxheba kuso?

EWE HAYI

Ingaba umphandi uyiphendule yonke imibuzo yakho?

EWE HAYI

Uyayiqonda na into yokuba UNGAYEKA ukuba kwesi sifundo nanini na?

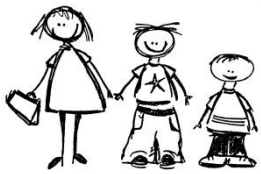
EWE HAYI

_____ _____

Appendix L: Participant information leaflet and assent form (Afrikaans)

	UNIVERSITEIT VAN STELLENBOSCH

DEELNEMER INLIGTING- EN TOESTEMMINGSVORM



TITEL VAN DIE NAVORSINGSPROJEK: Navorsing oor die toepaslikheid van ‘n kognitiewe gedragsterapie aktiwiteit vir gebruik in ‘n toekomstige angs intervensie program in die Suid-Afrikaanse konteks.

NAAM VAN NAVORSER: Louisa Webber

ADRES: Sielkunde Departement, Universiteit van Stellenbosch, Privaatsak X1, Matieland, 7602.

KONTAK NOMMER: 083 641 0681

Wat is NAVORSING?

Navorsing is iets wat ons doen om **NUWE INLIGTING** te kry oor hoe dinge (en mense) werk. Ons gebruik navorsingsprojekte of studies om ons te help om meer uit te vind oor kinders en tieners, die dinge wat hul lewens beïnvloed, hul skole, hul families asook hul gesondheid. Ons doen dit omdat ons graag die wêreld ‘n beter plek wil maak!

Waaroor gaan hierdie navorsingsprojek?

Ons wil uitvind of kinders wat tussen tien en dertien jaar oud is kan onderskei tussen iets wat hulle dink, iets wat hulle voel (hul emosies) en iets wat hulle doen. “Onderskei” beteken om die verskil tussen dinge te kan uitken.

Hoekom is ek uitgenooi om aan hierdie navorsing deel te neem?

Jy is uitgenooi om deel te neem omdat jy tussen 10 en 13 jaar oud is.

Wie gaan die narvorsing doen?
Ek gaan die navorsing doen. Die rede hoekom ek hierdie navorsing doen is omdat ek besig is om te studeer vir my meesters graad in sielkunde aan die Universiteit van Stellenbosch. Hierdie navorsing sal deel vorm van my tesis.

Wat gaan met my gebeur as ek deelneem aan hierdie studie?
Ek gaan eerste vir jou vra om jou gunsteling storie aan my te vertel. Daarna gaan ek ses kort stories vir jou voorlees. Elke storie gaan een sin hê wat iets beskryf wat die persoon voel (‘n emosie), een sin wat iets beskryf wat die persoon doen en een sin wat beskryf wat die persoon dink.
Hier is drie posbusse met prente op. Die een houer is gemerk “gevoelens” en het ‘n prent op van ‘n kind wat bly is en ook ‘n prent van ‘n kind wat hartseer is. Die ander houer is gemerk “gedrag” en het ‘n prent van ‘n kind wat sokker speel en ‘n prent van ‘n kind wat lees. Die laaste houer is “denke” gemerk en het prente op van kinders met **“thought bubbles”.**
Nadat ek die storie vir jou voorgelees het, gaan ek die sinne een vir een weer lees. Jy moet elke sin in die posbus sit waar jy dink dit die beste pas. As on klaar is met die aktiwiteit gaan ek vir jou die volgende vrae vra: Het jy enige vrae? Hoe was die aktiwiteit vir jou? Watter houer was vir jou die moeilikste? Watter houer was vir jou die maklikste? Ek gaan jou antwoorde met ‘n bandopnemer opneem en ook aantekeninge maak tydens ons sessie. Dit sal my help om te onthou wat gebeur het.

Kan enige iets wat sleg is met my gebeur?
Niks wat sleg is kan met jou gebeur as jy aan die studie deelneem nie, maar as jy voel dat jy nie meer aan die studie wil deelneem nie, mag jy ophou en niks wat sleg is sal met jou gebeur nie.

Kan enige iets wat goed is met my gebeur?
Ja, jy kan leer om te onderskei tussen iets wat jy voel (jou gevoelens), iets wat jy dink (jou denke) en iets wat jy doen (jou dade). Dit kan jou help in jou daaglikse lewe.

Sal enige iemand weet ek neem deel aan die studie?
Die enigste persone wat sal weet dat jy deel van die studie is, is jou ouers of pleegouers, die navorser en jy. Al die inligting is konfidensieël, dit beteken dat niemand sal weet wat jou naam is of wat jou antwoorde was nie.

Met wie kan ek praat oor die studie? As jy enige vrae het oor die studie, kan jy vir my, die navorser, kontak. My naam is Louisa Webber en jy kan my bel by 083 641 0681 of jy kan vir my ‘n epos stuur by ilsewebber@gmail.com.
Jy kan ook my studieleier, Professor Helene Loxton, kontak. Sy is ‘n sielkundige en werk by die Universiteit van Stellenbosch. Jy kan haar bel by 021 808 3417 of jy kan ‘n epos stuur aan haar by hsl@sun.ac.za

Wat as ek nie wil deelneem nie?
Al het jou ouers of pleegouers toestemming gegee dat jy wel mag deelneem aan die studie, hoef jy nie deel te neem as jy nie wil nie. Indien jy inwillig om aan die studie

deel te neem, maar verander later van plan, kan jy enige tyd jouself onttrek sonder dat jy in die moeilikheid sal kom

Verstaan jy waaroor hierdie navorsing gaan en is jy bereid om deel te neem?

JA NEE

Het die navorser al jou vrae beantwoord?

JA NEE

Verstaan jy dat jy enige tyd kan STOP om deel van die studie te wees?

JA NEE

_____ _____

Handtekening van kind Datum

Appendix M: Declaration by translator

I, ……. declare that I have assisted the researcher, ……., during the data collection. I have encouraged the participants to ask questions and have allowed them enough time to answer. The information that I have relayed was factually correct. I understand that all information that is obtained in connection with this study and that can be identified with the participants should remain confidential.

Signed at *(place)*..... on *(date)*……

……. ……

Signature of translator **Signature of witness**