

The Development and Validation of a Social Emotional School Readiness Scale

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Abstract

The first year at school is a major life transition. School readiness assessments do not always assess social-emotional competence although it is considered to be a key aspect of successful school adjustment. This omission is compounded by the absence of an appropriate measure of social-emotional school readiness. Subsequently, this research aimed at the identification of behaviours that underpin the major social-emotional school readiness constructs, namely Self Awareness and Regulation, Social Relationships, Empathy and Coping Skills. A scale, in the form of a questionnaire (BUSSE-SR), was developed for such assessment.

A convenience sample of 338 Grade R children in Durban, Kwa-Zulu Natal, were evaluated by their parents and Grade R teachers according to these scales. The same cohort was assessed the following year by their Grade One teachers in terms of their adjustment to school and academic performance in Life Skills, Literacy and Numeracy. The results indicated that the predictive validity of the scales was greater for Grade R teachers than Grade R parents. Through factor analysis, 28 behaviours of the most valid items were identified for the final version of the scales. The correlation coefficient for social-emotional competence and school adjustment, and social-emotional competence and academic performance, indicated a significant relationship between Self Awareness, Self Regulation, Social Relationships, Coping Skills and school adjustment and performance in Grade One.

Opsomming

Die eerste skooljaar verg geweldige aanpassing van the skooltoetreders. Skoolgereedheidstoetse meet nie altyd sosial- en emosionele vlakke nie, alhoewel dit n deurslaggewerde factor is vir suksesvolle aanpassing op skool. Omdat daar so n groot leemte in die meting van sosiale- en emosionele skoolgereedheid in bestaande skoolgereedheidstoete is, is daar besluit om hierdie navorsing te rig op die identifisering van n gedragspatrone wat sosiale- en emosionele vlakke sal meet. Die volgende gedragspatrone is in hierdie studie gemeet:- Bewustheid van self, Selfbeheer van emosies en gedrag, Sosiale verhoudings, Empatie en Lewensvaardighede.

338 Graad R leerders in Durban KZN is gevalueer deur hul ouers en graad R onderwysers deur middel van n vraelys (BUSSE-SR). Dieselfde groep leerders is in die daaropvolgende jaar deur hul Graad 1 onderwysers gevalueer in terme van hul skoolaanpassing en akademies prestasie.

Van die vyftig items in die vraelys, is bevind dat 28 gedragspatrone n betekenisvolle verband getoon het met suksesvolle aanpassing and akademies prestasie. Die resultate ook dui daarop dat die voorspellingsgeldigheid van die skale vir Graad R onderwysers hoër was as dié vir Graad R ouers. Daar is gevind dat sosiale- en emosionele skoolgereedheid is met Self-Bewustheid, Self-beheer, Sosiale Verhoudings, Lewensvaardighede en skool aanpasbaarheid en prestasie in Graad 1.

Key Words: school readiness, social emotional competence, academic, adjustment, assessment, holistic, ecological, transactional, Grade R, Grade One.

Declaration

I declare that this work, The Development and Validation of a Social Emotional School Readiness Scale, submitted by me for the degree Ph.D. (Child Psychology) is my own independent work, and has not been previously by me at any other university or faculty. I further more cede copyright of the thesis in favour of the University of the Free State.

Caron Bustin

November, 2007

Signed:

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Chapter 1

Introduction and necessity

1.1 Background

Thirty years in Foundation Phase Education and close to a decade in private practice provided the researcher with ample experience to hypothesise that something crucial is missing from the assessment equation.

The first year at school is a major life transition for young children. Although National Policy is committed to the development of young children physically, mentally, emotionally, spiritually, morally and socially, it acknowledges most school entrants are “under-prepared” (Education White Paper No. 5, 2001). This “under-preparedness” may be explained by insufficient early childhood institutions and socioeconomic or cultural factors (Donald, Dawes, & Louw, 2000; Dawes, 2005). It is more difficult, however, to explain why children who appear developmentally ready for the academic rigours of Grade One, and have benefited from early childhood programmes, still struggle to adjust and perform on school entry.

It has been proposed that this lack of preparedness can be attributed to social-emotional factors. Social-emotional intelligence is considered to be an important criterion in academic success as research suggests that social-emotional factors and academic skills are positively related (Goleman, 1996; Zins, et al, 2004). This is especially so in Foundation Phase education, where the “whole child” philosophy underscores the concept of multiple intelligence (Gardner, 1993). For young children to adjust to school and succeed academically, certain social-emotional competencies and life skills are critical (Ladd & Price, 1987; Murphey & Burns, 2002). Many preschool teachers echo the concern that learners who meet the chronological criteria for admission are not socially and emotionally ready for school.

Given the impact of early adjustment on later years of schooling, the issue of school readiness appears to be much more than being old enough or cognitively ready enough to go to school. In South Africa, school entry to Grade One is determined on the basis of age. Because there is only one annual intake of learners, children entering Grade One can vary in age from 5 years 7 months to 7 years (South African Schools Act 84 of 1996). The age range between the youngest and oldest first grader can be up to 17 months. Such variability often leads teachers and parents of preschoolers to refer the question of school readiness to psychologists. Educational psychologists' assessments strive towards a holistic conception of school readiness by considering the child's cognitive, motor, linguistic, perceptual, and social-emotional levels of functioning.

Each of these levels may be evaluated using standardized tools, with the exception of social-emotional functioning. These tools include the Junior South African Individual Scale (JSAIS), the Herbst Measuring Instrument of Cognition and Motor Development (1994), the School Readiness Evaluation by Trained Testers (SETT, 1991) and the Aptitude Test for School Beginners (van Zyl, 2004). These measure a range of skills from visual, auditory, and spatial perception, verbal comprehension, development and reasoning, numerical reasoning, motor skills and coordination, to memory skills. Typically, school readiness assessments include the child's academic and cognitive level of functioning through the use of intellectual scales such as the Junior South African Individual Scale (Kruger, 2002). The use of intellectual measures, developmental and perceptual tools facilitate a valid and reliable assessment of cognitive, perceptual and motor readiness for schools. In essence, although the importance of social-emotional readiness is frequently cited, there is an overemphasis on these aspects and a dearth of measures to evaluate social-emotional readiness (Pretorius, 1993).

Yet, of all the developmental domains, social-emotional functioning is arguably the most complex as it involves aspects of all of the others (Lidz, 2003). It is abundantly clear to preschool teachers, for example, that how children feel about themselves affects their ability to learn (Cohen, 2001). The evaluation of emotional and social school readiness can be conducted through parent or teacher interviews, direct classroom observation or through the use of teacher checklists. While all of these have considerable value as collateral information,

these observations are subject to the psychologist's experience and not as efficiently recorded as in a standardized or norm-based evaluation (Merrell, 1989). Furthermore, checklists also tend to measure skills in isolation (Dockett & Perry, 2001). These methods render the information less powerful and more subjective, in spite the emphasis on social emotional school readiness given by teachers. The effect is that the information on social emotional readiness does not provide as valid and reliable a source of information as the cognitive, perceptual and physical assessment of school readiness as there is no valid assessment tool for social-emotional school readiness in South Africa.

Because outcome-based early childhood education paradigms emphasise a multifaceted approach to school readiness, incorporating social-emotional competence as well as cognitive, perceptual, linguistic and motor domains, school readiness assessment must include a valid measure of social emotional competence. It is important that an appropriate tool is available for the measurement of appropriate social emotional school readiness competence. At present, there is no valid tool for the evaluation of social-emotional school readiness in a South African context; this need is well overdue in school readiness assessments.

1.2 Aim of the Study

The purpose of this research is to develop a measure for social-emotional school readiness assessment that predicts school adjustment and performance. Such a measure can help teachers and psychologists to identify learners who are at risk for poor social-emotional adjustment, which may influence their academic performance.

1.3 Chapter Exposition

Chapter Two, therefore, concentrates on an investigation and literature review into current conceptualisations of school readiness. The researcher attempts to clarify different views of school readiness, and the different dimensions that contribute towards school readiness and adjustment. A theoretical framework for school readiness is proposed. In **Chapter Three**, the role of social-emotional competence in school readiness and the relationship between this and academic performance is expounded. The domains or competences that constitute social-emotional school readiness are explored in **Chapter Four**.

Special reference is made to the behaviours that are believed to underpin these social emotional competences in a school readiness context.

In **Chapter Five**, the construction of an evaluation scale for the measurement of social emotional school readiness is outlined. This construction, a preliminary questionnaire, is based on professional experience, preliminary research and an extensive literature review. In **Chapter Six**, the research design and methodology is described. **Chapter Seven** aims to examine the reliability and validity of the questionnaire. Factor analysis of the items in the questionnaire is conducted to establish the factor loadings of the behaviours for inclusion for the final version of the questionnaire. Finally, in **Chapter Eight**, the results of the research are discussed. Some conclusions as to whether the questionnaire reached its aims are made. The value of a social-emotional measure for South African pre-schoolers is appraised.

Chapter 2

School Readiness

2.1 Introduction: Understanding School Readiness

The aim of this chapter is to give an overview of school readiness and its impact on school adjustment in the short term and later academic performance. The implications of school readiness shall be outlined as well as what going to “big school” means to young children. Different understandings and emphases on the nature of school readiness shall be explored. The two prevailing interpretations, the maturational argument and the one proposed as a framework for this research, an ecological systemic one, will be discussed. By examining different definitions specific aspects of school readiness shall be explored to show the limitations of a purely developmental approach and the need for an ecological approach to the issue of school readiness assessment. The need to assess school readiness holistically shall be introduced as a point of departure for the next chapter.

2.1.1 School Readiness: an ecological transition. During childhood, children pass through a number of ecological transitions requiring adaptation to a new environment, one of which is initial school entry (Ladd & Price, 1987). The significance of starting school is widely acknowledged (Docket & Perry, 2001; Goldblatt, 2005; Kagan, 1999; Maxwell & Eller, 1994; Pianta & Cox, 1999; Pianta & Kraft-Sayre, 1999; Rimm-Kaufman & Pianta, 2000; Stormont, Espinosa, Knipping & McCathren, 2003) with some exceptions (Mashburn & Pianta, 2006). During this transition, children are expected to meet many new social and behavioural demands in conjunction with rising to specific academic challenges. Not only does the transition from kindergarten, preschool or the year before school bring more formal work that demands cognitive adjustments, but the adjustment to Grade One also brings additional changes to the structure, content and expectations of the school day. Although the preschool curriculum provides a stepping stone in the transition to Grade One, primary schools are less child centred than preschools (kindergarten and Grade R or Grade O), and are more formally oriented towards academic achievement (Pianta & Kraft-Sayre, 1999). The play and games aspects of the pre-primary curriculum give way to a greater focus on academic work and formal rules. Going to Grade One is a big step in the lives of young children.

2.1.2 *School Readiness: A process of adaptation and adjustment.*

The orientation to formal schooling requires that children adapt in many ways. First and foremost, the emphasis on formal instruction marks a qualitative shift towards training skills (Rimm-Kaufman, 2000). But, over and above the mastery of new academic skills, children are also engaged in social interaction, acquiring social skills, self mastery and experiencing certain emotions (Feshbach & Feshbach, 1987; Ladd & Price, 1987). A typical Grade One day differs from preschool because it is longer, has classroom routines, fewer play opportunities, longer periods of inactivity and listening, as well as ‘getting along’ and negotiating interpersonal relationships with peers and conforming to the daily routine (Birch & Ladd, 1996; van den Oord & van Rossem, 2002). There is a new emphasis on punctuality, compulsory attendance, shorter play and recess times, homework, and remaining seated for long periods. Interactions between teachers and learners take on different realities such as increased class size and academic skills, new constraints and philosophical differences (Rimm-Kaufman, 2000). Challenges like greater cognitive competence need to be negotiated in a novel setting with unfamiliar adults (Ladd & Price, 1987). These new demands on social-emotional competences constitute another stress on the child (Rimm-Kaufman, 2000; Liou & Ting, 2006). Such adaptations indicate that the transition to primary or elementary school is a major developmental milestone (Perry & Weinstein, 1998) for young children. Added to this, is the contention that this adjustment also has more persistent effects.

2.1.3 *School Readiness: Risk or opportunity?*

While times of transition offer windows of opportunity, they can also present as periods of vulnerability. The potential negative consequences of a poor transition have long-term implications. Alternatively, the sooner risk elements are identified, the sooner the intervention (Raver, 2003). These challenges and developmental tasks are not only highly salient to children at the time but have an important influence on later social and school adjustment. Developmental transitions and early social adjustment in the early grades have an impact on learning in the following years, forecast later school success and have a pervasive and enduring effect on later life (Grace & Brandt, 2006; Parker & Asher, 1987; Rimm-Kaufman & Pianta, 2000; Shonkoff & Phillips, 2000). Not only is readiness important for the early adjustment years in elementary school, but reputational biases make it difficult for a child to change an established response of coping and behaving (Termine, 1997). Identified as a recursive cycle phenomenon (Termine, 1997), once a given behaviour pattern is

established, styles and patterns of coping and behaving tend to be self-perpetuating. This long term effect interacts with both behaviours and academic competence, and there is evidence that children's school entry skills have high correlations with later skills like literacy (Snow, 2006). Because of the wide ranging implications for school adjustment and successful academic performance (Shonkoff & Phillips, 2000), being ready for school and coping with this step is considered a major life transition. The consequence of school adjustment can have positive or negative effects.

2.1.4 School Readiness: Historical and Political implication.

Given the impact of this transition in both the short and long term, a common conceptualisation of school readiness is needed. This is no easy task. Although the concept of school readiness has been debated for more than a century (Kagan 1990, in Lidz, 2000), a universal definition of school readiness continues to be elusive (Welch & White, 1999; Wesley & Buysse, 2003). While most conceptualisations concur that the competencies a child possesses at the time of school entry are important for school success, this definition is predicated upon different paradigms (Snow, 2006). There are many understandings of school readiness, depending upon underlying beliefs and motivations about children, learning and the role of early education. Indeed, the concept of school readiness is a relative term that is socially and culturally constructed, and understandings of it vary from community to community (Grace & Brandt, 2006). If school readiness is understood as a socially constructed set of ideas (Graue, 1993), any understanding of readiness must be community specific. Any evaluation of school readiness is therefore likely to carry cultural biases in terms of social knowledge (Meisels & Shonkoff, 1990; Stipek, 2002). Different school communities have distinct and relative interpretations of what school readiness means (Graue, 1990, in Shirley-Kirkland, 2002). This has led to the questioning of underlying assumptions as to what constitutes school readiness, with differing political and theoretical positions. One certainty is that school readiness can be described as a serious political concern (Shonkoff & Phillips, 2000).

Whether a child is ready for school or not is shaped by both political views and understandings of child development, learning and schools. The significance of school readiness resonates when it becomes a national goal: "By the year 2000, all children in America will start school ready to learn" (Willer & Bredenkamp, 1990). Historically, the assessment of whether a child is school ready has carried sociological implications; children

from certain social groups or environments, particularly the poor, are at greater risk for school failure (Stipek, 2002). Children from low socio-economic groups have not fared well in school readiness assessments, since many have not had the advantage of quality preschool programmes (Willson & Hughes, 2005).

This holds true in the South African context, where the provision of a compulsory year of school readiness by 2010 is a national education goal (Education White Paper, 2001). With the increase of school beginners, there are greater gaps in readiness, and children raised in poor families are at risk of “poor adjustment to school and increased repetition and school drop-out ” (Heckroodt, 1995; Education White Paper, 2001, 2). The White Paper contends that there is growing evidence that the preschool years can have a positive impact on school learning and are critical for developing the foundations for life long learning. While there is consensus on the effect of the early school years for all children, this has greater import for the poor. Research findings describe children from poor families as less ready for school, and children who have had ample experience at good quality preschools as more ready than others (Murphey, 2003). In South Africa, many black children are not school ready (Herbst, 1989, Huysamen, 1993; van Rooyen, 1997). The implication of a poor long term prognosis for poor or black children is well documented. Many measures, like compulsory attendance at quality preschools, have been proposed to facilitate the transition to “big school”. Such opportunities can make a valuable developmental difference to children on entering school (Herbst, 1989), but the importance of a successful transition, and the imperative to ease this step, will no doubt remain an erstwhile undertaking.

2.2 *The School Readiness Debate*

The quest for a seamless transition to Grade One has generated considerable empirical research and theory on school readiness. Essentially there have been two sides to the debate; the crux of this centres on the nature and meaning of school readiness. Theoretically-informed research has generally seen the issues of school readiness from either a developmental orientation or located in the context of the child’s ecosystem.

2.2.1 *School Readiness as a function of Maturation.*

The maturational argument revolves around the developmental nature of the child and the notion of maturation. Traditionally, this contends that school readiness is a natural unfolding developmental process of maturation (Goldblatt, 2005; Marshall, 2003). Accordingly,

children's readiness for school is biologically determined, develops in a linear manner, irrespective of the environment; readiness is a factor of maturation. Based on this assumption, children's chances for success in school are improved with the competencies that accompany maturation and age (Stipek, 2002). Age, and accompanying maturity then, is the entry criteria used to determine when children are eligible for formal schooling throughout the world (Meisels & Shonkoff, 1990). Although age and maturity are used synonymously, entry age varies from country to country. The mandatory age ranges from five to six or seven years old, in England, Japan, Finland and Sweden, respectively (Shepard, 1986; Whitburn, 2003). Although age has not been a reliable predictor of school readiness, it provides a fair and equitable means as a criterion for school entry and is less vulnerable to cultural bias (Smith, 2005; Stipek, 2002). An age difference can exert a significant effect on development, and it appears to be quite reasonable to expect older children to have attained a higher level of development than younger children (Teltsch & Breynitz, 1988). Nevertheless, the research to support this is inconclusive and it differentiates against younger children as less school ready than older children (Berk, 2004). Although delaying school is often recommended for younger children, this has not prevented the development of social and emotional problems (Berk, 2004). An exploration of age and maturation as criteria for readiness has not shown that age alone ensures school readiness.

In South Africa, age determines school entry. It is compulsory to attend school in the year a child turns seven. Younger children turning six between January and June can be admitted to Grade One if they are 'school ready'. This provision allows for a wide age range from five and a half to seven years old. Children who fall in the younger age range may delay entry until the year in which they turn seven (South African Schools Act, 1996). These criteria are based upon the assumption that certain competencies come with age and will improve chances for success in school (Stipek, 2002). An outcome of this is that younger children may be considered to be developmentally 'unready' and may be advised to delay schooling in the conviction that "the gift of time" shall resolve their "unreadiness" (Shepard, 1986). They are considered to be at risk by virtue of age. In this way, it is likely that more 'older children' shall start school than younger ones at any one time, since the onus is on the younger ones to be "school ready". While some studies have found that older children have higher mastery of reading and arithmetic skills, and are better adjusted emotionally and socially, the research on age as a factor of school readiness has not been unequivocal (Shepard, 1986; Teltsch & Breynitz, 1988; Meisels & Shonkoff, 1999; Stipek, 2003). There is little research on the

positive effects of delayed school entrance (Lidz, 2003; Marshall, 2003) and it remains very much how readiness is defined.

School readiness is about eligibility for school entry. Being eligible does not always translate into being ready. Age in terms of maturation cannot explain why some older children may not be ready for school, or why they may not adjust and succeed academically at school, or, alternatively, why some young children may be ready in spite of their age. As a single dimension, it might be concluded that age has not been a good marker for school readiness (Shepard, 1986; Stipek, 2002; Stipek, 2003; Wood, 1984). Furthermore, reliance on age as a marker for school entry encounters other complications. Using developmental milestones means that if there is a problem, it will only appear once the due date for a milestone has been past or should have been accomplished (Lidz, 2003). Using age for entry also implies that maturation transcends different dimensions, specifically that the older child will be physically, cognitively, emotionally and socially more mature than younger ones. However, the development of young children is uneven and multidimensional, and because development is episodic, assessment at any one point is a poor predictor of competence (Stipek, 2002). Although a child may be the appropriate age, it is uncertain whether that child will be able to achieve at the same level considered to be important for school success in all domains simultaneously. As a result, there has been considerable dissention as to whether age should be the criterion for school entry, and if so, what age. Whatever the age cut off, however, there will always be a minimum of at least a twelve month age range between the oldest and the youngest, thus placing considerable responsibility on the teacher to be well trained and effective (Stipek, 2002). Substantial variations in readiness will exist in spite of the age at which children enter school and age effects may disappear over time (Stipek, 2003). Being ready for school is much more than being the eligible age, it seems.

Conceptualizing school readiness in age terms has provoked those opposed to delaying school entry for those children who need it most. In practice, by placing the onus on the child to be maturationally school ready, readiness, and its assessment, effectively becomes a form of gate-keeping for school entry (Willer, 1990). The maturational approach is child-focused, centres on one aspect of the child, the child's ability to function. This implies that readiness is a unitary static condition, is not dynamic, and that learning only occurs in school (Rimm-Kaufman & Pianta, 2000). This definition of readiness then fails to take account of processes

that lead to competence and adjustment (Mashburn & Pianta, 2006). It construes readiness as a one way process. By way of illustration, rather than asking whether the child is ready or not, instead one might ask what a child is ready to learn (Stipek, 2002). It is also argued that a child focused approach to assessment of school readiness emphasises the importance of child characteristics such as maturity, and accounts for very little variance in the understanding of school outcomes (Rimm-Kaufman & Pianta, 2000). For this reason, the maturational view of school readiness has been viewed as a narrow, artificial perspective (Carlton & Winsler, 1999; Kagan, 1990). By focusing upon one aspect of the process, namely age, and at one level, the child in isolation, school readiness assessment is a form of differentiation, which delays school entry through “theft of opportunity” to certain children (Marshall, 2003). These objections have politicised the notion of school readiness, and generated a new different conceptualisation.

2.2.2 School readiness: a transactional, holistic ecological process.

An alternative, more recent view of school readiness is that age is largely irrelevant, since there are different age requirements in different countries for school entry, and that age has not been a significant predictor of ultimate academic success in school (Marshall, 2003; Rimm-Kaufman & Pianta, 2000; Stipek, 2003). This has shifted the debate from the extent to which biological processes determine development and learning, to the impact and importance of early environmental experiences on school readiness and adjustment. The definition of school readiness takes on more multiple ecological dimensions. Ecosystemic factors such as maternal levels of literacy, relationships, socio-economic status and attendance at preschool have been implicated in what constitutes school readiness and adjustment (NICHD, 2003). Emphasis has now shifted to multiple aspects of readiness, both within and beyond the child, as better predictors of school adjustment and academic success. Child characteristics are understood in the context of transactional processes such as peer interactions (Rimm-Kaufman & Pianta, 2000), as well as home environment and previous school experiences. This conceptualization contends that certain conditions in the child’s ecosystem are crucial for school readiness.

What these conditions are has been the crux of what defines school readiness and lie at the heart of the prediction of school adjustment (Scott-Little, Kagan & Frelow, 2003). This has led to extensive research into factors external to the child, thereby placing more emphasis on the child’s social context, such as home environment, parental attitudes and the effects of

early educational stimulation (Herbst, 1989). USA policy decisions which initiated extensive research projects investigating this reformulation of school readiness, such as Head Start, indicate a substantial correlation between school readiness and environmental factors (Zins, Walberg & Weissberg, 2004). More specifically, there is a strong indication that aspects of the home environment are reliable predictors of children's performance on measures of cognitive functioning, academic performance, language development, social competence and behaviour over this transition (NICHD, 2003). While this viewpoint is more ecologically encompassing, it suggests that some children are at greater risk and are predisposed to success or failure by virtue of environmental conditions. Growing up in poverty and lower socio-economic groups has been associated with higher risk factors and educationally disadvantaging factors are predictive of negative school outcomes in South Africa (Foxcroft & Roodt, 2003). This viewpoint conceptualises school readiness as residing both within the child and beyond.

2.2.2.3 School Readiness and the Whole Child.

This conception of school readiness, and its assessment, shifts from a uni-dimensional child-focused definition towards readiness as a transactional, holistic and ecological process. In this formulation, both the child and environment are multifaceted and interact in multiple dynamic contexts (Lidz, 2003). While age remains a factor, it is no longer the sole predictor of school readiness as transactional influences of school, home, peers and neighbourhood contexts on school readiness come to the fore (Rimm-Kaufman & Pianta, 2000). Assessments of school readiness have had poor predictability and have tested children in isolation, rather than naturalistically or observationally (Snow, 2006). Until recently, the absence of a holistic view had the effect of focusing predominantly on cognitive measures of readiness and outcomes as readiness markers (Raver & Zigler, 1997). In reality, first grade children are required to adapt to a diverse set of classroom, school and peer demands, to demonstrate social-emotional competences that are fitting and appropriate for this setting, and also to be motivated to learn and achieve academically. One-dimensional approaches run the risk of overlooking certain aspects of school readiness, especially if milestones are not clear. Neither intellectually-ready children nor older children are always more ready for school than others. A child who is emotionally and socially less competent, for example, may struggle to adapt to school. Likewise, a child who doesn't abide by rules may not achieve academically. Such considerations have required that the definition and assessment of school readiness takes cognisance of multiple aspects and areas of functioning.

School readiness assessment needs to take account of the multidimensional nature of children and readiness. Recent understandings view readiness more holistically and ecologically (Coates, 2004; Getting Ready, 2005; Goldblatt, 2004). If children learn what is required to fit into schools these contingencies can aid the transition (Skinner & Wellborn, 1990). A multidimensional understanding of school readiness acknowledges numerous transactional effects are operational between the child and context (Getting Ready, 2005; Rimm-Kaufmann & Pianta, 2000; Sameroff & Chandler, 1975, in Shonkoff, 2000). A child's growth, development and learning are understood better within a broader contextual framework within an organised system of interactions and transactions (Bronfenbrenner, 1974, in Shonkoff & Phillips, 2000; Case, Hayward, Lewis & Hurst, 1988; Mashburn & Pianta, 2006). This conceptualises school readiness within the multiple aspects of social, emotional, physical, linguistic and cognitive functioning. Essentially, this view of school readiness contends that no single aspect can be the sole predictor of school adjustment and successful performance, as multiple domains facilitate preparation for school.

The child domains most commonly cited as criteria for school readiness are physical well being, motor development, approach to learning, social and emotional development, language ability, cognition and general knowledge (Getting Ready, 2005; Kagan, 1990; National Education Goals Panel, 1995; Wright, Diener & Kay, 2000; Zigler & Styfco, 1997). These are also referred to as “academic enablers” (Elliott & DiPerna, 2002), since certain enabling skills, attitudes and behaviours appear to contribute towards optimizing learning. Each makes a contribution to school readiness. Interpersonal skills, for example, are significant predictors of academic competence, and likewise, academic competence is a significant predictor of achievement (Elliott & DiPerna, 2002). Developmental milestones within a child's gross and fine motor skills are relevant and requisite for formal teaching such as in handwriting (Dodge, Heroman, Charles & Majorca, 2004). Similarly, linguistic aspects involving the child's ability to communicate, listen and speak, and reading and writing skills are critical for the acquisition of literacy in the first year at school (Wright, Diener & Kay, 2000). Equally, general knowledge and cognitive competence in logical and symbolic thinking, problem solving skills, and precursors of literacy and numeracy enable a first grader to engage and benefit from instruction. Being ready for school involves many domains and skills. These skills are facilitated by certain social and emotional competences (Gunn, Feil, Seeley, Severson & Walker, 2006). In congruence with this view, the research study

presented in this paper is based upon a conception of school readiness as a transactional, holistic and ecological process, where both the child and environment are multifaceted and interact in multiple dynamic transactions and contexts.

2.3 *Theoretical and Conceptual Model for School Readiness*

2.3.1 *School Readiness: An ecological and dynamic model of transition in the ecosystem.*

A holistic conception of school readiness is informed by an understanding of the child in context and the integrated nature of readiness. Bronfenbrenner's (1998) ecology of child development has relevance here. Accordingly, the components of development may be examined in terms of the processes, the people, the contexts and the time variables of human development (Bronfenbrenner, 1998). Environmental contexts interact in ways that have some bearing upon our behaviours. As the child develops within an ecological system, the interrelationships between the different contexts are important. These contexts can be on an individual level, at the dyadic level and at the group level. Here multiple factors interact in development, rather than a linear unfolding process (Bronfenbrenner 1979, in Termine, 1997; Case, et al, 1988; Goldblatt, 2005). Multiple factors interact when looking at school readiness and what constitutes a successful transition to school. In this sense, school entry is a "significant ecological shift" (Ladd, 1996, in McBryde, et al 2004), as children negotiate increased academic and social demands as well as physical changes to the environment at many different levels (McBryde et al, 2004). How a child adapts to school has as much to do with the contextual processes as the child.

