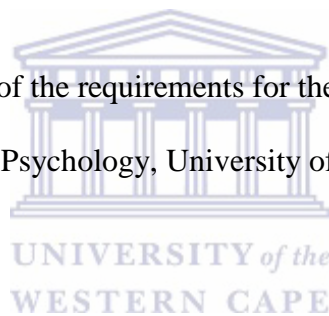


**THE DEVELOPMENT OF A SCREENING TOOL FOR ASSESSING EMOTIONAL  
SOCIAL COMPETENCE IN PRESCHOOLERS AS A DOMAIN OF SCHOOL  
READINESS**

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A thesis submitted in fulfilment of the requirements for the degree of Doctor Philosophae in  
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*Keywords:* Assessment, early childhood development, emotional competence, preschoolers, school readiness, screening instrument, social competence, test construction, South Africa.

## ABSTRACT

Literature identified that emotional/ social competence is under-emphasised in favour of cognitive domains in assessment of school readiness. Socio-cultural and risk factors in the South African context complicate school readiness assessment. Thus, there is a need for a contextually appropriate screening tool for emotional-social competence. The aim of the study was to develop a screening tool for emotional/ social competence as a domain of school readiness. Ethics approval was obtained from the UWC ethics committee (14/2/8) and all ethics principles were upheld. The study had four successive phases - each conceptualised as a separate study with independent methodologies. Phase One consolidated the literature reporting on measures and definitions of emotional social readiness through two systematic reviews. Phase Two developed a concept map of stakeholders' perceptions about emotional/ social competence as a domain of school readiness. Seven focus groups and two individual interviews were facilitated with parents and teachers of grade R children, as well as health professionals involved in assessment of school readiness. The findings from Phase One and Two informed the construction of a screening tool for emotional/ social competence in Phase Three. The resultant screening tool had nine subdomains. To establish content validity the tool was presented to a panel of specialists in child development, test construction and education by means of a Delphi study. In the fourth phase, the tool was piloted with a twenty-six Gr. R and RR teachers in the Metropole North who completed 493 protocols of the screening instrument on Gr. R and RR children. Excellent reliability or internal consistency was reported from Cronbach alphas. Confirmatory factor analyses confirmed the theoretical model and results were in acceptable limits. There were concerns about source variance. Exploratory factor analysis addressed concerns about source variance. Factor structure supported eight sub-domains. The final version of the E3SR had good construct validity and reliability.

## DECLARATION

I declare that the *development of a screening tool to measure emotional social competence as a domain of school readiness* is my own work, that it has not been submitted for any degree or examination at any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Erica Munnik

March 2018

*E Munnik*



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## DEDICATION

The development of this screening tool is dedicated to all preschoolers and relevant role-players (caregivers, teachers and professionals) in South Africa that are in the process of preparing themselves and their children for the formal school environment.



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## ACRONYMS

ASB	Aptitude Test for School Beginners
BUSSE-R	Behaviours Underpinning Skills for Social-Emotional School
CAPS	Curriculum Assessment and Policy Statement
CD	Child Development
CFA	Confirmatory Factor Analyses
DBE	Department of Basic Education
DBST	District-Based Support Team
DHET	Department of Higher Education and Training
DOE	Department of Education
DoH	Department of Health
DSD	Department of Social Development
DST	Department of Science and Technology
DWCPD	Department of Women, Children and People with Disabilities
EC	Emotional competence
ECD	Early childhood development
ECE	Early childhood education
EDI	Early Development Instrument
EFA	Exploratory Factor Analysis
ELDAS	Early Learning and Development Areas
ELRU	Early Learning Resource Unit
EPWP	Expanded public works programme
ER	Emotional readiness
ESC	Emotional Social Competence
ESR	Emotional social readiness
E3SR	Emotional Social Screening Instrument for School Readiness
FAS	Fetal Alcohol Syndrome
GFI	Goodness of Fit Index
HIV	Human Immunodeficiency Virus
HPCSA	Health Professionals Council of South Africa
HSRC	Human Sciences Research Council
IDP	Integrated Development Plan
JSAIS	Junior South African Individual Scale
MELQO	Measuring Early Learning Quality and Outcomes

NCCP	National Center for Children in Poverty
NCF	National Curriculum Framework
NDP	National Development Plan
NELDS/ NSDS	National Early Learning and Development Standards
NICD	National Institute of Child Health and Human Development
NICP	National Integrated Early Childhood Development Policy
NIP for ECD	National Integrated Plan for Early Childhood Development
NPAC	National plan of Action
NPC	National Planning Commission
NQES	Nursery School Questionnaire
NQF	National Qualifications Framework
NRC	National Research Council
NSDS	United Nations National Sustainable Development Strategies
NSP	National Strategic Plan
OBE	Outcomes Based Education
PCA	Principal Components Analyses
PreBERS	Preschool Behavioural and Emotional Rating Scale
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RMSEA	Root Mean Squared Error of Approximation
RNCS	Revised National Curriculum Statement
SANCF	South African National Curriculum Framework
SCBE	Social competence and Behavioral Evaluation
SCE	Emotional Competence Screening for Pre-schoolers
SCS	Social Competence Screening for Pre-schoolers
SEM	Structure Equation Modelling
SES	Socioeconomic status
SETT	School readiness Evaluation by Trained Testers
SGSM	School Entry Group Screening Measure
SIAS	Screening, Identification, Assessment and Support
SPSS	Statistical Software Package for the Social Sciences
SR	School readiness
Sr	Social readiness
SRMR	Standardised Root Mean Square Residual
SBST	School based support team

UNCRC	United Nations Convention on the Rights of the Child
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UNMDGs	United Nations Millennium Development Goals
UWC	University of the Western Cape
WCED	Western Cape Education Department
WHO	World Healthcare Organisation
WHA	World Health Assembly





# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND TO THE STUDY

*“Susie has just turned 6 years old. Last night was a difficult night for her. She was not able to sleep, cried and thoughts of not being able to cope tomorrow kept running through her head. She tossed and turned, her tummy began to ache. She felt the need to ask her parents to sleep in their bed. They got angry with her because she has been sleeping in her own bed for years now. Susie could not sleep because she kept thinking about “big school tomorrow”. Will she be able to survive the day without any of her friends around? Will she be able to do the work? What if one of the children in her class is mean to her? What if she cries? Would she be able to ask her teacher to go to the bathroom? What if the teacher asks her a question or to do sums? Her parents are also concerned. Susie, unlike her sister, is shy, struggling to make friends and finds it challenging to do things on her own. She needs lots of guidance and encouragement to persevere with tasks, gets upset and cries easily. Her parents are also concerned about whether the school can accommodate children with special needs.*

The above case study captures the anxieties and concerns of the caregiver(s) and the child preparing to enter Grade 1. A number of questions may arise for the relevant stakeholders concerning the pre-school child’s transition and education. For example, how do we prepare our children and ourselves for this important life transition? Is it at all possible to be prepared? What are the most important characteristics, skills or attributes that children need before they enter mainstream education? Will teachers and the broader governmental systems be able and prepared to accommodate and help children, especially if the transition is a difficult one on an intellectual and/ or emotional or social level? What assistance and guidance is there for parents to establish if their child/ren are ready to enter mainstream education? In short, this case study addresses the broader issue of school readiness.

## 1.2 RATIONALE

The aim of the study was the development of a screening tool for emotional social competence as a domain of school readiness. This aim was formulated against the backdrop of early childhood development and more specifically school readiness. Early childhood development and early intervention are global priorities (Cooper, De Lannoy & Rule, 2015; Dua, Tomlinson, Tablante, Britto, Yousfzai, Daelmans & Darmstadt, 2016; Neuman & Hatipoglu, 2015; UNICEF, 2016). In developing countries poverty, resource restriction, inadequate health care, malnutrition, violence and poor early academic stimulation exponentially compromise early childhood development and more specifically school readiness in children (Berry, Dawes, Biersteker, 2013; Raikes, 2015). Studies across the globe that emphasized that the identification of factors that might impact development and readiness, as well as preventative and curative intervention in the child's early years, are considered international and national priorities (Heckmann, 2011; Mohamed, 2013; Shonkoff, 2010; Vorster, Sacks, Amod, Seabi & Kern, 2016). These authors further argued that the consequences of childhood neglect have far-reaching ramifications long into adult life, both in terms of economic returns and wellbeing. Rimm-Kaufmann, Pianta and Cock (2000) further argued that the cultivation and nurturing of skills to enhance school readiness in younger children helps to create a platform for later learning and lifelong development. Similarly, studies also reported that children from non-responsive environments i.e. lacking academic stimulation and caring caregivers and teachers, might present with delays and struggle to make the transition into formal schooling, (Galindo & Sheldon, 2012; Ngwaru, 2012; Rimm Kaufmann & Sandilos, 2017), as well as displaying problem behavior (Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002; Ngwaru, 2012).

In South Africa, a huge amount of emphasis has been placed on the importance of the provision of an optimal platform for early childhood development that would enhance school readiness. On a national level, three mother departments, The Department of Social

Development (DSD), Department of Health (DoH) and the former Department of Education (DOE) are responsible for the development and implementation of policy, strategic documents and action plans to enhance optimal development by providing and exposing children earlier to stimulating environments. The Diagnostic Review of Early Childhood Development, commissioned by the Presidency (Richter et al., 2012) and The National Integrated Early Childhood Development Policy (NICP, 2015) approved by cabinet on 9 December 2015, amongst others, have begun to address some of the most pertinent barriers to healthy early childhood development in an attempt to enhance early learning opportunities for children. However, the operationalization of these strategies and action plans has been hampered by a lack of funding, difficulties with access to facilities and a lack of resources (UNICEF, 2016).

In South Africa, children are mandated to enter mainstream schooling in the year that they turn seven (South African Schools Act of 1996). Pre-schooling is defined as a stage that begins when a child turns three and continue for a further four years until compulsory primary school education begins at age seven (The Education Laws Amendment Act of 2002; Department of Educations, White Paper 5, 2001a).

To address the needs for sustained stimulation the DOE has developed the National Early Learning and Development Standards (NELDS) for children from birth to four years as part of the National Curriculum Framework (NCF) in 2009 (NELDS, 2014). This programme is curriculum-based and designed for ECD centres (crèches, daycare facilities) to provide opportunities to children to fulfill physical, emotional, social and academic needs to enhance learning. The NELDS utilises different learning processes, enabling children to learn about the environment and themselves. Barriers such as, access to early learning facilities, teacher education and differential curricula have received ongoing attention from the mother departments by drives including audits of all ECD centres by the DOE in 2001 (Williams, Samuels, Mouton, Ratele, Shabalala, Shefer & Strebel, 2001) and the DSD in 2014 (DSD,

2014). In addition, the establishment of the Integrated Programme of action for ECD – Moving ahead (2013-2017) by the DSD, DOE and UNICEF provided a five-year framework for the establishment of a service platform for ECD on district level. The Minimum Requirements for Programmes Leading to Qualifications on Higher Education for Early Childhood Development Educators promulgated in 2017 by the DOE (DOE, 2017) set out to address some of the ongoing struggles with teacher education.

The fifth White Paper on Basic Education made provision for the establishment of a nationally accredited Reception Year Programme (Grade R) in a variety of pre-school settings for all children five years of age to prepare them for entering Grade 1 (DOE, 2001a). In these settings, programmes offer children the opportunities to develop skills in the following outcome areas: cognition (reading, writing and mathematics), language, creative arts, self-help and emotional and social skills (Brown, 2016). The White Paper 5 represents a huge shift towards establishing a formal, secure environment for children's learning on educational level however, barriers still remains that need to receive ongoing attention (UNICEF, 2016).

As seen above, government has invested a huge amount of capital and resources in an attempt to assist major role-players (community, schools, families, caregivers) in the provision of an optimal environment to fulfil children's basic needs. However, the primary caregiver remains primarily responsible for fulfilling basic needs such as, safety, security, love and education. The primary caregivers thus remain central in providing a healthy, nurturing and stimulating environment in their child's development (Berry et al. 2013). The Education White paper 5 stated that timely and appropriate interventions on parental and familial level could prevent or at least try to reverse the effects of early deprivation and maximise the development of the child's potential. The evidence above suggests that a multi-modal early intervention strategy by key contributors, more specifically caregivers and

educators, is essential to provide a stable platform from which children can transition to primary school.

Winter and Kelley (2008) identified school readiness as one of the most influential decisions that parents or guardians are faced with worldwide. Similarly, Bustin (2007) underscored that the transition for young children from early learning experiences into formal schooling is a profound transition in early life. Amod and Heafield (2013) stated that school readiness has been under-researched and remains a focus of further attention, clinically and empirically. To date no consensus has been reached on the definition of school readiness (La Paro & Pianta, 2000; Mohamed, 2013; Rimm-Kaufmann & Sandilos, 2017). Mohamed (2013) pointed out that definitions and conceptualisations of school readiness still vary depending on the emphasis of stakeholders and the theoretical perspective adopted. The variation in definitions complicate assessment and intervention practices (Foxcroft, Patterson, Roux & Herbst, 2004; Laher & Cockcroft, 2013). The main developmental areas/ categories/ domains that were identified in literature on school readiness are cognitive, speech and language, perceptual, emotional, social, neurological and developmental (Mohamed, 2013). Rimm-Kaufmann and Sandilos (2017) summarised the essential domains for school readiness as language and literacy development; cognition and general knowledge; approaches to learning; physical wellbeing; motor development and social and emotional development.

A lack of research into the assessment of school readiness has also been identified as a huge predicament by local researchers (Amod & Heafield, 2013; Bustin, 2007; Foxcroft & Roodt, 2013; Mohamed, 2013). There is general consensus that some progress has been made in the development of protocols for assessment however, access to screening and assessment remains a huge challenge (Amod & Heathfield, 2013; Makhalemele & Nel, 2016). Local researchers highlighted that psychometric assessments by professionals are largely unaffordable for the general population (Edwards, Baxter, Smart, Sarson & Hayes, 2009;

Laher & Cockcroft, 2014). Thus, the challenges around affordability, access and the bias towards cognitive functioning, necessitates the need for a more systematic and empirical investigation of assessment of school readiness.

Recent conceptualisations of children's social and emotional development in the pre-school years have focused on two key areas that are central to children's development: competence in building and maintaining relationships with others; and self-regulation, or the ability to successfully manage emotional states (Tomlinson, 2013). At its core, social-emotional development is the process of learning what is culturally and socially appropriate, and then behaving in a manner that allows one to develop strong relationships with others and handle emotions in positive ways (UNESCO, 2017). Thus, there seems to be general consensus about the essential domains, but what constitute these domains are still widely contested.

There is a clear body of evidence that report on emotional and social development and the importance of these domains in child development and more specifically school readiness assessments (Amod & Heathfield, 2013; Bustin, 2007; Denham, 2006; Foxcroft & Roodt, 2013; Mohamed, 2013; Ngwaru, 2012; Sassu, 2007). The majority of the instruments developed for school readiness in the South African context do not focus on social and emotional development (Mohamed, 2013). Thus, there is a need to develop contextually relevant instruments to measure emotional-social readiness in pre-school children.

### **1.3 PROBLEM STATEMENT**

As seen in the brief synopsis of the research, there seems to be growing literature on child development, assessment practices and remedial or corrective interventions regarding school readiness (Amod & Heathfield, 2013; Brown, 2016; Bustin, 2007, Mohamed, 2007). However, the clarification of the elements that constitute school readiness remains an area of

concern within which social and emotional competence has received even less attention. Similarly, assessments and more specifically school readiness assessments focused on individual diagnostic assessments in which cognitive functioning were prioritised (Coetzee, 2013; Foxcroft & Roodt, 2013; Laher & Cockcroft, 2013). Furthermore, these types of individual assessments are not always contextually appropriate, accessible or affordable (Edwards et al., 2009; Laher & Cockcroft, 2013). Thus, there is a need for a screening tool that addresses emotional-social competence as a domain of school readiness in the South African context. The present study aimed to address this need by developing a screening tool for emotional-social competence as a domain of school readiness in preschoolers.

#### **1.4 AIM OF THE STUDY**

The aim of this study was to develop a screening tool for emotional-social competence as a domain of school readiness in pre-school children.

#### **1.5 OBJECTIVES OF THE STUDY**

The following objectives were identified to realise the development of the screening tool:

1. To establish a theoretical foundation for scale development
  - a. To consolidate the literature reporting on
    - i. instruments measuring emotional-social competence as a domain of school readiness
    - ii. definitions of school readiness
  - b. To develop a concept map of emotional-social competence as a domain of school readiness
2. To construct a scale for emotional-social competence in preschool children
3. To evaluate the scale
  - a. To validate the screening tool

- b. To establish the psychometric properties of the scale.

## 1.6 CONCEPTUAL FRAMEWORK

Test construction theory was the theoretical framework for the present study. Test construction is the set of activities involved in developing and evaluating a test of some psychological function (DeVilles, 2016). Test construction is described as a rather tedious, intricate and complex process (Kline, 2015). DeVilles (2016) proposed a model for scale development that consists of four distinct steps, a) to establish a theoretical foundation for scale development, b) the scale construction and c) the scale evaluation steps and d) revision and ongoing refinement of the scale. Each of these steps consists of a number of activities. In the first step, the researcher must review the research to develop a conceptual model with theoretical and operational definitions. The second step focuses on the construction of the scale, including the selection of the items for the scale, pre-testing the scale, and the revision of the scale. The third step focuses on the evaluation of the revised scale. This step entails collecting relevant data to validate the psychometric properties of the scale. The fourth and last step entails the writing of manuals (technical, administration and scoring), publishing and the ongoing refinement of the scale. The first three steps of the conceptual framework of DeVilles (2016) were used as a framework to locate this study. This framework was deemed appropriate as it emphasised construction as a continuous, well-designed process with distinct steps to assist the developer in the conceptualisation, construction and validation of the proposed instrument.

The aims and objectives of the present study were developed along the first three steps of the framework proposed by DeVilles (2016). The fourth step is an on-going process that extends beyond the scope of the present study. The subsequent methodological choices were informed by the conceptual framework and articulated into a multiphase study.

The present study incorporated four phases. The first two phases *constituted the first*



*step* of the framework that pertained to establishing the *theoretical foundation* from which a conceptual model was developed for emotional-social readiness as a domain of school readiness. Phase One assessed objectives 1a (i and ii). In Phase One, the researcher consolidated the existing literature reporting on definitions of emotional-social competence as a domain of school readiness, and instruments for assessment of emotional-social competence. Phase Two addressed Objective 1b. Phase Two entailed the creation of a concept map of stakeholders' perceptions of school readiness and emotional-social competence in the South African context.

The *second step* of the theoretical framework was *test construction*. This step was operationalised in the third phase of the study and addressed the second objective. Phase three had two sections of which the first phase (3A) was dedicated to the construction of the scale. Construction included decisions about the structure of the screening instrument. Thus, instrument development focused on scalar decisions, the content universe including domains, sub-domains, attributes and test items.

The *third step* of the theoretical framework was *test validation*. The validation process was achieved in Phase 3B and Phase 4. In Phase 3B, a panel of experts in test construction, child development and education validated the scale decisions taken and the content of the draft instrument. In *Phase 4* of the study the resultant instrument was piloted by collecting relevant data from the identified test users about children in the reception phase. Data reduction techniques were used on the resulting data set to establish the psychometric properties of the scale. Below is an overview of the methodological decisions taken in the present study.

## 1.7 METHODOLOGICAL CHOICES

The aim of this section is to provide a brief overview of the overarching methodology and choices made in this study. The core methodological principles are briefly discussed below to provide an initial coherent sense of the study design. A more detailed discussion of

the specific methodological principles in each phase would be discussed in the ensuing chapters. As mentioned before, the present study was conceptualised in four successive phases.

In *Phase One*, systematic review methodology was chosen to consolidate the body of literature reporting on definitions of emotional-social readiness in preschoolers and instruments measuring emotional-social competence in the identified population. Systematic review methodology was adopted for this phase as it provided summaries of the existing research carried out on the topic, stored within identified databases (Wardlaw, 2010). Systematic reviews identify and appraise high quality research evidence from identified databases and sources (Higgins & Green, 2008). The manner in which systematic reviews are carried out also reduced bias by using overt, systematic methods (Wright, Brand, Dunn & Spindler, 2007). The strict methodological processes followed in a systematic review allowed the researcher to provide filtered information on the topic which means that a higher level of evidence is upheld (McGowan & Sampson, 2005).

The standardised and organised nature of systematic reviews also serves to increase transparency and limit bias, which effectually improve the reliability and validity of any reported findings (Mulrow, 1994). A systematic review, as suggested by its name, is systematic in nature and involves the researcher following clearly pre-defined steps. A pair of reviewers complete each stage which ensures that the research process is comprehensive and detailed. As already mentioned it also aids in minimising selection bias that might become part of a narrative review (Uman, 2011). Hemingway and Brereton (2009) stated that the meticulous recording procedure in the methodology enables other researchers to measure the quality of the review, as well as replicate the study as the methods of a systematic review are clearly defined.

Gough, Oliver and Thomas (2017) recommended systematic review as a suitable method of rigorous review to identify the good quality research on the effectiveness,

appropriateness, feasibility and meaningfulness of specific topics. Therefore systematic review methodology was the preferred method to summarise existing information on emotional and social readiness/ competence in pre-school children extracted from good quality literature. A systematic review of this topic was further useful in that it provided a less biased summary of relevant literature in a local context and a clear picture of existing measuring tools. This study would then become a valuable resource in the identification of areas for future research and interventions. The systematic review protocol can be seen as a guideline to ensure that the review adhered to the highest level of quality in operations (Hemmingway & Brereton, 2009). The review protocol follows a specific format that includes a number of operational steps (Simons, 2011).

In this phase, two systematic reviews were undertaken to gather empirical evidence about different aspects of assessment of emotional-social competence as a domain of school readiness. These reviews focused on a) establishing which measures exist to assess emotional social readiness in preschool-aged children and, b) the identification of theoretical and operational definitions and underpinnings of emotional/ social readiness. The operational details of the systematic review design are presented in detail in a later chapter reporting on Phase One.

In *Phase Two*, the second phase concept mapping was the preferred design. This phase focused on relevant stakeholders' perceptions of what constitutes emotional-social readiness as a domain of school readiness. Concept mapping was deemed appropriate for use when the perceptions of many different stakeholder groups must be distilled into one matrix (Pokharel, 2009). Concept mapping (idea mapping', 'mind maps', 'causal mapping', 'concept webbing 'or 'cognitive mapping') is generally defined as a type of structured conceptualisation that can be used by groups to develop a conceptual framework which can guide evaluation or planning. Literature identified concept mapping as any methodology that

is used to produce a picture or map of the ideas or concepts of an individual or group (Cañas et al., 1990; Novak, 1998; Novak & Canas, 2006; Trochim, 1989; Trochim & Kane, 2005).

Concept mapping has several notable advantages such as, that it encourages the group to stay on task; results are relatively quick to organise into an interpretable conceptual framework; the framework is entirely expressed in the language of the participants; it yields a graphic or pictorial product which simultaneously shows all major ideas and their interrelationships, and lastly that it could improve group or organisational cohesiveness and morale (Daley, 2004; Trochim & Kane, 2005). For the purposes of the present study, the concept mapping design was modified. Concept mapping was used with identified stakeholders based on data collected in focus groups and interviews with professionals, teachers and parents/ guardians of grade R learners from the Metropole North District. The concept map was based on the reported perceptions about school readiness and emotional-social competence. The operational details of the modified design are presented in detail in a later chapter reporting on Phase Two.

In *Phase Three* the screening tool was constructed. This phase consisted of two sub-phases:

*Sub-phase A:* Development of the screening tool. After completion of Phase One and Two, a draft screening instrument with a pool of test items was developed by the primary researcher in consultation with her supervisor. The developmental phase included steps as proposed by Foxcroft (2013) and Taguma (2000). First, the intended aim/ purpose of the tool was established. Second, the constructs were defined and operationalised and a pool of items generated. Third, decisions were made about the content and format of the test. All of these steps resulted in the construction of the developmental version of the screening tool.

*Sub-phase B:* Instrument validation: the draft-screening tool was presented to specialists in test construction, child development and education for feedback by means of a Delphi study. The Delphi technique was chosen for this sub-phase to validate the conceptual

structure of the instrument, domain identification, theoretical and operational definitions and item writing i.e. the test construction (scalar) choices made.

The Delphi method, as firstly utilized by Dalkey and Helmer (1962) over a half century ago at the Rand Corporation in the 1950's, obtained information from experts during five consecutive rounds to consolidate opinions concerning developing economies. Since then this method has grown in popularity and are more often utilised by studies across the globe (Hasson, Keeney & McKenna, 2000; Hsu & Sandford, 2007; Landeta, 2006). Thus, the Delphi method has developed and expanded to wider audiences to include disciplines related to education, health care, public relations, communications and scientific disciplines (Kennedy, 2004; Yang, 2003).

The Delphi process: The Delphi method is an iterative process to collect and distill the anonymous judgments of experts using a series of data collection and analysis techniques interspersed with feedback (Boulkedid, Abdoul, Loustau, Sibony, & Alberti, 2011). This type of research method employs a qualitative methodology when an interactive panel of experts is invited to share their expertise and work towards a consensus about a set of indicators by sharing expertise and opinions. By employing this methodology, one is able to facilitate an organised discussion that analyse information individually, but also as a set (Hsu & Sandford, 2007). The technique is repetition-based. The same information set is submitted to the panel of experts for a minimum of two and a maximum of five rounds. This would allow them to reconsider answers aided by additional information incorporated to include feedback from the rest of the panel (Skulmoski & Hartman, 2007). Throughout the process, anonymity of participants and their answers was maintained. The researcher does all the correspondence with participants. This reduces the effect of group noise and optimizes the focus on problem solving (Skulmoski & Hartman, 2007). Feedback is thus controlled. Exchange of information between the panel of experts is governed by the researcher. Responses are gathered in a group format. All opinions form part of the final answer. Hsu and Sandford (2007) recommended

the Delphi method as a research instrument when there is incomplete knowledge about a problem or phenomenon. It works especially well when the goal is to improve our understanding of problems, opportunities, solutions, or to develop forecasts (Kennedy, 2004).

Landeta (2006) alerted researchers to the many advantages in using the Delphi technique. This include that it is a relatively flexible methodology, easy to use, that subjects anonymity is guaranteed and that it reduces undesirable behaviours by panelists such as domination of group processes. The ability to use statistical analysis as a technique to analyse results improves rigour. However, this technique is also prone to many disadvantages, which include the possibility of methodological flaws such as choice of experts, consensus as a way to approach the truth, the limitation of interactions involved in written and controlled feedback etcetera. Landeta (2006) provides an extensive discussion of the advantages and weaknesses of the design. To summarise, the Delphi process is a relatively flexible process. The steps that are usually followed include 1) Identification of a clearly defined research problem, rationale, aim and objectives, 2) the selection of expert panelists 3) the development of a stimulus document, 4) dissemination of information (stimulus document) in various rounds, and 5) analyses of feedback after each round with incorporation of feedback into the next rounds until consensus is reached.

As mentioned above, a modified Delphi Technique was adopted as methodology for subsection B of Phase Three of the present study. The modification was minimal and limited to the deletion of the first step. As mentioned before, the present study was designed as a four phase study in which the third phase was devoted to constructing and validating an instrument for measuring emotional-social competence in preschool children. The Delphi method was selected to fulfil the validation with a panel of experts. Thus, the research question, rationale, as well as aim and objective were predetermined and sufficed for replacing the first step in the Delphi process. The findings from this study were incorporated into the final revision of the instrument before the pilot study (Phase 4) commenced. The

operational details of the Delphi study and construction are presented in detail in a later chapter reporting on Phase Three.

*Phase Four* entailed a pilot study with a local sample in the Western Cape, Cape Town region. The main aim of the pilot study was to establish the psychometric properties of the instrument, more specifically reliability and validity. A survey design was used to collect data to assist in the validation process of the resultant instrument. Survey research involves the use of interviews or questionnaires to collect data about people, their specific preferences, thoughts, and behaviours in a systematic manner (Bhattacharjee, 2012). Surveys provide a cross-sectional impression of the constructs measured and therefore cannot necessarily make causal inferences or establish temporal order (Babbie, 2011). Surveys are easy to administer, economical in terms of time and cost and respondents can complete the survey at their own leisure (Evans & Mathur, 2005; Fricker & Schonlau, 2002). There are two basic kinds of survey designs, namely longitudinal and cross-sectional surveys. The former involves collecting data at different points in time to study changes in a phenomenon over time (Babbie, 2011). The cross-sectional design refers to measurement taken at one point in time (Babbie, 2011). This suggests that a particular variable(s) is measured at one given point as well as the relationships of that variable at the time of the study (Terre Blanche, Terre Blanche, Durheim, & Painter, 2011). Consequently, results may change at a later stage. However, researchers often revisit the phenomenon and build on the results of earlier research (Babbie, 2011). The present study incorporated a cross-sectional, survey design. The operational details of the Pilot study and Survey design are presented in detail in a later chapter reporting on Phase Four.

*In summary*, the four phases of the study were all conceptualised as a separate studies with independent methodologies. The results of each phase fed into the succeeding phase.

Figure 1.1 graphically illustrates the directional relationship of the four phases.

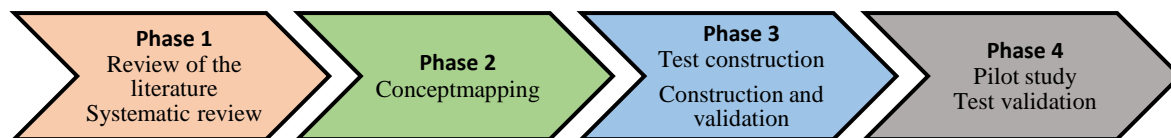


Figure 1.1 *Multiphase design of the present study*

From the above figure it becomes evident that the four phases constitute a coherent whole. The four phases were nested in the first three steps as specified in the framework of DeVilles (2016) as seen in Figure 1.2. Phase One (Systematic Reviews) and Phase Two (Concept mapping) were embedded in Step One aimed at establishing the *Theoretical foundation*. Phase Three had two subsections. Subsection A (Construction) and Subsection B (Delphi Study) was embedded in Step Two, *Test construction*. Phase Four (Pilot study/ Survey) was embedded in the third step, *Test validation*. Figure 1.2 illustrates the relationship between the specific steps of the adapted framework and the phases of the present study.

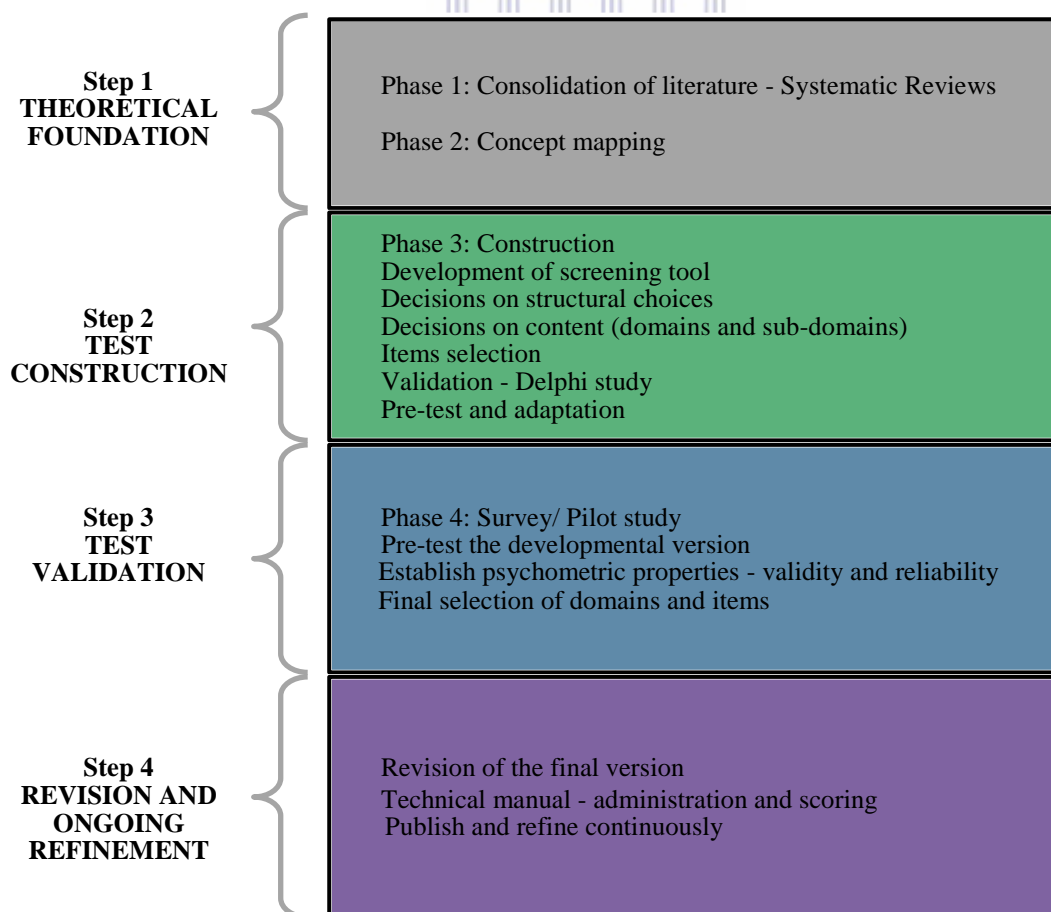


Figure 1.2 *Framework from DeVilles (2016).*



## 1.8 ETHICAL CONSIDERATIONS

Project registration and ethics clearance (Reg. No. 14/2/8) was granted by the Senate Research Committee of the University of the Western Cape (Appendix A). Each phase had accompanying invitation letters and information sheets/ brochures (Appendices B-D) that stipulated and explained the rights of the participants and the responsibilities of the researcher. Every phase emphasised that participation was voluntary. All participants were free to withdraw from the study whenever they wanted, without loss of perceived benefits and risk of judgement. Participants had to complete consent forms indicating their willingness to participate in the study (Appendices E-G). The accompanying letters and consent forms reflected the particular information related to the respective phases. The participants were not subjected to any danger or harm during the research process. Data were kept strictly confidential and anonymised by assigning alpha- numeric codes. Data was password-protected and stored in a secure location. Data will be kept for a period of five years after completion of the study in accordance with the University of the Western Cape (UWC) protocol for ethical data storage. All data and information stored on the personal laptop of the researcher was protected by a password.

Permission for access to identified research settings was requested from the designated authorities relative to each Phase. In the second and fourth phases permission was requested from and subsequently given by the Western Cape Education Department, and the principals of the identified schools (Appendix H). In Phase Three, experts were identified in their personal capacity and therefore no permission was needed from regulatory bodies or designated authorities. Below is a report of the specific ethics considerations per phase.

### 1.8.1 Specific ethical considerations per phase

**Phase One:** In phase one the research was non-reactive and data were collected from published articles that form part of the public domain. As a registered student and staff member at UWC, I was able to legally access the databases of the library for my fieldwork. The research was conducted in such a way that it was transparent and detailed, and that it can be replicated where necessary. No primary research on human subjects was conducted in this study. However, general ethical responsibilities still applied, such as maintaining objectivity and integrity; thoroughness in searching; adherence to the highest possible technical standards; indicating the limits of the findings and the methodological constraints that determined the validity of such findings; following up on suspicions arising from inaccuracies or conflicts of interest. Researchers did not change their data or observations (Babbie & Mouton, 2000). To ensure accountability, the fieldwork was managed by a team of reviewers consisting of pairs under the guidance of the principal researcher. Letting the reviewers replicate searches on each other's databases to ensure replicable and verifiable findings under the supervision of the primary researcher, enhanced the quality and integrity of methodological rigour.

**Phase Two:** In phase two, permission from targeted stakeholders were obtained. Where necessary, permission from principals and the DOE were requested to grant access to the pre-school and permission to conduct the research. Participation in the focus groups was voluntary and participants were briefed on the purpose of the study, rights as a participant and confidentiality. Everyone was asked to sign a consent form and was supplied with an information sheet with a short summary of the aim of the focus group (and study), as well as contact details of the researcher, supervisor and university.