The child is part of an ecosystem composed of four interrelated systems, the microsystem, mesosystem, exosystem and macrosystem (Bronfenbrenner, 1998; Denham, 2005). The child develops within immediate settings of the microsystem in the context of home and the school. Linkages between these contexts constitute the mesosystem, and depend on the quality of their interconnections, such as the linkage between the home and school, or between preschool and primary school. These links are key systemic factors due to the importance of continuity from school to school or teacher to teacher (Rimm-Kaufman, 2000). Continuity and congruence between the quality and type of teacher-child relationships facilitate transitions. In this way, the relationships children form with peers and teachers can be mechanisms or mediating factors, where relational processes contribute to the transition and adjustment to school (Mashburn & Pianta, 2006). These relationships also require a shift

in parent- child relationship and family organisation (Rimm-Kaufman & Pianta, 2000). Relationships within the ecosystem are therefore important to the transitional process.

Ever-changing and interacting at multilevel environments, children develop in context and exert an influence on these nested settings. The assessment of school readiness then extends from the focus on the home setting to the mesosystem by looking at the child and learning in the context of interrelationships in the child's life, in different contexts. During transitions, the ecosystem incorporates new subsystems and the congruence between major ecosystems assumes the focus (Christensen & Sheridan, 2001). Settings in the wider exosystem, though more distal like school policy, have an influence and bearing on children's transitions (Bronfenbrenner, 1998; Denham, 2005). Although the child or family may not directly participate in these, they impinge on the child. They are embedded in the overall macrosystem, in the culture, customs and laws of the time (Berk, 2004). The understandings enunciated in the macrosystem have a cascading influence on all the other systems as no single factor is facilitative or damaging alone (Shonkoff & Philips, 2000). An ecological model emphasizes the complexity of development. Systems theory embraces multiple factors and the dynamic way individuals develop within multiple levels of interaction (Pianta, 1999). This more comprehensive framework better integrates the complex network of factors and explains readiness as a product of ecologies within which children are embedded (Mashburn & Pianta, 2006). The set of interactions and transactions between people, settings and institutions play a role in the transition.

The principles of systems theory, namely circular causality, nonsummativity, equifinality, multifinality, communication and rules underpin these transactions. These principles can be enunciated in the context of the transition to school. Because the system is interrelated, causality is circular and there is reciprocal influence between the way the child, the family and the school adjust. The principle of nonsummativity states that the system is greater than the sum of the parts, so that coordinating efforts between home, school and community creates a synergism which is greater any single element. Accordingly, in terms of the principle of equifinality, the same outcome may result from different antecedents, thus adjustment to school may be enhanced by different domains. The principle of communication underlines that all behaviour transmits messages and is communicative. The interactions between teachers, pupils and parents communicate a message. Finally, the rules within a system provide certain expectations and organises them to be functional and stable. Schools

have rules whether overt or unwritten (Christenson & Sheridan, 2001). Children who adjust successfully to school generally have accepted and understood the meaning and implications of these rules and expectations.

2.3.2 *School Readiness and the role of stakeholders.*

Understanding these rules implies a fit between the child and the subsystems. A synchrony or “goodness of fit” between child and context aids school transition and adjustment, where the child adapts to the environment (Lazarus, 1991, in Berk, 2004; Saarni, 1998). When there is a good fit or mutual interplay between the child’s characteristics and the environment, there is ecological congruence (Shonkoff & Phillips, 2000). An “adaptive fit results from mutual acceptance between the individual and the environment” (Rimm-Kaufman & Pianta, 2000; Shonkoff & Phillips, 2000). Because of the regulatory role that linking contexts like home, school, peers and neighbourhood play in the transition to school, and their effect on school trajectories, they need to be studied. Transitions like school adjustment are understood ecologically when the links between contexts are examined, and the synergistic effect of this interaction becomes another dynamic over and above the influence of the one context on the other (Rimm-Kaufman & Pianta, 2000). In this way, school readiness is understood as a process; the child and different parts of different systems are transactional as the child transcends the interface between home and school in the context of development (Christensen & Sheridan, 2001). In this sense, the ecosystem has to accommodate the child, and the child has to adapt to the ecosystem. School performance and failure have to be contextualised where shared meanings between the child/family system and the school/schooling system are explored. This is amply coined in the phrase that it is not so much whether the “child is ready for the school”, but whether “schools are ready for the child”. The ecology of transitions must be considered to show how the links of child, home, school and neighbourhood create a dynamic network of relationships and social supports that influence the transition to school both directly or indirectly (Rimm-Kaufmann & Pianta, 2000). Ecologies underscore the complexity of embedded factors in the dynamic interaction between child, family and society.

In accordance with systems theory, different subsystems within an ecosystem range from the distal including culture community to more proximal like the smaller social group. Smaller groups include classrooms, friendships, family and dyadic systems and the individual at the child’s behavioural and biological level (Pianta, 2003). More proximal contexts have a more significant effect as family and school contexts exert more influence on a child’s emerging competencies (Shonkoff & Phillips, 2000; Bronfenbrenner, in Fantuzzo &

McWayne, 2002). This suggests that relationships are powerful predictors for transactions within the ecosystem. As such, parents can contribute meaningful input on their child's social and emotional functioning in early childhood (Fantuzzo & McWayne, 2002). Similarly, if first graders spend long periods of time at school, relationships in proximal subsystems like classrooms exert considerable influence on them, and teacher-child relationships can have the effect of enhancing competence levels (Mashburn & Pianta, 2006; Pianta, 1999; Stormont, et al 2003). The ecological context of the young child has relevance to school readiness as effective transitions have to be contextually relevant (Dockett & Perry, 2001). Effective transitions involve relationships in these contexts. Pupils who adapt best to school are more likely to have had prior peer experiences and school experience, positive parental expectations and parent-child experiences, and attendance at schools with developmentally appropriate experiences (Maxwell & Eller, 1994). In an ecological model, school readiness needs to look at the child through the influence of many contexts and the connections between home, community and school (Dockett & Perry, 2001; Pianta, Rimm-Kauffman & Cox, 1999; Shonkoff & Phillips, 2000). The transition to school highlights the interactions between the child, home and the school, and how relationships facilitate this transition.

Relationships are crucial to transitions. An interactionist or constructivist perspective (Vygotsky, 1978) posits that social interactions between child and social environment are bi-directional (Carlton & Winsler, 1999; Meisels & Shonkoff, 1990; Rose-Krasnor, 1997; Welsh, 2001). If readiness and school adjustment are bi-directional rather than linear, the social interactions and scaffolded learning experiences that children encounter in the culture of their preschool serve as catalysts for development and more effective transitions (Carlton & Winsler, 1999). The child and social environment interact reciprocally in a unique, complex pattern of emotional, behavioural, linguistic cognitive, motivational and physical ways (Carlton & Winsler, 1999; Denham, von Salisch, Olthof, Kochanoff, & Caverty, 2001; Meisels & Shonkoff, 1990). In this way readiness can be seen as a complex interplay between the child's entry skills, the teacher's beliefs and the connection between the family and the school's philosophy (Kurdak & Sinclair, 2001). Readiness for school is contextualized in the social environment. It has been claimed that "the greatest single predictor of school success was the goal of congruence" between stakeholders (Welch, 1999). A goodness of fit conceptualisation seeks a shared definition of readiness where learners, parents, teachers and policy makers share common beliefs about what is involved in being ready for school and the educational outcomes of the process (Grace & Brandt, 2006). A

shared understanding is officially endorsed by the USA National Education Goals declaration that school readiness is a national goal and every parent is a child's first educator (Christenson & Sheridan, 2001). Congruent meanings and contexts facilitate school readiness and adjustment, in the way that families, children and teachers and schools come together in the relationship (Pianta & Walsh, 1996). Positive relationships between the stakeholders promote school readiness and an optimal school adjustment.

2.3.3 *School Readiness as an ongoing process: prior to and post school entry.*

School readiness and subsequent school adjustment, then, can be explained in terms of congruent relationships, and the continuity between and within different subsystems of the child's ecosystem. "A child's transition to school is understood in terms of the influence of contexts and the connections between these contexts" (Pianta et al, 1999, p.4). When these connections are faulty, schools and homes are experienced as discontinuous environments (Goldblatt, 2005; Ramey et al, 1995). If children have to be "readied for school" this takes no account of the "ongoing dialectic" mutuality of the process. Alternatively, if the transition begins before school entry and continues post school entry, then schools need to be ready for children just as children need to be ready for school (Grace & Brandt, 2006; Katz, 2000; Ramey & Ramey, 1995). This alters the expectation of what skills and abilities children should possess on school entry (Willer & Bredenkamp, 1990) to one where readiness is not simply something one waits for, but is something "that one teaches or provides opportunities for its nurture" (Meisels & Shonkoff, 1990, p.43). This occurs in the context of the child's physical and social settings and the repertoire of strategies and beliefs employed by parents and teachers in the structure of the macrosystem (Super & Harkness, 1985, in Lewis & Saarni, 1985). The greater the continuity between these systems, the easier the transition is likely to be. Continuities between preschool to school constitute another aspect of the system. There are strong correlations between teachers on measures of academic cognitive and social behavioural functioning (La Paro & Pianta 2001, in Mashburn & Pianta, 2006). Consensus amongst the stakeholders promotes school readiness and enhances school adjustment.

2.4 *Implications for School Readiness Assessment*

School readiness can be understood as part of the transition between where a child has come from, where the child is and where the child is going to, that is marked by initial entry to school. The overarching goal of school readiness is to optimize the fit between children

and their future environments for optimal school adjustment and performance. Starting school becomes a community issue and responsibility; children learn better when their parents and teachers are closely aligned and experience similar environments, similar expectations between home and school and find the transition to school easier (Dockett & Perry, 2001; Welch, 1999). Readiness is a broad construct that incorporates all aspects of a child's life that contribute towards the ability to learn (Meisels & Shonkoff, 1990). Being "ready for school" is socially and contextually based and therefore highly variable. This constitutes an approximation of school readiness; a clear comprehensive, objective and measurable definition of readiness is not readily available (Carlton & Winsler, 1999). For the purposes of this research, then, a working definition of school readiness shall be used. In this study, school readiness shall be:

- understood as a process within an ecosystem, involving
- numerous stakeholders, in particular the child, peers, parents and teachers
- where there is notable emphasis on the whole child,
- in a process that begins before school entry, in the context of physical, cognitive, social, emotional and environmental factors
- that continues post school entry
- and culminates in school adjustment and performance.

Given this rough understanding of school readiness, we need to look at the implications of this description for school readiness assessment: What do we mean by social emotional school readiness? How can we predict if a child is ready for school? These two questions form the focus of the following chapters.

Chapter 3

The Social-Emotional Aspects of School Readiness

In the previous chapter, a working definition of school readiness was proposed. This formulation highlighted the need to understand and measure school readiness as a holistic, ecological, transactional process. The notion of the whole child was identified as key to this conceptualization. A holistic understanding of the child underlines the integrated nature of the physical, motor, cognitive, social, and emotional domains of child development. It is the latter, the social-emotional competence of the child at school entry level, that forms the substance of this chapter. The aim of this chapter is to explore the general nature and prevailing models of social emotional competence, and to relate how social emotional competence impinges on school readiness and subsequent school adjustment and performance in a transactional model. This exploration will highlight which domains of social emotional competence are relevant for social-emotional school readiness and its assessment.

3.1. The Nature of Social-Emotional Competence

The term social-emotional competence is widely, perhaps even loosely, used. For some, social competence and emotional competence are synonymous, while for others, they can be distinguished although inextricably interrelated. Further still, some theorists regard the ability to manage one's emotional and social life as a form of intelligence rather than competence. This study adopts a fusion of social and emotional capacity, an intertwined capacity which refers more to a capacity for application than to inherent intelligence.

In order to understand what is meant by social-emotional competence, it is first necessary to attempt a differentiation of emotional and social competence. While it is possible to distinguish between them, it is difficult to separate them into discrete elements. Goleman (1996) distinguishes social from emotional intelligence, but concedes commonalities where the two intersect. He refers to emotional intelligence as self awareness, emotional expression and self regulation, and social intelligence as social attunement, empathy and awareness, social facility, interpersonal focus and the socialisation of emotions (Saarni, 1997). Gardner's Model of Multiple Intelligence (1983) introduces the terms intrapersonal intelligence and interpersonal intelligence which are interchangeable with emotional and social intelligence (Hatch, in Salovey & Sluyter, 1997). Intrapersonal

intelligence is understood as “know thyself”, consciousness of one’s own emotions, the ability to recognise and respond to emotions, whereas interpersonal intelligence corresponds with group awareness, effective social interaction and successful social functioning (Howes & James, 2001; Rose-Krasnor, 1997, in Denham, 2003; Sylwester, 1995). In essence, emotional competence contributes to the crucial tasks of social competence (Denham et al, 2003) as they are only discrete in theory. Attempts to distinguish between them clarify how they are related and inseparable. Both aspects relate to an understanding of social-emotional competence.

A second difficulty in trying to understand social-emotional capacity arises in reference to it as intelligence rather than competence. Although there is a different emphasis when talking about emotional intelligence and emotional competence, both terms refer to the contextualization of emotion in social settings, self efficacy and social problem solving (Mayer & Salovey, 1997; Saarni, 1997). Many speak of competence preferring its focus on knowledge and the application of skills in a meaningful context, rather than a fixed ability as is implied in intelligence (Mayer & Salovey, 1997 in Salovey & Sluyter, 1997). In this sense social-emotional competence is meaningfully different from emotional intelligence because it is contextually embedded. For this reason, the term social-emotional competence shall be used here. At this point it is useful to look at the contributions of models of social and emotional competence and intelligence to enhance our understanding of the nature of social-emotional competence.

3.1.1 Models of Emotional and Social Intelligence and Competence. Recent interest in social-emotional competence has led to the emergence of numerous models. This renders it difficult to arrive at any consensus as to what comprises social-emotional competence (Zigler & Styfco, 1997). There are many models that refer variously to emotional intelligence and social competence such as Bar-On, Mayer & Salovey, Cooper and Goleman (van Heerden, 2005, personal communication). A brief analysis serves to frame social emotional school readiness within a wider frame of reference.

The Bar-On EQ.

Bar-On gives a broad understanding of emotional intelligence as the emotional, social and personal dimensions of living that are important for daily functioning (Bar-On, 2000; Walker, 1999). Bar-On’s EQ research operationalises core factors that are supportive of social-emotional intelligence such as emotional self awareness, self regard, independence,

interpersonal relationships, and impulse control when adapting to environmental change and demands (Walker, 1999). A multifactorial instrument, the Bar-On Emotional Quotient Inventory (EQ i,1997), attempts to quantify non-cognitive competencies and skills that affect ability to cope and succeed when predicting success cannot be attributed to cognitive intelligence (Walker, 1999). This instrument has relevance for predicting the transition to school in the way that it incorporates the utilisation of behaviours in specific contexts. A limitation of Bar-On's model is that it relates to the potential performance rather measure performance itself (Walker, 1999).

Goleman's Model of Emotional Intelligence.

Goleman's popularization of emotional intelligence (1996) expands the conception of emotional intelligence to include managing emotion, handling relationships, self awareness, acting on emotion in positive, socially acceptable ways, the ability to regulate or control emotional impulses, to read others' feelings and handle relationships effectively (Walker, 1999; Zins et al, 2004). Although Goleman differentiates emotional intelligence as learned and cognitive intelligence as acquired, this division serves to define emotional intelligence as a catch-all for non-cognitive abilities (Pool, 1997). Despite strong claims for the extent of emotional intelligence in predicting success, there is little empirical backing and the operationalisation of a measure of emotional intelligence is called for (Sjoberg, 2001; Walker, 1999). Goleman's conception of emotional intelligence needs to be distinguished from other dimensions of psychological functioning rather than simply "rehashed" old ideas with a new name (Walker, 1999).

Saarni's Model of Emotional Intelligence.

The conceptualisation of social-emotional competence in this study is predicated upon the emotional intelligence model of Mayer, Salovey and Caruso, with specific reference to Saarni (Saarni, 1997). Other proponents of this approach include Cohen (2001), Elias (2003), Thompson (1994), and Zins et al (2004). The authors shift from a broader understanding of emotional intelligence through an emphasis on skills, their pertinence and the extent to which they enhance functioning and adaptation (Mayer et al, 2000; Walker, 1999). Emotional expressive behaviour utility lies in its adaptive plasticity (Saarni, 1989). The appraisal, expression and effective regulation of emotion in self and others serves to motivate, plan and achieve goals (Walker, 1999). Core elements of social-emotional competence include the capacity for self reflection, awareness of self and others, problem solving by being flexible

and seeking solutions by recognizing problems in different contexts and setting goals and making decisions as to action (Cohen, 2001).

In Saarni's conceptualisation, emotional competence is demonstrated when a sense of accomplishment in an emotion-eliciting encounter is experienced. Here "self efficacy" is an important aspect of an individual's capacity and skills to achieve a certain outcome. An emotion-eliciting encounter derives meaningfulness in a social context. Emotions develop within a social context, through the decoding of others' expressions, responding to feelings and labeling others emotions (Hyson, 2004). In this way, emotional competence is the ability to demonstrate self efficacy in the context of emotion-eliciting social transactions (Thompson, 1994). Emotional competence develops in social context. The intersection of social and emotional growth is expressed contextually, where social situations elicit emotions and emotions are socially constructed and expressed (Saarni, in Salovey & Sluyter, 1997; Saarni, in Harris & Saarni, 1989; Thompson, 1990). The ability to engage, grow and gain mastery of a variety of social environments exemplifies social-emotional competence. Emotional competence is when an individual emerges from a changing environment "more differentiated, better adapted and more effective and confident" (Saarni, 1997, p. 4). Emotions, emotional reactions and behaviour are embedded in social ramifications.

This model proposes the interdependence of emotion and social skills, and this very aspect makes it evident that what constitutes these skills varies according to culture and context. Social-emotional competence is then conceptualised as adaptations between the child's emotional disposition in interaction with the environment (Rose-Krasnor, 1997). Rather than enduring and internal traits, social-emotional competence invokes how adaptations arise at the interface between temperament and the context, and, while sharing genetic and environmental factors, refer more to behaviours and adjustments (Carter, Briggs-Gowan, Jones & Little, 2003). Temperamental effects are limited by thresholds, whereas competence allows for adaptation and learning (Mayer & Salovey, in Salovey & Sluyter, 1997; Trentacosta, Izard, Mostow & Fine, 2006). Competence then, concerns ability to articulate skills rather than the possession of certain social-emotional traits or temperament. This distinction is important as school readiness is not determined by temperament but entails contextually relevant social-emotional skills. This flows from a social constructivist approach and how this relates to social-emotional competence for school is explored later in the chapter.

Rose-Krasnor's Social Competence Prism Model. Another relevant model is the Social Competence Prism Model which underlines the adaptive capacity of emotional competence for effective interaction. Emotional competence merges into social competence when personal goals require effectiveness in social interaction involving relationships, group status and social efficacy (Denham, 2003; Rose-Krasnor, 1997). Intrapersonal goals achieved through self awareness and self management underpin interpersonal skills through social awareness, social problem solving and relationship skills (Rose-Krasnor, 1997). Emotions are mediated in the context of social environments within the laws of ecological systems where the individual is actively adapting to the environment and everything is connected (Bronfenbrenner, 1979; Sylwester, 1995). Competence involves the “emotion type capacities and abilities an individual needs to deal with the changing environment, such that he or she emerges as more differentiated, better adapted, affective and confident” (Saarni, 1988, 4). This model emphasises the inextricability of emotional and social competence and adaptation.

3.1.2 Framework for Social-Emotional Competence.

The integration of these two models, Rose-Krasnor's social competence, and Saarni's emotional competence, provides a framework for an understanding of social-emotional competence in this paper. Based on these models, social-emotional competence refers to the awareness and perception of emotions, the ability to access and generate emotions that assist in the understanding of relationships and emotional meanings, and the reflective regulation of emotions so as to promote better emotion, social relationships and thought (Mayer & Salovey, in Salovey & Sluyter, 1997). These competencies can be summarised as:

- emotional knowledge (including awareness and perception of own and other emotion, understanding emotional expression and vocabulary),
- the use of prosocial behaviours in adaptation relationships (as in self efficacy, self regulation, social problem solving, conflict resolution),
- and empathy as in social awareness and relationships (Denham, et al 2001; Rose-Krasnor, 1997).

For the purposes of this study, social-emotional competence refers to children's ability to perceive, understand, process, manage and express the social emotional aspects of their lives as reflected in social skills, life skills, interpersonal skills and social competence and emotional intelligence (Bar-On, Cohen, 2001; Denham, 2003; Goleman, 1996; Rose-Krasnor,

1997). These models shall be integrated to provide a theoretical framework to examine social-emotional competence within the context of school readiness.

3.2 *The Contribution of Social Emotional Competence to School Readiness*

School entry is a major milestone in a young child's life. Rapid cultural change has made social adaptation vital so that children can manage and modulate emotion and behaviour in the context of peer interaction and contribute to effective everyday interactions and relationships (Harris & Saarni, 1989; Raver & Zigler, 1997; Zins et al, 2004). Schools are a universal forum for expressing these competencies; school not only demands a certain social-emotional competence, but provides a context for their development. School entrants need to be able to perceive, understand, express, interpret and regulate emotional gestures in social settings. Competences like compliance, attention regulation, motivation to master, empathy, emotional awareness and positive behaviours, have been well established as predictors of social and behavioural outcomes and ability to interact and form relationships (Carter et al, 2003; Trentacosta et al, 2006). These competences enable more effective and successful adaptation during transitions like school entry.

3.2.1 *Social-Emotional School Readiness and School Adjustment.*

It has been stated that children must be socially and emotionally competent to be ready for school. One may ask why this is important if schools are places of learning?

3.2.2. *Social-Emotional School Readiness: a process within an ecosystem.* Why children benefit from being socially and emotionally adept at school, relates to the conceptualization of school readiness as a continuous process rather than a static point at which a child enters school. School readiness anticipates school entry and culminates in school adjustment and performance. Adjustment to school is an outcome of the school readiness and transition process; the degree to which children become comfortable and participate in the new school environment is an expression of their adjustment to school (Ladd & Price, 1987; Margetts, 2000; Rimm-Kaufman & Pianta, 2000). Because school transition is a major adjustment, success is more likely to follow a satisfactory initial adaptation to school rather than a difficult one (Ladd, 1990; Ladd & Price, 1987). Children who are ready for school are expected to adjust, and children who adjust well should do well. School adjustment and readiness for school dovetail in a reciprocal bi-directional process.

Given this pervasive effect, there is a need to study early school adjustment and identify the social predictors in the first year of school (Ladd, 1990). The greater a child's sense of belonging and synchrony, the stronger an affiliation and commitment to performance. In truth it is hard to say where school readiness ends and where adjustment begins; they are part of the same process. There is a goodness of fit, which depends in part on the child's possession of skills to respond to the new environment and in part on environmental adaptation to accommodate the child; a case of "ready children" and "ready schools" (Snow, 2006). Early signs of successful adjustment include a child's liking of school, looking forward to going to school, and showing steady growth in academic skills (Ramey & Ramey, 1995). Ecological perspectives and socio-cognitive theory project that social emotional competence predicts school adjustment (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000). Social-cognitive approaches examine social adjustment in terms of adaptive behaviours, social skills and age appropriate social cognitions. In these terms, the social environment is a supportive factor in mediating readiness. When readiness is constructed as fluid and dynamic rather than static, a child's adjustment is socially mediated (Snow, 2006). Although children's school performance in the early years results from the totality of their experiences (Ramey & Ramey, 2004), certain predictors or variables have been identified that foster or mediate this process.

School children are expected to behave in certain ways, like controlling impulsiveness and socially disapproved feelings, expressing and feeling socially appropriate emotions spontaneously, recognising the vocabulary of emotions, and coping with distressing emotions. Adjustment to school occurs primarily at the microsystemic level, through the feeling of fitting in, of adapting to the environment and feeling comfortable in the classroom (Ladd, 1990). Emotions, however, derive their meaningfulness from the social context in which they occur (Saarni, 1988). Adjustment does not take place in isolation; factors like parent and peer support within the child's microsystem play a role (Taylor & Machida, 1994). Moreover, the fit between mesosystems, home and school, are also influential. Although schools are places of learning, they function in a wider social system, and exist within the expectations of a culture of a macrosystem (Thompson, 1994). "Our emotional response is contextually anchored in society" (Saarni, 1997, p. 2). Adjustment involves the meeting of the child and the system.

3.2.3. School Readiness and the Whole Child.

Why children need to be emotionally and socially competent in school relates to the notion of the whole child. Outcome-based education paradigms in the Foundation Phase endorse a multifaceted approach to school readiness, incorporating cognitive, perceptual, linguistic, motor, social and emotional domains. They identify Literacy, Numeracy and Life Orientation as the main learning areas. Theory and research emphasise social-emotional intelligence as an important criterion in academic success (Goleman, 1996; Zins, Weissberg, Wang & Walberg, 2004). This is especially so in Foundation Phase education, where the “whole child” philosophy underscores the concept of multiple intelligence (Gardner, 1993). For young children to succeed academically, certain social-emotional competencies and life skills are fundamental (Murphey & Burns, 2002). For first graders, specific social-emotional skills are critical for adjustment to school (Ladd & Price, 1987). The more children like and feel secure in the school environment, the more likely it is that they will benefit and take advantage of the educational experiences. In this sense it is important to identify antecedents and predictive factors as well as school conditions that accompany the process from school readiness to school adjustment.

3.3 School Readiness and School Adjustment

3.3.1 School Readiness and Emotional adjustment to school.

An understanding of the biology of emotions gives insight into the way emotions aid adaptation during transitions. Emotionality and emotion-related functioning in neurological development play a central role in adjustment to school (Blair, 2002). The biologically adaptive nature of emotions promotes adaptation, survival, motivation and communication (Hyson, 2004; Thompson, 1990). Emotion as a phylogenetically evolved adaptation mechanism is more complex than simple reflex like reactions (Leventhal & Scherer, 1987). Because neural fibres from the limbic system project into the larger rational cortical centres, emotion is a powerful determinant of behaviour (Sylwester, 1995). While emotions exist along a continuum beginning with survival, they can be organizing, underscore our behaviours and play a social cognitive role by providing us with information to help us understand, process and strategize in the context of social settings so that they become socialised into a culture and meaning system (Saarni, 1988 in Thompson, 1990). Emotions evolve through the interaction of biological and environmental socializing influences, accompanied by situational, physiological and mental cues to become inseparably interrelated

(Harris and Saarni, 1989; Leventhal & Scherer, 1987; Lewis & Saarni, 1985). This interdependence underscores the links between emotional competence, behavioural adjustment and academic performance.

In the school readiness context, emotions play a facilitating or hindering role for successful learning, and find social expression since schools are social places (Taylor & Machida, 1994). Hence, school adjustment is affected by intrapersonal factors like perceptions (such as liking school), affect, (loneliness and anxiety can affect ability to adjust and perform academically), involvement (the extent to which there is avoidance, engagement and absence from school) and performance (grades, progress, achievement). School readiness incorporates affective experiences, which affect involvement and perception of school. A child's perception of adjustment, and the degree to which a child feels comfortable with classroom expectations, as well as involvement in classroom and school life, are important (Ladd & Price, 1987; Ladd, 1990). Adjustment is exemplified when the child is able to work independently, respond to the demands of the school, to academic demands and behavioural expectations, adapt to the length of school day, interact appropriately with others, accept rules, and fit into the class size (Love et al, 1992, in Margetts, 2000). These aspects are important precursors of adjustment and later academic progress (Birch & Ladd, 1996). First Graders need to feel a "goodness of fit".

This transition has developmental imperatives. School entry is paralleled by Erikson's psychosocial stages of Initiative versus Guilt, and Industry versus Diffusion (Berk, 2004). Schools encourage a sense of independence and purposefulness which is expressed in enthusiasm for new tasks requiring more self control and new social skills. Self consciousness emerges more strongly in the school years, when pride (or guilt) in accomplishments is stressed and can be motivational and self regulating (Berk, 2004). The transition to formal schooling that comes with middle childhood provides a stage for mastery with an awareness of expectations to perform in the school context. Teachers report that more emotionally positive learners are "more teachable" because emotions like curiosity, enthusiasm and the ability to follow instructions play an important role in readiness to learn (Rimm-Kaufmann et al, 2000). Similarly, self confidence and autonomy have been recognised as important for competence in the classroom (Pianta, 1999). A child's orientation to problem solving, exploration and mastery is mediated by levels of self reliance and sense of

mastery in the face of obstacles. Children's ability to recognise others' emotions and thoughts is as important as learning rules and evaluative judgment because emotions evolve through rule bound appraisals of social situations (Harris & Saarni, 1989; Cohen, 1999). These developmental tasks enable children to understand, manage and express the social-emotional aspects of adjusting to school.

3.3.2 School Readiness and Social adjustment to school.

New social environments require adjustment. Consequently children's interpersonal relationships play an important role in school readiness and adjustment. School going children are more socially orientated as the peer group is an important part of their identity and sense of belonging (Berk, 2004). Interpersonal relationships involving both non-school and school relationships can be both supportive and demanding. Learning takes place alongside peers, in collaboration with teachers in schools and other adults in the community environment, and their parents (Zins et al, 2004). Adapting to new routines, academic tasks, and new relationships requires many adjustments from young children. Social adjustment, emotional regulation, liking school, peer competence, self regulation and engagement with the school environment are new demands on the young child (Birch & Ladd, 1996; Hamre & Pianta, 2001). Social competence, the ability to initiate and maintain relationships with peers and adults, provides the basis for mutually satisfying encounters (Termine, 1997). Early predictors of children's developmental trajectories and their readiness for school provide an understanding of what constitutes successful adjustment which can enhance decision making (Caprara et al, 2000; McBryde et al, 2004). Maxwell and Eller (1994) identify prior pre-school experiences and familiarity with peers, positive peer group entry strategies and effective communication skills as positive factors to aid transitions. Positive relationships affect adjustment. A strong association between social adjustment and relationships, and school adjustment exists (Maxwell & Eller, 1994). Peer relationships are important.

Peer relationships and adjustment to school.

This study contends the social competences that foster the formation and maintenance of good peer and teacher child relationships promote social-emotional competence in schools. Peer relationships act as "key emotional and instrumental resources" during the pre-school years and provide the basis for social relationships vital for social-emotional school readiness during the transition to Grade One (Doll, 1996; Harris & Saarni, 1989; Ladd et al, 1996; Saarni, 1990). Prior school behaviour and peer contexts predict post-transition social

adjustment (Ladd & Price, 1987). Children's perceptions of classroom friendships are also associated with adjustment during the transition (Kochendorfer & Coleman, 1996). Friendships and peer relations have significant, positive associations with adjustment. Children lacking the ability to get along with peers do less well at school as their social-emotional skills are the foundation for early academic achievement (Alexander, 1993; Ladd, 1997; McLelland, Morrison & Holmes, 2000). As a result, they lose out academically because they enjoy school less, and receive less peer support (Raver, 2002). Peer interaction and effective peer relationships on school entry, then, are considered to be necessary, significant indicators of school readiness, adjustment and positive academic outcomes in the early grades at school (Fantuzzo & McWayne, 2002). These relations serve as a "source of provisions" that enhance the chances of doing well academically at school. Peers who bond around social and scholastic activities foster their own progress.

Ample research supports the role of peers in school adjustment. The interpersonal effect of peer and other relationships is important in the way that bonds and friendships revolve around scholastic matters that children share (Caprara et al, 2000). Sociometric status, the child's standing among classmates and friendships are good indicators of social adjustment (Rydell, 1989; Wentzel, 1991). At school going age, making friends, perspective taking and peer interaction increase dramatically as the peer group becomes an important form of social reference (Berk, 2004). The quality and participation in friendships are likely to contribute towards early school adjustment, and peer acceptance may function as a support at the time of transition (Doll, 1996). The skills associated with social competence and peer acceptance are also necessary for self regulation; when demonstrated in the management of emotions, behaviour and friendships these skills are prerequisites for readiness and school success (Elias, 2003; Webster-Stratton, 2004). Adaptive prosocial behaviour indicates social competence and self regulatory mastery in peer relationships (Gresham, 1987). Competence in relationships mediates adjustment.

Parent- Child Relationships and school adjustment.

Because schools are social institutions, learners are involved in multiple relationships, on and before school entry. As the first arena for social-emotional competence, parent-child relationships have a bearing on school adjustment and behaviours. Positive parent reports on play interactions have been associated with classroom behaviours such as the initiation of tasks, and the motivation to learn, and positive learning outcomes in turn (Wentzel, in

Fantuzzo, 2002). Play affords these experiences and facilitates the means to assess and understand social functioning (Espinosa, in Kauffman, 2002). Fantuzzo et al (2002) conclude that cooperative social exchanges in relatively unstructured settings like the home are significantly related to social and learning experiences in more structured classroom environments. In a transactional model, various factors in the relationship between social-emotional competence and adjustment operate together and impact together upon the developmental process through “a hierarchy of dispositions” (Cicchetti, 1998). These dispositions may change over time and different contexts, but require the child to utilize competencies flexibly in different contexts.

While these relationships provide experiences, they are by no means blueprints for all others. This explains why a child might behave differently with parents and teachers and yet “know” which behavioural repertoire is appropriate to the situation (Pianta, 1992). This suggests young children can differentiate behaviourally, make contextual interpretations, and possess the social-emotional competence to make these adjustments. Using contextual cues to guide their behaviours, expression and emotion experiences, children interpret how to behave and respond (Garner, 1999). A systems approach endorses the multiple transactions and interactions between child, parent and environment in a reciprocal dynamic fashion (Cicchetti, 1998; Mashburn & Pianta, 2006). In this way, parent-child relationships provide social scripts to be adapted to other relationships and play a role in school adjustment.

Teacher child relationships and school adjustment.

A crucial aspect of school readiness involves the expectation to behave in certain ways. Prosocial behaviour is largely determined by the school culture and teacher expectations. Schools demand socially responsible behaviour through adherence to rules and prosocial behaviours, which are associated with academic motivation and positive intellectual outcomes, whereas anti-social behaviour correlates with poor academic performance (Blair, 2002; Wentzel, 1991b). In this way, the teacher-child relationship forecasts school adjustment. Children who exhibit interactive play at home, direct play activities, and settle peer conflicts, are positively rated by teachers in their approach to learning, their ability to manage frustration, cooperation in groups, and their willingness to ask for help (Fantuzzo et al, 2002). Positive experiences with adults outside the family (like pre-school teachers) predispose children to new relationships with confidence, and satisfying peer relationships increase adjustment to social groups in school (Katz, 2000). Like other relationships, teacher-

child relationships are good predictors of school adjustment and behaviour (Birch & Ladd, 1997). Being part of a group, sharing the teacher's attention and demonstrating independence and the ability to follow instructions facilitate adjustment; children in more positive teacher relationships exploit learning opportunities more (Dockett & Perry, 2001; Howes, 1995 in Shonkoff & Phillips, 2000). This relationship suggests social-emotional competence is relevant for school adjustment.

Relationship with the teacher is a critical aspect of the transition period. A positive teacher-child relationship promotes an easier acclimation and improves peer relationships; teachers' relationships with learners have been found to contain important elements of adjustment (Pianta & Steinberg, in Pianta, 1992). Positive relationships are characterised as close, non-dependent and non-conflictual, and are positively associated with positive academic and social development in school (Mashburn & Pianta, 2006). Children who are able to respond positively to the social-emotional demands of their teachers are more likely to develop further competence (Squires, 2003). Relationships become increasingly important for classroom adjustment once children start school (Hamre & Pianta, 2001). Children who have negative early school transitions and have early failure experiences are most likely to become inattentive, disruptive or withdrawn (Ramey & Ramey, 2004). Teacher-child relationships are vertical and hierarchically organised while peer relationships are horizontal, and yet, although they are functionally dissimilar, they appear to have a reciprocal effect (Hartup & Moore, 1990). Children who teachers describe as more cooperative are more popular, and, in turn, view school more positively and are less anxious at the onset of the year (Hartup & Moore, 1990). Children's ability to form relationships with teachers is a salient marker of adaptation to the social environment and may even forecast academic success during elementary school (Hamre & Pianta, 2001). Social goals and behaviour are strong and consistent predictors of academic outcomes (Wentzel, in Juvonen, 1996), suggesting that adjustment facilitates academic performance. Social-emotional competence enhances school relationships which support school adjustment.

3.4 *Social-Emotional Competence and School Performance*

There is substantial research asserting that social-emotional school readiness extends beyond positive school adjustment and impinges on school performance. Intellectual development is strongly influenced by the social context and relationships in which it is

embedded (Caprara et al, 2000; Estrada et al, 1987). School adjustment has not only been associated with positive attitudes about school but also with improved grades and achievement (Carlton et al, 1999; Denham, 2006; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001). School readiness and adjustment have important implications for academic performance. Until recently, school adjustment was defined in terms of academic progress and not social and emotional adjustment (Birch & Ladd, 1996). However, it seems that social-emotional competence affects school adjustment and academic performance, and is explained in different ways.

3.4.1 Social-Emotional and Academic Performance: a supportive relationship.

First and foremost, social-emotional competence functions as a positive foundation that facilitates greater academic performance at school. Prosocial, responsible behaviours like self regulation, willingness, cooperation, compliance and social problem solving are social competences in school settings that facilitate learning opportunities (Cohen, 1999; Gunn et al, 2006). Children who manage their emotions in these ways are more likely to do better academically at school (Raver, 2002). A strong correlation between classroom behaviour and marks (Alexander et al, 1993) supports the contention that behaviour and academic success have a reciprocal relationship. Children who have adjusted well and have good social relationships at school are more likely to make a favourable school adjustment, which, in turn, has the positive potential to affect educational output (Miech, Essex & Goldsmith, 2001). Positive social-emotional adjustment enhances chances of early school success. Cognitive growth is supported when children see others using thinking skills effectively and have the opportunity to practise what they have seen socially (Hyson, 2004). School readiness and adjustment, then, have both social emotional and intellectual components (Telsch, 1988). “Neither loving nor teaching them is, in and of itself, sufficient for optimal development; thinking and feeling work in tandem” (Bowman, 2001, in Kauffman, 2002). Because of the importance they attach to this, pre-school teachers stress social-emotional aspects are critical to readiness, which, in conjunction with pre-academic skills, promote achievement (Love et al, 1992; Margetts 2000; Snow, 2006). The link between social adjustment to school and school performance leads to positive attitudes about school which improve grades and achievement (Carlton & Winsler, 1999; Denham, 2006; Izard et al, 2001; Maxwell & Eller, 1994). Children who adjust well to school are less likely to experience negative effects on their confidence and behaviour which improves their academic performance (Margetts, 2000). Social-emotional aspects of readiness provide a support for cognitive learning.

Social emotional behaviors set the stage for academic competence in that prosocial behaviours and emotional knowledge play a critical role in readiness to learn. Children are better equipped to attend to academic matters when they can effectively process emotional and social information (Trentacosta et al, 2006). Social competence is associated with resilience, academic success and positive life outcomes (Kumpfer, 1999). The ability to think and handle own and other emotions, using words rather than acting out feelings, and the ability to interpret social situations optimizes school performance (Raver, 2002; Saarni, 1990). Learning how to control emotions, then, provides a gateway to learning and memory and increases efficiency in school (Sylwester, 1995). Social-emotional variables predict achievement better than intellectual, sensory or neurological factors even when other variables, like earlier academic success, have been taken into account (Denham, 2006; Wentzel, 1996). Making new friends has been associated with gains in school performance while early peer rejection forecasts lower performance levels and unpopular children are at risk for difficulties throughout schooling (Ladd 1990; Ladd, Kochenderfer & Coleman, 1996; Maxwell & Eller, 1994). This implies that knowledge of children's emotional competence can be used to project trajectories of school success since children's emotional adjustment predicts their early school success (Raver, 2002; Wentzel & Asher, 1995). This suggests an association between early social adjustment and academic and behavioural performance in school.

3.4.2 *Social-Emotional and Academic Performance: A reciprocal relationship.*

A growing body of research indicates that social-emotional competence is not only constructive in adjusting to school, but is also critical for academic success (Case et al, 1988; Hymel & Ford, 2003; McLelland et al, 2000; Welsh, 2001; Wentzel & Asher, 1995). Just as children's ability to recognise letters and numbers is basic to reading and mathematics, the ability to reflect and recognise their own emotional and social experiences forms the building blocks to social emotional competence (Cohen, 1999). Like mathematical or linguistic literacy, social-emotional competence involves decoding and the ability to recognise and understand; in social-emotional competence this involves the decoding of self and others (Cohen, 2001). Talking about the family's daily events in narratives helps children understand the structure of stories better, and aids literacy (Espinosa, 2002). The ability to reflect provides a foundation for learning by enabling children to read emotions just as they do the three R's (Cohen, 2001). Emotion knowledge reflects information processing skills using relevant emotional information and labelling, suggesting that emotional knowledge and

general cognitive ability may be closely related (Bennett, Bendersky & Lewis, 2005; Raver, 2002). A positive correlation exists between child cognitive ability and emotion knowledge with both distal and proximal measures (Izard, 2000). This suggests that social-emotional competence is a skill that works in concert with the acquisition of literacy and numeracy.

There is also evidence of a reciprocal relationship between social-emotional competence and general intellectual performance. This relationship works bi-directionally and synergistically (Eisenberg, 2005; Elias, 1997). Thompson (in Saarni, 1998) stresses an integrative relationship between cognition and emotions, where perception and reflection on emotional experiences leads to understanding social emotional behaviours and their meanings, and promotes better emotion and thought (Salovey & Sluyter, 1997; Walker, 1999). Certain intellectual skills also help us interpret and respond to social events. We need to manage our social-emotional reactions and experiences and to understand the emotional behaviour of others (Kaufman, 2002; Thompson, 1990). These links also transact over time and context (Thompson, 1990). Cognitive development can provide a framework for the growth of emotion, its regulation and social competence (Thompson, 1990; Welsh, 2001). Children who show steady growth in academic skills show signs of successful adjustment in the same way that the children's social world is a key predictor of learning related behaviour, and academic success and failure (Ramey & Ramey, 1999; Wentzel, 1996). Likewise, preschoolers and schoolchildren who understand emotions have better academic and social outcomes (Hyson, 2004; Izard et al, 2001).

A closer look at the effect of social-emotional competence and adjustment to school on school performance further explicates the direction of this relationship within the school curriculum. Prosocial behaviours like empathic interactions are not only critical for developing positive peer relationships and adjustment, but have also been linked with intellectual functioning and outcomes in the early years like literacy (Gunn et al, 2006). Conversely, gains in receptive vocabulary have been associated with higher quality teacher interactions (Mashburn & Pianta, 2006). In particular, emotional knowledge has been found to predict verbal ability and competence, and cooperation, compliance and assertion mediate the effect of verbal ability on academic performance (Izard, et al 2001; Trentacosta, et al, 2006). Alternatively, young children with social behavioural difficulties in adjustment often have deficits in early language and literacy skills (Gunn, et al, 2006). Close family relationships where there is an emotionally supportive and communicative relationship are

thought to promote language development (Espinosa, 2002, in Kauffman 2002). Although loosely defined, then, the relationship between language development and social-emotional development has been closely associated in research (Thompson, 1990).

Some studies, however, have found a weak relationship between social function and psychological well being and reading and writing, and little correspondence between behavioural difficulties and school performance (Rydell, 1989). Although academic success has been shown to be strongly associated with behaviours, this has not been found to be long acting and friendships no longer positively affect academic results in middle childhood (Alexander, et al, 1993; Wentzel, 2004). Although general intelligence predicts some aspects of school success, such as academic achievement, it does not explain all success, so there is potential that some portion of this success can be explained by other factors such as emotional competence (Mayer & Salovey, in Salovey & Sluyter, 1997). Nevertheless, social-emotional competence and the utilisation of emotional knowledge and prosocial skills alone cannot account for school readiness and adjustment (Raver, 2002). While a neurobiological model of school readiness is proposed, the links between the development of cognition and emotion and neural plasticity and frontal cortical functioning may be specific to this stage of development, rather than a general developmental principle (Blair, 2002). It may be that the link between social-emotional development adjustment and school performance applies only to the early grades.

Given the reciprocal transactional nature of school readiness, readiness cannot only be explained in terms of social-emotional competence. Social-emotional skills should not undermine academic learning, but rather develop in concert with school learning processes (Cohen, 2001). Thinking and feeling are part of the same system. Despite mixed results correlating social competence and academic results, links between emotions and academic competence have long been asserted (Rydell, 1989; Trentacosta, 2006). The nature of cognitive emotional interaction is highly debated and the discourse as to whether one is determined by the other has been largely misleading (Dodge & Garner, 1991; Le Doux, 1995). Yet, although the role of emotion in learning has been misunderstood, the debate has led to a link between academic and social competencies (Ladd, et al, 1999; Sylwester, 1995). Managing or “doing something” about an emotion requires regulation that may be emotional, cognitive or behavioural (Denham, et al, 2001).

Social-emotional development integrates the diverse domains of cognitive processing, and linguistic and perceptual development within social contexts (Thompson, 1990). Learning related social skills imply the importance of crossing domains (McLelland, et al, 2000). If social-emotional functioning contributes towards academic development to the extent that social-emotional factors are better predictors of academic achievement than intellectual ability and other factors, social emotional competence is an essential aspect of being school ready (Alexander, Entwistle & Dauber, 1993; Wentzel, 1991a). There is a compelling case both empirically and conceptually for the value of social-emotional competence on school attitude, behaviours and performance (Greenberg, et al, 2003). In this framework, the understanding of school readiness must formulate learning as a cognitive and social-emotional experience. This relationship can be further expounded developmentally.

The Cognitive– Affect Relationship: A developmental framework. Contemporary social constructivism and neurocognitive theory offer a new theoretical framework for understanding school readiness. They propose that the social environment has a mediating effect on what is learnt, since the socio-cultural context determines what tools are used to aid cognition and what is considered to be knowledge in a society like a school (Vygotsky, 1978; Zins, et al, 2004). Vygotsky (1978) differentiates between two types of mental activity, higher and elementary mental functioning. The emergence of higher mental functions like attention, memory and concept formation, which are integral to the formal schooling, emerge in the context of social activity and constitute a cultural line of development (Fernyhough, 1996). Human mental functioning takes place in cultural, historical and institutional contexts where higher mental processes are embedded in interpersonal activity (Fernyhough, 1996). Higher mental functioning processes of thinking are acquired through “guided participation”. Failure in certain tasks may be due to insufficiently developed reflectivity or the ability to add to own knowledge by taking on the perspectives of others, which develops from about six years old at the time of school entry (Fernyhough, 1996). By seven years old, a child should be able to acknowledge the inner and hidden mental aspect of emotion, not merely the publicly observable (Harris & Saarni, 1989).

This emphasises the role which acquisition of early social competence plays in the development of thinking and higher mental processes in early academic years. Although schools are the beacons of academic and intellectual development, they are intrinsically social institutions. The focus on intellectual readiness, to the exclusion of other dimensions of

functioning (Shonkoff & Phillips, 2000), overlooks the centrality of the cognition – social-emotional relationship to school performance and adjustment, as well as the mediating role of significant adults. There is also ample neurobiological support for this relationship.

The Cognition- Affect Relationship: A Neurobiological understanding.

Neuroscience has contributed towards understanding the development of social-emotional and cognitive competence by explicating the interplay between cognition and emotion in the brain. This is in keeping with a transactional model, where genetic, constitutional, neurobiological, biochemical, psychological, environmental and social factors transact in behaviour and development (Zahn-Waxler, 1988, in Thompson, 1990). It has also been proposed that, although the “interaction rules that relate component processes on both sides of the cognitive emotional equation are (yet to be) specified”, the cognitive and affective systems are part of an integrated biochemical system (Le Doux, 1995; Izard, 1992; Salovey & Sluyter, 1997; Sylwester, 1995). Although affective and cognitive processes appear to operate in different systems in infancy, the sequelae of brain development indicate that social skills require integration of executive functioning and cognition, language and motor skills (Blair, 2002; Harris & Saarni, 1989). This requires coordination between cognition and affect, as cognition facilitates behavioural adaptation during socialisation. From a young age pre-schoolers display an understanding of emotion and ‘cognition about emotion’ when expressive behaviour is deliberately manipulated for social goals at the age of school entry (Harris & Saarni, 1989; Saarni, in Thompson, 1990). Although some emotional responses may occur without any cognitive processing (Derryberry, 1996), both are integrated by the central nervous system and transactional processes. Affective neuroscience has shown the interrelatedness and interdependence of cognition and emotion in the brain, that they are ‘inseparable as in a fugue’ (Blair, 2002; Lewis & Michalson, 1983; Saarni, 1988).

Emotional and brain development are involved in a protracted course as the last neural circuits reach full maturity; these areas are still pliable and plastic during early school years and regulate emotional state and judgement as well as critical thinking and problem solving (Goleman, 1996; Greenberg & Snell, in Salovey & Sluyter, 1997). Executive functioning and its relationship with emotion have been found to be correlated with mathematical skills (Snow, et al, 2006). Neurobiological advances have shown an inextricable link between emotion and motoric and sensory experiences, and the way memories of an event are organised, and the synergistic way affect and cognition work in attention, memory, learning

and other mental processes (McCombs, in Zins et al, 2004; Sylwester, 1995). Research in affective neuroscience goes further to state that the links between cognition and emotions are important for the development of self regulated learning (Blair, 2002). There are unique links between cognition and affect.

Emotional competence transacts with cognitive processes by driving attention and motivation, which, in turn, drives learning and memory. Effective cognitive processing is not only dependent on attention and memory function but also on emotion systems since emotional reactivity affects cognitive functioning at the executive level involving prefrontal cortical development and plasticity (Derryberry, 1996; Blair, 2002). Cognitive material is integrated better and memory organisation is altered through positive emotion (Walker, 1999). The implication of this is that children with high levels of negative emotionality may be at risk for poor school readiness; school environments that cause continual stress, elevating cortisol levels and hippocampal functioning can reduce the ability to carry out education goals (Blair, 2002; Sylwester, 1995). It has also been proposed that early relationships have been found to affect gene function, neural connections and the organisation of mind (Shonkoff & Phillips, 2003). This further underlines the importance of understanding the cognition-affect relationship.

3.5 *School Readiness as a holistic, transactional, ecological process*

This relationship is especially relevant at the time of school entry as pre-schoolers face major developmental changes at this age. The acquisition of emotion concepts follows a fairly universal sequence that facilitates effective cognitive processing. Problem solving ability seems critical for socially competent behaviour and emerges at school entry age (Harris & Saarni, 1987). As cognitive processing skills increase with brain size, sustained attention processes allow increasingly lengthy periods of attention and memory for Literacy and Numeracy at the time of the transition to school (Rimm-Kaufmann & Pianta, 2000). This implies that social emotional functioning impacts brain development and learning, and the ability to think about emotion is a precondition for emotional competence. Emoting is mediated by social, biological and cognitive components, and cognition is mediated by emotion. This suggests, then, on school entry, given this developmental sequence, certain emotional understandings and knowledge can be anticipated and used for adjustment into the school situation to enhance adjustment and performance.

In summary, there is a strong contention that cognition, emotional and social competence are integrated and work together for school readiness, both as a means for better school adjustment and school performance (Blair, 2002). This relationship goes further than an emotionality that supports rational higher order cognitive processes and speaks to a transactional systemic model of an integrated understanding of the nature of knowledge (Carter, 2004; Le Doux, 1995; Sylwester, 1995). “(T)here is a constant parallel between the affective and intellectual life throughout childhood and adolescence.. If one attempts to dichotomise the life of the mind into emotions and thoughts... nothing could be more false or superficial ... affectivity and intelligence are indissoluble (Piaget, 1952, 15).

In the former chapter, school readiness was formulated as a holistic transactional process, with an emphasis on the whole child, physically, cognitively, socially, emotionally and environmentally. This chapter has attempted to show how school readiness is emotionally and socially embedded and the relevance of social-emotional competence for school readiness, adjustment and performance. Special emphasis, in accordance with a systemic understanding of school readiness, was given to the affective cognitive relationship. It is now incumbent that those behaviours underpinning social-emotional school readiness, adjustment and performance are identified for inclusion in a school readiness measure.

Chapter 4

Domains of Social-Emotional Competence in School Readiness Assessment

4.1 Introduction

This chapter aims to outline readiness assessment and the inadequacies of current tools to measure social-emotional competence on school entry. The main thrust is an exploration of the domains of social-emotional competence, with particular reference to underpinning behaviours for the construction of a social-emotional school readiness instrument.

4.1.1 School Readiness and the Whole Child.

Using the formulation of school readiness outlined above, it is apparent that assessing school readiness is a broad based comprehensive process incorporating numerous methods and tools for multi-dimensional assessment. If readiness is understood in the context of bi-directional, transactional processes between and within levels in the ecosystem, assessment must be context-based using multiple tools; no single tool is sufficient (Denham, 2006; Lidz, 2003; Newport, 1990). By crossing dimensions and examining children holistically in different contexts, multiple forms of data and sources contribute towards identifying “the whole child” in the multiple contexts without fragmentation (Lamb, 2001; Jones 2004; Rimm-Kaufman & Pianta, 2000). An ecological, transactional and holistic understanding of school readiness requires a re-evaluation of school readiness assessment.

To evaluate the whole child, a battery of school readiness measures is needed. However, current tools are ill equipped to meet this call. Although holistic assessment is not new to education, most tools do not follow suit (Cohen, 2001; Lamb, 2001). The dangers and mispractices of school readiness assessment have been extensively outlined (Foxcroft & Roodt, 2003; Murphey & Burns, 2002; NAEYC, 2000). In particular, readiness tests lack the validity and reliability to make accurate predictions (Shepard, 1997). Earlier formulations of readiness stressed a single aspect of a child’s functioning in both assessment and curriculum practices. Despite widespread recognition of the whole child philosophy, the existing pre-school curriculum continues to reflect a cognitive orientation (Lidz, 2003; Scott-Little, 2003). While the importance of academic preparedness is not in contention, it has overshadowed the contribution of social-emotional competence to school readiness (Foxcroft & Roodt, 2003; Raver, 2002; Raver & Knitzer, 2002; Raver & Zigler, 1997; Shonkoff & Phillips, 2000). The

focus on cognition as the singular marker for school readiness overlooks the location of intellectual growth within a social network and the complex, ongoing dialectic process of reciprocal interaction of biology and social environment (Carlton & Winsler, 1999; Caprara, et al, 2000; Howes & James, 2001). This disparity is reflected in assessment practices.

4.1.2 School Readiness assessments: A brief Critique. By concentrating on cognitive readiness in isolation, traditional readiness assessments have failed to take cognizance of the holistic nature of school readiness. When used alone, cognitive readiness measures have been poor predictors of future school success leaving much unexplained as to why and how children perform academically (Caprara, 2000; McLuskey, 1997; Raver & Zigler, 2004). This neglects the integrated nature of learning.

4.1.2.1 School Readiness Measures: USA. The stress on cognition as prime marker for readiness has generated numerous assessment tools that have not been reliable predictors of school readiness. The Metropolitan Readiness Tests, although not intended for readiness assessment, produce many identification errors and misclassifications and further research is needed on local populations (Carlton & Winsler, 1999; Jordaan, 1994; Shepard, 1986). Likewise, the Gesell School Readiness Test, which yields an IQ measure, has been a poor predictor of school readiness, lacking reliability and validity to support school placement decisions (Foxcroft & Roodt, 2003; Shepard & Pianta, 1986; Shepard, 1997). In essence, cognitive tests used to assess readiness are, in fact, broad based and not focused on school readiness (Squires & Nickel, 2003). Measurements of cognition, in and of themselves, do not constitute holistic measures of school readiness.