**Phase Three:** Informed consent were obtained for all specialists in test construction and/ or child development by means of an online consent form on the google docs. Participants were briefed that they are allowed to withdraw at any stage. Participants were assigned a unique

number to ensure confidentiality (Appendix J). In the piloting phase, permission was obtained from participating teachers, principals, as well as the Western Cape Education Department (WCED) where appropriate. No names were recorded on the biographical questionnaire to ensure anonymity.

## 1.9 CHAPTER ORGANISATION

The thesis is organised into eight chapters aligned with the construction framework and the four operational steps of the study outlined before. *Chapter One* provides a brief introduction and background to the study, with specific focus on the rationale and the specific aims and objectives of the study. The chapter proceed to contextualise the study in the framework of test construction, with specific reference to the nested phases of the study. The specific methodological choices in each phase are highlighted and the various ethics considerations per phase is discussed. The chapter concludes with a short description of the chapter organisation. *Chapter Two* provides an academic rationale for the study by summarising the most pertinent literature in Early Childhood Development (ECD), school readiness (SR), emotional-social readiness/ competence (ESC) and assessment. The ensuing five chapters reports on the four phases of the study. Each chapter is dedicated to a specific phase or subsection. *Chapter Three* reports on the systematic reviews conducted in Phase One. Thus it presents findings in the form of process results and meta-synthesis extracted from good quality research reporting on theoretical and operational definitions of emotional-social readiness as a domain of school readiness, as well as identifying assessment measures for emotional-social readiness. *Chapter Four* reports on the second phase and provides the resultant concept map of school readiness and more specifically emotional- social readiness as perceived by the relevant role-players. *Chapter Five* provides an overview of the design or construction considerations made in respect of the proposed instrument. *Chapter Six* reports on the content validation of the instrument in the form of a Delphi study. *Chapter Seven*

reports on the pilot study and the psychometric properties of the instrument. The thesis concludes in *Chapter Eight* where a brief synopsis of the overall study and the significance is provided as well as recommendations on the way forward indicated.

This thesis used the American Psychology Associations' (APA) Sixth Edition style as a general guideline, within the framework of UWC requirements for the layout of this doctoral monograph.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The aim of this chapter is to provide an academic rationale for the study as evidenced by a broad overview of the existing body of literature on early childhood development (ECD). The relevant policy and legislature that informs understandings of early childhood education (ECE) in the unique South African context, receives attention as well as, risk factors that impact child development (CD) and school readiness (SR). The chapter proceeds to focus on school readiness and includes definitions of school readiness and reports on domains of readiness with specific reference to emotional social readiness as one domain of school readiness. The importance of assessment and the role that it plays in understanding school readiness and more specifically emotional social readiness are also discussed. Finally, the chapter concludes with a summary of the gaps that remain in the literature.

#### **2.2 EARLY CHILDHOOD DEVELOPMENT (ECD)**

##### **2.2.1 ECD as a global priority**

A global focus on early child development/education is evident in the wealth of research, goals and action plans developed by organisations, task forces and commissions (Requejo et al, 2015), for example, the World Health Organization (WHO), World Bank, United Nations National Sustainable Developmental Strategies (NSDS), and the United Nations International Children’s Fund (UNICEF). Initiatives like the “Golden 1000 days” by UNICEF support the notion that investment in early childhood is the most powerful investment a country can make in reducing poverty and inequality (Rolnick & Grunewald, 2003; Young, 2015). The “Golden 1000 days refer to the 1000 days between a woman’s pregnancy and her child’s second birthday (“Golden 1000 Days”, n.d.). In the past ten years, early childhood education literature emphasised an increased focus on early childhood development and education as an international priority area, with the emphasis on redressing

some of the barriers that contribute to intergenerational cycles of disadvantage that undermine all societies (UNICEF, 2016).

### **2.2.2 ECD in South Africa**

In South Africa, the government has invested a huge amount of capital and resources through the inclusion of early childhood development and planning documents relating to the National Departments of Health, Education and Social Development. These departments developed policy and procedures to assist in the development of basic structures that would foster early childhood development and education (Storbeck & Moodley, 2010). Some of the policies from 1994-2015 included policies and strategies from the:

*Department of Health:* Free Health Care Policy, 1994 (Harrison, 2009), Integrated nutrition strategy, 1998 (DoH, 1998), Strategic priorities for the National Health System, 2004-2009 (DoH, 2004), Roadmap to nutrition in South Africa, 2013-2017 (DoH, 2013), National Health promotion policy and strategy, 2015-2019 (DoH, 2015);

*Former Department of Education:* Education and Training: White paper 1, Transformation in education and training (DOE, 1995), Interim policy on Early Childhood Development, (DOE, 1996), White paper on ECD (DOE, 2000), White paper 5 on Early Childhood Education, (DOE, 2001a), White paper 6 on Inclusive Education (DOE, 2001b), The Education Laws Amendment Act, 2002 (Act 50 of 2002), The National Strategy on Screening and Identification, Assessment and Support, (DOE, 2008), and,

*Department of Social Development:* Guidelines for Early Childhood Development Services, (DSD, 2006), National Audit of ECD policies and services, 1994-2004 (Williams, et al, 2001), Amended Children's Act, 2007 (Act 41 of 2007).

The next section summarises some of the major legislative documents, in the post-apartheid era since 1994. These documents emphasise the commitment of the government and various other organisations to engage on this priority area, ECD in South Africa.

### **2.2.3 Post-Apartheid Legislation and Policies**

The South African Constitution (Act No. 108 of 1996) is concerned with the rights of citizens and strategies to ensure that there is active citizenship, reasonable accommodation for marginalized identities and special protection for vulnerable groups such as children. The South African Constitution includes the Bill of Rights (Chapter 2), which clearly state that every child has the right to basic education in Section 29 of the Bill of Rights. The constitution of South Africa provides the overarching framework for all the policies that guide all levels of education including Basic education and ECD, mainly through the Departments of Health, Education and Social Development.

As mentioned before, the constitution of South Africa (1996) clearly states that every child has the right to basic education in Section 29(1) (a) of the Bill of Rights. Five successive white papers on education were prepared with each one adding more focus and direction to the pursuit of the rights to quality education. The Education White Paper One on Education and Training, adopted in 1995, prioritises the role of the Department of Education in Early Childhood Education. The development of policy for children 0-9 years and a focus on 5-year olds and the phasing in of the Reception year (DBE, 2001b) were identified as important priorities. In 2001, The National Commission on Special Needs in Education and Training and the National Committee on Education Support Services, recommended a focus on early identification, assessment and intervention for learners with special needs education and placed a particular emphasis on pre-school learning. The 1994 free health care policy for children under the age of six and the 1998 integrated nutrition strategy by the National Department of Health followed suit. In 1998, the policy on minimum standards of the South

African Child and Youth Care System by the Department of Social Development, addressed minimum conditions that would foster the optimal development of children from the caregiver perspective (Gray & Mazibuko, 2002). Thus, a proliferation of legislation and policies to promote childhood development was seen in the twenty years post-Apartheid. These policy initiatives fell short in that an integrated approach to early childhood development services was lacking.

#### **2.2.4 An integrated approach to ECD**

Every child has the right to a healthy start in life, a safe and secure childhood and access to education (UNICEF, 1989), but millions of children around the globe are denied these rights and deprived of opportunities to develop into productive and prosperous adults (UNICEF, 2016). There are different role-players who need to be included in the realisation of an integrated approach to ECD. Policy makers, state departments and parents of children have been identified as important role players in ECD (UNICEF, 2016).

The DSD leads government departments regarding services to children under the age of four years. In terms of the Amended Children's Act of 2005 (Act 38 of 2005), it is the DSD's responsibility to manage the registration of ECD sites, monitor their functionality and impact, and provide a subsidy for those children where a need exists (DSD, 2006). The Department of Social Development (DSD) coordinates the activities of the three partner departments, namely Social Development, Health and Basic Education (Tibane & Nomfundo, 2016). The realisation of the need for an integrated action plan across the three Departments led to the development of various action plans and policies. The National Integrated Plan for Early Childhood Development in South Africa, 2005-2010, emphasised that the development of effective and efficient integrated ECD programmes needs to be prioritised through human resource- and infrastructure development, research and continuous monitoring and evaluation of services (DOE, DSD & UNICEF, 2005). The Integrated programme of Action For Early



Childhood Development- Moving Ahead, 2013-2018 continued its focus on the set priorities through the improvement of teacher qualifications (DHET, 2017; DOE, 2014b) and the establishment of a National Curriculum Framework for children birth to four (DOE, 2014a). It is noteworthy that since 2011, an upward trend of almost 6% has been noted in access to ECD centres (NPC, 2012; Samuels et al., 2015). At present the main foci of the Departments are to establish meaningful partnerships to drive initiatives such as the training of educators; to increase teacher qualifications, build infrastructure by increasing the registration of centres, and to ensure minimum standards in the implementation of curricula for 0-4 years (NELDS) to optimise the early development/ academic environments of children (DOE, 2014b; DHET, 2017; NPC, 2012).

The National Integrated Early Childhood Development Policy, approved by Cabinet on 9 December 2015 (NICP, 2015) formalised the above set priorities by emphasising that each child should have access to early childhood development services that provides comprehensive quality ECD programmes. The policy also stressed that parents should receive support to partake in the development, growth and learning of their children. Despite governmental attempts to find appropriate ways to help caregivers/ parents, the responsibility for fulfilling the basic needs of children, namely safety, security, love and education remains the primary responsibility of the caregiver. For example, the Education White Paper 5 on early childhood development in South Africa states that the primary responsibility for care and upbringing of children belongs to parents and families (DOE, 2001a). The primary caregivers thus remain central in providing a healthy, nurturing and stimulating environment in their child's development (Berry et al., 2013). The Education White paper 5 states that timely and appropriate interventions on parental and familial level can prevent or at least try to reverse the effects of early deprivation and maximise the development of the child's potential. This sentiment is supported by findings of various research projects in South Africa (Berry et al, 2013; Tomlinson, 2013; Ward & Wessels, 2013).

*To summarise:* Many integrated action plans and policies were developed in the past five years, such as the National Development Plan, 2030 (NPC, 2012); National Integrated Policy for Early Childhood Development (DSD, 2015) and the National Curriculum Framework for Children aged 0-4 years (DOE, 2015). The remaining challenge still facing Government today is to convert their post 1994 response into an integrated and targeted, government-wide national programme of action on ECD. As stated in the White paper 5 the ongoing key challenge was to increase the access to ECD programmes, correct existing imbalances in ECD provision, improve the quality of ECD programmes, as well as plan and deliver ECD services in an integrated way (DOE, 2001a).

The challenge for the government is thus to help to break the cycle of poverty by increasing access to ECD Programmes, particularly for poor children, and to improve the quality of these programmes, by addressing training and qualification for educators, as well as addressing social contexts that may detract from the ability to learn and use educational opportunities. In developing countries, such as South Africa, the main challenge remains to harness the science of early childhood development and translate it into policies and large scale programmes for children involving families and communities (Young, 2015).

An integrative approach towards ECD could only be fully operational if the factors that impact ECD and school readiness is identified, understood and attended to. The next section identifies and discusses a range of factors that influence child development and ultimately school readiness.

### **2.3 FACTORS THAT IMPACT EARLY CHILDHOOD DEVELOPMENT (ECD) AND SCHOOL READINESS (SR)**

Human development is shaped by a dynamic and continuous interaction between biology and experience (Phillips & Shonkoff, 2000). Mohamed (2013) stated that factors internal and external to the child could act as predictors of academic performance (success/

failure), school readiness and the degree of adjustment to school and academic life. *Internal factors* are biologically determined and located within the physiology or genetics of the child whereas *external factors* are environmentally determined (Carr, 2015; Mohamed, 2013). The ensuing section will discuss factors impacting early childhood development using this categorization.

### **2.3.1 Internal factors**

Biological factors, such as genetics and temperament have been identified as factors during the pre-natal period, that impact early child development outcomes (NRC, 2004; Rettew & McKee, 2005). Genetics provide the blueprint or roadmap for later life experiences and disruptions in genes caused by events before, during, or after conception, disrupt developmental processes and can produce disorders immediately or later in life. (NRC, 2004). The close relationship between temperamental traits, genetics, unique environmental factors, classroom behaviours and childhood psychiatric disorders remains a focus in research (Rettew & McKee, 2005; Zentner & Bates, 2008). Similarly, the absence of any medical conditions and the child's general mental health were identified as important indicators (Raver, 2003; Webster-Stratton & Reid, 2004) that might impact child development. In another study, Hawley and Gunnar (2000) demonstrated that prenatal factors such as a lack of iodine and iron deficiency affect child development and may ultimately affect a child's linguistic development. Reichman (2005) and Start (2012) included the child's general health, including birth weight as important factors that might affect child development and later learning. Currie (2005) concurred that healthy birth weight and breastfeeding were important post-natal indicators of development. Walker, et al. (2007) concluded that gross motor development was an important factor and underscored that gross motor development is widely considered the result of innate, biological factors with postnatal factors contributing to a lesser extent.

Carr (2015) highlighted that factors such as socio-economic status and nutrition in addition to genetic factors can influence development significantly. Dickens (2005), Bakermans, Kranenburg and Van IJzendoorn (2007) and Lemelin et al. (2007) stressed that although *internal factors* such as genetics and temperament play an important role in the core abilities underlying school readiness, external factors such as environmental factors remained the most prominent factors that impacts development, school readiness and academic achievement. A brief exposition of these external factors are presented below.

### **2.3.2 External factors**

The Department of Education (2001a) stated in the *White Paper on Education 5* that approximately 40% of young children in South Africa grow up in conditions of abject poverty and neglect, and that these conditions predispose them for stunted growth, poor adjustment at school, increased repetition and school dropout. The State of the World's Children reports (UNICEF, 2001; UNICEF, 2009) stated that factors such as poverty, ill health, poor nutrition and a lack of stimulation during the child's early development can undermine educational foundations, restricting what children are able to accomplish. International statistical projections indicate that one hundred and seventy six million children will live in extreme *poverty* in 2030 with the majority of these children are in sub-Saharan countries (UNICEF, 2016; Statistics South Africa, 2015). In 2015, approximately 200 million children under the age of five were estimated to be at risk of poor development due largely to poverty and under nutrition (Young, 2015). Exposure to violence and crime in addition to poverty acts as a real threat to the normal developmental trajectory of children (Berry et al., 2013).

Globally, around sixty nine million children under age 5 will die *from preventable causes* including poor maternal health resulting in neo-natal deaths, poor nutrition, childhood diseases such as malaria and diarrhoea (WHO, 2015). In South Africa, poverty and related problems have negative effects on mothers and their children's development. Berry et al.,

(2013) underscored that when poverty and health related problems act together the negative impact on child development is exponentially increased. Research identified a range of external factors including poor health and nutrition (Hendricks, Goeiman & Hawkrigde, 2013); deficient care and limited stimulation (Tomlinson, 2013; Ward & Wessels, 2013) as possible barriers for healthy development. Researchers also identified that malnutrition, HIV, FAS and childhood illnesses remain key drivers in compromised early childhood development and early childhood mortality rates (Berry et al., 2013; Tomlinson, 2013). Unfavourable environmental conditions such as poor housing, lack of access to water, sanitation and poor hygiene in the home contribute to infections and disease in young children (Slemming & Saloojee, 2013). In modern cultures, the most important predictors of variance in child development are seen as socio-economic factors and social class (Ward & Makusha, 2015). Wellbeing depends heavily on the pro-social behaviour of members of society (Albino & Berry, 2013). Pro-sociality involves individuals making decisions for the common good that may conflict with short-run egocentric incentives (Helliwell, Layard & Sachs, 2015). At both the individual and national level measures of wellbeing, including emotions and life evaluations are strongly influenced by the quality of the surrounding social norms and institutions. These include family and friendships at the individual level, the presence of empathy and trust at the neighbourhood and community levels, and the power and quality of the overarching social norms that determine the quality of life within and among nations and generations. When these social factors are well-rooted and readily available, communities and nations are more resilient (Helliwell et al., 2015).

The care of children is the responsibility of both the public and private spheres- including family and extended family networks, health systems, early childhood education centres and formal schooling systems (Tomlinson, 2013). In South Africa, families and caregivers are more vulnerable due to low levels of education, economic and environmental deprivations (Ebrahim & Seleti, 2013). The distress of living in poverty, surrounded with

violence and substance abuse and being a single parent might results in harsh and less responsive parenting (Tomlinson, 2013; Ward & Wessels, 2013). Grace, Evindar and Stewart (2003) concluded that postnatal factors such as a caregiver with post-partum depression, can be seen as a barrier to optimal cognitive development in children. To be confident explorers children from birth to three years need to experience secure attachments, trusting relationships and interactions that are developmentally appropriate, whilst children from three to five years needs stimulation on academic and social emotional levels to prepare them for school (Ebrahim & Seleti, 2013, Kaplan & Sadock, 2016). Thus, lack of stimulation, stress and trauma experienced at home, in the family and the community negatively affect early learning (Ward & Makusha, 2015). A lack of access to resources and education has also been identified as an external factor that impact children's development and readiness to learn (NICD, 2003; Albino & Berry, 2013; Hall et al., 2014).

The above factors highlighted the importance of resources on governmental, communal and familial level to enable children to develop to their fullest potential, also as preparation for school readiness. To understand the developmental trajectory of the child and more specifically the pre-school child, the focus shifts to childhood development in the pre-school context and more specifically children's normative development within the context of the pre-school period.

#### **2.4 PRE-SCHOOL/ EDUCARE IN SOUTH AFRICA**

Sixty million children of primary school age will be out of school by 2030 if children's needs are not prioritised (UNICEF, 2016). Access to quality early childhood development, care and pre-primary education has been prioritized as part of the Millennium development goals under inclusive and equitable quality education and are receiving constant attention globally (Raikes, 2015).

### **2.4.1 Access to pre-school centers in South Africa**

Pre-primary education in South Africa begins when children are three and continue for a further four years until compulsory primary school education begins at age seven (South African Schools Act of 1996; The Education Laws Amendment Act, 2002). The South African context brings numerous challenges to school readiness since historical inequalities continue to result in differential access to early academically stimulating environments, early assessment and intervention, access to services in addition to social challenges such as poverty, malnutrition etc. (Amod & Heafield, 2013; Laher & Cockcroft, 2013; Roodt, Stroud, Foxcroft & Elkonin, 2013; Winter & Kelley, 2008). In South Africa, it links specifically to our pre- and post-apartheid regime, democracy, and how this has a rippling effect on all the other systems. School readiness and environmental factors are inextricably interwoven and requires investigation, as well as consideration when conceptualising interventions and policy (Rimm-Kaufmann & Sandilos, 2017). The Six White paper on Education (DOE, 2001b) problematised the percentage of children who have access to Gr. R before entering mainstream education and reported that only 11% of children have access to Gr. R. The Department of Social Development (DSD) aimed to increase this percentage to 85% by 2010 (DSD, 2014). Despite the drive by the DSD to register all centres and increase access to these centres, the target of 85% access has only been reached in 2012 (Richter et al., 2012). The main reasons for the delay in obtaining the target by 2010 were problems with infrastructure and a lack of resources. The government has recently stepped up efforts to ensure that more children are enrolled in pre-primary level schools, as they play an important role in early childhood development (DOE, 2014; NICP, 2015). In South Africa in 2011 only 40% of children had access to Gr. R education, whilst statistics show that access has increased to 91% of children in 2015, (1.9 million) in the pre-school age group, five to six year old (Hall & De Lannoy, 2015), with the majority attending a pre-school linked to the public sector/ governmental schools. This is an increase of 51% from 2011. Whilst access to school has

improved, the quality of learning remains a serious issue (Hoadley, 2013). Problems with infrastructure, lack of resources, inadequate qualification in teachers and challenges with differential curricula are some of the areas mentioned that affects the quality of learning in ECD centres (Hoadley, 2013).

#### **2.4.2 Pre-school systems in South Africa**

There are two preschool systems in South Africa: one is funded by the government and is regulated provincially, and the other is independently run by communities or alternative (independent/ private) bodies (DSD, 2006). Both the government and independent programs consist of two main components: pre-Grade R and Grade R programmes. Pre-Grade R programmes are intended for children between birth to four years old, and Grade R (Reception Year) programmes are aimed at 5-6 year-old children. In South Africa pre-schoolers access Gr. R through the Public Primary School system, community based sites and independent systems/ private schools (DSD, 2006). In response to the differential curricula that affects the quality of learning, the DOE developed The National Early Learning and Development Standards for children from birth to four years (NELDS) as part of the National Curriculum Framework (NCF) in 2009. The primary focus of the NELDS is on the early learning needs of children from birth to four in the domains of intellectual/ cognitive, aesthetic, social, physical and emotional developmental areas (DOE, 2009; DOE, 2014). These domains are broken down into six learning areas namely Communication, Identity and Belonging, Wellbeing, Exploring Mathematics, Creativity and Knowledge and Understanding of the world (DOE, 2009).

In South Africa Grade R is part of the DOE's national curriculum. Learners are taught their home language, mathematics and life skills through a play-based learning pedagogy consisting of the following play-based learning activities: Block play, Art, Make believe play, Movement, Play dough, Games and puzzles, Sand and water play, Counting, Colour, Shapes, Sequencing and Ordering, Matching, Sorting and Categorising patterns, Language and



Communication and Emergent Literacy. (National Curriculum Statement Grades R – 12, 2013). The curriculum is based on a maturational principle that takes into account normative child development and milestones. The next section will discuss the principles of normative development in early childhood with specific focus on the child in the pre-school context. Developmental characteristics and the specific domains of development in pre-school children would receive attention.

## **2.5 ECD AND DEVELOPMENTAL PRINCIPLES**

During the first eight years of life, children develop increasingly complex cognitive, linguistic, social-emotional and physical skills, which have long-term implications for learning and school achievement (Amod & Heafield, 2013). These skills set children on lifelong trajectories towards health and well-being (UNESCO, 2017). While there is good science backing the basic developmental processes and solid understanding of some of the mechanisms by which environment affects them, the concept of ‘healthy development’ will have some elements that are consistent for all children and some elements that are based on the culture or context in which children live (UNESCO, 2017). The definition of typical development ideally is established through the creation of normal distributions of children’s development and skill acquisition in various parts of the world, with ages at which percentages of children are typically demonstrating specific skills (UNESCO, 2017). Kaplan and Sadock (2014) reported the following developmental principles distilled from conceptual frameworks of understanding: a) development is continuous and might be exhibited in growth spurts and may be affected by both external or internal changes and b) it occurs in stages characterised by themes and patterns of behaviour. Child development is a holistic, non-static construct and is forever in a state of change, which accentuates the importance of critical evaluation of the context in which development is defined (DSD, 2006). It includes, but are not limited to domains of cognitive, linguistic, social emotional and physical development (DSD, 2006; Raikes, 2015). Similarly, Carr (2015) summarised that the child’s development

include physical, cognitive and social facets that occur within the context of the family life cycle. Raikes (2015) argued that during a child's early development, learning and development have a symbiotic relationship with learning informing development and vice versa.

Young (2015) reported that science and research is unequivocal in its support of the importance of early childhood development. Researchers agree that the first few years of a child's life lay a foundation for physical health, cognitive, behavioural, social and self-regulatory skills (Ebrahim & Seleti, 2013; Rimm-Kaufman & Sandilos, 2017). Research into child development is dynamic, challenging, exciting and forever changing. More and more research is being done in the fields of neuroscience, developmental psychology and health to contribute and highlight the importance of a child's early years in the establishment of a blueprint for further optimal development (Young, 2015; Kaplan & Sadock, 2014). More recently, developmental psychology began to expand to include culture as an important facet to understand child development. Raikes (2015) emphasised that although development proceeds according to basic developmental processes, there are important variations reflecting cultural and contextual influences, because development is dependent on experience.

Research on child development both internationally and locally place emphasis on the importance of cognitive and academic development through biological and cultural influences (Louw & Louw, 2014; Venter, 2010). Edgar (1995) in the mid-nineties drew attention to the fact that child development in modern societies is far more dependent on the resources available for the child via his family and community, than on cultural factors. Although understandings of child development is more cognisant of cultural and societal practises, researchers still postulate that in all cultures the developmental cascade is almost

the same in the child's first year of development, as it depends primarily on functional maturation and on learning opportunities (Venter, 2010).

Most of the literature on normative child development are in the form of textbooks on child development whilst most of the research articles focus on facilitators and barriers that affect children's development. Textbooks usually explain normative development from a specific theoretical perspective, for example developmental, biological, ecological or psychodynamic perspectives. Although these theories will be discussed briefly in the context of school readiness, a full discussion of the specific theories is beyond the scope of this thesis. Kaplan and Sadock, (2014) and Carr (2015) can be consulted for a summary of the most relevant theories.

### **2.5.1 Developmental characteristics of Pre-school children**

The term pre-school is usually used to include children between the ages of 18 months and 6 years and caters for children that are in school-like settings such as pre-school nurseries and day care centres, but also includes children that are cared for at home (Kaplan & Sadock, 2014). The main aim of the pre-school years is to build on the base of skills/ competencies that were developed during early childhood years and to move towards greater independence, intellectually and emotionally (Carr, 2015). The pre-school period is characterised by marked physical and emotional growth (Kaplan & Sadock, 2014). The UNICEF state of the World's children report stated some of the rights that children have from a normative developmental perspective (Bellamy, 2001). These rights included the right to develop fine motor skills; as well as learn language, pre-reading and writing skills through interaction. It also included the right to participate in activities that would develop a sense of mastery, to enhance creativity and self-expression. Children should also have the opportunity to explore through action, and develop self- control, cooperation and persistence. Finally, receive support to develop a sense of self-worth.

Children's abilities/skills/ competencies are defined as observable manifestations of behavioural domains. Some of the developmental landmarks of pre-school children aged 5-6 years in the areas of physical, cognitive, social and emotional domains are:

*a) Physical development.* Children begin to refine skills in motor development, they can run, climb and jump, ride a two-wheel bicycle, have better coordination and balance (Gallahue & Donnelly, 2007; Brown, 2016). Children are also refining hand-eye coordination; they begin to learn to hold a pencil, to draw and write with greater control and learn physical control in sports, for example soccer (Grissmer, Grimm, Aiyer, Murrah & Steele, 2010).

*b) Language and speech.* Children's expressive and receptive language use becomes more complex (Mohamed, 2013). Children learn to express themselves through words. They are more able to use language to communicate their needs (Carr, 2015; Brown, 2016). Language use is also more grammatically correct. Their understanding of language also becomes more sophisticated. Children begin to use reasoning and begin to shift from learning through observation and experience to being able to speak and say what they need (McCormack, McLeod, Harrison & McAllister, 2010). A pre-school child is better able to interact socially with peers and adults to express wishes and needs (Stefan, Balaj, Porumb, Albu & Miclea, 2009). They also desire to be part of adult conversations and behave more like adults.

*c) Cognitive skills/ thinking.* Children's main modality of thinking is still egocentric and intuitive, but they are busy moving towards a capacity for sharing and cooperation (Whitebread & Bingham, 2011). Children are now more able to begin to mentally manipulate information (Kaplan & Sadock, 2014). They begin to take another person's point of view or infer what another person is thinking, spontaneously and independently (Mohamed, 2013). Although children still prefer structured activities and direction from adults, they start to see

themselves as more autonomous and more capable of basic independent problem-solving skills (Whitebread & Bingham, 2011). They invest more time and energy into completing tasks in an expected manner (Carr, 2015). Additional cognitive skills that develop across this age range are the ability to distinguish fantasy from reality, to describe similarities between two objects, an increase in memory capacity, attention span, and greater impulse control (Whitebread & Bingham, 2011; Brown, 2016).

*d) Social and emotional functioning.* Remarkable changes begin to appear in the social and emotional sphere (Carr, 2015). In the preschool period, children still need attention from their parents and teachers. The caregiver still remain the main source of companionship for the child (Kaplan & Sadock, 2014), but a more prominent focus on peers emerges, friendships become more and more important as the preschooler become increasingly aware of others and that others might have different feelings (Denheim et.al, 2012). The preschooler begins to acquire the social skills needed to play and work with other children (Kaplan & Sadock, 2014). As time passes, the child is better able to cooperate with a larger number of peers (Mohamed, 2013). Children are now more able to start playing games that have rules; the rules are still likely to change, often at the whim of the dominant child (Stefan et al., 2009).

It is common in a small group of preschoolers to see a dominant child emerge who tends to boss around the other children without much resistance from them (Brown, 2016). The child should display initiative, curiosity, the desire to explore, and enjoyment without feeling guilty or inhibited (Carr, 2015). Children's primary drive is towards becoming more independent, but they might still feel very insecure (Kaplan & Sadock, 2014). They are still very vulnerable, are hurt by criticism, and might be rigid, demanding and unable to adjust (Denheim, et al., 2012). At this age, children begin to develop a sense of pride in their

accomplishments, begin to set standards for their own behaviour and learn greater self-control and learn to handle a wide range of emotions (Sassu, 2007; Carr, 2015).

It is normal for preschoolers to test their physical, behavioral, and emotional limits. Having a safe, structured environment in which to explore and face new challenges is important. However, preschoolers need well-defined limits. Early morality develops as children want to please their parents and others of importance (Kaplan & Sadock, 2014). This is commonly known as the "good boy" or "good girl" stage. Discipline should give the preschooler chances to make choices and face new challenges, while maintaining clear limits (Stefan et al., 2009). Structure is important for the preschooler. Having a daily routine (including age-appropriate chores) can help a child feel like an important part of the family and enhance self-esteem. The child may need reminders and supervision to finish chores. Recognition and acknowledgement when the child behaves, or does a chore correctly will enhance a positive sense of self (Sassu, 2007). The optimal development of the pre-schoolers' physical, cognitive, linguistic and emotional social skills is an important pre-requisite for their readiness for formal entry into the school environment.

## **2.6 SCHOOL READINESS**

As mentioned before, the issue of school readiness is one of the most important decisions that all parents or guardians are faced with worldwide (Winter & Kelley, 2008). There is consensus that the transition for young children from early learning experiences into formal schooling is a profound transition in early life (Bustin, 2007). The transition into formal schooling is mandated by the South African Schools Act of 1996 that stipulates that school attendance is compulsory for all children from 7 years of age (Schools Act, 1996). This act places a legislative deadline or requirement as to when a child enters formal education. Thus, the act assumes that 6-7 year olds have achieved the required developmental milestones that constitute readiness for school across the domains of functioning for example

physical, cognitive and emotional/ social functioning. The act does not stipulate how readiness should be assessed.

Amod and Heafield (2013) stated that school readiness has been under-researched and remains a focus of further attention, clinically and empirically. The literature on school readiness has focused primarily on six broad areas. First, definitions of readiness including individual and socio-cultural barriers (for example Storbeck & Moodley, 2010; Ward & Makusha, 2015). Second, factors facilitating learning and academic performance (e.g. Donald, Lazarus, & Lolwana, 2010; Welsh, Nix, Blair, Bierman & Nelson, 2010). Third, assessment practices and instruments (for example Cartinel et al., 2009; Denham, 2006). Fourth, individual strengths and weaknesses of the learner/ child (for example Arslan, Durmusoglu- Saltali & Yilmaz, 2011; Winter & Kelley, 2008). Fifth, interventions (for example Dockett, Perry & Kearney, 2010; Isaacs, 2012) and sixth, statutory responses (for example DBE, 2012; DBE, 2014). Any meaningful exploration of the body of literature on school readiness must start with the construct or concept of school readiness.

## **2.6.1 The concept of school readiness**

### ***2.6.1.1 Definitions of school readiness***

To date, no consensus has been reached on the definition of school readiness. Mohamed (2013) pointed out that definitions and conceptualisations of school readiness still vary depending on the emphasis of stakeholders and the theoretical perspective adopted. Similarly, Dockett and Perry (2002) reported that theorists, educators, professionals and politicians hold different views, beliefs and understandings about school readiness, the skills that are needed and how it develops. It becomes evident that variation in the definition of readiness varies greatly globally and is informed by a range of theoretical perspectives. In the South African context the same variation exists, that in turn complicates assessment and intervention practices. Thus, the need for empirical investigation becomes evident.

### ***2.6.1.2 Theoretical perspectives on school readiness***

La Paro and Pianta (2000) conducted a systematic review of good quality articles on children's readiness in the early school years and referred to the term "readiness" as one of the most frequently used labels in early childhood education (ECD) and school outcomes. These authors stated that researchers usually defined readiness in terms of the child's maturational process, focusing on children's skills, abilities and dispositions in relation to their chronological age and biological clock. Seminal citations framed the maturational approach as the view that children are born with a biological "blueprint" that governs development and ultimately determines when they are ready to enter school (for example Baker & Gesell, 1973). Maturational approaches lend themselves to a "cut-off" age for school entry as a criterion that has become a mandatory practise worldwide (Meisels & Atkins-Burnett, 2000), and have been adopted in South Africa. For example in South Africa policy states that children who turn six are legally expected to enter mainstream the following year (South African Schools Act, 1996).

The maturational approach has been widely criticized. For example, Rimm Kaufmann and Sandilos (2017) and Mohamed (2013) concluded that research showed mixed results on the age cut-off points for school entry since research has not empirically supported the purported relevance for academic progress and well-being. Burkam, LoGerfo, Ready and Lee (2007) articulated that age and birth dates should not be used as the best "predictor" for school readiness as it overlooks important contextual factors. For example, social and educational experiences, interpersonal factors (for example, family interaction), as well as characteristics and individual factors (for example birth complications, maternal occupation) which might affect academic and other outcomes. Cut- off points place a huge burden on teachers and academic curricula to accommodate children entering mainstream education with a wide ranging set of skills and abilities in a single classroom (Mohamed, 2013).



In contrast to the maturational view, some researchers took a more empirical and *developmental* stance in which specific skills and knowledge that are deemed necessary for success in school, were emphasized (Klein, 2002; Meisels & Atkins, 2000; Steward-Brown & Edmunds, 2003). Children develop a range of skills in cognitive and socio-emotional domains including cognitive skills, intra- and interpersonal skills from birth that are considered important in the attainment of school readiness (Bustin, 2007). The maturational view holds though that this development continues beyond the point of school entry throughout the lifespan. The focus on the individual child is the common denominator in the maturational and developmental approaches (Snow, 2006).

Other perspectives that underpin the concept of school readiness includes the *ecological perspective* that describes school readiness as a myriad of environmental experiences that impact on development, learning and adjustment of a child to the demands of school (Mohamed, 2013). Seminal texts indicate that the *interactional* perspective describes school readiness as a product of ongoing transactions between the child's maturation, temperament and social interactions in their environment (Vygotsky, 1978; Graue, 1992). It is focused on the child's learning and on the school's capacity to meet the individual needs of their students (Goldblatt, 2004).

The *social constructivist* perspectives defines school readiness as a function of the standards established in a certain community and are embedded in the child's social and cultural context (Hair et al., 2006; Graue, 1992). The social constructivism approach thus assumes that all children are ready to learn in school, based on internal knowledge and knowledge of the external world (Goldblatt, 2004). This theory emphasised that readiness is the primary responsibility of the school and the child is an active participant. From the literature it emerges that perspectives inform definitions and approaches. In practice these perspectives are not always academic or explicit theoretical formulations. Similarly, not all stakeholders are explicitly aware of their theoretical perspectives. Thus, a gap identified in

the literature is a systematic consultation with stakeholders to ascertain implicit or explicit theoretical underpinnings or perspectives on school readiness.

### ***2.6.1.3 Stakeholder/ role-players perspectives on school readiness***

Role-players' (caregiver, teacher and professional) perspectives on school readiness have also received focus in research studies. La Paro and Pianta (2000) reported that parents defined school readiness in terms of academic skills, while teachers defined readiness in terms of conduct and ability to follow directions. Goldblatt (2004) found in a cross-cultural South African study, that teachers and parents had similar expectations regarding school readiness. Parents and teachers' attitudes towards school readiness were consistent with the empiricist and interactional approach. For both groups readiness was directly related to what the child was able to do (thus skill based), on a physical, academic, as well as a social and emotional level. It was also interesting that the role-players' perceptions regarding school readiness was related to their ethnic, cultural and educational backgrounds, as well as the way that readiness is constructed in their communities. Although teachers and parents had similar expectations about readiness, teachers placed more emphasis on the child's socio-emotional skills as being an important factor of school readiness, while parents emphasised academic competence. In the South African study, teachers and parents stressed the importance of a collaborative partnership for optimal growth and development of the child to be school ready (Goldblatt, 2004). This focused the attention on a more interactionist approach to school readiness where the child's ability to transcend from pre-school to mainstream is dependent on the family, classroom and community attributes. Rimm-Kaufmann and Sandilos (2017) concurred with the findings reported by Goldblatt, (2004). Teachers reportedly did not attach particular importance to numeracy and literacy skills but emphasised self-regulatory and interpersonal skills as important determinants of readiness. In this study, parents also placed emphasis on academic skills as pre-requisite for successful entry into mainstream education. Foxcroft et al., (2004) conducted a needs analysis to establish test use patterns and the needs

of psychological assessment practitioners in South Africa. The assessment of readiness by this stakeholder group identified that school readiness requires urgent attention. The need to develop instruments for school readiness assessment that is easy to administer, developmentally-focused, criterion-referenced, aligned with the learning outcomes of Grade 0 and Grade 1, and more qualitative in nature was underscored. It was also mentioned that the development of such a measure needed to be done in collaboration with major stakeholders such as teachers and parents.