4.1.2.2 School Readiness assessment measures in South Africa. Local measures have mirrored this tendency. A brief digression into South African based measures is appropriate at this point. The School-entry Group Screening Measure (SGSM, 1990) using cognitive abilities, is a fairly good predictor of later scholastic risk, but includes no social-emotional measures (Foxcroft & Roodt, 2003). Likewise, the School Readiness Test of the University of Pretoria used perceptual and literacy development to predict Grade One scholastic performance (Van Rooyen, 1997). The Herbst Instrument for measuring Cognitive and Motor development (1994) is designed for South African populations. It identifies developmental motor and cognitive delays in environmentally disadvantaged children on school entry, but has not been designed or validated as a readiness measure. Assessment of

motor and cognitive development does not always translate into assessment for school readiness.

Other tools attempt to provide a more broad based assessment. The School Readiness Evaluation by Trained Testers (SETT, 1984) is intended for school readiness assessment, by assessing multiple domains; language and intellectual development, physical and motor development, and emotional and social development. In summary, the social-emotional components are limited and, apart from the ability to wait and take turns, and enthusiasm for a particular task, include few social-emotional competences needed for school readiness. Moreover, there is little focus on contextually appropriate behaviours. Even if used with the Aptitude Test for School Beginners (1974), which focuses on cognition and language, little weight is attached to the social emotional domains.

The Nursery School Questionnaire is a South African readiness questionnaire for completion by teachers and parents (NQES, 1984). Despite giving greater weight to cognitive measures, it identifies behaviours underpinning social-emotional competence. This includes ability to follow instructions, persistence, to keep quiet for a minute, to play alone, to speak to strange adults, liking to try something new, playing with friends, willingness to share, to take turns, and keenness to go to school. Although a score for social-emotional competence is not calculated and it is not exhaustive, these items measure the social-emotional school readiness domains of self regulation, social interaction, self help skills, and attitude to school. The use of both a Teacher and Parent Questionnaire (Joubert, 1984), and the inclusion of specific self help and life skills provide a more ecological assessment of school readiness. While the NQES contributes towards the assessment of social-emotional competence, the weight remains, nevertheless, on cognitive competence.

The need for appropriate social-emotional school readiness measures has led to adapting USA tools using South African norms. However, these are not designed as readiness assessments, focus on maturation, and do not specify the underpinning skills important for progress in the early school years (Foxcroft & Roodt, 2003). Most have limitations for readiness assessment with local populations (Foxcroft, 2004; Lidz, 2003). In summary, there is little to address the need for the assessment of social-emotional school readiness locally. School readiness tests are intended for the purposes for which they were designed, to be age appropriate, to yield a holistic evaluation incorporating all developmental domains, to be

linguistically and culturally appropriate, to be collected from multiple sources and to serve to guide instruction, rather than for placement or entry to school (Lidz, 2003; Meisels & Shonkoff, 1990; Shepard & Smith, 1986, Saluja et al, 2000; Shonkoff & Phillips, 2000). Ideally, assessment of young children for school should make use of ongoing, collaborative, systematic observation and analysis and move from psychometrically dominated models to a methodology unique to the measurement of young children (Shonkoff & Phillips, 2000). This gap highlights the need to produce a social-emotional measure that can help predict the transition to school.

4.1.2.3 Difficulties encountered in School Readiness Measurement.

The psychometric testing of young children is not without difficulties. Young children are poor test candidates and do not attach importance to sitting still, attending for long periods, performing optimally in tests, or providing responses to scripted directions, are poor at comprehending cues, and require careful management (Anastasi & Urbina, 1997; Lidz, 2003; Shonkoff & Phillips, 2000). It is generally acknowledged that test expectations conflict with the natural tendencies of children, particularly boys, and are downward extensions of instruments intended for older populations which ignore social-emotional aspects at this age (Bjorkland & Pellegrini, 2002; Hyson, 2004; Lidz, 2003; Raver & Zigler, 2003). Developmental exigencies accompanying the salient tasks for this age group remain important considerations (Denham, 2006). South African test construction can benefit from this experience rather than perpetuate them in new forms.

4.1.3 A Reformulation of School Readiness assessment. One way of overcoming these difficulties in psychometric testing is to make use of the ecological contributions of parents and teachers for school readiness assessment. Social-emotional competence is expressed in multiple contexts. In an ecological framework the social-emotional competence expressed in one context has relevance for others. Naturalistic observation takes account of functioning in situ and is ecologically valid (Sundelowitz, 2001). To be ecologically valid, we need to look at the child in the context of home, community and school (Shonkoff & Phillips, 2000). Children learn better when their teacher and parent expectations are more closely aligned as well (Goldblatt, 2005). Preschool and home experiences and utilisations of emotional competence are not context bound, and furnish opportunities to practise and prepare for formal schooling (Shonkoff & Phillips, 2000). While the school context may facilitate these competencies and behaviours, they are by no means

exclusive to schools. Competencies acquired outside the school context contribute towards developing social-emotional competence, and as such, constitute a factor in the readiness process. Data from multiple sources in multiple contexts is needed for assessment. Achievement in school reflects “the totality” of experiences (Ramey & Ramey, 2004). Any evaluation of school readiness must take cognisance of this.

Parent and Pre-school teachers' evaluations.

This study relies upon the input of significant adults, namely parents and teachers, to the assessment process. Adult ratings are more reliable than pupils' self ratings which tend to inflate own competence because they conflate ideal with real self (Raver & Zigler, 1997). Reliance on self reports has also been subject to doubt as to the accuracy and developmental ability of pre-schoolers to self-evaluate. Parents' observations have the potential to provide insight into their children's behaviours and readiness for transitions (Pianta & Kraft-Sayre, 1999). Alternatively, checklists in the past have been criticised for lack of reliability, lack of theoretical clarity and have not taken into account the unique competence of pre-school children (Raver & Zigler, 1997; Fantuzzo & McWayne, 2002).

As the home context is the child's first learning experience, it is central to school readiness due to the negative consequences of a mismatch between school and home (Sundelowitz, 2001). Even though parents and teachers have varying expectations of the transition to school, both agree on certain essential attributes and each possesses knowledge of the child's social-emotional competence (Docket & Perry, 2001; Goldblatt, 2005; Welch & White, 1999). Parents place greater value on academic skills for school readiness than social-emotional issues (Goldblatt, 2005). Although teachers and principals emphasize pre literacy skills, they note social skills for school readiness, namely, social awareness, cooperation, and an understanding of acceptable behaviour, healthy self esteem and self concept, independence, making decisions and self help (Snow, 2006; Wright, 2000). Teachers believe that children's ability to listen, communicate, concentrate, solve problems and be self motivated is affected by their social-emotional capacities, their ability to resolve conflicts adaptively and read their own and others feelings (Cohen, 2001). In contrast to alphabetic knowledge and counting, teachers emphasise the value of social-emotional competence. Although teachers' and parents' perceptions differ, an alliance is more desirable as “the greatest single predictor of school success was goal congruence amongst teachers, students and parents” (Goldblatt, 2005). As a child's readiness is socially embedded, the family-

school connection has important implications for the construction of a social-emotional school readiness measure.

4.2. *Constructs of Social-Emotional Competence: School Readiness*

The definition of social-emotional competence needs to be narrowed to comprise relevant behaviours for inclusion in a scientific instrument. A synopsis of key social emotional competences includes self awareness, self esteem, social skills, conflict resolution and cooperation, positive attitudes, assertiveness and motivation, responsible decision making skills, responsibility, empathy, self control or regulation (Blair, 2002; Elliot, 1997 in Cohen, 1999; Elias, 1997; Goleman, 1996; Payton, 2000; Snow, 2006; Webster-Stratton, 2004; Zins et al, 2004). These competences have substantial commonality with those requisite for school readiness.

Given considerable consensus as to the value of social emotional competences for school adjustment, and acknowledgement of core constructs, a further tightening is possible for developing a social-emotional school readiness measure (Raver & Zigler, 1997). The US National Centre for Educational Statistics Education Department identifies social emotional criteria as prerequisites for school entry (NCES, 1993, in Grace & Brandt, 2002). This national survey showed teachers gave the highest ratings to the ability to take turns and share (empathy, self regulation and social relationships), getting along well with others (empathy and social relationships), the ability to care for personal needs (adaptive coping and awareness of self), as well as confidence, feeling good about oneself and enthusiasm for new situations. Behaviors displaying curiosity, intentionality, self awareness and control, relatedness, perseverance, capacity to communicate, cooperate and resolve conflicts, and a positive orientation to school and learning are also powerful predictors of academic outcomes (Cohen, 1999; Hyson, 2004; Zero to Three, 1992). Research seems to support teachers' prerequisites for readiness.

Thompson (2002) identifies the following social-emotional domains as foundations for school readiness: understanding of self (awareness of own emotions and competencies), self control (self and emotional regulation), understanding other people and emotional growth (empathy, awareness of others' viewpoints, and conscience) and relationships with peers and adults (social relationships and getting along with others). Murphey & Burns (2002) add social-emotional and self help skills to requisite school readiness skills. These behaviours can

be subsumed into awareness of own and others' emotion and emotion vocabulary (Bar-On, 2000; Goleman, 1996; Hyson, 2004; Salovey and Sluyter, 1997; Saarni, 1997; Thompson, 1990), self regulation and expression of emotion (Saarni, 1997; Thompson, 2002), empathy and perspective taking (Hyson, 2004; Saarni, 1997; Salovey & Sluyter, 1997) decision making and effective social relationships (Hyson, 2004; Saarni, 1997) and adaptive coping (Saarni, 1988; Thompson, 1990; Salovey & Sluyter, 1997; Kaufmann, 2002).

It must be noted that although listed discretely, these constructs are interdependent and bi-directional due to the integrated nature of social-emotional functioning and school adjustment. This interconnectedness is important if school readiness is understood as more than a checklist and not merely in terms of observable behaviors but also underlying processes (Snow, 2006). Self regulation, by way of example, functions for both academic performance and social-emotional competence in reciprocal ways (Shonkoff & Phillips 2000). In terms of goodness of fit and adjustment according to context and flexibility, the core behaviours are also associated with school performance, and are positively adaptive as they enhance listening, compliance, cooperation (Alexander, 1993; Hamre & Pianta, 2001; Pianta, 1999). Conversely children who struggle to pay attention, follow directions, get along with others, and control negative emotions perform less well at school (Ladd, Kochenderfer & Coleman, 1997). Core social-emotional competences permit behavioural adaptation and malleability.

In summary, the following social-emotional constructs are critical for school readiness, adjustment and academic success: awareness of emotion in self and others, regulation of emotion in self in relation to others, empathic understanding of others, ability to form and maintain social relationships and adaptive coping behaviours. In turn, the behaviours underpinning these competences are as follows: self efficacy, awareness of own and others' emotions, ability to regulate own emotion and expression, social adaptability, ability to take turns and share and to meet social expectations, getting along well with others, resolving conflicts, social problem solving, and ability to care for and express personal needs. Their relevance for school readiness assessment shall now be discussed.

4.2.1.1 Awareness of emotion. Awareness of emotion subsumes understanding of emotion and emotional knowledge in self and others (Hyson, 2004; Rosier, 2004; Thompson, 2002; Zins, et al, 2004). It is generally agreed that a central aspect of social- emotional

competence includes such dimensions as an awareness of emotion in self and others (Bar-On, 2000; CASEL 2003; Cohen, 2001; Elias, 1993; Goleman, 1996; Matula, 2004; Rosier, 2004; Saarni, 1990). The ability to recognise emotion in self and others is found in young children and its effective use is considered essential for social functioning (Denham, 2006; Goleman, 1995; Walker, 1999; Zins et al, 2004). The advantage of ability to reflect on emotions is an increase in likeability which facilitates popularity and friendships and promotes school readiness (Denham, 2006; Ladd et al, 1991; Novick, Kress & Elias, 2002; Termine, 1997). Emotion understanding is also an important predictor of social competence because it facilitates problem solving and adaptive functioning (Garner, 1999; Saarni, 1998). Awareness of emotion has many components as well as benefits.

4.2.1.2 Emotional Awareness: Relevance to school. The ability to recognise emotional experiences, label them and verbalise about them is an emerging developmental competence called emotion knowledge at the time of school entry (Denham, 2006; Goleman, 1996; Izard et al, 2001; Zins, et al, 2004). Emotion vocabulary helps children to talk about their emotions without having to enact them, and improves competence even when controlling for verbal ability (Raver, 2002). Emotion vocabulary is linked to self efficacy since it improves listening skills and empathy, because there is not only a need to communicate verbally on school entry, but also makes children more ready to adapt to school (Blair, 2002; Saarni, 1998; Zero to Three, 1992). This adaptability is attributed to an understanding of the situational context of emotional experienced which has pragmatic relevance for new contexts like schools (Bar-On, 2000; CASEL, 2003; Elias et al, 1997). In this way, awareness of emotion assists adjustment.

Knowing one's emotions assists self- knowledge in relation to the social world. This facilitates self assessment, knowing one's strengths and weaknesses, and affects subsequent self confidence in being sure about one's own self worth and capability (Goleman, 1996; Rosier, 2004). This self efficacy imbues a sense of autonomy, mastery in developmentally relevant ways and helps children to embrace transitions positively. Independent and prosocial behaviours like following rules and instructions, taking turns, self care and respect for others property and groups, are associated with positive academic outcomes (Wentzel, 1993, Zins, 2004). These are critical aspects of school adjustment and life. Although intellectual competence is the primary goal, prosocial behaviour is a strong predictor of academic outcomes and adjustment, and should be included in school readiness goals (Wentzel, 1996).

This illustrates the ecological context of academic performance and the interpersonal context in which it is embedded (Caprara et al, 2000). “(T)hrough these and other social means, prosocial children create enduring school environments that are conducive to academic learning” (Caprara et al, 2000, p.305). This awareness has positive effects for adaptability and performance at school.

Accurate self understanding has cognitive effects on behaviour as emotion knowledge enables reflection and the wherewithal to learn from experience (Hyson, 2004; Rosier, 2004). The transition to school requires such emotional understanding since awareness and management of emotion provides the basis for social competence as well as empathy and perspective taking ability, all are necessary for school entry (Hyson, 2004; Zins et al, 2004). The ability to apply this to social situations accurately is adaptive social behaviour which facilitates coping resources (Hyson, 2004; Thompson, 1994; Thompson, 2002). In this way, emotional awareness, both self and other, constitutes a key social-emotional competence (Zins, et al, 2004). Understanding of self is a key life skill for school.

4.2.1.2 Emotional Awareness: Relationship to Cognition.

Self awareness and its expression through greater self efficacy have social and cognitive implications. The integrated nature of emotion, affectively, socially and cognitively, as illustrated in references like “thinker with a heart” and social cognition (Raver & Zigler, 1997; Saarni, 1989), refers to the child’s knowledge of emotion at both an intrapersonal and interpersonal level; emotion knowledge understand what expression others display when they experience a certain emotion and their own perceptions of themselves (Raver & Zigler, 1997). This competence not only has a bearing on adjustment to the social school environment but also to the capacity to optimize the learning environment. A link between emotion knowledge and academic success has been found (Izard, et al, 2001), suggesting the ability to detect and label emotion facilitates more positive social interactions and more effective academic output. Awareness of self and others provides the foundation for social-emotional competence as children learn to communicate, collaborate, to become self motivating and to have a sense of self worth (Cohen, 2001). When children’s psychological needs for belonging and autonomy have been met through engagement with the school, they can identify and behave in accordance with the school’s academic goals (Battisch, Schapps, Watson & Solomon, 1997). Awareness of multiple emotions facilitates decision making and problem solving and pre-

empties adaptive behaviour and functioning (Saarni, 1998). Awareness of emotion enhances both social interaction and cognition.

4.2.1.3 Emotional Awareness: its development.

Awareness of self and others' emotion engenders efficacy, the sense of control over one's body, behaviour and the world, which is characterised by a sense of self confidence and is a well recognized characteristic of school readiness (Squires, 2003; Zero to Three, 1992). The sense of having the capacity to make an impact, to act with intentionality and control, contributes a sense of competence and self confidence, which is particularly endorsed in school situations. School entry age is accompanied by Erikson's stage of Industry versus Inferiority. Age appropriate behaviours that typify such competence include displays of initiative, ability to adapt to change, increased autonomy, enthusiasm, age relevant self reliance, varied interests, expression of own ideas and participation in group and class activities (Alexander et al, 1993). These appear fairly universal pre-school outcomes, especially self reliance and self responsibility (Whitburn, 2003).

Self awareness is a core social-emotional competence that contributes to further emotional understanding and enables emotion regulation and empathy (Matula, 2004; Raver, 2002; Walker, 1999). As the corner-stone for social-emotional competence and social skills, it facilitates interpretation of emotions and the contexts in which they occur, is the basis for self understanding, self confidence and autonomy and a sense of self efficacy in their environment. Given stability from the period of early childhood into early schooling, this competence continues into school and serves as an advantage (Denham, 2006, Garner, 1999). Behaviours that express this awareness and its impact on emotional growth need to be included in a measure of social-emotional competence.

4.2.1.4 Emotional Awareness: inclusion for school readiness assessment.

There appears to be considerable consensus as to the central role that self awareness, understanding and emotion knowledge play in social-emotional competence and its contribution towards school readiness. How this competence can be measured, however, is a challenge as it is very difficult to assess the awareness of emotions of young children since their emotional expression and functioning is not always readily evident (Lewis and Michalson, 1983; Lidz, 2003). Using observations of behaviours that underpin emotional awareness shall be explored for inclusion in such a measure.

4.2.2 *Self Regulation*

4.2.2.1. *Self Regulation: A working definition for school readiness.* Emotional regulation has been associated with schools and readiness for some time. Considered central to social-emotional competence, the regulation of feelings has been the subject of much research of how young children cope with challenges (Cole & Dennis, 2004; Denham, 2006; Raver & Zigler, 1997). A clear definition of regulation is not available since it variously refers to self management, the management of the emotional reactions of others, or inhibition and control of the expression of emotion (Denham, 2006; Goleman, 1996; Salovey & Sluyter, 1997; Thompson, 1990; Thompson, 1994). The term self control is used synonymously and covers regulation of emotion, behaviour and self among young children (NICHD, 2003). As a broad conceptual rubric, emotional regulation encompasses many related processes, including self awareness and social relationships (Eisenberg, Sadovsky, & Spinrad, 2005; Thompson, 1994). Although it may refer to components of temperament, this is not within the scope of this research (Miech et al, 2001). Self regulation is distinct from emotion regulation with regard to ability to manage own actions, emotions and thought, as opposed to management of one's subjective experience of emotion by strategically managing expression and modulation of emotional arousal (Fantuzzo & McWayne, 2002; Saarni, 1997; Shields & Cichetti, 1997 in Fantuzzo & Mcwayne, 2002). In schools both emotion regulation, as inhibition of emotional reactions, and self regulation, "extrinsic and intrinsic processes responsible for monitoring evaluating and modifying emotional reactions, to achieve goals" are required (Thompson, 1994, p. 27). The term emotion regulation shall used here as a multifaceted social emotional competence involving cognitive appraisal processes as well as physiological arousal, neurological activation, attention processes, and response tendencies that facilitate school readiness.

4.2.2.2 *Self Regulation: relevance for school readiness.*

Emotional regulation in schools refers to the ability to regulate and manage emotion and behaviour and involves cognitive self regulation. Management of own emotion is considered crucial to the capacity to soothe oneself, and is built upon self awareness, emotion expression, emotion knowledge and the management of the consequences of emotional behaviour (Garner, 1999; Walker, 1999). Children competent in emotion regulation apply behavioral strategies to modulate their feelings, delay gratification, persevere, have successful peer interaction, and organisational skills to achieve goals (Eisenberg & Fabes, 1992; Goleman,

1996; Pool, 1997; Raver & Zigler, 1997; Zins et al, 2004). Emotion regulation goes beyond regulating own emotion, but also the ability to regulate and manage others affective reactions which is important for schools (Salovey & Mayer, 1990). This involves monitoring, evaluating and modifying emotion reactions with self control, trustworthiness, conscientiousness, adaptability, innovativeness to mobilize strengths and positive feelings (Rosier, 2004; Thompson, 2004). Given the many social emotional and cognitive demands of school contexts, this regulation plays a vital role.

Compliance exists on the self regulation continuum of cooperation and adherence to social rules and role expectations (Alexander et al, 1993; Wentzel, 1991b). There has been a growing interest in the role of regulation and compliance as an important aspect of readiness (Blair, 2002). The story of emotional development is, in part, the same as the story of emotional regulation as emotional reactions guide and motivate and direct adaptive functioning in more complex and efficient ways (Thompson, 1990). In this way emotion regulation serves adaptively for appropriate classroom behaviour during transitions (Wentzel, 1991b). Children's self regulating behaviour is an influential factor in school adjustment (Miech et al, 2001). Teachers view ability to regulate behaviour and emotion and the use of strategies for self control as readiness markers (Denham, 2006; Harris & Saarni, 1989). The ability to exercise self regulation has an important effect on social emotional development and cognitive competence as preschoolers grow older (Sethi, Shoda & Rodriquez, 2000). Effortful control is associated with early school success (Willson & Hughes, 2005). This regulation involves delayed gratification which is a key ingredient in social emotional intelligence, and a classroom prerequisite (Goleman, 1996; Mischel et al 1996; Raver & Zigler, 1997). Separation from caregiver is believed to be a precursor of this ability (Sethi, Schoda & Rodriquez, 2000). In schools these competences become imperative for the pursuit of goals and perseverance in spite of setbacks (Matula, 2004). Children need to regulate many aspects of their emotion and behaviours in classrooms.

Following social rules is acquired and practised in family systems and schools and the ability to modulate and control own actions in age appropriate ways with a sense of inner control is a characteristic of school readiness (Wentzel, 1991a; Zero to Three, 1992). However, there is little empirical evidence on school based social emotional skills like regulation as most research looks at association with negatives like school dropout (Zins et al,

2004). Self regulation is thus noted as an important accomplishment for learning and is not only socially but developmentally appropriate at school entry.

4.2.2.3 Self Regulation: developmental trajectories. Emotional regulation emerges at the time of school entry. Acquired through multiple transactions over time, in the context of biological and socially contextual experiences, regulation permits adaptive behaviour. As a behaviour regulator, the capacity to organise, motivate and direct adaptive behaviour processes for inhibition, planning and making social adjustments has implications for social and academic adjustment (Thompson, 1990). As toddlers, emotion is regulated by others but becomes increasingly self-regulated due to neurophysiological development and the growth of cognition, language and self understanding at school entry (Eisenberg, 2005). Although some aspects of self regulation appear as core components of personality, the adaptive contextual nature of its development indicates it is an emerging experiential process competence (Miech, et al, 2001). This makes regulation a developmentally guided process that derives from biological experience which is socially and cognitively processed; as the child matures, emotional arousal systems in the central nervous system permit greater self control, and susceptibility to extrinsic regulatory processes (Thompson, 1994). This is partly neurophysiological, involving subcortical and cortical systems and the prefrontal cortex, which are associated with self regulation abilities congruent at the time of entry to school (Thompson, 1994). Self regulation is both a biological and social adaptation.

As the task of the toddler, self regulation becomes less dependent on the social environment and more internalized, and is evident from as young as four years old (Dodge & Garner, 1991; Thompson, 1994; Walker, 1999). Language acquisition broadens expressive capability, and behavioral repertoire improves for strategic purposes during the pre-school years. However, this is shaped by immediate social environmental demands and what is optimal may vary for different personalities, situations and goals (Thompson, 1994). The simultaneous emergence of language and regulation enables “emotional thinking” which is characteristic of the pre-school child (Eisenberg, et al, 2005; Greenspan, 1992, in Lidz, 2003). Play provides a rich context for the development of self regulation through sharing, taking turns, and the use of language and narratives (Denham, 2006; Espinosa, in Kaufman, 2002). By five years old, self regulation behaviours have developed. These are separation from parents without crying, joining other children in play, spontaneous play and preference for playing with other children, the emergence of cooperative play, the beginning of group games

involving simple rules, and displays of concern and sympathy for others in a group (Lidz, 2003; Squires 2003). Pre-schoolers are developmentally able to use specific strategies for self regulation such as problem solving, support seeking, distancing, internalizing, externalizing, distraction, reframing and redefining (Denham, 2001; Denham, 2006). The emergence of self regulation works in concert with other competences that promote school readiness.

4.2.2.4 Self Regulation: relationship with cognition.

This development, at the time of school entry, has cognitive implications. This suggests a relationship between emotion regulation and academic performance that needs to be clarified empirically (Cole, et al, 2004; Denham 2006; Eisenberg, 2005). Emotion regulation, as “dynamic interaction of multiple behavioural, psychophysiological, attentional and affective systems that allow young children to participate effectively in their social world”, indicates the cognitive components of regulation (Cole et al, 2004; Denham, 2006). Emotions elicit thinking and behaviour and in turn are elicited and regulated by thinking and behaviour (Denham, 2006). Young children who exercise self regulation are less impulsive and perform better in college entry tests years later (Goleman, 1996; Novick et al, 2002). Self regulation has become a benchmark for competence in childhood and a nearly universal hallmark and expectation in schools (Pianta, 1999). Certainly, attending school is believed to tax children’s self regulation skills as they learn to comply, apply self control and handle emotions so that they do not interfere with performance (Denham, 2006; Thompson, in Kaufmann, 2002). School performance and regulation work together.

Self regulation is an important accomplishment for schools as it is adaptive and, as a social emotional competence, may be affected by cognitive performance in tasks requiring delay, inhibition or the pursuit of long term goals (Lidz, 2003; Thompson, 1994; Walker, 1999). Emotion regulation is a precursor of effective social relations with peers and successful cognitive performance and self efficacy (Elias, 1997; Raver, 2002; Schunk & Zimmerman , 1997). Emotion regulation has implications for academic achievement as well as adjustment to school.

4.2.2.5 Self Regulation: inclusion for a school readiness measure. Schools require considerable self regulation. Self regulation is a multidimensional core competence that affects school readiness in physiological, neurological, cognitive and social- emotional ways. Yet there is little available in the assessment repertoire to represent and measure increasing

executive control over social-emotional functioning of pre-school children in a formal way (Lidz, 2003). Some aspects of self regulation like cooperation, assertion, responsibility and self control, following rules, completing tasks, perseverance, enthusiasm in tasks and reciprocal social interactions have been developed in measures of social competence (Gresham, et al, 1990; Izard et al, 2001; Lidz, 2003; NICHD, 2003). By early primary school the ability to solve conflicts and understanding friendship reciprocity is essential (Doll, 1996). It is necessary to identify optimal behaviours in school contexts for inclusion in a school readiness measure.

4.2.3 Empathy

The capacity for empathy is an important component of emotional competence together with awareness of own emotional state, ability to discern others' emotions, the use of an emotion vocabulary, adaptive coping, self regulatory strategies and the capacity for emotional self efficacy necessary for schooling (Hyson, 2004). It is considered essential for social emotional competence and is included in numerous social emotional measures (Gresham et al, 1990; Goleman, 2006; NICHD, 2003). Teachers comment that children who “upset things in class” are more likely to have poor peer relationships; this affects their successful adjustment as sensitivity to others' emotion is needed (Blair, 2002; Maxwell & Eller, 1994; Pianta, 1999). Empathy is one of the most significant components for fostering prosocial behaviour and interpersonal relationships (Bar-On, 2000; Elias et al, 1997; Goleman, 1996; Saarni, 1998). In many senses, empathy is akin to understanding people and social awareness, and understanding how they feel (Thompson, 2002). The capacity and utilisation of empathy is dependent upon the ability to accurately perceive and be aware of others' emotions.

4.2.3.1 Empathy: *Interrelationship with other social emotional competences.*

Skilful recognition of others' emotional reactions and empathic responses is a vital components of emotional intelligence (Salovey & Mayer, 1990). As a vicarious emotional experience, empathy occurs when a child detects emotional signals in others (Raver, 2002). Reliant upon emotion knowledge and awareness, and, through accurate reading and labelling of emotional signs, it enhances relationships and effective communication. The capacity for understanding of others' feelings and why they act and feel as they do, calls for social awareness (Goleman, 1996). In this way, social-emotional awareness provides the foundation for the capacity for perspective taking, empathy, appreciating diversity, and respect for others (Zins et al, 2004). Empathy in social relationships and social adjustment permits the gauging

of others' affective responses and enables socially adaptive behaviours in response (Walker, 1999). "(D)evelopmental perspectives on empathy suggest that appraisal of one's own feelings and those of others are highly related, and that in fact, one may not exist without the other" (Salovey & Mayer, 1990, p. 194). Empathy, awareness, regulation have reciprocal effects.