*In summary*, this brief synopsis on school readiness research showed that there is no consensus on specific perspectives and definitions of school readiness. Definitions are embedded in theoretical perspectives, which emphasise important aspects or facets of the child, his/her environment and the contexts in which the child functions. A focus on the specific skills/ characteristics/ abilities that is needed for children to be school ready, needs more in-depth attention. Thus, it becomes important to explore the literature reporting on the domains of school readiness.



## **2.6.2 Domains in school readiness**

The main developmental areas/ categories/ domains that are identified in literature on school readiness are physical, cognitive/ mental/ academic, emotional and social (Jacklin & Cockcroft, 2013). Literature identified a range of skills and developmental domains including physical (neurological) maturity, emphasising skills such as muscle tone, gross motor and fine motor skills, bilateral integration, laterality and crossing the midline as some of the important concepts that require attention (Blair, 2002; Mohamed, 2013). Readiness for formal instruction in literacy including reading, writing and arithmetic were also mentioned as important skills in school readiness (Kaplan & Sadock, 2014). These skills require intellectual or mental maturity that focuses on a child's ability to translate visual motor skills, auditory perception, processing skills, attention and memory and expressive and receptive language skills etc. (Mohamed, 2013; Van Eeden & De Beer, 2013; Van Zyl, 2004).

Recent conceptualisations of children's social-emotional development in the pre-school years focused on two key areas that are central to children's development: 1) competence in building and maintaining relationships with others; and 2) self-regulation, or the ability to successfully manage emotional states (Thompson, 2015). At its core, social-emotional development is the process of learning what is culturally and socially appropriate, and then behaving in a manner that allows one to develop strong relationships with others and handle emotions in positive ways (UNESCO, 2017). Other researchers define *social and emotional functioning* as the child's ability to act independently, show social grace and regulate behaviour, have a positive sense of self, show empathy, trust in their own abilities, as well as identify and regulate emotions appropriately (Ladd, Herald & Kochel, 2006; Mohamed, 2013; Steward-Brown & Edmunds, 2003). Rimm-Kaufmann and Sandilos (2017) added that abilities such as, to attend selectively, show appropriate social responses, attention, persistence and emotional regulation are important abilities to facilitate learning opportunities in the classroom. Mohamed (2013) emphasised the interconnected and interdependent nature of emotional and social abilities. She stated that each of these constructs have their own set of discreet skills and definitions; that feelings are influenced by social experiences and that emotions need a social context in which to develop. Notably, the importance of emotional maturity is often downplayed and overlooked in contrast to intellectual maturity (Amod & Heafield, 2013; Bustin, 2007; Rimm-Kaufmann & Sandilos, 2017). In school, it is imperative that the tempo of learning needs to match the child's natural ability including social/emotional abilities (Saluja et al., 2000). In short, there is consensus over what the core domains are. However, what these domains entail and their relative importance remains contested. Thus, further research must endeavour to ascertain the views of stakeholders of domains and their relative meanings when constructing instruments to measure school readiness.

### ***2.6.2.1 The importance of emotional-social skills/-competence in school readiness***

Authors made a strong argument to include emotional and social ability/ competence as a domain in school readiness assessments. For example, Stefan et al. (2009) and Rimm-Kaufmann & Sandilos (2017) asserted that while cognitive ability/ competence has its links with emotional and social ability, a measure assessing school readiness is insufficient if it only considers the cognitive ability/ competence of a child as a domain of school readiness. Even when more formal school readiness assessments are done, existing measures of school readiness focus mainly on cognitive abilities and other elements of the child's development is neglected (Bustin, 2007; Janus & Offord, 2008; Stefan et al., 2009).

Literature argued that social-emotional intelligence is an important criterion in academic success as social-emotional factors and academic skills are positively related (Blair, 2002; Goleman, 1996; Rimm-Kaufmann & Sandilos, 2017; Trentacosta & Izard, 2007 in Stefan et al., 2009; Zins et.al, 2004). For example, Janus and Offord (2007) conducted a brief review of seven of the most known and widely used school readiness assessments abroad including the Giselle School readiness Test (Ilg, Ames, Haines & Gillespie, 1978); the Developmental Indicators for Assessment of Learning (DAIL-R) (Mardell-Czudnowski & Goldenberg, 1990); the Lollipop test, (Chew & Lang, 1990); the Pelps Kindergarten Scale (Augustyniak, Cook-Cottone & Calabrese, 2004; Phelps, 1991); the Brigance Diagnostic Inventory of Early Development (Brigance, 1978; Glascoe, 2002); the Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn, 1981) and the Woodcock-Johnson III Test of Achievement (Woodcock, McGrew & Mather, 2001). From this review only two instruments offered an optimal measure of children's socio-emotional development (Janus & Offord, 2007). Similarly, Stefan et al. (2009) mentioned that most decisions about children's readiness are made by parents relying on common sense rather than on rigorous assessment of their child's abilities. This finding related to the lack of screening tools for emotional social competence available for the population studied in Romania (Stefan et al., 2009).

Amos and Heafield (2013), Bustin (2007), Foxcroft and Roodt (2013), Laher and Cockcroft (2013) and Mohamed (2013) expressed similar views, emphasising that appropriate assessment measures for school readiness and more specifically emotional social readiness are limited in the South African context. They identified that there is a need for screening tools to assess emotional-social competence that will be easily accessible, cost effective and in line with curriculum. These authors concluded that development of such a screening instrument would be greatly beneficial to assess preschool children's school readiness and emotional social skills.

One of the main reasons for using screening tools to assess emotional and social competence is that it can identify children that demonstrate emotional and social challenges in their preschool year (Epstein, Synhorst, Cress & Allen, 2009). An emotional-social screening instrument can help to identify preliminary health problems in pre-school children (Stefan et al., 2009). By identifying children who demonstrate such challenges, tailor-made intervention strategies can be implemented to assist them. One can also use social-emotional screening tools to assess how a child interprets his or her behaviour according to a given situation (Bustin, 2007). Similarly, support strategies for parents can also be established and implemented to assist the child at home whereby having a greater impact (Janus & Offord, 2007). Another advantage of being able to identify children at risk is the evaluation of current intervention programmes and assessing whether they are adequate in giving the support the child needs (Stefan et al., 2009). Such a screening instrument would also provide potential for the child to improve their skills that aids their self-competence (Epstein et al., 2009). Other benefits of social-emotional screening tools is to assess the degree and manner in how a child adapts to the school environment, which in turn also has an impact on their academic success (Bustin, 2007).

Across the board, the literature underscored the importance of including social-emotional competencies. For example, Epstein et al. (2009) asserted that there is especially a need for a strengths-based screening tool instead of the deficit-based instruments currently used. This is especially true in the South Africa context where rapid cultural change has made social adaptation vital for children to relate well to their classmates (Bustin, 2007). Thus, there was a renewed focus on the factors that play a role in the phases of early development and specifically how social/emotional development has an effect on a child's school readiness. The value of a more holistic approach involving several developmental areas such as cognitive, socio-emotional, and physical aspects of functioning must increasingly become the focus of research in this area. It became apparent that authors not only emphasised the lack of appropriate measures to assess emotional/social competence in young children, but stressed that existing instruments lacked appropriate psychometric properties and are not methodologically sound (Epstein, 2009; Stefan et.al, 2009). Thus, the need for methodological rigour in the construction of assessment measures remains a focus of future research. Similarly, systematic investigation into the psychometric properties of new and existing measures was strongly recommended. Below is a brief exposition of the literature on assessment for school readiness.

### **2.6.3 Assessment for school readiness**

There is a lack of research into the assessment of school readiness that places practitioners at an impasse (Amod & Heafield, 2013). The body of literature on assessment is primarily in the form of textbooks providing instruction on assessment practices, culture fairness and applicability to the South African context, as well as challenges in standardization (Coetzee, 2013; De Kock, Kanjee & Roodt, 2013; Laher & Cockcroft, 2014). In South Africa, school readiness is primarily an educational matter and assessments are heavily slanted towards cognitive functions or academic skills (Van Zyl, 2004). The consensus amongst practitioners is that the assessment of school readiness is a daunting task

given that no two children have exactly the same skills, talents, intelligence, or develop in exactly the same way (Laher & Cockcroft, 2013). The social context in which development happens also vastly differ (Raikes, 2015).

### **2.6.3.1 School readiness assessment practices**

School readiness assessments are mainly done in two main streams: a) educational practitioners such as Grade R teachers and b) health professionals e.g. psychologists and occupational therapists. *Educational practitioners* are required to do formative and summative assessments along criteria specified by the Department of Basic Education (DOE, 2011, 2013; Getting Ready, 2005). The assessment of children is primarily based on observations of the child in the school context during structured and unstructured activities (DOE, 2014). The Department of Basic Education established district-based support teams (psychologists, therapists, remedial/ learning support teachers, special needs specialists; DOE, 2001b; Lomofsky & Lazarus, 2001). These district based support teams' (DBSTs) main aim is to deliver an integrated professional support service at district level. The support service is mainly focused on the development of programmes and interventions for children identified with specific barriers to learning (DOE, 2001). In reality in terms of assessment practises, the district-based educational specialists are only consulted when older learners present with diagnostic pathology for example intellectual disability, specific learning disorders, ADHD or emotional or behavioural difficulties (Rulwa-Mnatwana, 2014). The DBSTs are primarily responsible for the approval of applications for special placement and are not able to do psychometric assessments per se (Donohue & Bornman, 2014; Rulwa-Mnatwana, 2014). *Health Professionals* (Psychologists, Social Workers, Occupational therapists) mainly deliver their services in the private sector. This service is expensive, time consuming and inaccessible to the majority of children in low SES areas (Laher & Cockcroft, 2013). Only schools, who have access to financial resources are able to employ health



professionals as part of their school based support team (SBST) to assist with formal assessments. Health professionals, registered with the Health Professionals Council (HPCSA), use clinical judgement and psychometric assessments within their scope of practice to assess school readiness. The measures that are most often included in assessment batteries are tests assessing scholastic aptitude, cognition or intellectual functioning, and developmental abilities. For example, the Aptitude test for School Beginners (ASB; HSRC, 1974) is frequently included in batteries to assess scholastic aptitude (Robinson & Hanekom, 1991; Roodt et.al, 2013). Literature consistently cited the Junior South African Individual Scale (JSAIS; Madge, Van den Berg & Robinson, 1985) as a typical choice for assessing cognition over a 20-year period (Madge, 1981; Robinson, 1989; Theron, 2013). The Griffiths Developmental Scales (Griffiths,1996) is reportedly included frequently to assess developmental abilities in school readiness assessment batteries (Jacklin & Cockcroft, 2013; Luiz, Barnard, Knoetzen & Kotras, 2004).



### **2.6.3.2 Instruments in SA**

Bustin (2007) conducted a review of South African based school readiness tests as part of her PhD literature review section. Six tests were identified that were developed in the period 1974-1994. The tests identified included the School-entry Group Screening Measure – SGSM (Foxcroft, 1994), the School Readiness Test of the University of Pretoria (van Rooyen & Engelbrecht, 1997), the School Readiness Evaluation by Trained Testers – SETT (HSRC, 1984a), the Nursery School Questionnaire- NQES (Joubert, 1984), the Aptitude Test for School Beginners – ASB (HSRC, 1974) and the Herbst Instrument for Measuring Cognitive and Motor Development (Buys, 1993). These instruments are still being used in assessment practises and appears on the Health Professionals Council’s list of classified psychological tests (Form 207) recommended for use in assessment practises (HPCSA, 2010). No additional tests to assess school readiness have been listed on the HPCSA’s list of classified tests since the review has been done by Bustin (2007).

Table 2.1 below summarizes the details of the tests identified by Bustin (2007) in her review.

Table 2.1

*School readiness assessment instruments in South Africa (adapted from Bustin, (2007))*

Measure	Date	Domains	Authors cited	Psychometric properties
School entry group screening measure (SGSM)	1994	Cognitive abilities, no emotional social abilities.	Foxcroft, 1994	Fairly good predictor of later risk. No information on psychometric properties given
School readiness test – University of Pretoria		Perceptual and literacy development.	van Rooyen & Engelbrecht, 1997	No information on psychometric properties given
The Herbst Instrument for measuring Cognitive and Motor development	1993	Developmental Cognitive and Motor delays in environmentally disadvantaged children at school entry (Grade 1).	Buys, 1993	No validation as a readiness measure
The School Readiness Evaluation by Trained Testers (SETT)	1984	Assess language and intellectual development, physical and motor development, and emotional and social development. Social and emotional components limited.	HSRC, 1984a	Psychometric properties - Cross cultural relevance
Aptitude Test for School Beginners (ASB)	1974	Does not include social emotional aspects.	HSRC, 1974	Psychometric properties - Cross cultural relevance
The Nursery School Questionnaire (NQES)	1984	Cognitive measure, but identifies behavior underpinning social emotional competence.	Joubert, 1984	Cross cultural relevance

Table 2.1 indicates that the majority of the measures were developed more than twenty years ago, and are therefore outdated and not appropriate for cross-cultural use in a post-apartheid South African context. Most of these instruments assessed motor development and broader cognitive abilities/ competencies and excluded the assessment of the socio-emotional aspects of the child.

*To summarise:* There is a clear body of evidence that report on emotional/ social development and the importance of this domain in child development and more specifically school readiness assessments (Amod & Heathfield, 2013; Bustin, 2007; Denheim, 2006; Foxcroft & Roodt, 2004; Mohamed, 2013; Ngwaru, 2012; Sassu, 2007). The most pervasive

finding is that like with school readiness, there is a lack of consensus over what constitutes social-emotional competence and to which extent it is included in theoretical and operational definitions of school readiness as a domain. There is literature reporting on the construct and measurements thereof, but comparison is difficult without a common basis. Thus, there is a need for filtration or consolidation of empirical literature to clarify the construct post 2006. The lack of clarification on the construct influences assessment, as well as intervention for school readiness.

#### **2.6.4 Interventions for School readiness**

The aim of this section is not to review the large body of existing literature on interventions, but to acknowledge that a body of literature exists. Dawes and Donald (2000) acknowledged the link between assessment and interventions and stress the fact that timely and appropriate interventions can reverse the effects of early deprivation and maximise the development of children's potential. Children with intellectual and emotional difficulties are usually only identified after they have already entered mainstream education (Gr. 1) as alluded to before. In fact, most children begin to display emotional, behavioural and cognitive problems before attention is given to their difficulties (Storbeck & Moodley, 2010). In South Africa intervention most often becomes the responsibility of the teacher and/or the parent(s) (Laher & Cockcroft, 2013). The vital role of relevant role-players in this phase needs special mention and attention. While teachers need to address intellectual and emotional difficulties in classrooms, it is expected that parents take primary responsibility for their child's intellectual and emotional well-being. This stresses the importance of preventative curricula and training experiences for teachers. Similarly, the urgency to establish ecologically based evaluation systems, as early as in the Reception year before children enter mainstream education is underscored. Researchers have also reported the importance of assistance for parents in the form of parental programmes and/or psycho-education (Dawes & Donald, 2000; Ramey & Ramey, 2004).

## 2.7 SUMMARY

In short, this literature overview identified that there has been significant attempts at legislating provisions of early academic stimulating environment and facilitating access to educational opportunities that will enhance early childhood development for all children in South Africa. The literature clearly identified that there are different views and perceptions as to what constitutes school readiness amongst parents, educators, health professionals and legislators that complicates assessment practices and decision-making. Assessment practices include more emphasis on cognitive and scholastic functions and aptitude than on emotional/social competence as a domain of school readiness. This also reflected biases in how school readiness is defined. In addition, socio-cultural and risk factors in the South African context complicate the process of school readiness assessment and access to early intervention. Social/ emotional competence is more likely to receive attention in interventions with children who struggle to adjust or perform academically. Thus, there is a need for an instrument on school readiness that prioritizes emotional/social competence and can provide a platform or opportunity for redress and intervention. Such an instrument must be contextually appropriate and be suitable for use across the varying realities in the South African context. The tool must be able to complement the battery of existing measures used currently and function independently. The need for stakeholder consultation was underscored as essential to ensure the construction of a contextually appropriate tool. As mentioned in the brief review, there is considerable research reporting on definitions and approaches to school readiness that clearly highlighted the lack of consensus. An additional challenge is that the literature has not been filtered such that good quality literature have been identified from which theoretical and operational definitions could be extracted for consideration.

The review also reported that there are instruments measuring school readiness. The variation in reporting makes it difficult to compare the instruments without a common

denominator that assesses the literature for methodological rigour and coherence. Thus the literature requires a filtration process in which good quality literature can be identified from which instruments can be identified that can help to inform the instrument developed in the present study. The present study aimed to address these formulated gaps in the literature by adopting a multi-phase design. Each phase attempted to address a different objective/s and has its own methodological elements to that end:

1. To consolidate the empirical evidence on emotional/ social competence in the assessment of school readiness.
2. To develop a concept map of emotional/social competence as a domain of school readiness.
3. To develop and validate a screening tool aimed at assessments of emotional/ social competence as a domain of school readiness.
4. To establish the psychometric properties of the screening tool.

The ensuing chapters report on the methodological design elements and results of each phase. Since the phases were successive and the findings from one informed the subsequent phase, the chapters are presented as self-contained entities reporting on methods and results per phase. Chapter Three thus reports on the aim to identify the empirical evidence on emotional/ social competence in the assessment of school-readiness.

**CHAPTER THREE**  
**PHASE ONE**  
**SYSTEMATIC REVIEWS**

**3.1 INTRODUCTION**

This chapter has **four** sections:

**Section One:** Systematic review methodology

This section reports on the systematic review methodology employed and discusses several aspects including the nature of the systematic review and the review protocol for example, the structure and format adopted or followed in the two reviews.

**Section Two:** Review A: screening tools

This section reports on the instrument that measure emotional/social school readiness of Preschool Children (Grade R) in South Africa identified from good quality research published between 2002 and 2012.



**Section Three:** Review B: definitions of emotional and social competence

This section reports on definitions of emotional and social competence in school ready children (Gr. R) that have been extracted from good quality research published between 2003 and 2013.

**Section Four:** concludes with a summary, discussion and recommendations.

## SECTION ONE

### SYSTEMATIC REVIEW METHODOLOGY

#### 3.2 AIM

Phase One addressed the first objective which was to consolidate the literature reporting on emotional/ social competence in school-ready children. The objective was pursued in two subsidiary objectives.

- a. To identify existing measures used to assess emotional social readiness in preschool children and to report on the psychometric properties of these instruments.
- b. To identify theoretical definitions of emotional social readiness/competence in current literature.

#### 3.3 REVIEW QUESTION



What empirical evidence is summarised in the existing body of literature on emotional/ social readiness/ competence in school-ready children? This include:

- o Definitions of emotional/ social readiness/ competence
- o Domains of emotional/ social readiness/ competence
- o Instruments available to measure emotional social readiness/ competence
- o The psychometric properties of the instruments reportedly measuring social/ emotional readiness/ competence in school-ready children.

#### 3.4 DESIGN: SYSTEMATIC REVIEWS

As mentioned in Chapter One, Systematic Review methodology was selected for this phase. Below follows an exposition of the generic principles along which the methodology should be applied, before it is demonstrated how it was applied for the present study in two separate reviews.

### 3.4.1 Review aim and Question

For each systematic review, a review question including review aims must be formulated (Petticrew & Roberts, 2006). The review question must be relevant, unambiguous, focused, realistic and answerable to ensure that potential users have an overarching idea of the main focus of the review (Thomas & Harden, 2008). The review question usually includes the main aims and objectives of the study. The formulated review questions are included in the sections reporting on the respective reviews process for optimal alignment.

### 3.4.2 Inclusion and exclusion criteria

Inclusion and exclusion criteria are specific criteria applied in the reviews to ensure that the research question is focused and prevents bias in the selection of studies as the criteria are defined before the identification of studies (Steward, 2014). The criteria usually include a specific *time period*, *target group* and also specifies the *types of studies* i.e. peer-reviewed, grey literature, qualitative, quantitative nature etcetera, that are being considered (Uman, 2011). To assist in the identification of quality articles that is relevant for the review, the formulation of strict inclusion and exclusion criteria are important prerequisites before the review process was initiated (Teing, 2006). The inclusion and exclusion criteria are included in the sections reporting on the respective reviews process for optimal alignment.

### 3.4.3 Levels of review

The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) cited in Liberati et al., (2009) was adopted for the present study. PRISMA recommend that systematic reviews include four levels of review, identification, screening, eligibility (quality appraisal) and summation. The reviews took place at four levels: a) the *identification* of records through searches with specific keywords and combination of these keywords in identified data bases as well as the identification of additional records through other sources,



b) the *screening*/ filtering of the identified articles by abstract to remove any clearly irrelevant literature, c) *eligibility*, to assess the quality of the articles with a quality appraisal tool to ensure methodological rigour and relevance to the research topic and, d) articles satisfying the threshold score were then included in the *summation*.

a) *Step One: Identification*: The identification of keywords and databases before the search for potential relevant research begins, is an essential step to ensure that relevant and sufficient quality articles is sourced. This step is contingent on identifying and using appropriate keywords.

Keywords: Keywords are phrases that are used to elicit articles pertaining to the research topic. A provisional list of key words was identified for each of the systematic reviews. Synonyms of the index terms were added to improve the methodological rigour as it demonstrated the thorough process in searching for relevant literature on the topic in identified databases.

This study chose to make use of Boolean phrases linking several keywords together with Boolean operators such as AND and OR. This adds power to the search and enormously increases the efficiency thereof (Terre Blanche, Durrheim, & Painter, 2006). The Boolean phrases were adjusted and retested repeatedly until the researcher and reviewers were satisfied with the results, at which point the phrases were finalised. The phrases were tested in an initial limited search on Ebscohost to identify the related terms and test the efficacy of key words for subsequent searches. The final list of keywords were then decided upon and used by all reviewers to do their respective searches.

Databases: For these reviews the databases contained in or subscribed to by the library of the University of the Western Cape were used for identifying appropriate titles. The databases available through the University of the Western Cape specifically within the disciplines of Health, Social Sciences and Education were selected as the database sources for

the reviews. The databases are catalogued by discipline on the website (lib.uwc.ac.za) and each discipline is comprised of a list of databases that are considered primary or secondary for that discipline. This is based on the nature of publications housed in that database and the frequency with which authors from specific disciplines publish in the subscribed journals. Peer-reviewed articles from the databases of UWC were searched. Additional records were identified from the reference lists of all articles that were included, a process known as reference mining. Reference mining assists in reducing the publication bias introduced by the search strategy and inclusion criteria (Bronson & Davis, 2011). It was also decided to include grey literature in the form of unpublished South African doctoral theses. These theses were located via a preliminary search in Google Scholar.

A comprehensive search of identified databases was conducted in both reviews. The titles of potential articles identified from the database search were reviewed on the perceived relevance of the title to the review question. A title summary sheet was used to record the title information obtained from the database search and the recommendation regarding its further inclusion in the review. This information is presented and discussed in the process results sections of the respective systematic reviews.

*b) Step Two: Screening:* The identified articles underwent further *screening/* filtering by abstract to remove any clearly irrelevant literature. Abstracts of all the recommended articles for inclusion during the title search were retrieved and screened. Screening was relative to the mentioned inclusion and exclusion criteria. Each abstract was given a recommendation for further inclusion or exclusion from the reviews. An abstract summary sheet was compiled that included information on the author and title of the article, the type of design used, the study population, methodology and outcomes. This information is presented and discussed in the process results sections of the respective systematic reviews.

*c) Step Three: Eligibility:* The full texts of all abstracts that were successfully screened in the two reviews were assessed for methodological rigour prior to decision-making or

recommendation about inclusion in the review using a critical appraisal tool. Although a range of critical appraisal tools were available (for example Letts et al., 2007; Ten Ham-Baloyi, & Jordan, 2016), the majority of these tools were informed by the published guidelines for qualitative and quantitative methodologies based on authors such as Letts et al., (2007) and Law et al. (1998) respectively. These tools were developed for use with specific type of studies assessing specific designs or approaches. The inclusion criteria for the present study were not limited to specific designs or approaches, appraisal tools that assessed more generic elements of methodology were required. Tools that were not design-specific were very simplistic and lacked a rigorous definition of methodological quality and coherence (for example Grant & Booth, 2009; Shea, 2007). These tools were not sensitive enough to discriminate between studies using divergent methodologies. Thus tools were required that were designed or structured in such a way that it assessed the appropriateness of methodological elements, as well as psychometric properties of measures and theoretical and operational definitions to define constructs. The tools also had to assess in parallel forms the conventions of qualitative and quantitative methodologies. Therefore, in a response to the need for a more generic and inclusive tool, the SFS scoring system that includes a set of critical appraisal tools developed by Smith, Franciscus, Swartbooi, Jacobs and Munnik (in press) was used. Version D and E was selected for the reviews and adapted to the specific needs of the respective reviews based on successful piloting (Munnik, Hargey, Meyburg, Gaika & Mariens, 2015; Smith, Fransiscus, Swartbooi, Jacobs & Munnik, 2015). These versions will be discussed within the respective reviews.

*d) Step Four: **Summation:*** This step includes two operational steps namely *data extraction* and *meta-synthesis*. Below is a brief exposition of the two operations.

*Data extraction* is a process of identifying thematic foci or categories within which data can be taken from the included literature sources. For the purposes of this study, tables were designed for each of the reviews for the purpose of extracting data. These tables provided a general descriptive summary of the core themes and the findings relevant to the

aims and objectives of the reviews namely instruments available to measure emotional social competence and their psychometric properties (Review One) and definitions and domains of emotional social competence (Review Two).

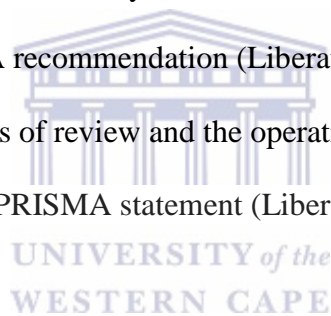
The reviews used meta-synthesis as a method to synthesise the findings of the included articles. Meta-synthesis, is “bringing together and breaking down findings, examining them, discovering essential features and, in some way, combining phenomena into a transformed whole” (Schreiber Crooks & Stern, 1997, p.314). Thorne et al. (2004) further argued that meta-syntheses could lead to new interpretations of research, as well as the development of new theories through the extension of knowledge.

Walsh and Downe (2005) alerted us to the fact that various approaches to conducting meta-syntheses exists. Sandelowski, Docherty, and Emden (1997) describe three types of meta-synthesis namely, a) Descriptive meta-synthesis, b) Theory explication and c) Theory building. They further explained that descriptive analyses are utilised where a broad description of the research phenomenon forms the basis of the analyses. Theory explication entails reconceptualising of the original phenomenon whereas theory building is used when findings are brought together on a theoretical level to assist in the formulation of a tentative altered theory. Schreiber et.al. (1997) explained that the findings of a number of studies are used to ‘push the level of theory’ beyond what is possible in a single investigation. This review used descriptive meta-synthesis as the primary method of data analyses.

Descriptive Meta-synthesis entails the ranking of the studies and tabularisation of the extracted data (Thomas & Harden, 2008). The convention is to rank included articles on methodological rigour scores for example the strengths and weaknesses as measured by the critical appraisal tool (Downe, Simpson & Trafford, 2007). Essentially, ranking articles

based on scores does not imply stronger validity but overall improved methodological rigour and coherence. By means of ranking, the researcher can assess whether the design utilised is coherent to the aims and purpose of a particular study, as well as whether the findings and conclusions are supported by the data. The present study ranked studies based on the critical appraisal scores that reflected comprehensiveness of the reporting on information about the instruments and their psychometric properties (Review A), definitions, and domains of emotional social competence (Review B). The data extracted from articles included in the review were tabularised to facilitate ease of summation. The format of the tables were dictated by the aim of the respective reviews.

The levels of review applied to the systematic reviews in the present study thus were consistent with the PRISMA recommendation (Liberati et al., 2009). Figure 3.1 schematically represents the levels of review and the operational steps included therein. The figure was adapted from the PRISMA statement (Liberati, et al., 2009).



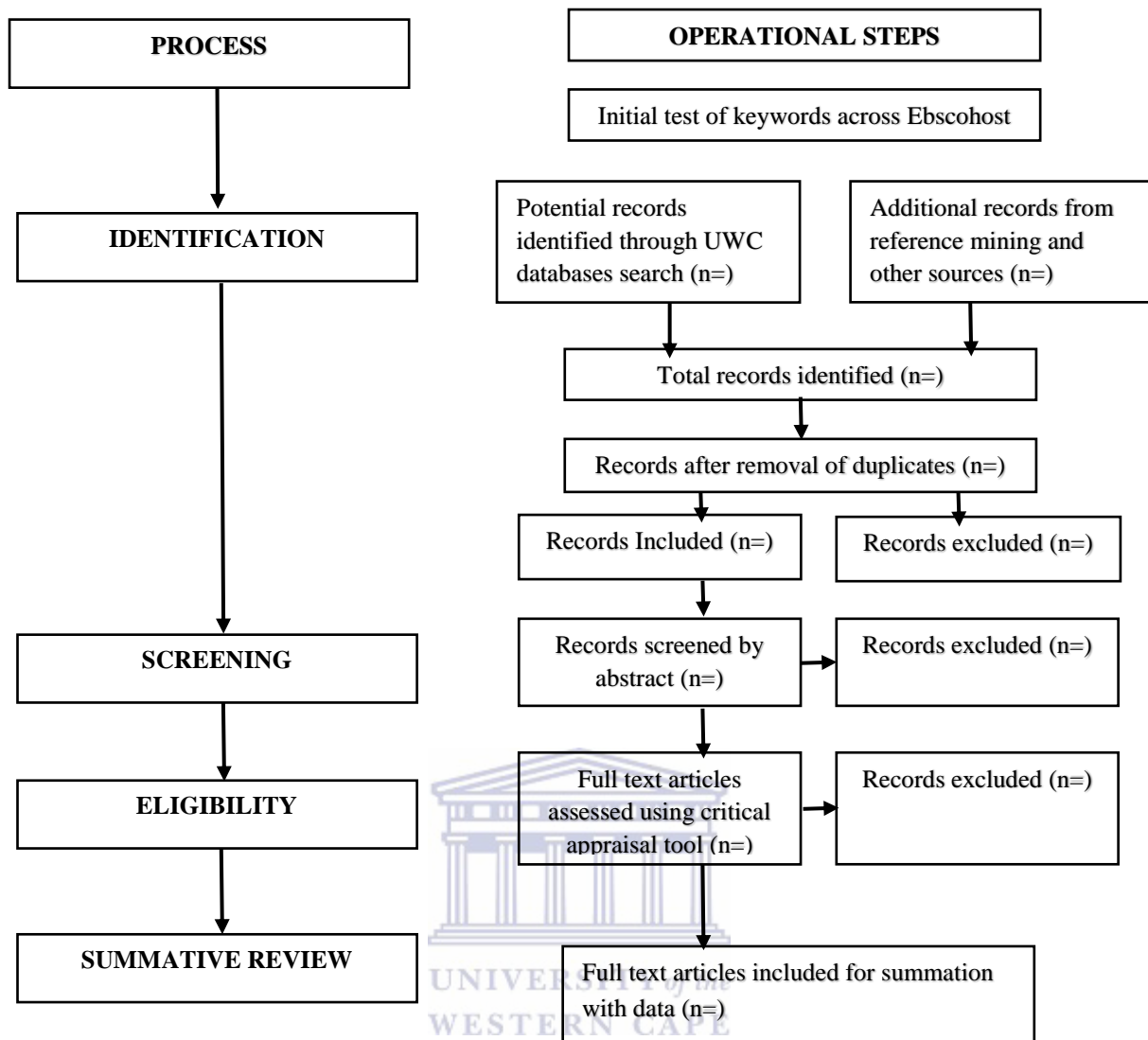


Figure 3.1 Schematic overview of Operational steps - Levels of review

### 3.4.4 Method of review

The method of review specifies the manner in which fieldwork was executed (Greenhalgh, 1997; Teing, 2006). Smith, Devane, Begley and Clarke (2011) suggested that a review team should include at least one person with methodological expertise and at least one person with expertise in the field of study. These team members will assume responsibility for the overall coordination of the study and would need to make important methodological decisions such as to identify the selection criteria and the critical appraisal tool for the review. The review team also needs a minimum of two fieldworkers or reviewers that should complete each level of the review independently. Teing (2006)

suggested a minimum of three reviewers for a systematic review whilst Steward (2014) suggested two to four reviewers.

For the present study, a team of six reviewers including the primary researcher partook in each of the reviews. The reviewers were honours level students in Psychology who received basic training in systematic review methodology as part of their coursework and also employed the methodology as part of their supervised independent project. The principle researcher and her supervisor were subject specialist in the area of psychometry and thus satisfied the recommendation of including subject specialists in the review team. In addition, the supervisor who was well versed with and experienced in the systematic review methodology, acted as an external audit in the preparation and execution of the reviews.

There were two aspects to the method of review namely, preparation of fieldworkers/ reviewers and management of fieldwork. The procedure that was followed for the preparation and general management during the reviews will be discussed below while the management of each review per operational step will be discussed in the specific review, A and B, in Sections Two and Three of Chapter Three respectively.

### **3.4.5 Preparation for reviews and general management strategy**

The primary researcher and her supervisor briefed the reviewers in an initial workshop explaining the nature of systematic reviews before the reviews commenced. The following were covered in the briefing/ training: Systematic reviews as a methodology, the protocols followed in systematic reviews including phases of the review, the search strategy, levels of the review and analyses of the data for example the use of a critical appraisal tool and meta-analyses as a method. The specific aims and objectives of the review were explained to reviewers to ensure a more comprehensive understanding of the topic under review. Similarly, background information and problem formulation were explained.

To enhance the rigour of the strategy, a pilot search was conducted after the workshop in group format where each reviewer was allocated the same electronic database (for example Ebscohost) to conduct searches with the identified keywords and phrases. The pilot search aided in the calibration of key words and methods used by the reviewers. During the pilot the reviewers had the opportunity to discuss challenges, discrepancies and to ask questions that arose about the review methodology.

During the review, the primary researcher facilitated team meetings in which reviewer assessments were discussed. During all steps, reviewers had the opportunity to present and discuss their findings after each operational step. If there were disagreements or differences noted in terms of search strategy or inconsistencies in the method of review, reviewers had the opportunity to voice these concerns. They had the opportunity to share their understanding, demonstrate how they applied the principles or obtained the score by referring back to the process or the article. Thereafter a discussion was held and a consensus reached to resolve the dilemma. Thus, at each level of the review, reviewers were provided an opportunity to calibrate their findings. Additionally, feedback was provided to ensure that there was comprehension of the operational steps and adherence to the protocol as per the recommendation of Kahn (2003). All of the initiated discussion were undertaken to enhance the rigour of the process.



## SECTION TWO

### SYSTEMATIC REVIEW A

#### **Screening Tools That Measure Emotional/Social School Readiness of Preschool Children (Grade R) in South Africa**

This section includes an outline of the review question and scope, the process results and descriptive meta-synthesis. The descriptive meta-synthesis provides a summary of the core themes and findings of the articles.

### **3.5 REVIEW SCOPE**

#### **3.5.1 Review aim**

To identify instruments and screening tools purported to measure emotional/ social readiness/ competence as part of school readiness and report on their psychometric properties.