There is considerable interaction between capacity for empathy and self regulation. The exception is that behaviours governed by self regulation are usually congruent with own goals, while those that arouse empathy are more likely to be socially directed. Like self regulation, empathy is related to prosocial behaviour which involves both taking the perspective of others and the self regulation to behave in socially approved ways (Saarni, 1998). Prosocial behaviour has been associated with empathy, prosocial interaction with peers, and appropriate classroom conduct and compliance (Wentzel, 1991a). Children who have developed empathy exemplify this by being attentive to emotional cues, listening well, showing sensitivity to others' perspectives, comprehend others' feelings and re-experience them (Rosier, 2004; Walker, 1999). The ability to take turns, to adopt a group identity, to be functional within group dynamics and to respect others demands both self regulation and empathic involvement. Cooperative children have the ability to take another's perspective, and are more sociable and more liked in schools; this is predictive of adjustment and a good forecast of prosocial behaviour (Maxwell & Eller, 1994.). In turn, prosocial behaviour that occurs in the context of an emotional experience drives relevant helping behaviours (Raver, 2002). Classrooms provide the context for this and in many senses demand it. Cooperative behaviour and positive attitudes are considered to be important attributes for children's successful adjustment to school (Maxwell & Eller, 1994; Pianta, 1999). Conversely, children who "don't share" and "try to get their own way" are perceived by teachers to be less likely to make a successful transition to school (Ladd & Price, 1987). The capacity for empathic involvement works with other social-emotional competences to help children to adjust better to school.

4.2.3.2 Empathy: Interrelationship with academic competence.

In classrooms, reading others' feelings is important for relationships and performance. As a social skill, empathy facilitates academic performance, as the representations involved in empathic assessments or cognitive elements of empathy are believed to be in action (Salovey & Sluyter, 1997; Strayer, 1989 in Saarni, 1998), thereby aiding cognitive, emotional and

social functioning. Empathy illustrates how the utilisation of social emotional knowledge mediates academic performance since socially driven behaviours have positive implications for learning (Raver, 2002). Listening and being sensitive to others is not only prosocial but is likely to improve listening in class, attentiveness, compliance and following instructions. This is exemplified in Grade One as children learn how to take turns, which is a taken for granted skill (Pool, 1997). Empathic competence allows a child to meet these expectations.

An understanding and perception of others' emotional experience may be expressed verbally or non-verbally. Although five year olds show empathy, they are unable to explain it (Strayer, in Harris & Saarni, 1989). Young children may initially express their empathy non-verbally. The role of emotional language and communication is an important aspect of empathy and its development, which is strengthened by cognitive skills such as the ability to think in representations, and language. Empathy and the ability to think symbolically are thought to have a transactional effect on one another. Because labeling emotion symbolically involves language, verbal ability and empathy are hypothesised to be highly correlated (Raver, 2002). The role of empathy in cognition, adjustment and emotional awareness, understanding and knowledge facilitates social relationships and the transition to school. As a facilitating competence, it is relevant for inclusion as a measure of social emotional competence for school readiness.

4.2.4 Social Relationships

4.2.4.1 Relationships: Relevance to Social-Emotional School Readiness. The reputations and relationships children acquire during early transitions are likely to have an effect on future ones. As the cornerstone for development and a large part in the infrastructure of school success, "(N)urturing, stable, consistent relationships are the key to healthy growth, development and learning" (Pianta, 1999, Raver & Zigler, 1997, Shonkoff & Phillips, p. 2000). This is particularly critical on entry to Grade One, in an environment which is experienced as predictable, warm and accepting, and responsive (Hyson, 2004). Many social relationships in schools provide this opportunity for children.

4.2.4.2 Peer Relationships and play as predictors of school readiness.

To succeed in schools, children benefit from interacting in socially acceptable ways that are also effective in achieving goals. For many children school is the first formal arena in which they engage in relationships with people other than the family (Cohen, 2001). One aspect involves meeting and interacting with new peers. The ability to interact with peers is a critical developmental task for young children, especially for pre-schoolers, as having friends is a defining moment in childhood (Doll, 1996; Lidz, 2003). For many children starting school is another opportunity to “make friends”, and interviews with children reveal that great importance is placed on having friends at school (Dockett & Perry, 2001). There is a significant relationship between social competence in pre-school and later school life and life adjustment (Asher & Parker, 1989; Gresham 1984; Hartup & Moore, 1990; Parker & Asher, 1987, in Lidz, 2003). Play is an important vehicle for peer relationships and provides a forum for the development for other social-emotional competences (Bredenkamp & Copple, 1997, in Fantuzzo & Fantuzzo, 2002). Antecedents like earlier social adjustment are good predictors of school adjustment suggesting that attendance at preschool and peer relationships mediate adjustment to school (Ladd & Price, 1987). These accumulated experiences may result in children with prior school experience having fewer adjustment demands than others (Ladd & Price, 1987).

Given the salience of play and peers in a young child’s life experiences, methods of capturing these interactions can provide information useful for predicting school readiness. The role of peers in adjustment has only been explored relatively recently (Taylor & Machida, 1994). Yet peers have been shown to act as supports, socially and academically. Peer interactions involve the ability to take the perspective of others, inhibit impulsive responding, reading verbal and nonverbal cues from others, responding appropriately to these, participating in sociodramatic play, and generating appropriate problem solving strategies (Kemple, 1991, in Lidz, 2003). Although peer play is a very demanding task for young children, it serves to improve self regulation due to the necessity of observing rules and practicing and adjusting social skills in conflict management and problem solving (Pianta, et al, 1999). Gaining successful entry to play involves observing, assessing and awareness and understanding of others (Lidz, 2003). Pre-school play provides a valuable indication of social competence and future behaviour.

Peer group and social structure can contribute towards both school adjustment and success, since social interaction skills are more important for readiness than academic skills

for kindergarten, and may have relevance for Grade One (Kim, Murdock & Khoi, 2005). A number of reports relate peer relations to school adjustment (van den Oord, 2002). Children are more likely to feel competent in school if they can communicate with their peers and teachers, as well as an understanding of the ideas and concepts discussed in class (Katz, 2000). Adjustment to school is improved by social adjustment which is affected by social skills, play behaviour and peer group entry strategies (Maxwell & Eller, 1994). Furthermore, children who have social difficulties in the early years are likely to have problems later in school (Ladd, 1990). Social competence is fundamental to human capability and even if it is not essential, certain aspects of social competence are powerful predictors of academic performance (Gresham & Reschly, 1987; Termine, 1997; Wentzel, 1993). Acceptance by peers has been associated with academic success (Ladd, et al, 1996). Peer relationships impact on a child's engagement with learning as positive peer interactions help children to engage in prosocial behaviours that lead to academic success (Birch & Ladd, 1996; Wentzel in Fantuzzo 2002). Alternatively, poor peer relationships and rejection predict poor cognitive skills and future academic and behavioural problems (van Rossem & Vermande, 2004). Peer relationships have a powerful impact on school life and performance.

There are mixed findings in this area, however. Some research has found a relatively weak association between social-emotional competence and achievement at school (Raver & Zigler, 1997). Moreover, some peer neglected children have higher academic achievements and motivation, and the correlations between academic and social competence with peers appears to be poorly correlated (Wentzel & Asher, 1995). Although peer ratings have been found to be reliable, the relationship is not clear cut. Research has shown that cultural bias, being young, the fickle nature of young children's friendships, and sociometric measures have methodological limitations (Ladd et al, 1996; Raver & Zigler, 1997). A tightening of the definition of social competence in peer relationships is needed for inclusion in a school readiness measure.

4.2.4.3 Teacher-Pupil Relationships as predictors of school readiness.

A positive relationship between pupil and teacher can be significant during transitions. A child's relationship with class teacher has implications for both academic and behavioural adjustment and is a strong predictor of academic outcomes, especially boys (Hamre & Pianta, 2001). It would seem to be particularly important for a child's first teacher (Espinosa, 2002; Birch & Ladd, 1997; Pianta, 1994). Social-emotional competence has been found to foster

better academic performance in the early years (Zins, Weissberg, Wang & Walberg, 2003; Zins, Walberg & Weissberg, 2004). In schools, emergent cognitive skills dovetail with demands for greater self regulation and management of emotion in terms of attending, listening, working cooperatively, and following directions. These have been correlated with later school achievement “if children can interact meaningfully with each other and adults, follow simple rules and directions, and demonstrate some degree of independence in the classroom” (Denham, 2006). The interaction and responsiveness to mediator, whether passive or responsive, and the use of adults as a resource, and responsiveness to challenges, are good indicators of school adjustment (Lidz, 2003). Closeness has been postulated as a positive contributor to adjustment whereas dependency and conflict with the teacher have not (Birch & Ladd, 1996).

Class teachers are significant figures in a child’s school life. Their relationships may influence a child’s ability to adjust to school both socially, emotionally and academically. Relationship management affects the extent to which one is able to get desired results from others and reach personal goals; teachers are integral to these goals (Goleman, 1996). Teachers play a role in cooperation, negotiation, seeking solutions and help when needed (Matula, 2004). Relationships between the participants in the transition process are important and the ability to form relationships is crucial to the transition and later school careers (Dockett & Perry, 2001). There is growing evidence that successful transitions are based substantially on social skills and are facilitated by relationships (Dockett & Perry, 2001; Ladd, Birch & Buhs, 1999; McClelland, Morrison & Holmes, 2000). Relationships between all the participants in the transition to school are important. Effective transitions are affected by all stakeholders, the child, the teachers and the parents.

In summary ecological transitions also have implications for academic performance within peer relationships, adult child relationships and the social expectations of the group. This is especially so in schools where social relationships require children to learn to process social information and perform socially prescribed behaviours.

4.2.5 *Coping and Life Skills.*

The components of social-emotional competence, self awareness, self regulation, management of social relationships and empathy, all share different aspects of the ability to assess, interpret and apply behaviour contextually by reading emotions and adapting

behaviour accordingly. In this sense, social-emotional competence incorporates adaptive behaviours and how the child uses this competence to adapt to different social and emotional contexts and demands like school admission (Bar-On, 2002). Adaptability “affects the child’s everyday effectiveness in dealing with the environment and later responsibilities in school and life” (Trumbull & Pachero, 2005; Zigler, 1997, 300). The capacity to adapt and coping behaviours are expressed in “care of self” in the school context (Lidz, 2003). Whereas behaviours that display independence and initiative (Thompson, 2002) are social-emotional competences, other adaptive behaviours that pertain to self care arise from a more “practical” type of intelligence (Sternberg, 1997; Trumbull & Pachero, 2005). Sternberg’s Triarchic Theory of Intelligence gives credence to different types of intelligence, namely practical, analytical and creative intelligence. Just as cognitive functions cannot explain all academic success, social-emotional competence cannot explain all else. Likewise academic success is not always translated into real world settings, as intellectual skills may not always help to solve these problems (Bar-On, 2002). This is more about an optimal fit between individual and the demands of the environment. This ‘practical intelligence’ is subsumed under the generic of coping or life skills, and, for the purposes of this study, is conceptualised as a catch-all for adaptive skills that facilitate readiness because these usually result from the utilisation of indirect social-emotional skills. If emotions motivate and regulate adaptive behaviour, emotions serve as motivating functions for coping behaviours (Brody, 1985).

Teachers recognize certain coping or life skills are necessary for school. These include behaviours that focus on independent self care and functioning in the social community (Lidz, 2003). They take cognizance of developmentally appropriate milestones that are conducive to adaptation to schools. Self care and independent functioning are behaviours endorsed in the school environment and are considered prerequisites for school adjustment by teachers (Birch & Ladd, 1997). Although there is a low correlation between adaptive functioning and academic functioning (Harrison & Boan, 2000, in Lidz, 2003), certain adaptive coping behaviours or life skills are expectations requisite of independent academic functioning and are developmentally appropriate for school readiness. Coping with the pragmatics of school, as well as coping with the emotional social and cognitive demands, are important for a successful adjustment that have an effect on adjustment and academic performance.

Adaptability is recognized in assessment measures. Certain milestones are referred to in adaptive scales or readiness measures. The Vinelands Social Maturity Scale and Vinelands

Adaptive Behaviours Scales (Classroom Edition) include measures on self, toileting, washing face unassisted, going about the neighbourhood unattended, dressing self, and going to school unattended. This implies that these skills are assumed to be necessary or school. Referred to as Personal Domain behaviours, many are personal hygiene practices or “self help” of pertinence in schools. Likewise, the Griffiths Mental Scales also includes Domestic Domain and Personal Social behaviours which are daily practices. Although not designed as a school readiness measure, The Griffiths Mental Scale includes self care practices that implicate the child’s emerging independence from adults, in terms of self help and self management of personal needs. Similarly, certain behaviours which may not be crucial for adjustment and performance at school, like “Self Standigheid” (independence) and “onafhanklikheid”, constitute necessary school readiness behaviours (Pretorius, 1993). Likewise, the School Readiness Evaluation for Trained Testers (SETT, 1984) specifies self dressing and developmental milestones such as toilet training. The Ouervraelys vir die Beoordeling van Skoolgeriedheid (OVBS, Joubert, 1988) measure or the Nursery school Questionnaire for the Evaluation of School readiness (NQES, Joubert, 1984) includes similar readiness life skills.

Stage pertinent tasks at school entry age are relevant life skills which are necessary to fit into school life. These skills have value for school readiness due to the emphasis Grade One teachers place on their mastery. Despite having cultural and contextual associations, they are considered important by teachers, and as such, they are considered facilitative for school adjustment. In this sense, this research is not only looking at children who have social-emotional competence but also age appropriate life skills which equip them for more successful school entry.

Creating a clear and measurable statement of readiness is not been easy (Welch & White, 1999). This has been the experience of formulating an operational description of social- emotional competences of school readiness in this research as well. Nevertheless, there is considerable consensus about the components of social emotional competence needed to facilitate the transition to school and their implications for early academic success. By identifying these competences, activities or interventions can be identified that better meet the needs of the pupils prior to and on school entry (Jones, 2004; Saluja, 2000). This would fill the need to ensure that young children have the necessary skills for school success (Foxcroft & Roodt, 2003). Appropriate early intervention has been associated with improved chances of adjustment and academic performance. Rather than waiting for first graders to fail and then

provide remediation, a social-emotional measure can identify and lead to intervention that pre-empts school entry (Ramey & Ramey, 2004). In developing an assessment measure in the context of an ecological, holistic transactional conceptualization of school readiness, this research aims to produce a valid, reliable and ecologically sound school readiness instrument that can make accurate predictions.

The focus of this chapter has been the identification of the social-emotional competences and relevant age appropriate behaviours for school readiness for inclusion in a measuring instrument. In the following chapter, the development of an instrument in which to formulate these constructs and behaviours shall be discussed.

Chapter 5

The Construction of a Social Emotional School Readiness Scale

5.1 *General issues in test construction*

The purpose of this chapter is to explain how and why the Behaviours Underpinning Skills for Social-Emotional School Readiness (BUSSE-SR) was constructed and the principles for test construction that guided the construction of the BUSSE-SR. During the foregoing discussion in Chapters 2 to 4, the need for a psychometric test for social-emotional school readiness was frequently noted. When a researcher wishes to develop a psychological test, a number of considerations are necessary. These concern the issues of the nature of the measurement, its uses, and meeting the psychometric criteria for testing.

Foxcroft (2003) calls for the urgent drawing up of appropriate guidelines for the South African situation in test development as well as for a professional code of conduct for test developers. These guidelines are directed at both the ethical and professional consideration of test use and construction.

5.1.1 *Ethical Issues of test construction and the use of psychometric tests.* First and foremost, the interests of test takers should be protected. In the case of the BUSSE-SR, this refers to the rights and responsibilities of the subjects in the research and at whom the questionnaire is directed; pre-school pupils constitute a significant but vulnerable population sample, due to their age. To ensure their rights as learners are not infringed, informed consent from both educational institutions and their parents or guardians is imperative. There should also be an undertaking to provide information as to the use of the test results and appropriate feedback (Foxcroft, 2003). Standards of test construction also insist upon fairness in testing and testing applications (Loewenthal, 2001). Fairness revolves around testing different ethnic groups and the elimination of selection bias and value judgments (Owen, 1998). Tests should fulfil the criteria for fairness in testing by avoiding bias, demonstrating fairness, through the protection of test takers and protecting those who have a different first language or disability. Test application must fall in line with the general principles of test use, in this case psychological and education uses of tests. Hence, fairness is as much about how the test is used as about how it was constructed. In South Africa, it is not permissible for a test to be used for selection on the basis of group differences. For these reasons, the BUSSE –SR

should be subjected to psychometric analysis to ensure it is not biased towards any group of persons, is fair to all groups, and should not differentiate in terms of opportunities against those who have a different language or ethnic identity.

5.1.2 Reason for the Construction of the BUSSE-SR.

As parents, teachers and psychologists, there is a need to make a call as to the best interests in a child's education. This is true when deciding whether a child is school ready or not. Educational decisions are facilitated through the use of assessments and evaluations; psychometric tests provide one way to enhance decision making, although psychologists need to ask whether testing is at all necessary (Owen, 1998). The need for specifically devised tools to facilitate these decisions has led to extensive development of tests for education (Anastasi & Urbani, 1997). The purpose of assessment measures, if used properly and not misused, is to enhance the assessment process and accomplish results with greater speed (Lezak, 1987). Nevertheless, any tool can be an instrument of good and bad, depending on how it is used (Anastasi & Urbani, 1997). The misuse of these measures is well illustrated in South African history when tests were used for separate groups, and were seen as a reflection and entrenchment of discrimination (Foxcroft & Roodt, 2003). For these reasons, psychological testing has been in disrepute to the point that school readiness testing was seen as exclusionary, perpetuating discriminatory policies and were subsequently banned in some provinces (Foxcroft & Roodt, 2003). Consequently, psychological tests that are not valid or reliable and are biased, are prohibited.

This is the challenge to South African test developers. While there is a strong endorsement of the need for psychological tests in South Africa due to the need for equity (Huysamen, 1996), tools for the educational and psychological assessment should not discriminate. This is true for tests that control access or prevent admission to school. It might be further added that because of these historic imbalances, there is also a need for assessments of children in the new multicultural school environment in the new school democratic dispensation. Due to the absence of a suitable measure constructed in the context of the new multicultural South African schools' system, a need for a social-emotional school readiness instrument is apparent.

5.1.3 *The concept of Measurement.*

Measurement is a process of establishing through observation and testing, the “characteristic features of specific entities and allocating a number or score or assessment to that result” (Owen, 1998, 12). Psychological measures have many forms, but the terms questionnaires, tests and scales may be used synonymously (Loewenthal, 2001) and measurement, evaluation and testing shall be used interchangeably in this study (Vassiliou, 2000). Despite the shortcomings of testing and the existence of numerous alternative ways to approach the school readiness decision without psychometric testing, tools that have been specifically designed to assist with this decision, have many advantages. The limitations of tests are that all measurements are based upon observations and are merely samples of certain behaviours and a means of collecting data that can only offer probabilities not certainty (Owen, 1998). However, that data is intended for a specific purpose, and enable those making decisions to take appropriate action with more information and greater probability. The probability of a more accurate and objective assessment of social-emotional school readiness is enhanced by using a measuring instrument or test that has been constructed to predict it. The aspect of objectivity is important for psychological testing.

A test is “essentially a standardised and objective measure of a sample of behaviour”, part of a procedure for quantifying certain responses (Anastasi & Urbani, 1997, p. 4). Not only should a test be standardized in terms of the norms of a certain group, but it should also be objective (Vassiliou, 2000). Objectivity is obtained when a subject receives the same score on a test, regardless of situation (Anastasi & Urbani, 1997). In essence, a test lends greater objectivity to our observations, when a sample of behaviour has been captured and that can be used to predict behaviour in the future (Owen, 1998). In this way, a measure for social-emotional school readiness can provide an objective, reliable and valid means of assessing readiness for school so that the probability of a child adjusting to school can be predicted with fair accuracy. By assigning a numerical value which facilitates comparison amongst individuals and the relative weight of an attribute, a more objective, normative decision about a child’s readiness for school can be made. In order for a test to be objective, it should be subjected to the psychometric procedures of item analysis and item selection, which shall be discussed later in this chapter.

Before outlining the principles of test construction underlying the BUSSE-SR, it must also be remembered that test results only represent one source of information in the

assessment process (Foxcroft & Roodt, 2003). Stand alone psychometric tests do not constitute a complete assessment; and any decisions require a collaborative approach, incorporating multiple forms of evaluation. When tools or psychological measures are used in an assessment process orientated activity in collaboration with other assessments to gather as much information as possible, they help decision makers to reach a conclusion (Anastasi & Urbani, 1997). It must be emphasised that a test needs to be used in collaboration with other assessments. This means that test scores are part of the evaluation process, not an end in themselves but add credibility to the process as a source of diagnostic information (Owen, 1998). This study is positioned in a framework where a test is seen as part of the system and forms part of the whole evaluation process. When used by qualified persons, tests are used to make appropriate decisions more often than were these tools not to exist (Owen, 1998).

5.2 Test Construction

When constructing tests, there are certain steps in development and ethical criteria. Guidelines for psychological testing have been outlined in South Africa in the code of Practice for Psychological Assessment for the Workplace (1998), (Foxcroft & Roodt, 2003) and for APA and UK in the International test Commission's International Guidelines for Test Use (Version 2000), (Anastasi & Urbani, 1997; Loewenthal, 2001).

Test construction refers to the process of planning, evaluation and documentation. During the process of development and revision, the criteria for validity, reliability, errors of measurement and test score information are met. This is followed by standardization process involving scales, norming, scaling and test administration and scoring. The standardisation of a social-emotional school readiness measure is not part of this study.

Foxcroft (2003) elaborates the steps for developing a measure. This involves the planning stage, aim, content and test format. The following section discusses test development and construction and the importance of objectivity, reliability, validity and item selection.

5.2.1 Test Construction: The Planning Stage.

In the absence of a suitable measure of social-emotional school readiness assessment, then, the construction of such a tool was considered necessary and forms the focus of this chapter.

The planning of a test involves specifying the purpose of the measure, stating the constructs to be measured, the use for which it is designed, and defining the content.

5.2.2 *Aim of the measure.*

Every psychological instrument is designed for a certain purpose. The aim of the BUSSE-SR is to assess the social-emotional readiness of South African pre-schoolers to adjust and perform in Grade One. The BUSSE-SR measures the social-emotional school readiness competence constructs, self awareness, self regulation, empathy, social relationships and coping skills, which are believed to be needed for school adjustment and performance.

Psychological tests may be used for selection, placement or classification in the optimal interests of the child (Anastasi & Urbani, 1997; Owen, 1998). The BUSSE-SR shall be used for diagnostic purposes, for feedback and to help make decisions about appropriate interventions that facilitate the transition to school. If the BUSSE-SR were standardized, it would be able to be used normatively, by comparing an individual's performance to the norm group on an inter-individual basis. This tool shall also provide a means for research into how well the BUSSE –SR predicted school adjustment and performance through pre and post measures of school readiness. The purpose of the BUSSE-SR is to develop and use a measure that can give a scientific measure of how school ready a child is socially and emotionally. Rather than a test, a questionnaire was chosen to assess this.

5.2.3 *Content of the measure.*

The BUSSE-SR measure consisted of a questionnaire that was broken into three sections, two scales of measurement and a ranking order question:

There were two scales to measure social-emotional school readiness. The use of two scales allowed for the computation of numerical values for both scales. This permitted intra-individual and inter-individual comparison since both types of items measure the same behaviours but in different ways (Loewenthal, 2001).

In addition to these two tasks, parents and teachers were asked to identify any five items in the questionnaire that they considered to be most important for school readiness. This task was for the purposes of the research, but for the sake of convenience, was included in the BUSSE-SR and does not constitute part of the final version of the questionnaire.

The two scales for measurement were:

-Visual analogue items. A visual analogue scale consists of a horizontal line of numerical values which gives a graphic global measure to an attribute and provides an objective value to a subjective interpretation (Huysamen, 1996; Loewenthal, 2001). In the BUSSE-SR, the respondent was asked “How ready do you think this child is for school next year?” and instructed to indicate the extent to which a child possesses a certain social-emotional attribute.

-Likert scale items. The content of the BUSSE-SR was organized in a questionnaire of Likert scale items. Because the content of a measure flows directly from the purpose of the measure, the content of the Likert scale items on the BUSSE-SR consisted of the attributes considered to indicate social-emotional school readiness (Foxcroft & Roodt, 2003). In this study, the BUSSE-SR does not purport to measure the construct of school readiness as such, but rather the observations of teachers and parents of certain behaviours that are believed to be correlated and provide the social-emotional indicators of school readiness.

5.2.4 Reason for Questionnaire format Test Construction.

In order to evaluate social-emotional competence for school, a questionnaire format was selected as the tool of measurement. Scientifically developed questionnaires consist of certain items that are tested and selected with acceptable degrees of reliability, construct validity and factorial purity (Owen, 1998). The value of questionnaires depends partly on the quality of the respondent’s responses. The BUSSE-SR places reliance on the bona fides of the parents and teachers to accurately reflect a child’s social emotional competence to enter Grade One. A construct like social-emotional competence or school readiness is an unobservable hypothetical construct, which together with others, forms part of a theory that explains certain behaviours or observations (Huysamen, 1996). The hypothesis has been made that children who possess certain social-emotional competences adapt and perform better at school than others who do not possess them. These constructs need to be measured in operational ways, in order to investigate the extent to which they play a role in school readiness. Once operationalised, these behaviours help us to understand the relationship between them and school readiness. The content of the BUSSE-SR questionnaire then consists of these behaviours or items.

In order to identify the behaviours included in the questionnaire, the “attribute being measured should be clearly identified and defined”, and a decision should be made “regarding how the attribute can be observed”, and “procedures determined for converting observation into quantitative data” (Owen, 1998, 17). There are considerable challenges to clearly defining social-emotional competence for school readiness which have discussed in earlier chapters. One such methodological difficulty is the interrelated nature of social-emotional abilities and how this is operationally defined. A behaviour may not only underpin self regulation, but also other constructs like empathy or effective social relationships, or other constructs not included in this research, for example. Human beings cannot be quantified nor can their competence be measured in totality; we are reminded that a score is merely a momentary psychological measurement (Owen, 1998).

All measurement is subject to this condition. Although questionnaires are no different, this format was selected as the most appropriate measure for the target population. Special factors have to be taken into account as pre-schoolers constitute special populations (Anastasi & Urbani, 1997). For ecological relevance, pre-schoolers’ behaviour should be assessed in contextually relevant ways and test construction should meet the ecological requirements of the theoretical framework of the research and the developmental aspects of pre-school children. This was accomplished through the completion of questionnaires by parents and teachers in the child’s ecosystem.

Traditionally, tests of school readiness have been designed to measure the outcomes of pre-school attendance or for predictive purposes (Anastasi & Urbani, 1997). This study looks at the predictive value of the BUSSE-SR. There are alternative methods of collecting data, such as naturalistic observations, self reports and checklists. Naturalistic observations of spontaneous behaviour have been widely used in the assessment of school readiness; this is traditionally based on a psychologist’s observations of a child in situ or psychological setting. While these techniques have proved useful, they are unstructured and highly individualistic rather than normative. Self reports are developmentally untenable for completion by pre-school children; young children are developmentally unable to reflect or express their self knowledge, or complete extensive verbal or written reports. While checklists, schedules, or record forms provide a useful observational aid, questionnaires have the advantage of recording information in structured, normative terms under standardized conditions. Their value lies in the ecological validity of such behaviours and the ability to observe changes over

time (Anastasi & Urbani, 1997). Questionnaires are contextually appropriate, cost effective in time and expense, and incorporate the experiences and observations of significant stakeholders in the child's life. For the reasons outlined above, a questionnaire format was chosen to measure social-emotional competence for school.

5.2.5 Specifications for the format and number of each type of item.

Type of item and scale. Questionnaires commonly use open-ended items, forced choice items, sentence completion items, essay items or performance items (Foxcroft, 2003). The BUSSE-SR questionnaire made use of a forced choice format of responses. In the first section of the questionnaire, fifty items or statements of behaviours that underpin social-emotional competence were stated. These were placed alongside for rating according to a Likert Scale, which, in this case, consisted of a four point scale. A copy of the BUSSE-SR is appended in Appendix A.