#### **3.5.2 Review question**

What empirical evidence is summarised in the existing body of literature on the psychometric properties of instruments reportedly measuring social/ emotional readiness/ competence in school ready children?

### **3.6 INCLUSION CRITERIA**

#### **3.6.1 Time period**

Reviews usually focus on recent research and use a five-year time period as parameter (Moher, 2015). For the present study, the time period was extended to ten years in order to capture the trends over the last decade. Articles published over a ten-year period from January 2002 through December 2012 were considered for this review.

### **3.6.2 Target group**

The target group for the review was initially framed as pre-school children in the reception year (Grade R). A preliminary search suggested that there was very limited studies conducted on this specific age group. Most of the international studies found in the provisional search included children from as young as three years old. The target group was expanded to include children aged three to seven in the pre-school group. Hence this broader age group was incorporated into the inclusion criteria. Gender and language of origin were not used as selection criteria.

### **3.6.3 Type of study**

Peer reviewed, full text studies that used a quantitative design were considered. Studies comprising of mostly quantitative designs were considered for this review. The review question focused on identifying screening tools for emotional/social school-readiness that dictated quantitative methodologies. This systematic review looked at empirical studies; more specifically, primary data studies, as it was interested in the type of study that occupied the highest level of evidence, and the type of screening tool used with the statistical results being kept intact.

## **3.7 EXCLUSION CRITERIA**

Any articles before 2002 were excluded based on recency as defined by the time period. Studies written in languages other than English were excluded. Studies that purely focused on intervention were also excluded.

## **3.8 SEARCH STRATEGY**

### **3.8.1 Keyword Identification**

The initial keywords that were used in the various Boolean phrases in the initial search in Ebscohost included: *Emotional Social Competence, Assessment, Emotional Competence, Social Competence, Screening Tool, Preschool, Pre-school, Emotional Social*

*Intelligence, Emotional Social Readiness and Screening Instrument*. All variations of these terms including spelling were also considered. Based on their respective yields, a final list of seven keywords was compiled:

- Emotional Competence
- Emotional Social Competence
- Emotional Social Readiness
- Preschool
- Assessment
- Evaluation
- Tool

The final keywords were combined into six Boolean phrases that were used in the identification stage namely



- Emotional Competence AND preschool AND evaluation AND tool
- Emotional Competence AND Preschool
- Social Competence AND Preschool
- Emotional Social Readiness AND Preschool
- Emotional Social Competence and Assessment and Preschool
- Emotional Competence AND Assessment AND Preschool

The following databases were searched: Academic Search Complete, EbscoHost including, PsycArticles, Sage Online, SocINDEX, PubMed, Sabinet and ERIC. These databases were selected based on their focus on psychology and education.

Fieldwork was conducted from March – October 2012.

### **3.9 PROCESS RESULTS**

The process results report the outcomes at the operational steps included in the first three levels of the review i.e. *identification*, *screening* and *eligibility* or quality appraisal.

Figure 3.2 is a repetition of Figure 3.1 presented earlier in section one. At this time, the figure includes the totals obtained at each of the operational steps.

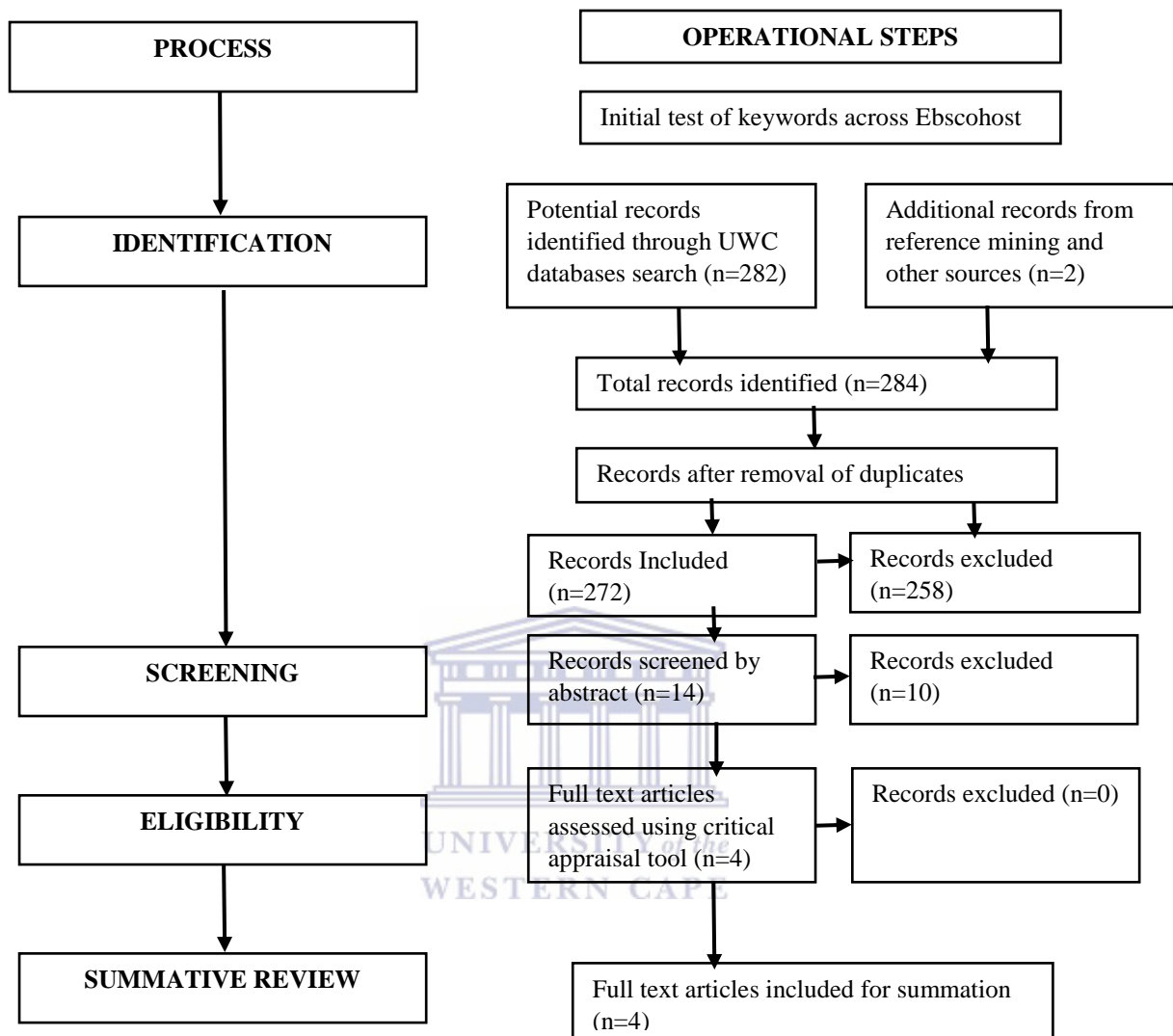


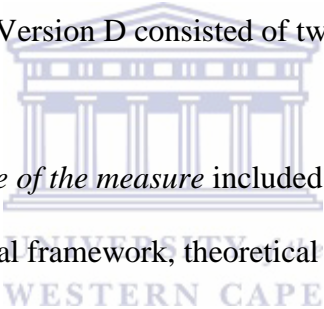
Figure 3.2 Completed Levels of Review A

*Step One: Identification.* Potential records that were identified over the various databases amounted to 282. Two additional records were identified from grey literature, namely two unpublished doctoral theses resulting in a total of 284 (282+2=284). In the list of potential records, 12 duplicates were identified, that is to say that the same article appeared in more than one of the databases. Duplications were found between Ebscohost and Sabinet, between Sage Online and ERIC and Ebscohost and ERIC. After excluding these duplications, there were 272 titles. A total of 258 titles were not deemed appropriate at face value and were excluded from the review. The main reasons for exclusion included that the titles were not

focused on the assessment of emotional-social competence or were focused on cognitive aspects of readiness. Only 14 titles were retained at the end of the first step and their abstracts were retrieved for screening purposes (Appendix L).

*Step Two: Screening.* Fourteen (14) abstracts were screened for further inclusion based on the inclusion criteria specified. Ten abstracts were excluded for the following reasons: age of the participants were too young, some of the articles were focused on intervention i.e. the importance of attachment and play in social emotional competence, and two articles were systematic reviews and not primary studies. Four articles were thus included for evaluation with the critical appraisal tool (Appendix M).

*Step Three: Appraisal.* Articles were appraised for quality using the SFS scoring system, version D (Appendix N). Version D consisted of twenty-nine questions spread over three sub-sections:

- 
- a) Subsection A: *Purpose of the measure* included nine questions about the purpose, target group, theoretical framework, theoretical definitions and attributes.
  - b) Subsection B: *Methodological rigour* included thirteen questions around design, aims, sampling, data collection, data analyses and results
  - c) Subsection C: *General considerations* included four questions such as if the article was a published/ peer reviewed or an unpublished article.

Each article had the potential to obtain a total score based on the overall quality of the article that was categorised as either weak (0-25%), moderate (26-50%), strong (51-75%), or excellent (76-100%). In order to be included in the review, full text articles had to obtain a threshold score of above 50% (i.e. strong). The critical appraisal tool was designed to be quite comprehensive. Therefore, the cut-off score of 51% could be set as to not exclude articles due to a too stringent requirement. All full text articles that satisfied the threshold score

proceeded to the data extraction process. The scores for each of the four identified articles were captured in a rating form.

### 3.9.1 Ranking

The final ranking of the four articles is shown below in Table 3.1.

Table 3.1 *Ranking of Articles*

Reference	Rank	Total score	% obtained	Purpose (maximum score = 18)	Methodological rigour (maximum score = 35)	General considerations (maximum score = 9)	Quality
Bustin (2007)	1	60	96.7%	17	35	8	Excellent
Janus et al. (2007)	2	56	90.3%	17	33	6	Excellent
Stefan et al. (2009)	2	56	90.3%	17	32	7	Excellent
Epstein et al. (2009)	2	56	90.3%	17	32	7	Excellent

As seen in Table 3.1 the four articles scored well above the 50% cut-off on the quality appraisal tool and were all included in the final summation. The four articles were summarised into only two ranks and the truncated ranking was indicative of the consensus on what should be included in reports of quantitative studies. The rankings and scores obtained in the subsection of the instrument are used as a basis for discussing the articles. Bustin (2007) obtained the highest ranking of 96.7%, with a score of 17/18 in Subsection A (Purpose of the instrument), 35/35 in section B (Methodological rigor) and 8/9 in Subsection C (General considerations) indicating an Excellent rating. The high score indicate that all aspects of the dissertation were well formulated and attended to. The remaining articles all obtained cut-off scores of 90.3% that indicated an “Excellent” rating with a high level of methodological rigour across all subsections. Janus et al. (2007) obtained 17/18 for Section A, 33/35 for Subsection B and 6/9 for Subsection C. Stefan et al. (2007) obtained 17/18, 32/35 and 7/9 for Subsections A, B and C respectively. Epstein et al. (2009) and Stefan et al. (2009) obtained marginally lower scores in Subsection B, because theoretical and operational definitions were not mentioned per se. Epstein et al. (2009) merely referred to a previous

article where the definitions were discussed. The main focus of the article was on internal consistency and inter-relationships between factors and scales and content validation. The article did not report on advanced psychometric procedures based on the aim of the article. Stefan et al. (2009) scored lower in Subsection B because details about administration of the measure were omitted and the psychometric results were not explained by provision of a guide for interpretation.

*To summarise:* All of these articles were considered good quality articles because they scored high on all three sections of the quality appraisal tool. The authors were able to orientate the reader by providing the background to the study, summarise the rationale, state the aims, the nature of the studies were well described and outcome variables were clear; overall research or analyses were well conducted, samples were well defined and representative, and the authors reported on the psychometric properties of the tests. Interestingly the dissertation scored the highest on the quality appraisal tool. This may be due to the fact that the authors of the articles had to make decisions about what they include or omit in preparing their manuscript as articles are summative documents unlike theses or dissertations that are process documents. Thus, these authors might have a particular understanding that motivations for methodological choices are not prioritised. In short, regardless of the factors influencing the choice to include or omit certain information, dissemination remains a methodological decision that affects the ability of consumers to replicate studies successfully. Table 3.2 presents a summary of the articles screened for eligibility and included in Systematic Review A.

Table 3.2  
*Summary of articles included for summation*

<b>Author(s)</b>	<b>Title</b>	<b>Publication Date</b>	<b>Source of Article</b>
Bustin	The Development and Validation of a Social Emotional School Readiness Scale	Unpublished Doctoral Thesis. November 2007	Google
Janus & Offord	Development and Psychometric Properties of the Early Development Instrument (EDI): A Measure of Children's School Readiness	2007	Ebscohost
Ştefan, Bălaj, Porumb, Albu & Miclea	Preschool Screening For Social and Emotional Competencies – Development and Psychometric Properties	June 2009	Ebscohost
Epstein, Synhorst, Cress & Allen	Development and Standardization of a Test to Measure the Emotional and Behavioral Strengths of Preschool Children	November 2009	Sage

### 3.10 DESCRIPTIVE META-SYNTHESIS

A meta-synthesis was conducted with the chosen articles with the main aim to identify and describe the instruments that were used to assess emotional social competence as a domain of school readiness and to report on their psychometric properties. Table 3.3 below presents the instruments identified from the included articles to assess emotional social competence.

Table 3.3  
*Identified instruments with their abbreviations*

<b>Author(s)</b>	<b>Instrument</b>	<b>Abbreviation</b>
Bustin (2007)	Behaviours Underpinning Skills for Social-Emotional School Readiness	BUSSE-SR
Janus et al. (2007)	The Early Development Instrument	EDI
Stefan et al. (2009)	Emotional Competence Screening for Preschoolers Emotional Competence Screening for Preschoolers Social Competence Screening for Preschoolers Social Competence Screening for Preschoolers	SCE - E SCE - P SCS - E SCS - P
Epstein et al. (2009)	The Preschool Behavioural and Emotional Rating Scale	PreBERS



Each instrument is presented below and discussed in terms of psychometric properties. The synthesis of information about the identified instruments is presented in tabular form for ease of reading and evaluation.

### **3.10.1 Behaviours Underpinning Skills for Social-Emotional School Readiness (BUSSE-SR)**

The BUSSE-SR (Bustin, 2007) is a 28-item, South African *diagnostic* instrument developed to measure school adjustment and performance on social and emotional level for Gr. R learners between 5-7 years old. The test measures the child's *self-awareness, self-regulation, social relationships and coping (independence)* on a four point Likert scale. Parents and teachers complete the test by indicating whether "the child is able to" perform identified functions. The BUSSE-SR takes 10 minutes to administer and is available in English only.

The test construction process was sufficiently explained. The test was piloted on 338 English speaking Gr. R learners, age cohort of 61-82 months, in the Kwa-Zulu Natal region in South Africa. The sample consisted of an equal distribution of male and female learners with the following demographic distribution amongst participants: White (64.2%); Indian (28.4%); Black (6.5%) and Coloured (0.9%). The majority of the sample consisted of white middle class children. Psychometric properties were reported to be fair – with acceptable levels of internal consistency. Exploratory factor analysis identified four domains, and predictive validity-correlation coefficients supported emotional social competence as good predictors of school adjustment and performance. Table 3.4 below provides a summary of BUSSE-SR with reference to the type of instrument, aim, and target group, definitions of the constructs (theoretical and operational), structure, domains, items, administration and scoring methods and psychometric properties.

Table 3.4

*Behaviours Underpinning Skills for Social-Emotional School Readiness (BUSSE-SR)**Developer – Carol Bustin (2007)*

<b>Type of instrument</b>	Diagnostic.
<b>Aim</b>	Measures school adjustment and performance on social emotional level.
<b>Target group</b>	Gr. R learners, 5-7 years.
<b>Brief description of test</b>	28 item completed by teachers and parents across 5 domains.
<b>Geographical location</b>	South Africa
<b>Theoretical definition(s)</b>	<b>Emotional social competence is defined as:</b> 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)
<b>Operational definition/ domains</b>	<ul style="list-style-type: none"> <li>• Self understanding and awareness</li> <li>• Self and emotional regulation</li> <li>• Empathy and emotional growth</li> <li>• Social relationships</li> <li>• Coping skills and life skills.</li> </ul>
<b>Underpinning behaviours</b>	Self efficacy; Awareness of own and others emotions; ability to regulate own emotions 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 social needs
<b>Structure</b>	Self regulation, self awareness, social relationships and coping are associated with social-emotional school readiness behaviours 28 items: across 4 domains.
<b>Scoring</b>	Four point Likert scale: “Not at all”, “Sometimes”, “Mostly” and “Always”.
<b>Domains with examples of items</b>	
<b>Self awareness:</b> “Is able to tell others what he/she wants to do; Enjoys it when others show him/her affection; Helps others when he/she sees they need it; Asks for help when he/she needs it”	7 items
<b>Self regulation:</b> “Is able to take turns when playing in a group; Is able to put his/her toys away after playing; Is able to control feelings of frustration so that they don’t interfere with his/ her play”	7 items
<b>Social relationships:</b> “Tries to please adults; Is able to maintain friendships over time; Comes to school willingly”	7 items
<b>Coping (Independence):</b> “Is able to go to the toilet alone; Says, please when given something.”	7 items
<b>Administration</b>	10 minutes
<b>Languages</b>	English
<b>Forms</b>	Teacher version (“This child is able to”) Parent version (“My child is able to”)

Table 3.4 continues

*Behaviours Underpinning Skills for Social-Emotional School Readiness (BUSSE-SR)*

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## **PSYCHOMETRIC PROPERTIES**

### **Validity**

Content validity: Experts in the field of child development (teachers, educational psychologists) were consulted to assist with item selection.

Exploratory factor analyses were done to identify the main domains of emotional social competence.

The *Empathy scale* was omitted after factor analyses showed that it was not considered a domain.

Predictive validity was done by follow up of same children in Gr. 1. – Correlation coefficients supported emotional social competence as good predictors of school adjustment and performance.

### **Item difficulty & Analyses**

Discussed and explained item selection process including, item difficulty, item variance, item test correlation and item criterion correlation.

Item analyses: reported on and discussed internal consistency and reliability and criterion related validity.

Used coefficient alpha indexes to measure the degree of generalizability across items.