A Likert scale typically consists of statements followed by a five to seven point rating scale. The respondent is required to circle the extent of agreement with that statement or the extent to which it is true (Kline, 1986; Kline, 1993). The qualifying categories for the ratings on the BUSSE-SR were "Not at all", "Sometimes", "Mostly", and "Always", from 1 to 4. Likert scales characteristically have a rating scale of five to seven points (Kline, 1993). Because an odd number allows the respondent to adopt a neutral position when uncertain, this tendency shows little variance in a normal sample. To avoid neutral responses, an even number was used for the rating scale. This obliges the respondent to be mildly negative or positive in their responses which reduces acquiescence (Kline, 1993). This shall be discussed further under item selection and response sets.

Number of items. The ultimate length of the measure is considered during the planning stage. Items or behaviours are selected for their representation of the construct being tested. While more items can improve the reliability of a test, too many items may lead to other response effects for the respondent, and approximately fifty items are recommended (Kline, 1986). The BUSSE –SR consisted of fifty (Teacher Version and Parent Version) statements or items to underpin these constructs. The original item pool should include twice as many as items in the final pool, because some behaviours may not satisfy the criteria for item selection once the criteria of validity and reliability have been conducted (Kline, 1986,

1993; Huysamen, 1996; Loewenthal, 2001). Only those with the highest loadings were selected. In summary, the fifty behaviours selected for the first version of the BUSSE-SR were expected to be reduced to approximately thirty in the final version, making the questionnaire quick and relatively short for completion. In addition, parent and teacher reports offer a relatively quick way of collecting data about young children.

Proportion of items to constructs. It is recommended that the pool of items should measure several different factors (Kline, 1993). Hence five social-emotional factors in school readiness, namely self awareness, self regulation, empathy, social relationships and coping skills, were selected. Subscale items, the behaviours that underpin the identified constructs, are best positioned when they number between three and fifteen items. In the BUSSE-SR, the items underpinning the constructs numbered between three and nine per construct. Statements underpinning the constructs were then randomly assigned to avoid clustering of constructs, and to counteract errors of leniency or severity. In this way, the items for each construct were spread across the questionnaire.

5.2.6 *Writing the items.* The items identified for inclusion in the BUSSE-SR questionnaire were based upon an extensive literature review as explicated in Chapters 2-4, consultation and review with teachers, parents and psychologists working with this age cohort and the professional experience of the researcher.

However, the identification of the behaviours is not sufficient for the formulation of a questionnaire. It is imperative that, given the emphasis placed on the items or statements in a questionnaire, all items should be stated with clarity, are clear, succinct, unambiguous, and that the items mean much the same to different people. The wording should be clear and concise, avoid negative expressions and cover only one theme at a time (Foxcroft & Roodt, 2003). Foxcroft (2003) advises that items or behaviours should be phrased in a way that is user friendly, familiar to the respondents completing the questionnaires, and be representative of the construct under investigation.

The validity and reliability of a questionnaire is influenced by the accuracy of items to represent the construct under measure. To enhance the validity of items, accuracy is needed and achieved through avoiding ambiguity in the way that they are stated (Anastasi, 1997; Kline, 1986; Kline, 1993; Huysamen, 1996; Loewenthal, 2001), especially in questionnaires.

Items should be phrased in specific terms, and the ratings in terms that will be universally understood by that group of respondents. Statement should avoid double barreled meanings, which result in respondents being unsure of which aspect to respond to.

The items in the BUSSE-SR were therefore phrased: “This child is able to (Teacher version) “ or “My child is able to...” (Parent version). This phrasing is in line with the Revised Curriculum Statement and Outcomes-Based Education which forms the pedagogy of the South African Education curriculum (van Heerden et al, 2007). It is also positive in its emphasis on competence, and the respondent is merely required to indicate the degree to which the child possesses that competence. Positive phrasing was important as the BUSSE-SR is not based on a deficit model or psychopathology.

Given the emphasis on the effectiveness of statements for measurement, terms reflecting interpretation or feelings were avoided and items were stated in terms of actual and specific behaviours. For example, teachers and parents were asked to rate the degree to which a child “comes to school willingly”, not whether the child “likes to come to school”. Because the meanings of certain words are open to interpretation, these were replaced with ones that allow the respondent to reply without having to mull over their meanings.

The sample of behaviours included in a test must be representative to meet the criteria for content validity (Huysamen, 1996); it was critical that the behaviours in the BUSSE-SR were developmentally relevant and representative of the social-emotional competence considered important for school readiness. Experts in early child development including pre-school teachers and principals and educational psychologists, were consulted for input on the content validity. However, as all the behaviours that underpin the social-emotional constructs could not be included, a sample of the critical behaviours was selected for each construct. These behaviours were then transformed into statements for inclusion. This is important, since construct validity can only be established to the extent that the random selection of behaviours is representative of the social-emotional competence needed for school readiness. The behaviours selected in the item pool are explicated in Chapter 6.

5.2.7 Critique: Questionnaires using rating scales.

Questionnaires consist of items or behaviours stated alongside ratings (Kline, 1993). One problem here is the different interpretations respondents make of the categories used in the

rating scale. It is quite possible that different parents and teachers assign different weights to the same behaviour. Moreover, because the ratings evaluate behaviours that have been accumulated in daily life contexts, naturalistic observations rely upon experience and memory of the behaviours, and involve judgments and interpretations and are not simple recordings. This limitation is partially compensated for by the fact that ratings on scales typically cover a longer period of observation, and the information is obtained through actual situations.

Nevertheless, rating scales are subject to errors in response style. This refers to responses by the respondents to answer an item “in such a way (as) that ... the real position of the attribute which the instrument is designed to measure is not reflected” (Loewenthal, 2001). One response set is the halo effect which occurs when the respondent assigns ratings in terms of the general impression of the subject (Huysamen, 1996). A teacher’s positive impression of a child could result in assigning ratings in a congruent way, irrespective of the behaviour and real life experiences. Questionnaires are reliant upon the honesty and knowledge of the respondent and thus are not fully objective when the examiner has little control over their responses.

Another response set is prestige bias; this refers to the tendency of respondents to use ratings to put themselves in a better light. Respondents may wish to create a certain impression of themselves in those roles, either by faking or due to social desirability (Kline, 1986; Kline, 1993). This tendency is a shortcoming with questionnaires when they are completed by parties like teachers or parents, as their ratings of subjects reflect upon them in that role. A respondent may answer in such a way as to reflect his/her proficiency as a parent or teacher, or what is considered to be socially desirable (Huysamen, 1996). This is particularly notable with certain cultural groups who place greater weight upon certain attributes (Kline, 1986; Kline, 1993). For this reason, questionnaires should avoid items that represent behaviours that are obviously socially desirable or undesirable (Kline, 1986, 1993).

This is related to the leniency factor, when respondents overrate a subject rather than assign unfavourable ratings. This causes scores to be clustered at the top end of the scale, and ratings less discriminating. Relevant contact can also help to counteract both these tendencies, as raters who have known their subjects for a long time and have observed them in different situations are more likely to resist this.

Further response sets are those of central tendency and the inclination to endorse extremes. A balanced scale consisting of an even number of rating options may be subject to this error (Kline, 1986) as respondents feel obliged to choose a more extreme rating. This is evident in the BUSSE-SR where there are only two positive ratings and two negative ones. However, another response set, the tendency towards using the uncertain or middle category, like consistently tending towards the average by choosing the median rating, in the case of an uneven number of rating options, also presents problems. This is referred to as the error of central tendency or the tendency to choose the middle ratings as the safer choice, to avoid extreme positions (Kline, 1986; Kline, 1993). This is not as simply solved as having an even or odd number of ratings.

Although questionnaires collect large amounts of data relatively quickly, there is a risk of misunderstanding and misinterpretation in the completion of the measure since words cannot be totally neutral and their meanings not always clear to all. Qualitative data, on the other hand, offer more in depth responses and may be obtained through questionnaires, but require more effort from the respondent. However, these may not always be answered accurately as they require more input from the respondent in time and expression.

Questionnaires provide forced choice format statements with a predetermined set of response ratings. When there is a sufficient range of responses, which permits easier tracing and comparison between respondents' evaluations of subjects, these also need to allow for sufficient distinction between items. While the use of a Likert scale, and the closed format responses, leaves less open to interpretation, the items that are measured along a Likert scale run the risk that the differences between rankings are inferred to be of equal interval between the rankings.

In summary, questionnaires are an inexpensive way of collecting data from a large number of respondents and allow for statistical analysis. They are useful if costs are limited, and protect the privacy of the participants, and act as confirmation of other assessments.

5.2.8 *Review of the items.*

After a pool of items has been developed for a test, the test must be reviewed and evaluated (Foxcroft & Roodt, 2003) to establish whether they adequately tap the construct being assessed. This can be accomplished using the statistical data and results but also through

thorough analysis by an expert panel of professional with experience and specialized knowledge. A review of the items extends from the wording of items to whether the test is culturally appropriate and gender fair. This shall be discussed in the analysis of results and statistical findings in Chapter 7. The loadings of items shall be analysed for selection for the final version of the test, and the length and time required for completion of the test, and sequence of items and scoring. Administration instructions shall also be reviewed for clarity and precision before the test is finalized and, although this falls out of the ambit of this paper, the test should be administered to a large sample of the target population for standardization and norms.

5.3 *Test Construction: Item analysis phase.*

Assessment measures can be used for research as well as for practical applications (Foxcroft & Roodt, 2003); this is true for BUSSE-SR. The value of a test lies in the way it can be used and what can be interpreted from test results (Foxcroft & Roodt, 2003), thus the items, the power of prediction, and the reliability and validity of the test are very important. It is important that the items in the BUSSE-SR provide the information needed and is appropriate for the purpose intended. This can be derived through item analysis and item selection.

5.3.1 *Item Analysis and Item Selection.*

Likert scales are best constructed with item analysis statistical analysis to demonstrate whether a set of items measures a homogenous factor and which are of doubtful value or meaning (Kline, 1986; Kline, 1993). Items that are too easy or difficult can be eliminated, differentiated, and lead to improvements (Esterhuyse, 1997). Item analysis makes it possible to shorten a test by eliminating less satisfactory items as well as increase validity and reliability (Anasatasi & Urbani, 1997). Items with high loadings should be included in the BUSSE-SR.

Item Selection.

The selection of items in a questionnaire is fundamental to the success of the instrument. “A test is as good as, or as poor as, the items of which it is composed” (Huysamen, 1996, 45). This is particularly true of questionnaires using a Likert scale. Since both the validity and reliability of a test depend on the characteristics of the items, the general guidelines for writing tests can improve a test through the selection and revision of test items. Item selection helps in the choice of appropriate items for a test, and assists the development of a test to meet

the criteria of reliability and validity (Esterhuyse, 1997). Its value lies in the quality of the items available for analysis. The selection of items for the BUSSE-SR questionnaire was a crucial aspect of developing the measure.

The selection of the items for the sample pool is determined by item difficulty, item variance, item test correlation and item criterion correlation. As this is an evaluation questionnaire, not a performance test, item difficulty was not needed.

Item variance (s^2) is directly related to item difficulty. Ideally, item variance should be as large as possible; when an item is too easy or difficult, the item variance is very small. This helps the researcher to select items with larger variances so that the variance of the test is as large as possible (Vassiliou, 2000).

Item test correlation indicates how much performance on an item correlates with the performance in other items of the test (Huysamen, 1996). A high test-item correlation on one item usually indicates the likelihood of high performance on other items in the test. Selection of items with high item-test correlations, ensures high internal consistency. This in turn affects the coefficient alpha of a test when the reliability is measured.

Item criterion correlation refers to the discrimination value of an item and the correlation between item scores and criterion scores (Huysamen, 1996). This correlation indicates how a subject's performance correlates with the performance on other items in the test. The higher the item criterion correlations of the items of a subject, of a test with fixed test variance, the higher the criterion related validity of the test (Vassiliou, 2000).

These measures indicate which items are best selected for a test to meet the criteria for validity and reliability. In turn, prediction, reliability and validity need to be performed in order to give an indication of how meaningful the test is.

5. 3.2 Prediction. A characteristic feature of tests is their predictive value (Owen, 1998). This means that measures may serve as a broad indicator of behaviour that has some connection with future behaviour. In this sense, a test can be a temporal index of other behaviour and suggests that the subject has the capacity for certain behaviours at a later time (Anastasi & Urbani, 1997). Although sample behaviour is not directly measured, test items

have a connection with the behaviour the tests wished to measure and an empirical relationship exists between the test items and the behaviour the test aims to assess. The test then serves the purpose of predicting (Anastasi & Urbani, 1997). This attribute is important for the BUSSE-SR which aims to predict that a child who possesses certain social-emotional competence at preschool will be able to adjust and succeed academically in Grade One. The predictive ability of the BUSSE-SR shall be examined in Chapter 7.

5.3.3 Reliability.

Psychological measures must meet the technical standards of reliability and validity (Foxcroft & Roodt, 2003). How good is this test? Did it really measure what it was developed for (Anastasi & Urbani, 1997)? To answer these questions, a test must meet the standards of reliability and validity.

A test can be described as reliable when it consistently measures whatever it measures (Foxcroft & Roodt, 2003; Huysamen, 1996; Loewenthal, 2001). Essentially, reliability refers to the chances of receiving the same scores on the same child with an identical or similar test. The only way a test may show its reliability is through empirical trials. The concept of reliability presupposes that the attribute under measure remains stable and can be generalised (Huysamen, 1996). The greater the variation from one set of scores to the other, the greater the error variance or sources of error; the fewer the errors, the greater the reliability.

Reliability can be measured by using various measures of stability and equivalence and internal consistency, split-half reliability, Kuder-Richardson estimates of reliability, Co-efficient-alpha and test-scorer reliability (Vassiliou, 2000).

Measures of stability or test-retest reliability are obtained when a test is administered to one group and then re-administered again later. This was not used in this research. Measures of equivalence (parallel forms of reliability) are used when parallel tests composed of different items of equal difficulty are administered (Vassiliou, 2000). This was not used.

The measures above require testing on two separate occasions. When this is not feasible, estimates of reliability can be calculated from one set of test data (Vassiliou, 2000), these are measures of internal consistency. The following estimates may then be used to determine the extent to which an item correlates with the total test score:

Split-half reliability and the Spearman-Brown formula are used to measure split half reliability (Vassiliou, 2000). Kuder-Richardson estimates of reliability are used for items of dichotomous difficulty and makes use of the KR 20 and KR 21 formula. Since dichotomous, right or wrong, items are not used in the BUSSE-SR, this measure shall not be used.

A coefficient alpha index shows the degree to which all items in a test measure the same variable. The coefficient alpha is calculated using the variance of the total test and the variances of the individual items (Vassiliou, 2000). When a high internal consistency value is obtained, this implies the test has a high degree of generalisability across items within the test and over other parallel tests (Huysamen, 1996). This was used to examine the BUSSE-SR.

Finally, test-scorer reliability refers to the standardisation of test instructions, when tests have standardised instructions there is a greater chance of reliability from one test administrator to another. This has application to the BUSSE-SR. If parents, pre-school and Grade One teachers have the same instruction, they are more likely to assign similar ratings and scores for a learner and this would indicate reliability. When test scores are consistent over different times, and there is agreement between the scores assigned by different raters, test-retest reliability and inter-scorer reliability is obtained. To make tests reliable, the instructions for completing the questionnaire must be brief, simple and clear without qualifying clauses (Kline, 1993). This was attempted in the development of BUSSE-SR.

In summary, reliability is a crucial measure for a test. However, reliability does not imply validity. For the development of a test, both criteria should be met.

5.3.4 Validity. It is vital that psychological tools have validity, the degree to which a test actually measures what it intends to measure, and how well it does so (Anastasi & Urbani, 1997). This means that validity is neither high nor low, but simply that validity is established in relation to the particular use for which the test is being considered (Anastasi & Urbani, 1997). Validity is concerned with the relationships between performance on the test and other independently observed facts about the behaviour characteristics under consideration. This means that when a score is used to infer performance it is actually predicting performance (Vassiliou, 2000). If there are correlations between testing on one occasion and testing on another, the test can be described as showing predictive validity (Kline, 1993; Huysamen, 1996). In this study, the criterion performance that is predicted on

the basis of the scores on the BUSSE-SR is school adjustment and performance. Predictive validity is best established if all individuals who were assessed the first time are available for the second assessment (Huysamen, 1996); this was a difficulty encountered in this research. The degree of prediction can be seen from the measures of content validity, criterion validity and construct validity measures.

Content Validity Content validity refers to the degree to which a test is representative; or the extent to which the items in the test represent all the behaviours that could have been included to measure that construct. A test's content validity is measured through feedback and consultation with specialists, as there is no single numerical expression (Vassiliou, 2000).

Criterion-related Validity Criterion-related validity refers to the extent to which diagnostic and selection tests correctly predict the relevant criterion (Huysamen, 1996). By comparing two scores that measure the same construct, a measure of criterion-related validity is obtained. This is obtained by computing the standardized difference in the means of two scores which gives an estimate of effect size, depending on the correlation coefficient. As it is often used for prediction, this estimate can also be used to deduce the predictive validity of a test. Alternatively, it can be used concurrently to measure the current behaviour of the subjects (Vassiliou, 2000).

Construct Validity Construct validity helps us to determine “the extent to which each construct measures the hypothetical construct it purports to measure” (Huysamen, 1996, 41). It is important for construct validity to know that the behaviours selected do indeed measure the construct of social-emotional school readiness in the BUSSE-SR. Measuring instruments not only measure the actual construct but also irrelevant constructs and random errors (Vassiliou, 2000). Accidental factors, which vary per individual, are random and unsystematic sources of variation. It is difficult to isolate other factors that may have affected the performance and scores, and contribute without having been identified. The actual and irrelevant constructs are sources of systematic variance because they are constant to an individual.

It is important that validity is established on a representative sample of persons, that the test tests what it intended to test, and that it tells us what the test is measuring (Anastasi &

Urbani, 1997; Loewenthal, 2001), and the extent to which the test satisfies its intended purpose.

In conclusion, it was important in the development of the BUSSE-SR that, through item selection, the criteria for validity and reliability are met. How and to what degree these were achieved shall be discussed in the following chapters.

Chapter 6

Research Design and Methodology

6.1 Introduction

The need for a measure of social-emotional school readiness has been explored in earlier chapters. The construction of such an instrument, a social-emotional school readiness measure for South African children, the BUSSE-SR was discussed in Chapter 5. The effectiveness in predicting school adjustment and performance is dependent not only on the test construction, but also within the context of the research design of this study. This speaks directly to the goal of this chapter which is to outline how the research was conducted and the research design framework.

6.1. Goal of the investigation. Little research has been conducted on how social behaviour and emotionality affects academic and school functioning in the early grades, and why most school entrants are “under-prepared” for school (Education White Paper, 2001). This research attempted to show the predictive value of social emotional competencies on school adjustment and performance in Grade One. The identification of behaviours underpinning social emotional competence was assessed using the questionnaire, the BUSSE-SR, three to six months before school entry. The aim of this questionnaire is to predict school adjustment and performance in South African children on the basis of their social-emotional competence. As all assessment should provide outcome predictions (Vassiliou, 2000), the questionnaire is a means of identifying a learner who is not as socially emotionally competent enough to adjust to Grade One, so that intervention can take place as early as possible. The questionnaire is administered individually and completed by pre-school teachers and parents. It can be used as collateral with other assessments diagnostically to assist school readiness decisions as to whether a child should enter school or not.

6.2 Research Method

The research consisted of four phases:

6.2.1. Phase one: Construction of a preliminary questionnaire The construction of the preliminary questionnaire is the most important phase in this research.

Before constructing this, permission was requested from the Kwa-Zulu Natal Education Department to conduct the research. Contact and permission to conduct research in schools in the Durban, Kwa-Zulu Natal region was received from the department. During January 2006, the researcher contacted the principals of eleven schools in the Durban/ Durban North region requesting their participation in this research. Copies of the following were sent to the principals:

The research proposal,

A letter explaining the nature and implications of the research for participating schools.

A copy of the letter that would be sent to the parents of the sample group of preschoolers,

A letter from the supervisor recommending the value of this research from the University of the Free State.

Two schools declined to participate, and one school which only offered Grade 0 could not participate in the follow up with Grade One in 2007. Once the remaining eight schools granted permission, the head of the Foundation Phase was designated as the contact person for each school. The Foundation Phase contact person undertook to:

- inform the Grade R teachers involved in the completion of the questionnaires
- inform the Grade One teachers involved in Phase Three of the research
- disseminate and collect the questionnaires and accompanying letters to the parents of the sample Grade R preschool population
- collect the questionnaires and feedback from the Grade R and Grade One teachers

Ethical Conditions

The following steps were taken to ensure ethical standards were maintained

- The confidentiality, right to privacy and anonymity of the learners was assured. Although names were written on the questionnaires, in accordance with anonymity these were not entered into computer database.
- Ethical permission from the education department was sought and granted.

- Consent was also received from the parents and the principals of the participating schools.
- A follow up and thanks to the parents, teachers and principals of school participating in the research was implemented.

The construction of the questionnaire began with preliminary research. Information from three parents, three psychologists, and three Grade R teachers and three Grade One educators (with at least five years of teaching experience) was used. An extensive literature review into the social, emotional and life skills criteria for school readiness was undertaken and the researcher drew upon her experience as a Foundation Phase educator and psychologist.

The literature review revealed that five social-emotional domains were necessary for school adjustment and academic success in the early school years.

Social-emotional school readiness constructs.

Five overarching social-emotional/ life skill domains were selected. Between five and thirteen behaviours or competencies were selected under each domain, resulting in 50 behaviours or items (Teacher Version/Parent Version) in total. The questionnaire was constructed using a 4 - point Likert rating scale with the following categories: “Not at all”, “Sometimes”, “Mostly”, and “Always”. The following domains (adapted from Thompson, 2002; Murphey & Burns, 2002) were used:

- Self Understanding and Awareness
- Self and Emotion Regulation
- Empathy and Emotional growth
- Social Relationships
- Coping and Life Skills

Selection of social-emotional school readiness behaviours for BUSSE-SR.

The behaviours underpinning these constructs were selected from the preliminary research, the literature review and the professional experience of the researcher. Due to the integrated nature of the constructs, these behaviours are not readily discrete and may intersect to some extent. However, those aspects that are believed to be most prominent were used to determine

which construct they measured. In line with Outcomes Based Education, the competences are phrased “Is able to ...” (van Heerden et al, 2007). The social-emotional school readiness constructs or social-emotional domains are listed below with the operational behaviours:

Self awareness behaviours

Behaviours relating to self awareness are: 4, 10, 13, 16, 22, 23, 38, 40, 42, 45, 48

4.	Is able to tell others what he/ she wants to do
5.	Is able to play on his/her own without adults
10.	Is able to recognise when he/she feels afraid
13.	Asks for help when he/she needs it
16.	Likes to try something new like a game, a puzzle or drawing
22.	Helps others when he/ she sees they need it.
23.	Expresses affection physically with hugs, kisses, strokes or words.
38.	Enjoys it when others show him/her affection
40.	Is proud of what he/she does (Lego, drawing, etc)
42.	Comforts others when they are hurt or upset
45.	Shows us what he/she can do (drawings and physical activities)
48.	Can recognise how his/her friends feel.

Self regulation behaviours

Behaviours relating to self regulation are: 2, 6, 7, 11, 15, 17, 21, 24, 25, 31, 33, 36, 44, 46

2.	Is able to put his/her toys away after he/she has been playing
6.	Keeps trying when doing puzzles, drawings or in games suited to his/her own age group
7.	Is able to take turns when playing a game in a group
11.	Is able to control feelings of frustration so that they don't interfere with his/her play
15.	Is able to wait his/her turn to speak in a group (or the family)
17.	Is able to listen to others without interrupting
24.	Is able to wait for something like a treat at a special time
31.	Is able to stop him/ herself from becoming involved when other children do something they are not allowed to do

36.	Comes to school willingly.
44.	Is able to stand up for him/herself without an adult
46.	Is able to judge a situation before getting involved

Empathy behaviours

Behaviours relating to empathy are; 20, 48.

20.	Knows how I will feel about his/her behaviour (like if I am angry)
48.	Can recognise how his/ her friends feel.

Social relationship behaviours

Behaviours for social relationships: 1, 3,8,12, 18, 23, 25, 26, 27, 30, 32, 33, 35, 39, 43, 47.

1.	Is happy when he/she says goodbye and comes to school
3.	Tries to please adults.
8.	Is able to work out a solution when peers or friends disagree, without fighting
12.	Is well accepted by his/ her peers.
18.	Is able to talk to other adults easily
25.	Asks permission to play with a toy when it is being used by another
26.	Is able to maintain friendships over time.
27.	Is able to adjust to changes in our routine.
30.	Is able to get over being hurt quite quickly if he/she is not too badly hurt
32.	Shares his/ her toys with friends of the same age
33.	Complies with the rules of the school (or the home).
35.	Comes to school willingly
37.	Is able to carry out simple tasks when given an instruction
39.	Can play in a group cooperatively.
43.	Is able to greet adults when meeting them.
47.	Can approach his/her friends when he/she wants to play with them.

Coping Skill behaviours

Behaviours relating to coping skills are: 9, 14, 19, 28, 29, 34, 41, 50

9. Is able to feed him/herself at mealtimes
14. Is able to go to the toilet alone
19. Is able to dress him/herself
28. Takes care of his/her own belongings like toys or clothes
29. Is able to decide if I give him/her two things to choose from
34. Can unpack his/her schoolbag without help
41. Says "Thank you" when given something
50. Says "Please" when given something

6.2.2 Phase two: Distribution, implementation, collection, review and finalisation of Questionnaire.

Once construction of the questionnaire was complete, eight Foundation Phase heads asked the respective parents and Grade R educators to assess each child's social-emotional competence, according to the BUSSE-SR questionnaire. The content of the items and their selection and relevance are discussed in Chapter 5.

According to Esterhuysen (1997), it is important that certain statistical properties are addressed when developing a psychometric measure. These properties include sample size, number of items in the questionnaire and the means of the test scores.

Sample Group.

In order to be representative, Grade R learners in 2006, made up the sample group. It is important that the subgroup is one from which inferences about the total population can be made, and reflects the target population for whom the test is intended (Huysamen, 1996). The target population consisted of South African preschoolers at pre primary schools who, in terms of legislation, were already six years old or about to turn six years in the first six months of the next year and were eligible for Grade One in 2007. Because of the difficulty of ensuring an adequate sample of the population, a convenience group was used rather than a randomised sample (Kline, 1986; Kline, 1993). Unlike the process of standardisation, selection at this stage of test development does not have to be random, because the

relationship between items is more important in the preliminary phase than the mean scores (Kline, 1993). The use of institutions and a convenience sample allows for greater access to subjects although it loses on random selection.

The size of the sample group bears mention here. A sample group must be large enough to reduce the standard error of correlations to as little as possible, hence a minimum of 220 respondents are recommended (Kline, 1993). The sample should not be too homogenous as the variance will be small and affect the emergence of factors. A large sample group reduces sample bias and improves statistical power, which is preferable, whereas a smaller sample group provides a more focused result and better response rate and return. A convenience sample consisted of 338 English-speaking Grade R learners (2006) in the age cohort of 61 months to 82 months.

The learners in the sample group were from middle to high income groups as they were registered at independent and public schools where the school fees ranged from R10000 to R20000 per annum. There was an equal distribution of boys and girls, 169 in each gender group. The learners came from predominantly White, Indian, and African families who lived in the central to northern Durban metropolitan area in Kwa Zulu Natal.

Demographic Variables. Certain demographic variables were identified for inclusion for the research study: a sample group must reflect the population it represents, hence the age, gender, and race of each child was noted (Kline, 1993). Certain variables are critical for certain tests, and age and gender are important ones for young children.

Age at entry to school has particular relevance in the issue of school readiness. If school readiness is considered to be developmental, it is more likely that age will influence ratings. Furthermore, items also need to be developmentally relevant. If age affects development, a positive correlation between age and competence is expected. There may also be an interaction effect between age and gender. Being old for grade is more common among boys (Byrd, 1997), for example.

Gender differences are likely to lead to different ratings assigned to different sexes. Gender differences between children with regard to empathy have been found, and social behaviours are differentially distributed among boys and girls suggesting that social

competence may be gender specific (Eisenberg, 1987; Rose-Krasnor, 1997). Older males are more at risk for behaviour problems (Byrd, 1997). Gender differences may indicate that one gender is more socially and emotionally ready than another. It is important that items selected for the questionnaire are not biased towards one gender (Kline, 1986; Kline, 1993).

Because the schools are multicultural, an analysis of the distribution of race groups was used. All of the participating schools were “previously advantaged” and by virtue of this, were predominantly White. Analysis of cultural differences is important to establish cultural bias. This would be questionable if more White children were considered to be socially and emotionally school ready than learners from other race groups.

Collection and coding of the questionnaire.

At a designated date, the questionnaires were collected and each learner was assigned a code number, depending on the number of respondents in that school. The schools, age, race and gender of each subject was coded as follows:

Schools: The codes for schools ranged from 01 to 09.

Age: The codes for the ages were calculated in months.

Gender: The codes for gender were 01 for males and 02 for females.

Race: The codes for race were 01 to 04, for White, Indian, Black and Other race groups.

Review and Finalisation of the questionnaire.

Test instructions were confirmed for clarity. An analysis of the factor loadings was used to investigate the effectiveness of each item. The scales were reviewed for ambiguity, clarity and ease of completion, and adjusted.

6.2.3 Phase three: Assessment of school adjustment and performance.

After the first quarter of schooling in Grade One, April 2007, the Grade One educators of the sample group were asked to assess the same sample of learners, according to a questionnaire on school adjustment and performance, constructed for the purposes of this study. The original sample group was reduced to 220 Grade One learners due to attrition. Some of the learners did not proceed to Grade One in the eight schools that had agreed to participate in the research and some stayed in Grade R in 2007. The questionnaire was used to assess Grade One school performance in the main Foundation Phase learning areas namely Literacy,

Numeracy and Life Skills. Teachers were asked to rate the learners along a four point Likert Scale :

- “Has mastered very few of the skills” ,
- “Has mastered some of the skills”,
- “Satisfactory” mastery of skills, and
- “Excellent” mastery of skills, which is accordance with suggestions laid down in the National Curriculum Statement for Education.

School adjustment was measured using a visual analogue scale similar to that in the BUSSE-SR. Grade One teachers were also asked to rate the child’s readiness for school in the first two weeks of school entry and currently.

6.2.4 Phase four: Validity and Reliability study.

Validity, inter-rater reliability and correlations between the parents and Grade R educators assessments were conducted. As stated above, a test can be described as reliable when it consistently measures whatever it measures (Huysamen, 1996; Loewenthal, 2001; Foxcroft & Roodt, 2003). Essentially, reliability refers to the chances of receiving the same scores on the same child with an identical or similar test. Reliability for Self awareness, Self Regulation, Social Relationships, and Coping and Life skills was calculated.

The predictive validity of the questionnaire was calculated using the social emotional scores and Grade One performance and adjustment measures. Standardisation was not within the parameters of this research.

6.3 Value of the research

The goal of this research as stated earlier is two-fold. One aspect was to establish whether social emotional school readiness is a good predictor of school adjustment and academic performance. More critical was the goal to produce a social-emotional questionnaire for school readiness assessment to fill a need in South African education. One of the benefits of the construction of such a test is that, through its design and use, a reformulation of educational objectives can come about. The BUSSE-SR could add to the debate and greater

inclusion of social emotional skills in the school curriculum at the Grade R and Grade One level. Psychological tests have been employed for a wide range of problems, such as research and as solutions to practical problems (Anastasi & Urbani, 1997); the BUSSE-SR would fulfil this by improving decisions about school placement, improve curriculum planning and interventions. The use of tests for counseling and psychotherapeutic intervention as well as for decision making in educational placement are two such motivations for recent test development (Foxcroft & Roodt, 2003). Emotional well being and interpersonal relationships have also become a focus of such assessments and intervention. The development and validation of the BUSSE-SR is intended to meet this.

Chapter 7

Results and Discussion

As stated in the former chapter, there were four different phases for this research study. This chapter shall examine the course of each, in conjunction with the results.

7.1.Phase 1: Construction of a preliminary instrument.

Developing a psychological measure involves a number of phases; planning, assembling phase, item analysis, standardization of procedures and evaluation of the psychometric properties of the measure (Foxcroft & Roodt, 2005). The purpose of the measure, its constructs and uses are important for planning.

The BUSSE-SR was assembled using developmentally appropriate behaviours, operationalised from a literature research study, on the social-emotional competences associated with school readiness. The format of the items on the BUSSE-SR was a forced choice rating scale. The items were written clearly and concisely, with one central theme per item (Foxcroft & Roodt, 2005). A panel of teachers and psychologists were asked to review the items to assess whether the constructs were sufficiently tapped in the BUSSE-SR and modifications were made.

During the assembly phase, the items were arranged with regard for the length and time for completion, and constructs were spread across the instrument. A pre-test was given to a sample of parents and teachers to establish the clarity of instructions. Thereafter the BUSSE-SR was ready for administration to a large sample.

7.2.Phase 2: Implementation of instrument

As stated in the preceding chapter, eleven Foundation Phase schools agreed to participate in the experimental administration of the BUSSE-SR. A convenience sample of Kwa-Zulu Natal Grade R learners was selected as the target population. All the teachers and parents of the Grade R learners at the participating schools were asked to participate, by evaluating according to the social emotional measure. The total population group or sample consisted of 338 Grade R children. Of the 338 children, the following evaluations were obtained:

Evaluations for 233 learners (68.9%) from parents and teachers,
 Evaluations for 99 learners (29.3%) where only the teachers evaluated, and
 Evaluations for 6 learners (1.8%) where only the parents' evaluations were obtained.

The total Grade R sample group (338) consisted of an equal distribution of male and female learners. The sample group consisted of White (64.2%), Indian (28.4%), Black (6.5%) and Coloured learners (0.9%). The distribution of the sample group in terms of gender and race is indicated in Table 1 below:

Table 1: Frequency distribution of sample group: Biographical variables

Biographical variable	N	%
Gender		
Male	169	50,0
Female	169	50,0
Race		
White	217	64,2
Indian	96	28,4
Black	22	6,5
Coloured	3	0,9
Total	338	100,0

According to the above table, it is evident that in respect of gender, the sample group was divided equally. As far as race is concerned, the majority were White with more or less a third Indian.

The average age of the children was 72,38 months with a standard variance of 4,37 months. Regarding the period in pre-primary, they spent an average of 33,69 months ($s = 10,68$) in this facility.

7.3.Phase 3: Validity and Reliability of instrument

The two key aspects during the development of a psychological measure are reliability

and validity. The validity of a measure is directly proportional to its reliability. There is no point in trying to validate an unreliable measure. Because this study attempted to develop an instrument that measures the social-emotional competence of preschoolers, the validity was investigated first, and thereafter attention was given to reliability.

Investigation of the validity of a measurement involves different types of validity. According to Anastasi and Urbina (1997) three different types of validity or validation procedures occur: construct-identification, content-description and criterion-prediction. Where applicable, the BUSSE-SR was reviewed on the basis of the above named types of validity.

7.3.1. Construct-identification procedures

Construct validity of a measurement indicates the degree to which the specific measurement succeeds in identifying the theoretical structure that it is supposed to measure, and to measure it well. In this study the overarching construct was social-emotional school readiness.

Construct-identification procedure was used to investigate the factorial validity of the BUSSE- SR instrument (Foxcroft & Roodt, 2005). This method attempts to investigate the underlying dimensions or factors of a set of items, by investigating the common variance between the items, with the help of factor analysis. In this manner, a large number of items (in this case 50) can be reduced to a few factors.

The BUSSE-SR instrument consists of 50 items that were drawn up by the researcher in conjunction with other experts [see Phase 1]. Firstly an explorative principal component analysis procedure (Schepers, 1990) was used. The number of factors that had to be extracted was determined by the combination of the eigen-values larger than one criterion and the Scree-test. By making use of these criteria, it was decided to withdraw four factors. The acquired factor matrix was, according to the varimax criterion (Kaiser, 1958), rotated to a simple orthogonal structure. A rotation on the basis of the oblique criterion (Jenrich & Sampson, 1966) was done as well. The varimax rotation, according to Maas (1998), is sometimes not the acceptable solution, especially when different items load onto many rather than one factor. The latter did appear and subsequently the oblique rotation was applied so that the factor structure could be interpreted more easily. The factor matrix was obtained by means of the SAS computer software (SAS Institute, 2003). The results are provided in Table

3. The results regarding the eigen-values and percentage variance, that are explained by these four factors, are shown in Table 2.

The results of the extraction of components process yielding the eigenvalues and percentages of variance, according to four factors, are illustrated in Table 2 below.

Table 2: Results of extraction of components in the BUSSE-SR

Factor	Eigenvalue	Percentage of variance	Cumulative percentage of variance
Factor 1	14,1334	28,27	28,27
Factor 2	4,9169	9,83	38,10
Factor 3	2,5248	5,05	43,15
Factor 4	1,8164	3,63	46,78

The principal axis factor analysis indicates that these four factors constitute 46,78% of the total variance. The factor loadings of the 50 items, in accordance with the oblique-method rotation, are illustrated in Table 3.

Table 3: Item-factor loading matrices for BUSSE-SR

Item	Factor 1	Factor 2	Factor 3	Factor 4
1. Is happy when he/she says goodbye and comes to school	-0,06	-0,10	0,71	0,06
2. Is able to put toys away after he/she has been playing	0,47	0,13	0,02	0,30
3. Tries to please adults	0,57	0,23	0,03	0,005
4. Is able to tell others what he/she wants to do	-0,22	0,69	0,08	0,22
5. Is able to play on his/her own without adults	0,09	0,16	0,15	0,44
6. Keeps trying when doing puzzles, drawings or in games suited to his/her age group	0,33	0,41	-0,11	0,22

7. Is able to take turns when playing a game in a group	0,62	0,25	0,01	-0,13
8. Is able to work out a solution when peers or friends disagree, without fighting	0,54	0,10	0,23	0,01
9. Is able to feed him/herself at mealtimes	-0,04	-0,06	0,09	0,57
10. Is able to recognise when he/she feels afraid	-0,13	0,52	-0,02	0,19
11. Is able to control feelings of frustration so that they don't interfere with his/her play	0,66	-0,22	0,24	0,04
12. Is well accepted by his/her peers	0,32	0,22	0,44	-0,09
13. Asks for help from others when he/she needs it	0,07	0,58	0,09	-0,10
14. Is able to go to the toilet alone	0,01	-0,03	0,07	0,56
15. Is able to wait his/her turn to speak in a group	0,76	-0,25	-0,03	0,15
16. Likes to try something new like a game, a puzzle or drawing	0,16	0,54	0,002	0,16
17. Is able to listen to others without interrupting	0,82	-0,26	0,03	0,02
18. Is able to talk to other adults easily	-0,17	0,57	0,23	0,14
19. Is able to dress him/herself	0,01	0,001	0,08	0,61
20. Knows how I will feel about his/her behaviour (like if I am angry)	0,27	0,42	-0,13	0,22
21. Is able to control his/her excitement so that he/she does not disrupt others	0,75	-0,18	-0,06	0,13
22. Helps others when he/she sees they need it	0,21	0,60	0,09	-0,04
23. Express affection physically with hugs, kisses, strokes or words	-0,13	0,84	-0,09	-0,14
24. Is able to wait for something like a treat at a special time	0,65	-0,10	0,13	0,01
25. Asks permission to play with a toy when it is being used by another	0,66	0,21	0,11	-0,23
26. Is able to maintain friendship over time	0,19	0,28	0,45	-0,04
27. Is able to adjust to changes in our daily routine	0,11	0,03	0,58	0,19
28. Takes care of his/her own belongings, like toys or clothes	0,26	0,09	-0,18	0,40
29. Is able to decide if I give him/her two things to	0,18	0,23	0,13	0,31

choose from				
30. Is able to get over being hurt quite quickly if he/she is not seriously hurt	0,07	0,01	0,47	0,19
31. Is able to stop him/herself from becoming involved when other children do something they are not allowed to do	0,68	0,11	-0,11	0,03
32. Shares his/her toys with friends of the same age	0,50	0,29	0,21	-0,15
33. Complies with the rules of the school	0,75	-0,02	0,03	0,03
34. Can unpack his/her school bag without help	0,24	-0,05	0,02	0,47
35. Comes to school willingly	0,01	-0,13	0,74	-0,01
36. Listens when I talk	0,72	0,10	-0,11	0,11
37. Is able to carry out simple tasks when given an instruction	0,37	0,36	-0,13	0,28
38. Enjoys it when others show him/her affection	-0,09	0,77	-0,06	0,01
39. Can play in a group co-operatively	0,42	0,30	0,28	-0,08
40. Is proud of what he/she does [Lego, drawing]	0,05	0,75	-0,06	0,01
41. Says "Thank you" when given something	0,30	0,35	0,12	-0,08
42. Comforts others when they are hurt or upset	0,06	0,71	0,09	-0,06
43. Is able to greet adults when meeting them	-0,001	0,55	0,15	0,12
44. Is able to stand up for him/herself without an adult	-0,13	0,23	0,38	0,38
45. Shows us what he/she can do [drawings and physical activities]	0,01	0,76	-0,02	-0,03
46. Is able to judge a situation before getting involved	0,58	0,16	0,08	0,09
47. Can approach his/her friends when he/she wants to play with them	-0,06	0,26	0,55	0,12
48. Can recognize how his/her friends feel	0,31	0,49	0,19	-0,08
49. Seeks help when needed	0,10	0,58	0,11	-0,08
50. Says "Please" when he/she wants something	0,36	0,30	0,15	-0,07

From the rotated factor pattern matrix, it is clear that 41 of the 50 items showed a loading on one factor that is larger than 0,3. This loading can easily be interpreted and it also measures

up to Thurstone's criteria for simple structure. The rest of the 9 items all indicated a loading higher than 0,3 on at least two factors and were not taken up in any of the final factors. Factor I was distinguished by high loadings on items that have bearing on Self Regulation whilst Factor II again was distinguished by high loadings on items related to Self Awareness. Factor III and IV were respectively differentiated by high loading on items that had a bearing on, respectively, Social Relationships (Social Adjustment) and Coping Skills (Independence). As a result four sub-scales of social-emotional competence were compiled, by repeatedly selecting the seven items per factor with the highest loading, and by paying attention to the theoretical substructure. [Seven items were decided on because this was the maximum number of items with a loading higher than 0,3 for Factor IV that could be included]. These seven items were then summarized to obtain a total for each sub-scale.

The specific items that were selected per subscale are made available in Table 4 together with the minimum and maximum scoring that can be obtained.

Table 4: Specific items underpinning the subscales or constructs of the BUSSE-SR

Subscale/ construct	Item	Minimum	Maximum
Self regulation	15, 17, 21, 25, 31, 33 and 36	7	28
Self awareness	4, 22, 23, 38, 40, 42 and 45	7	28
Social relationships (social adjustment)	1, 12, 26, 27, 30, 35 and 47	7	28
Coping (independence)	5, 9, 14, 19 , 28, 29, 34	7	28

Research indicates that the items underpinning the constructs of Self Regulation, Self Awareness, Social Relationships and Coping are associated with social-emotional school readiness behaviours. In the following paragraphs, these shall be discussed in greater detail.

Self Regulation

Certain behaviours illustrate self regulation. Behaviours involving the ability to wait turns, and listening attentively have been identified as important indicators of school readiness

(Diamond et al, 2000; Fantuzzo & McWayne, 2002; Fox & Lentini, 2006). Children's ability to control behaviour, inhibit being a disruption or from being misled into inappropriate behaviour requires modulation of emotion and behaviour, the ability to delay gratification and to appraise situations before behaving (Denham, 1998; Hyson, 2004; Kopp, 1992; Salovey & Sluyter, 1997; Shields & Cicchetti, 1998). By the age of seven or school entry, regulation for emotion and behaviour is expected and younger children are expected to display more negative emotion than older ones (Bar-On, 2000). The ability to share toys is considered necessary and age appropriate among young children, and compliance with rules indicates this ability (Fox & Lentini, 2006; Hyson, 2004; Kopp, 1992; Maxwell & Eller, 1994; Salovey & Sluyter, 1997). Compliance and cooperation with instructions and rules is a good marker for school readiness among both parents and teachers (Birch & Ladd, 1997; Diamond et al, 2000; Fantuzzo & McWayne, 2002; Fox & Lentini, 2006; Hyson, 2004; Maxwell & Eller, 1994; Piotrkowski et al, 2000; Rimm-Kaufmann & Pianta, 2000; Wright et al, 2000). Behaviours of self regulation are intrinsic to behaviour in schools.

Self Awareness

As the cornerstone of social-emotional competence, self awareness refers to the ability to recognise own emotions, understand them and to appraise them accordingly. Self awareness is expressed through the ability to communicate wishes and feelings and needs, and understanding and expression of emotion in socially appropriate contexts (Carter et al, 2002; Cohen 1999; Hyson, 2004; Piotrkowski et al, 2000). This behaviour should be in place by the end of the preschool period and has been included on developmental measures of emotional development (Fox & Lentini, 2006; Harris & Saarni, 1989; Hyson, 2004). This is the beginning of empathic understanding and is also a form of social compliance as the more socially competent are more likely to help others (Alexander et al, 1993; Lewis & Saarni, 1985). Likewise, help seeking behaviour is suggestive of a sense of agency and initiative. This is evident when a child is able to assess a situation and evaluate own capacity to strategise and problem solve (Bar-On, 2000; Fantuzzo & McWayne, 2002; Salovey & Sluyter, 1997). The abilities of recognising, understanding, and expressing emotions are interrelated and constitute the self awareness anticipated in Grade One.

Social Relationships (Social Adjustment)

Awareness of emotion in self provides the substrate for social relationships. Being able to identify those in others enhances social skills with adults and peers. A liking for school is suggested, when children attend willingly and is more likely when children have peers and friends and are able to establish social relationships and are relatively independent of parents. Crying on separation from parents decreases with age and implies increased self regulation, improved social relationship building skills, confidence and positive relationships at school (Kopp, 1992; Diamond et al 1994; Ramey & Ramey, 1994). When children like school it suggests the development of this competence. Positive peer relationships are developmental tasks of young children and are reflected, to some extent, by the degree to which a child is accepted by peers, and able to maintain relationships and behave in socially approved ways (Bar-On, 2000; Hyson, 2004). The ability to control emotion and behaviour, in the context of peers, is a social skill suggestive of increasing congruence between self and others, which may be illustrated through subtle entry tactics with peers (Bar-On, 2000; Klein, 2002; Maxwell & Eller, 1994). This ability to adjust to situational demands and changes in routines suggests increasing importance of social relationships, this adaptability according to external demands parallels self and understanding and behaving according to one's appraisal of the situation (Eisenberg et al, 1992; Kopp, 1992; Salovey & Sluyter, 1997). The ability to overcome negative emotion is not only a form of self regulation, but suggests independence, ability to manage negative events, social compliance and provides the maturity to increase efficacy in learning and academic performance (Hyson, 2004; Kopp, 1992; Piotrkowski et al, 2000; Saarni). These behaviours enhance school adjustment and performance.

Coping Skills (Independence)

Behaviours that indicate a child can cope and adapt in the environment are considered adaptive in school contexts. Adaptive behaviour is a form of social competence where there are "skills needed for successful life", and depend on how much "an individual takes care of self and gets along with others" (Harrison & Boan, 2000, 124, quoted in Lidz, 2003, 172). In effect, this is independent self care and coping. Coping is referred to as practical intelligence, (Hedlund & Sternberg, 2000) which permits greater adaptiveness given different environmental demands, and facilitates the accomplishment of goals. Moreover, coping behaviours allow children to direct their attention to more important tasks at school, which involves a constant interplay between cognitions, appraisals, emotions, reappraisal and problem solving strategies (Harris & Saarni, 1989; Salovey & Sluyter, 1997). An age

appropriate ability to care for self, solve and make responsible decisions and give effect to responsible behaviours, is expected in accordance with cognitive and behavioural norms (Denham, 1998; Piotrkowski et al, 2000). Independence from adults is necessary for adaptive coping and later for school performance. Self care behaviours, like toileting, dressing and feeding independently and taking care of own possessions, are age appropriate (Klein, 2002). The ability to make decisions and choices infers a social problem solving ability. This arises from an increased coordination and fit between the individual and the environment and the interaction between these (Klein, 2002). This ability (coping and adaptive behaviour) is part of the social expectations of parents and schools which is acquired in everyday activities.

Empathy, and the correlating behaviours of social emotional competence, was not found to be as strongly associated as the other constructs. This may be attributed to the later development of this competence, and its emergence and overlap with the other subscales.

7.3.2. Content-description procedure

Content validity is used to determine if the content of the items are of such a nature that it is a representative sample of the specific behaviour (in the BUSSE-SR's case) of what must be measured. Content validity is especially of importance when performance is measured, and for the measuring of educational measures (Foxcroft & Roodt, 2005). To investigate the content validity of a measuring instrument, the use of a panel of experts is normally recommended. This was obtained using the contributions of psychologists, pre-primary school teachers, Grade One teachers and parents of Grade R learners. Once the preliminary BUSSE-SR measure was completed, the panel was asked to review the scales for clarity, ease of understanding and completion and content of the items. Thereafter, modifications using these suggestions were made.

7.3.3. Criterion-prediction procedure

This type of validity has bearing on a procedure during which a correlation coefficient between a predictor and a criterion is calculated (Heiman, 1995). The criterion-prediction procedure consists of concurrent validity and predictive validity. First-mentioned validity is not done in this study because the main aim was to first compile an instrument that determines content and predictive validity.

To investigate the instrument’s predictive validity, the children who were evaluated during grade R with BUSSE-SR, was followed up in their Grade 1 year. Six months after they started Grade 1, each pupil was evaluated by their grade 1 teacher in respect of their academic achievement and school readiness.

In respect of their academic achievement, they were evaluated regarding the following three core learning areas: Literacy, Numeracy and Life Skills. In respect of their school Readiness, they were evaluated according to a semantic differential scale ranging from 1 (Not At All Ready) to 10 (Completely Ready), on entry to Grade One, and four months later.

The academic achievement of the learners was evaluated according to a specific description that was transformed to a percentage value. Information received from the Education Department indicated the following percentage intervals for the various descriptions. The midpoints of the various intervals are indicated in Table 5.

Table 5: Percentage-intervals and midpoints of interval for the teachers’ category

Category	% interval	Midpoint of interval
Has not achieved	0 – 39	20
Partially achieved	40 – 55	48
Satisfactory	56 – 79	68
Excellent	80 – 100	90

The midpoints of the various percentage intervals were taken as the learner’s points for the different subjects. If a learner’s academic achievement for a specific subject fell within the “satisfactory” category, for example, a value of 68 was awarded. Besides the three learning areas, an average point was calculated for the total three subjects for each learner (overall performance). Using SAS program software, the correlation coefficient is the correlation between each learner’s academic achievement and school readiness on the one hand, and the ratings as calculated on the BUSSE-SR (individual scales as well as for total score) on the other hand. It is important to note that the children were rated by a) their parents and b) their Grade R teachers in respect of their social-emotional competency on the BUSSE-SR. In the

following analysis, associations between these two groups were made, namely correlations between Parent and Grade R ratings on the BUSSE-SR with the learner's academic achievement and general adaptation in Grade One. The information appears in Table 6.

Table 6: Correlation coefficient between BUSSE-SR scale, academic achievement and school readiness for parents and teachers, separately

Variables	Teachers					Parents				
	Sreg	Saw	Socl	Cop	total	Sreg	saw	Socl	Cop	total
Literacy	0,12	0,13	0,11	0,36 *	0,23 *	0,13	0,03	0,12	- 0,02	0,09
Numeracy	0,14	0,10	0,16	0,34 *	0,22 *	0,21 *	- 0,02	0,12	0,02	0,14
Life skills	0,33 *	0,25 *	0,30 *	0,32 *	0,37 *	0,15	- 0,02	0,15	0,13	0,15
Overall performance	0,23 *	0,18 *	0,22 *	0,40 *	0,32 *	0,19	- 0,01	0,15	0,05	0,15
Readiness: arrival	0,27 *	0,28 *	0,26 *	0,38 *	0,38 *	0,18	0,15	0,15	0,15	0,22 *
Readiness: presently	0,31 *	0,23 *	0,23 *	0,40 *	0,37 *	0,22 *	0,13	0,14	0,11	0,21 *

* $p \leq 0,01$

(Key :

Sreg= Self regulation, Saw = self awareness, Socl= social relationships and Cop= coping skills)

The correlation coefficient gives an indication of the relationship between one variable and another (Foxcroft & Roodt, 2005). The greater the magnitude of correlation, the more accurate the prediction.

From Table 6, it is evident that, with some exceptions, the Grade R teachers' ratings on the BUSSE-SR and the child's academic achievement (per subject as well as overall), as well as

their school readiness, were significantly correlated at the 1 % level of significance. On the other hand, it is clear that the parents' ratings on the BUSSE-SR correlated with the learner's academic achievements only on Numeracy and present school readiness at the 1% level of significance.

Therefore, it could be concluded that the Grade R teachers' ratings on the BUSSE-SR produced a much higher degree of predictive validity than those of the parents. The greater level of predictability of Grade R teachers' ratings may be attributed to their observations in the school situation as opposed to those of the parents in out of school situations. Moreover, the greater predictive power suggests that parents' observations and ratings are more subjective than those of Grade R teachers.

According to Steyn (1999), when linear connections are introduced, the following guideline values for effect size are relevant, namely 0,1=small; 0,3=medium and 0,5= a large effect. Only correlations of 0,3 (or what approximates to 0,3) are thus of practical interest here. None of the correlations that was significant for the parents, was higher than 0,22 and consequently the correlations are not of significant interest. Alternatively, several of the teachers' correlations display a medium size effect and the coefficient is thus of practical value. What is especially of importance, is that the correlations of the teachers' ratings on the BUSSE-SR (total scores) contain practical significance due to correlations of 0,32 with overall academic performance, 0,38 with school readiness on arrival, and 0,37 six months later. Hence, it was decided only to work with the teachers' ratings on the BUSSE-SR in all further analysis.

The following table provides information regarding the correlation between the four scales of the BUSSE-SR, as rated by the teachers.

Table 7: Correlations between the constructs for teachers' ratings on the BUSSE-SR scale

BUSSE-SR scale	Self awareness	Social adjustment	Coping
Self regulation	0,27*	0,36*	0,54*
Self awareness	-	0,48*	0,38*
Social relationships (Adjustment)		-	0,54*
Coping (Independence)			-

From Table 7, it is clear that there is a significant correlation between the constructs and the four scales at the 1%-level of significance. All the correlation coefficients display at least medium sized effects and thus the results contain practical significance. Therefore, it is suggested that although the learners' social-emotional competences are measured with the four scales in the interim, use of the total score on the BUSSE-SR will be made to be able to predict the learners' future academic achievement and school readiness.

7.3.4.Coefficient of determination

Given the acceptable levels of validity of the BUSSE-SR, it was decided to calculate a coefficient of determination (r^2). This coefficient points to the proportion of variance of the criterion that can be explained through the predictor(s) variance in scores. The BUSSE-SR total score was used as a predictor. Each of the subjects, as well as their average achievement, as well as their school readiness was used as criteria. These results are shown in Table 8.

Table 8: Coefficients of determination between BUSSE-SR (total), academic performance and school readiness

Criterion	BUSSE total				
	<i>r</i>	<i>r</i> ²	<i>N</i>	<i>f</i>	<i>p</i>
Literacy	0,23	0,0529	1; 196	11,13*	0,0010
Numeracy	0,22	0,0492	1; 196	10,14*	0,0017
Life skills	0,37	0,1342	1; 196	30,37*	0,0001
Overall performance	0,32	0,1011	1; 196	22,04*	0,0001
Readiness: arrival	0,38	0,1403	1; 197	32,16*	0,0001
Readiness: presently	0,37	0,1386	1; 197	31,71*	0,0001

* $p \leq 0,01$

The information in Table 8 shows that the determined coefficients explain a significant percentage of the variance in the different criteria, at the 1% level of significance. Concerning academic achievement, the BUSSE-SR total score explained 13,42% ($F_{1;196} = 30,37$) of the variance in Life Skills and 10,11% ($F_{1;196} = 22,04$) in overall performance. A larger percentage of the variance was explained in respect of school readiness. The BUSSE-SR total score explained 14,03% ($F_{1;196} = 32,16$) of their school readiness when they arrive at school (Grade One) and 13,86% ($F_{1;196} = 31,71$) of their school readiness four months after they began Grade One.

The validity coefficient can be influenced by variables, especially when differences regarding sex, age, and other variables occur in the predictable variables. To investigate the function of the variables, namely sex, age, type of school and race group, t-tests were done seeing that all the biographical variables were dichotomous. The results of this appear in Table 9.

Table 9: Comparisons of Means regarding the BUSSE-SR total

Variable	Category	N	\bar{X}	<i>Sd</i>	<i>T</i>	<i>P</i>
Gender	Male	151	90,85	10,09	-1,16	0,2479
	Female	149	92,23	9,68		
Age	63 - 68 months	63	88,20	9,73	-1,96	0,0505
	69 - 84 months	257	92,42	9,87		
School	Single sex	129	92,57	9,87	-0,77	0,4409
	Co- educational	185	93,48	9,92		
Race	White	199	92,99	9,52	2,42	0,0162
	Indian	78	88,96	9,96		

There were no significant differences at the 1 % level of significance for any of the identified biographical variables and different categories regarding the BUSSE-SR total. The biggest difference appeared to be between the racial groups: White and Indian, although this was not significant at the 1% level. This information should be investigated further in future studies, especially when other race groups get drawn into the research.

7.3.5.Predicting the criteria

Seeing that the information in Table 9 indicated that these biographical variables do not have a significant effect on the validity of the BUSSE-SR, the prediction of the criteria, with the aid of determining regression comparisons, was continued. For this purpose, the BUSSE-SR total score was used as the predictor to calculate a regression equation after four months for the learners' overall academic performance and school readiness and to predict the learners' future achievement and adaptability.

The results are provided below.

a) ***Overall academic performance:***

$$Y' = 0,4 (\text{BUSSE total}) + 32.$$

b) ***School readiness (after six months)***

$$Y' = 0,1 (\text{BUSSE total}) + 0,8$$

By using the abovementioned equations, it can be predicted what a pre-school child's mark in overall academic achievement and adaptability should be after four months in Grade One.

For example, if the child's BUSSE-SR total is 97 (sum of all four subscales items), then his / her predicted ***overall academic performance*** mark would be as follows:

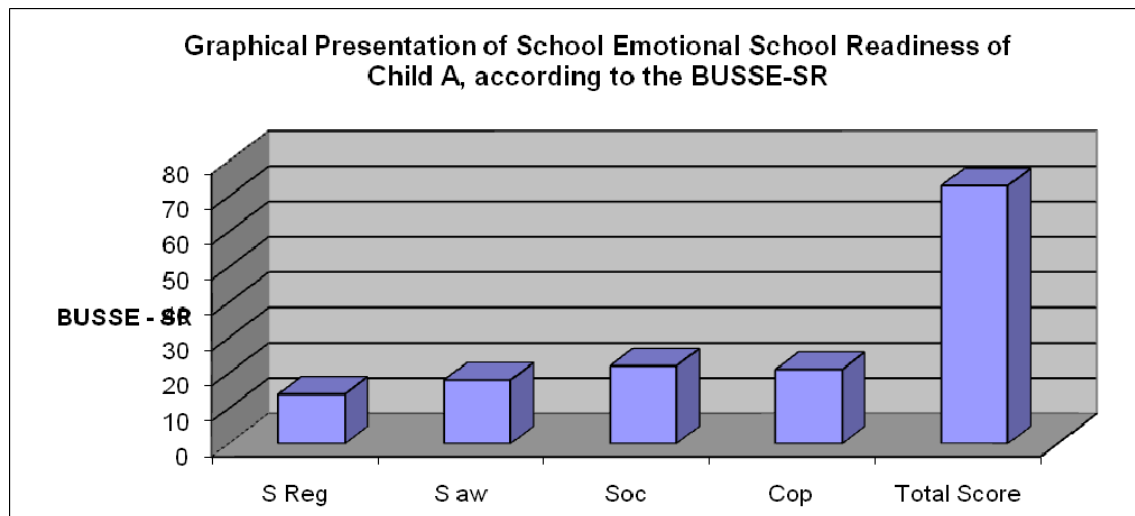
$$\begin{aligned} Y' &= 0,4(97) + 32 \\ &= 38,8 + 32 \\ &= 70,8 \end{aligned}$$

whilst his/her predicted school readiness (adaptability) would be as follows:

$$\begin{aligned} Y' &= 0,08(97) + 0,8 \\ &= 7,76 + 0,8 \\ &= 8,56 \end{aligned}$$

From the information it seems that the said learner should achieve approximately 70% academically in the month of April and that his/her school readiness should be above average.

Alternatively, were the child's (Child A) total BUSSE-SR score 73, it would be represented graphically as below:



(Key :

Sreg= Self regulation:14, Saw = self awareness:18, Soc= social relationships:22 and Cop= coping skills:19).

From the information it seems that Child A should achieve approximately 61% academically in the month of April and that his/her school readiness should be low average. The analysis indicates a need to intervene in behaviours relating to self regulation and awareness.

During the prediction of the learner's criteria calculation, the standard error of estimation must be kept in mind. To calculate this value, the criteria standard deviation of error (s_y) must be taken into account. A numerical value is awarded to the learner's academic achievement by making use of the interval midpoint (see Table 5). As a result of this, the standard error of estimate of the overall academic performance is very large (12,9), resulting in the SE_{est} being large as well and does not deliver a true reflection of the true standard error or estimate. Regarding their school readiness, the learners were judged on a scale of 1 to 10. In this case, the standard deviation = 1,9 and the $SE_{est} = 1,4$. In other words, it can be said with 90% certainty that a learner's true criterion score (school readiness score) will not deviate more than 2,3 ($1,64 \times 1,4$) from the predicted criterion score. The standard error of estimate in this case is also relatively large, especially because the correlation between the BUSSE-SR total and the criteria count is not very high.

7.3.6. Reliability

The reliability of a measure refers to the consistency with which it measures whatever it measures. Different types of reliabilities can be investigated, but seeing that BUSSE-SR is not an achievement test, only the coefficient alpha reliability was provisionally examined.

The internal consistencies with which the items in each of the four subscales were measured as well as the total count (all four scales summarised) were investigated. This was done by calculating Cronbach's α -coefficients with the help of the SPSS-program software (SPSS Incorporated, 2001). The calculated coefficients are indicated in Table 10.

Table 10: Cronbach's α -coefficient for the four subscales of the BUSSE-SR

Questionnaire/construct	α -coefficient
Self regulation	0,872
Self awareness	0,878
Social relationships (adjustment)	0,778
Coping (independence)	0,671
Total	0,889

These show that the subscales of the BUSSE-SR deliver acceptable internal consistency measurements. The total count delivers a reliable index of 0,889, which is relatively high. According to Foster and Parker (1999) the abovementioned reliability is acceptable seeing that the scale is non-cognitive by nature. According to these authors, reliabilities of 0,8 are expected in cognitive tests, whilst in non-cognitive measures lower reliabilities are expected, considering that these normally have a broader construct measure. The calculated coefficients in Table 10 show that the subscales of the BUSSE-SR deliver acceptable internally consistent measurements. The total count delivers a trustworthy index of 0,889, which is relatively high. (The rest of the subscales consist of only seven items which also play a role in the determination of the reliability).

7.4. Teachers' Views on social-emotional school readiness

Grade One teachers were asked to note the social-emotional competences that they considered to be most important for school readiness. The term “independence” was referred to by the majority of Grade One teachers, as well as the need for learners to be “organised”, “take responsibility for themselves”, “work independently”, and display “independence during daily tasks”. Reference to “self regulation behaviours” was also rated frequently among Grade One teachers as a social-emotional competence for school. They noted that the ability to show “self control”, and “self discipline” and “responsibility for their actions” was important. These observations showed support for the factors or constructs of Self Awareness, Self Regulation and Coping Skills.

7.5. Summary of results

The purpose of this study was the development of a social-emotional school readiness questionnaire, the BUSSE-SR. The results indicated that the evaluations of Grade R teachers had greater predictive value than those of parents when assessing social-emotional school readiness. The correlation coefficients supported Grade R teachers' evaluations of social emotional readiness on the BUSSE –SR as good predictors of school adjustment and performance. The results also indicated that pre-school teachers' ratings of social-emotional school readiness have important implications for adjustment and subsequent performance at school.

The evaluations of parents were also considered to be important for assessing social-emotional school readiness in this study. However, the research results showed that the efficacy and value of parent ratings were not as high as Grade R teachers' ratings. This suggests that parents on the whole may not predict social-emotional school readiness accurately. This is important because the decision to send a younger age group child to school is the parents' decision.

This study hypothesised that, due to the transactional relationship between emotion and cognition, children who are socially and emotionally more ready for school shall also perform better academically. This research showed that children who possess the social-emotional

competence for school can be predicted to perform better academically in Grade One than those who are not as competent socially and emotionally.

The primary goal of this research was to test the efficacy of the BUSSE-SR scales to assess social-emotional school readiness and predict school adjustment. Essentially, this meant that some items were associated with school readiness more than others. In total, 28 items were associated with greater predictive value and shall be included in the final BUSSE-SR questionnaire as they had greater statistical significance as a whole.

Certain factors within the microsystem and the exosystem come into play for school readiness. Differences on the basis of gender, age and race were statistically explored. T- tests indicated that, while higher ratings on the BUSSE-SR were given to girls, older children, learners from coeducational schools and White learners, none of these was significant at the 1% level. Although age is often used as a reason to delay formal schooling, this confirmed other research that there was not a significant difference between older and younger first graders (Stipek, 2002). Delaying school entry is more common for boys than girls although there is no data to support gender differences in school readiness (Snow, 2006; Stipek, 2002). This research had similar results. Although teacher ratings attribute girls with more advanced verbal and social skills and fewer adjustment and behaviours problems in the first year at school (Taylor & Machida, 1994), these differences were not significant according to the BUSSE-SR. Gender and age differences that are often attributed to differences in school readiness were not confirmed in this research.

Bearing in mind the cultural history of the schools in the research study, there was a danger that certain race groups might experience greater cultural continuity from home to school than others. Such a bias might also suggest that the BUSSE-SR was not culture fair, but this was not indicated in the results as the results between means for White and Indian learners was not statistically significant.

Finally, the psychometric analysis indicates that, with modifications, the BUSSE-SR can be a reliable and valid tool for use in making assessments about social-emotional school readiness. Although there is a danger of duplication effort in test development, as “psychologists would rather use each others’ toothbrushes than each others measures” (Bradley, 1998, in Loewenthal, 2001), the BUSSE-SR meets a need. Not only is there a dearth of such measures

in South Africa, but existing measures were constructed within a different political context (Loewenthal, 2001). This research was not undertaken as yet another chapter on reinventing the wheel in test construction and school readiness assessment. Rather it attempts to provide a valid, reliable, quick, easy and relatively inexpensive evaluation for completion and scoring to assess a domain that is frequently overlooked (Foxcroft & Roodt, 2003). Now, more than ever, the BUSSE-SR, as an evaluation for social-emotional competence, can help ease the transition to school.

Chapter 8

Conclusion

8.1. Introduction

The transition to school is a defining process in children's lives. Because of the impact of children's emotions and social relationships on later schooling and attainment, this area was important to study (Denham, 1998). This paper explored the nature of school readiness assessment measures and identified a need for evaluating social emotional competence at school entry. The BUSSE-SR measure was developed due to the absence of such a scale in South Africa and has an advantage over alternative practices by providing a pool of behaviours that are associated with social emotional school readiness adjustment.

In keeping with an ecological, ecosystemic, transactional approach to school readiness transitions, a full understanding of the child's competence and relationships in the context of home, school, peers, family and community was stressed (Rimm-Kaufman, 2000). Successful transitions to school are based substantially on social skills and are facilitated by responsive relationships (Dockett & Perry, 2001; Ladd, Birch & Buhs, 1999). This view recognises that because "dispositions, values, feelings, attitudes and understandings" are as important for transitions as knowledge and skills, their evaluation is an important aspect of school readiness assessment. The development of the BUSSE-SR was based upon such observations and research that provided a strong argument for a holistic assessment of school readiness that included the social emotional competence for school adjustment and performance (Foxcroft, 2003). For the purposes of this research, the BUSSE-SR was used in isolation. However, to predict a multifaceted complex criterion, like school readiness, a broad spectrum of measures would be imperative for the future.

8.2. Conclusion of results

The development and validation of the BUSSE-SR has value for education and assessment at different levels, in particular for policy, practice and research.

Implications for Policy

The main assumption of this research rested upon the continuity between home and school in a child's ecosystem. "Young children are ready to have successful learning experiences in school when there is a positive interaction of the child's developmental characteristics, school practices and family and community support" (Grace & Brandt, 2002, 250). An ecologically sensitive approach requires the integration of the two regulatory systems, within the macrosystem (Rimm-Kaufman & Pianta, 2000). Educational policy, although distal, can guide and bridge transitions by applying context sensitive policies (Rimm-Kaufman & Pianta, 2000). Policy that acknowledges the need for a "goodness of fit" and understands the nature of school adjustment would ease the transitions for all school entrants and level the playing fields. It is recommended that programmes and policies address this. The development of social emotional school readiness measures would facilitate this.

Implications for research

Early school readiness research focused on child factors rather than ecological or transactional effects. A new conceptualisation of school readiness recognises a more comprehensive understanding is needed, where school readiness assessments and curricular are integrated, benefit all stakeholders, are based upon everyday activities and interactions, and are developmentally and pedagogically relevant (Denham, 2006; Rimm-Kaufman & Pianta, 2000). The extent to which school environments are culturally universal or community specific also has bearing when developing social emotional instruments (Denham, 2006; Rimm-Kaufman & Pianta, 2000). Other factors that may contribute to school adjustment are school climate, classroom and teacher characteristics and management (Liou & Ting, 2006), for example. Powerful influences on academic achievement like family literacy may also operate long before children enter school (Christian, et al, 1998). Further research is needed on the nature, extent and dynamics of these relationships in multiple contexts to improve early school outcomes.

Implications for Practice

Classroom practices can be guided by social emotional school assessment. To attend to the whole child, by addressing the head and the heart, intellect and emotion, teachers must

do more than pay lip service to the child's emotional wellbeing (Matula, 2004). Although emotion drives learning and memory, however, it is difficult to measure and there is difficulty integrating it into the curriculum (Sylwester, 1995). Part of the reason for this is due to the difficulty in espousing what and how to teach social emotional competence and similarly, which assessment tools are used, as well as why and when (Cohen, 2001; Denham, 2006). We need to ask how we can help children to develop the emotional competence to avoid emotional difficulties so that they come to school ready to learn (Raver, 2003). Identification of these skills is important (Greenberg, 2003; Hymel & Ford, 2003). Diagnostic use of BUSSE-SR can help make decisions about whether to progress onto Grade One and lead to subsequent interventions.

Used in conjunction with other evaluations, as part of a battery of cognitive, perceptual and motor readiness measures, social emotional assessment can contribute towards more comprehensive, holistic evaluation, rather than stand alone. Rather than acting as a gatekeeper, social emotional assessment can assist transitions, identify difficulties and assess children in an ecologically valid way (Carlton & Winsler, 1999). Teachers' knowledge of pupils can assist the transition through planning the peer composition in classrooms, where such factors such as prior friendships and "buddy systems" promote school adjustment (Ladd & Price, 1987). In this way, teacher evaluations assist planning and address the needs of pupils who are at risk for a less than optimal start to schooling. The identification of predictors of adjustment can assist with identifying those children at risk for maladjustment and lead to appropriate strategies of intervention, rather than merely as a practice of exclusion (Carlton & Winsler, 1999; Margetts, 2000). Given the pervasive effect of school adjustment, the BUSSE-SR helps identify and develop the predictors of children's adjustment to school.

Implications for Interventions

The role of psychologists can also be improved by using a social emotional school readiness assessment to better prepare pupils for the expectations of school. This can be effected through positive peer strategies, conflict resolution interventions and the development of confidence and self control, as well as opportunities to experience success when trying new things and coping with the unknown (Margetts, 2000). If we identify those behaviours that predict social functioning and school adjustment, we can design programmes that facilitate children's competence.

The implication is that BUSSE-SR assessments can guide therapeutic intervention. Social emotional difficulties remain stable over time and are hard to change; similarly, programmes on social competence have lasting effects since problems are more likely to continue at school without intervention (Locurto, 1991; Margetts, 2000; Squires 2003). Appropriate early intervention can mitigate against the negative cascade of poor readiness and poor early transitions to school (Ramey & Ramey, 2004). Social emotional intervention programmes have also been associated with school success and academic performance (Merrell, 1989; Weissberg, 1997; Wentzel, 1991a; Wentzel, 1993; Zins, et al, 2004). Social emotional programmes have been found to produce cognitive improvements in planning skills, cognitive flexibility and improved reading, reduce problem behaviours and improve academic performance (Cohen, 2001; Greenberg, et al 2003).

This suggests that interventions that target specific school related social emotional competences like prosocial behaviours, ability to listen and communicate, to concentrate, to modulate emotion, to become self motivating and to resolve conflicts, can also affect results (Cohen, 2001). This means teaching children about their emotions, emotional language, how to evaluate own and others behaviours, how to interpret hostile behaviours, and how to set prosocial goals and plans before engaging socially (Raver & Zigler, 1997). The BUSSE-SR questionnaire can be used as a springboard for the implementation of interventions.

8.2 *Limitations of the research*

While there is substantive value inherent in the development of a social emotional school readiness scale, this research encountered certain obstacles that limits that extent to which the BUSSE-SR can be applied.

Defining the attributes of social emotional competence. What is meant by social emotional competence remains an enigma. While there has been increasing interest in the contribution of social emotional competence, there is much less agreement on the defining attributes of socially competent behaviour (Raver, 1997; Rose-Krasnor, 1997; Snow, 2006). This has implications for social emotional assessment. While the BUSSE-SR identified behaviours and social emotional domains, there is a danger that these were over-inclusive, diffuse and sometimes poorly differentiated. Clarity between the competences was not always established due to the integrated nature of emotional functioning. There is also a possibility

that other social emotional competences exist outside the frame of the above domains. Some research has indicated that social problem solving is associated with school adjustment and performance and should have been included as a social emotional domain in this research (Denham, 2006). Such omissions and overinclusivity should be examined more closely.

Extraneous Variables. Although situated in an ecological transactional framework, this research did not measure interpersonal environmental factors like continuity of friendships from Grade R to Grade One. If ecological transitions are facilitated through familiar characteristics, the transition to a new environment is likely to be enhanced in the context of familiar peers or adults (Bronfenbrenner, 1989), for example. The social context of school in which the transition takes place may enhance or exacerbate the adjustment demands. Given the ecosystemic nature of school readiness, school adjustment is likely to be affected by a number of factors, which may or may not have been identified in this research. This may include the neglect of systemic factors like the size of class and teacher characteristics (van den Oord & van Rossem, 2002). Unspecified variables within the ecosystem that may account for some of the variance in the results warrants further investigation.

Sample Composition . This research was conducted with a small convenience sample. The uneven race groups and socio economic status of the group limits generalisability and representativeness. Children from low income areas are more at risk for school failure and the absence of an “at risk” group makes it difficult to generalise these results (Hamre & Pianta, 2005; van den Oord & van Rossem, 2002). Although emotional malaise may be a universal experience and emotional illiteracy a global phenomenon, the impoverished are at greater risk for poor school adjustment and failure (Goleman, 1996). The sample was also limited to a specific urban geographical area. Further research should examine social emotional school readiness in rural school going children and a wider socio economic status.

Selection of sample behaviours for inclusion in the BUSSE-SR. Evaluations are limited by the limits of their developer. Bearing in mind that a psychological measure is merely a measure of a sample of behaviour, no single measure can be conclusive (Anastasi, & Urbani, 1997). In this vein, the BUSSE-SR may be challenged for the selection of constructs and the representativeness of the behaviours as markers of social emotional school readiness. In truth, decisions about school readiness remain value judgments and all evaluations involve much more than traditional testing (Owen, 1998). Evaluation is part of a process, and multiple

tools and varied assessments are needed to avoid the bias or limits of individual test construction.

Culture Fairness of the BUSSE-SR. Due to the history of psychological testing in South Africa, it is important to ask how psychological assessment can benefit children in the new education dispensation (Owen, 1998). Most school readiness measures are racially and sociometrically biased (Snow, 2006). Since standardisation and norms are readily applied to culturally homogeneous populations and because ours is not a mono-cultural society, this places more onus on the test and the interpreter's professional judgement (Huysamen, 1996; Owen, 1998). The heterogeneous nature of South African populations renders this a challenge for assessment. The establishment of different norms for different groups appears to be the most meaningful approach to overcoming the problems with cultural differences and the creation of a culture fair school readiness tests for social emotional competence (Huysamen, 1996). This suggests the development of an evaluation for a specific cultural group.

Even if social emotional readiness constructs are fairly universal, the behaviours through which they are expressed are likely to differ from one community to another. This renders selecting behaviours that are fair to all culture groups unlikely, because behavioural expressions of what is considered school ready are contextualised by that group of parents, teachers and schools. The BUSSE-SR was developed for preschoolers in multicultural school settings and thereby attempted to overcome the previous shortcomings of school readiness measures. Alternatively, it has been stated that the "predictive characteristics of test scores are less likely to vary among cultural groups when the test is intrinsically relevant to criterion performance" (Anastasi & Urbani, 1997, 165). A test that samples criterion behaviour directly is likely to retain its validity in different groups. The BUSSE-SR is yet to stand this test.

Reliance on observations. The evaluation of social emotional readiness relied on the observations of adults in the child's ecosystem due to the difficulty that young children have in reflecting and reporting their emotional experiences. These observations have limitations as teachers may not be the best source of outcome data (Cole, 2004; Snow, 2006). Nevertheless, the results of this research suggest that preschool teachers are a valid source for predicting school adjustment and performance.

Integration of domains. Despite claims that school readiness is a transactional process involving the integration of multiple domains, this research only focused upon social

emotional competence. Failure to provide an integrated measure of school readiness perpetuates the artificial segmentation of these competences without crossing domains. The interaction between social emotional competence and cognitive ability needs to be explored.

Methodological limitations

The use of questionnaires, ordinal numbers and rating scales are not beyond criticism. Psychometric assessments have been censured as artificial, lacking in ecological validity and reliability of assessments with young children remains a problem (Snow, 2006). While the BUSSE-SR overcomes some of the shortcomings of observations, methodological problems remain.

8.3 *Recommendations for Further Research*

In view of the above discussion, the following recommendations are made:

The BUSSE-SR should be modified to include the 28 items of higher loadings and reviewed.

1. The research design can be replicated with a larger population group, including different socio-economic groups and languages so that standardization and norming can be established for greater applicability and generalisability (Denham, 2006).
2. Although the importance of social emotional adjustment for school is convincing and clear (Raver, 2003), follow up longitudinal study with this same cohort would indicate the long term effects of social emotional competence on school success. Longitudinal research is needed to address the extent of the effect of contexts over time and for a more dynamic understanding (Rimm-Kaufman, 2000). A follow up study on this cohort is recommended.
3. Further research into the relationship between social emotional competence using the BUSSE-SR and cognitive, motor and language assessments, can provide insight into the nature of this interaction. Future research needs to attempt to integrate how the multiple dimensions of school readiness fit together (Snow, 2006). This may mean that social emotional competence affects some learning areas more than others, for example, in specific learning areas like Numeracy and

Literacy. The specific correlation between certain behaviours or domains of social emotional competence and these learning areas may also be explored.

4. Using the BUSSE-SR as an assessment tool, an intervention programme can be developed to help Grade One learners to overcome social emotional difficulties. More research is needed to evaluate the effectiveness of social competence programmes on school adjustment (Ladd, et al, 2002). This, in turn, can help lead to direct intervention programmes.
5. Ideally the transition to school should be seamless and continuous (Stipek, 2002). Information as to what contributes towards children's readiness and adjustment can be particularly useful for policy makers (Raver, 2002). This information can be built into the fabric of school policies and curriculum and is a worthwhile research area.

Although social emotional knowledge has not enjoyed a prominent position in schools curriculum and its role in learning has not always been acknowledged, emotion cannot be taken out of the learning equation. Schools provide an ideal forum for the display of emotions and the acquisition of emotional expression of their culture (Denham, 1998; Lidz, 2003; Raver, 2002). More importantly, social emotional competence enables children to participate more fully in learning experiences and, as the foundation of learning, teachers of young children stress the need for social emotional learning to be built into the curriculum (Cohen, 2001; National Education Goals Panel, 1999 in Kauffman, 2002). In developmental terms, the school context provides a relevant and crucial opportunity for the development and impact of social emotional learning in young children. The development of a tool, the BUSSE-SR, can contribute towards this a greater understanding.

Nevertheless, many questions about social emotional school readiness and its assessment remain unanswered. The full ecology of school readiness and the transition to school has yet to be fully conceptualised and tested (Snow, 2006). However, assessment of school readiness and adjustment behaviours can benefit the development of classroom activities that better meet pupils' needs and aid learning by identifying needs and leading to intervention (Foxcroft & Roodt, 2003; Jones, 2004; Saluja, 2000). Rather than waiting for first graders to fail and then provide remediation, intervention can preempt school entry

(Ramey & Ramey, 2004) or lead to curriculum change at school entry. Results of social emotional assessment are more to do with ensuring more appropriate intervention and child care than identifying whether children are “ready or not” (Murphey, 2003). The identification of social emotional behaviours and constructs on the BUSSE-SR provides operational ways of assessing and developing this competence.

To alter early trajectories of social and academic functioning, social emotional school readiness assessment can be used when school readiness is a concern and to obtain diagnostic information about children for educational placement and intervention (Merrell, 1989; Squires & Nickel, 2003). The results of the psychometric properties of the BUSSE-SR indicate that Grade R teacher assessments have predictive value for these decisions and are reliable and valid and can be used to make these decisions. Further to this, the scales have an advantage in ease of administration and economy of use and cover a wide range of pupil behaviours.

Assessment of young children is not for the faint hearted; special skills and a knowledge base are necessary for the assessment of young children (Lidz, 2003). “The psychologist is apt to face reluctant subjects, extremely serious differential diagnostic questions, and an inadequate array of testing instruments” (Goodman and Field, 1991, in Lidz, 2003). Starting school is a major life transition, a rite of passage and a turning point in children’s lives that can set the tone and direction of a child’s school career. Given the goals of the new South African education dispensation, the development of a means of social-emotional school readiness assessment through the BUSSE-SR was a worthwhile issue for research.

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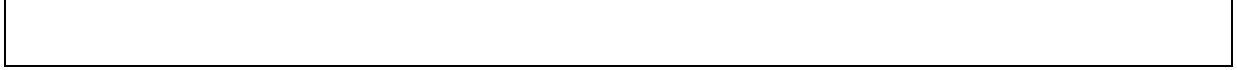
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Appendix A : BUSSE-SR

BUSSE-SR : Modified Version

1. Is happy when he/she says goodbye and comes to school				
4. Is able to tell others what he/she wants to do				
5. Is able to play on his/her own without adults				
9. Is able to feed him/herself at mealtimes				
12. Is well accepted by his/her peers				
14. Is able to go to the toilet alone				
15. Is able to wait his/her turn to speak in a group				
17. Is able to listen to others without interrupting				
19. Is able to dress him/herself				
21. Is able to control his/her excitement so that he/she does not disrupt others				
22. Helps others when he/she sees they need it				
23. Express affection physically with hugs, kisses, strokes or words				
25. Asks permission to play with a toy when it is being used by another				
26. Is able to maintain friendship over time				
27. Is able to adjust to changes in our daily routine				
28. Takes care of his/her own belongings, like toys or clothes				
29. Is able to decide if I give him/her two things to choose from				
30. Is able to get over being hurt quite quickly if he/she is not seriously hurt				
31. Is able to stop him/herself from becoming involved when other children do something they are not allowed to do				
33. Complies with the rules of the school				
34. Can unpack his/her school bag without help				
35. Comes to school willingly				
36. Listens when I talk				
38. Enjoys it when others show him/her affection				
40. Is proud of what he/she does [Lego, drawing]				
42. Comforts others when they are hurt or upset				
45. Shows us what he/she can do [drawings and physical activities]				
47. Can approach his/her friends when he/she wants to play with them				

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