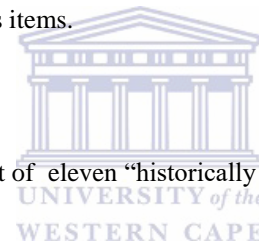
### **Piloting, sample size and demographics**

338 English speaking Gr. R learners (5-7 years, 61-82 months)

Equal distribution of male and female learners.

White (64.2%), Indian (28.4%), Black (6.5%) and Coloured learners (0.9%) out of eleven “historically advantaged” schools.

The majority of the sample consisted of white middle class children.



### **Reliability**

Reliability index: 0.889, Self-regulation: 0.872, Self-awareness: 0.878, Social relationships: 0.778 and Coping: 0.671.

Reliability (Chronbach alphas) was reportedly good

Test retest reliability and inter-scorer reliability were discussed.

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### 3.10.2 Early Development Instrument (EDI)

The EDI (Janus & Offord, 2007) is a 103-item Canadian checklist that measures junior and senior kindergarten children's wellbeing at school entry. The checklist is completed by teachers. The EDI takes 7-20 minutes to complete and is available in English. The measure reports on the child's competencies in the areas of *physical health and wellbeing, social competence, emotional maturity, language and cognitive development and communication skills and general knowledge*. Core questions are scored from zero to ten. The domain scores are calculated as a mean score of all the valid answers. No overall score is calculated. The test was piloted on 16074 Junior and Senior Canadian Kindergarten children in six identified schools, three situated in urban areas (80% of sample) and three situated in rural areas (30% of sample). English was the first language of all children. Children's socio-economic status was determined through census data and was described including both low and high-income groups. Psychometric properties were reported to be good. The levels of internal consistency, concurrent and convergent validity, intra-class correlations were satisfactory. Inter-rater agreements between teachers were satisfactory to high. (interpretive guides for alpha values, correlations, interrater agreements were not included in the article). Test construction was sufficiently explained and item difficulty and analyses were reported on. Table 3.5 below provides a summary of EDI with reference to the type of instrument, aim, and target group, definitions of the constructs (theoretical and operational), structure, domains, items, administration and scoring methods and psychometric properties.

Table 3.5  
*Early Development Instrument (EDI)*  
*Developers – Janus and Offord (2007)*

<b>Type of instrument</b>	Check list/ Screening	
<b>Aim</b>	Assessment of school readiness at entry to Gr.1.	
<b>Target group</b>	Junior and Senior Kindergarten children	
<b>Brief description of test</b>	103 items completed by teacher that measures children’s wellbeing at school entry.	
<b>Geographical location</b>	Canada	
<b>Theoretical definition</b>	No theoretical definitions mentioned per se.	
<b>Operational definition</b>	No operational definitions mentioned per se.	
<b>Domains/ subscales</b>	<p><b><u>Physical health and wellbeing</u></b>  Physical preparedness of the school, fine and gross motor skills, energy levels and physical independence.</p> <p><b><u>Social competence</u></b>  Competence and cooperation in working together with others, ability to remember and follow rules, curiosity and eagerness, approaches to learning and problem solving.</p> <p><b><u>Emotional maturity</u></b>  Pro-social behavior, aggression, inattention and hyperactivity, and anxious behaviour</p> <p><b><u>Language and Cognitive development:</u></b>  Child’s ability to use language correctly covers cognitive aspects of language and numeracy – basic literacy, numeracy skills, interest and memory and literacy that is more complex.</p> <p><b><u>Communication skills and general knowledge:</u></b>  Child’s ability to clearly communicate is/her needs and thoughts in an understandable way to adults and children, the ability to understand others and to articulate clearly, as well as aspects of general knowledge.</p>	
<b>Examples of items in domains</b>	<b>No. of Items</b>	<b>Scoring:</b> 0 (lowest score) – 10 (highest score)
<b><u>Physical health and wellbeing:</u></b> “how often has the child arrived at school to tired to do school work?”	13 items	Ten questions on a 5 point scale (from never to always, or excellent to very poor), scored from 10 (best) to 0 (worst), in 2.5 point intervals: 10, 7.5, 2.5, 0. Three questions about the child’s wash room independence, hand preference and level of coordination are answered in a yes/ no format. “Yes” is scored 10 and “No” as 0.

Table 3.5 continues  
*Early Development Instrument (EDI)*

<b>Social competence:</b> “How would you rate this child’s ability to get along with peers?”	26 items	All answers are scored on a 3-point scale: often or very true (10), sometimes or somewhat true (5), and never or not true (0).
<b>Emotional maturity:</b> “Would you say that this child will try to help someone who has been hurt?”	28 items	All answers are scored on a 3-point scale: often or very true (10), sometimes or somewhat true (5), and never or not true (0).
<b>Language and Cognitive development:</b> “Would you say that this child is interested in games involving numbers?”	26 items	All answers are scored on a 2-point scale: yes (10) if the child possesses the skill and no (0) if she/he does not.
<b>Communication skills and general knowledge:</b> “How would you rate this child’s ability to communicate own needs in an understandable way?”	8 items	7 answers are scored on a 5-point scale: yes (10) if the child from very poor (0), to excellent (10), in 2.5 increments (0, 2.5, 5, 7.5 and 10.). One answer is scored on a 3 point scale, often -10, sometimes -5 and never -0.
Three additional sections cover children special skills, problems and aspects of kindergarten history. (Please see Janus and Offord, 2007 for more information.)		
<b>Administration</b> <b>Scoring</b> <b>Languages</b> <b>Forms</b>	EDI guide developed with brief explanations and anchors for the items , takes 7-20 minutes to complete Domain score is calculated as a mean score of all the valid answers. There is no total score on the EDI. English Teacher form	

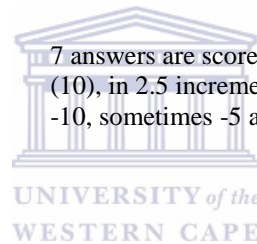


Table 3.5 continues  
*Early Development Instrument*

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## **PSYCHOMETRIC PROPERTIES**

### **Validity**

#### **Content validity:**

Factor analyses showed 14 factors that were aggregated into five domains

Factor structure within classrooms were similar to factor structure between classrooms

Factor analyses upheld the first three domains but revealed the need to develop two new domains.

Internal consistency of the specified domains were explored by Cronbach's alpha and showed satisfactory internal consistency levels (Physical health and wellbeing: 0.84, Social competence: 0.96, Emotional maturity: 0.92, Language and Cognitive development: 0.93 and Communication skills and General Knowledge: 0.95)

**Concurrent validity and convergent validity** as shown by association of EDI scores with age and gender were acceptable.

#### **Item difficulty and analyses**

Items selection derived from existing instruments, focus groups and key informant interviews. Educators, professionals and academics reviewed the first draft of the instrument.

#### **Piloting sample size and demographics:**

16 074 Junior and Senior Canadian Kindergarten children

Six identified schools, three situated in urban areas (80% of sample) and three situated in rural areas (30% of sample).

English was the primary first language of all children.

Children's socio-economic status was determined through census data and was described as low and high-income groups.

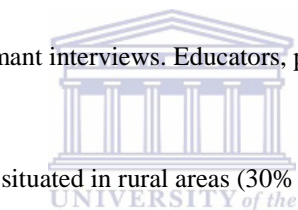
#### **Reliability**

Teacher reliability: Intra-class correlations were medium to high.

Inter-rater agreements were moderate to high on the teacher ratings but low to moderate on the teacher-parent ratings. (0.36-0.64)

Separate study revealed consistent agreements in parents/ teacher inter-rater reliabilities

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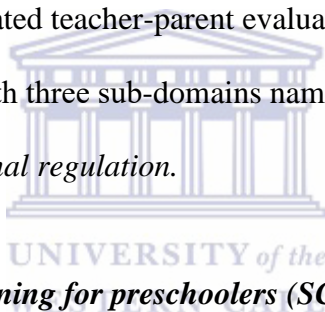


### **3.10.3 SCE and SCS**

Stefan et al. (2009) reported on the Emotional competence screening for preschoolers (SCE) and Social competence screening for preschoolers (SCS). The two scales are used in tandem, but can also be used independently.

#### ***3.10.3.1 Emotional competence screening for preschoolers (SCE)***

The SCE (Stefan et al., 2009) is a strength-based screening scale for emotional competence developed in Romania that identifies pre-school children at risk for academic failure and mental health problems. The SCE was developed with age appropriate items for three age groups (2.5-4 years; 4-5 years and 5-7.5 years). The scale has a parent and teacher version, thus measuring an integrated teacher-parent evaluation. The measure reports on the child's Emotional competence with three sub-domains namely, *emotional understanding, emotional expression and emotional regulation.*



#### ***3.10.3.2 Social competence screening for preschoolers (SCS)***

The SCS (Stefan et al., 2009) is a strength-based screening scale for social competence, developed with the same aim. It includes items for the three identified age groups (2.5-4 years; 4-5 years and 5-7.5 years) with parent and teacher versions. The SCS reports on the child's social competence in three sub-domains *namely, compliance to rules, interpersonal skills and pro-social behaviour.*

On both scales, items were developed in accordance to developmental milestones in order to accurately measure children's abilities longitudinally. Items on both scales are coded on a 5-point Likert scale. A total score on each scale is obtained by summation of items in the sub-scales. The scales are user friendly and take approximately 10 minutes to complete.



Psychometric properties of the SCE and SCS showed that both parents and teacher scales measured similar constructs, thus adequate construct validity and criterion validity existed to predict the child's risk status. Items in both scales showed high internal consistency. Convergent validity was reported on for both scales and showed that the scales are good predictors of children's performance on school tasks. Test-retest coefficients showed good stability of the scales over time. Inter-rater reliability coefficients were low for both SCE and SCS. The process of test construction was sufficiently explained for both scales and item difficulty and analyses were reported on for both scales.

Both scales, SCE and SCS were piloted on 824 Romanian children between ages 2.5 and 7.5 years, with almost equal distribution between age groups 2.5-4 years (n=258) and 4-5 years (n=256) and 5-7.5 (n=310), and equal distribution of boys and girls. The Urban (57.2%) and rural (42.8%) distribution were also similar. Children were selected from a medium to high socio-economic grouping as parents all had a high school or higher education qualification. Table 3.6 below provides a summary of SCE and SCS parent and teacher version with reference to the type of scales, aim, target groups, definitions of the constructs (theoretical and operational), structure, domains, items, administration and scoring methods and psychometric properties.

Table 3.6

*Emotional competence screening for preschoolers (SCE) and Social competence screening for preschoolers (SCS)*  
 Developers – Stefan et al. (2009)

<b>Type of instrument</b>	Screening
<b>Aim</b>	Identification of pre-school children at risk for academic failure and mental health problems.
<b>Target group</b>	Pre-school children. (2.5-7.5 years)
<b>Brief description</b>	Separate screening scales for emotional and social competence for 3 age cohorts completed by teachers and staff
<b>Geographical location</b>	Romania
<b>Theoretical definitions</b>	<p><b>Social competence is defined</b> as the ability to manifest socially acceptable behaviours with positive outcomes, which allow people to achieve their goals. (Gimpel and Merrell, 1998 in Mendez, McDermott, &amp; Fantuzzo, 2002).                  It refers to the evaluative component of social behaviours, and includes social skills/ specific behaviours enacted in order to adapt to a specific social context. (Sheridan, Hungelmann, &amp; Poppenga Mauhen, 1999).  <b>Emotional competence is defined</b> as the ability to be self-efficient in dealing with emotion eliciting situations in order to ensure adaptation to the social context. (Buckely, Storino, &amp; Saarni, 2003; Saarni, 2001)</p>
<b>Operational definitions</b>	<p><b>Social competence:</b></p> <ul style="list-style-type: none"> <li>• Compliance to rules: ability to comply with rules and follow directions (Kotler &amp; McMahon, 2002)</li> <li>• Interpersonal skills: ability to interact with other children and adults.</li> <li>• Pro-social behaviors: wide range of voluntary actions, directed at other peoples benefit (Krueger, Hicks, &amp; McGrue, 2001).</li> </ul> <p><b>Emotional competence:</b></p> <ul style="list-style-type: none"> <li>• Emotion understanding: receptive and expressive understanding of emotions (Denham, 2006).</li> <li>• Emotional expressiveness: ability to convey emotional messages in a socially expected way and being able to manage emotions (Denham, 2007).</li> </ul> <p>Emotion regulation: evaluating, monitoring and modifying emotional reactions. (Thomson, 1994)</p>
<b>Domains/ underpinning behaviours</b>	<p>Ability to be self-efficient in dealing with emotion eliciting situations in order to ensure adaptation to the social context                  Being able to manage emotions                  The processes involved in “evaluating, monitoring and modifying emotional reactions in order to accomplish one’s goals”                  Ability to identify emotions                  Ability to name emotions based on non-verbal cues                  Sending affective messages, Convey emotional messages in a socially accepted manner.</p>

Table 3.6 continues

Emotional competence screening for preschoolers (SCE)

<b>EMOTIONAL COMPETENCE</b>			
<b>Domain</b>	<b>Parent form (SCE-P)</b>		
<b>Form</b>		<b>No of items</b>	<b>Scoring</b>
<b>Examples of items in Emotional domains</b>			
<u>Age: 2.5 – 4.0 years</u>		11 items	5 point Likert scale where 1 = almost never and 5 almost always. Total score is the summation of items of the scale.
<u>Emotional understanding</u> , “the child is able to say that he is unhappy”			
<u>Emotional expression</u> , “express joy when he gets a present”			
<u>Emotional regulation</u> “calms down easily after being upset”.			
<u>Age: 4-0 – 5.0 years</u>		<b>No of items</b>	<b>Scoring</b>
<u>Emotional understanding</u> , “the child recognises that others feels sad”		14 items	5 point Likert scale where 1 = almost never and 5 almost always.
<u>Emotional expression</u> , “if scolded the child expresses adequate emotions”			Total score is the summation of items of the scale.
<u>Emotional regulation</u> “shows patience until receiving attention”.			
<u>Age: 5-0 – 7.5 years</u>		<b>No of items</b>	<b>Scoring</b>
<u>Emotional understanding</u> , “the child says about others that they are happy”		17 items	5 point Likert scale where 1 = never and 5 always.
<u>Emotional expression</u> , “sad when something happen to a family member”			Total score is the summation of items of the scale.
<u>Emotional regulation</u> “only cries when he has reason to do so”.			
<b>Form</b>	<b>Teacher form (SCE-E)</b>		
<b>Examples of items in Emotional domains</b>			
<u>Age: 5-0 – 7.5 years</u>		<b>No of items</b>	<b>Scoring</b>
<u>Emotional understanding</u> , “the child recognize emotions such as shame, disgust”		18 items	5 point Likert scale where 1 = never and 5 always.
<u>Emotional expression</u> , “when scolded express adequate emotion”			Total score is the summation of items of the scale.
<u>Emotional regulation</u> “perseveres on a task even if it is challenging”.			
<u>Age: 4-0 – 5.0 years</u>		<b>No of items</b>	<b>Scoring:</b>
<u>Emotional understanding</u> , “the child recognises that others feels happy”		10 items	5 point Likert scale where 1 = never and 5 always.
<u>Emotional expression</u> , “when scolded the child expresses adequate emotions”			Total score is the summation of items of the scale.
<u>Emotional regulation</u> “cries when she has reason to do so”.			
<u>Age: 2.5 – 4.0 years</u>		<b>No of items</b>	<b>Scoring</b>
<u>Emotional understanding</u> , “the child is able to make a distinction between positive and negative feelings”		10 items	5 point Likert scale where 1 = almost never and 5 almost always.
<u>Emotional expression</u> , “express joy when he gets a reward”			Total score is the summation of items of the scale
<u>Emotional regulation</u> “child plays with other toy if he is not able to get access to certain toy”			.



Table 3.6 continues

*Social competence screening for preschoolers (SCS)*

<b>SOCIAL COMPETENCE</b>			
<b>Domain</b>	<b>Parent form (SCS-P)</b>		
<b>Form</b>		<b>No of items</b>	<b>Scoring</b>
<b>Examples of items in domains</b>			
<u>Age: 2.5 – 4.0 years</u>		10 items	5 point Likert scale where 1 = almost never and 5 almost always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “the child stops an activity on request”			
<u>Interpersonal skills</u> , “child acts friendly with unfamiliar children”			
<u>Pro-social behaviour</u> “child shares toys with other children when asked”.			
<u>Age: 4-0 – 5.0 years</u>		<b>No of items</b> 12 items	<b>Scoring</b> 5 point Likert scale where 1 = almost never and 5 almost always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “easily accepts changes in game rules”			
<u>Interpersonal skills</u> , “cooperates with other children during play			
<u>Pro-social behaviour</u> “child shares toys with other children without being told”.			
<u>Age: 5-0 – 7.5 years</u>		<b>No of items</b> 22 items	<b>Scoring</b> 5 point Likert scale where 1 = never and 5 always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “child puts away his toys without being reminded”			
<u>Interpersonal skills</u> , “able to identify solutions to problems with partial assistance”			
<u>Pro-social behaviour</u> “child shares toys with other children without being told”.			
<b>Form</b>	<b>Teacher form (SCS-E)</b>		
<b>Examples of items in domains</b>			
<u>Age: 5-0 – 7.5 years</u>		<b>No of items</b> 24 items	<b>Scoring</b> 5 point Likert scale where 1 = almost never and 5 almost always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “child puts away his toys without being reminded”,			
<u>Interpersonal skills</u> , “able to join a group without interrupting a game”			
<u>Pro-social behaviour</u> “child is saying sorry for doing something wrong when you ask him.”			
<u>Age: 4-0 – 5.0 years</u>		<b>No of items</b> 15 items	<b>Scoring</b> 5 point Likert scale where 1 = never and 5 always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “easily accept changes to rules and games”			
<u>Interpersonal skills</u> , “child invites other children to play together”			
<u>Pro-social behaviour</u> “child shares his toys without being told”			
<u>Age: 2.5 – 4.0 years</u>		<b>No of items</b> 14 items	<b>Scoring</b> 5 point Likert scale where 1 = almost never and 5 almost always. Total score is the summation of items of the scale.
<u>Compliance to rules</u> , “stops speaking if asked to”			
<u>Interpersonal skills</u> , “plays in small groups of two to three children”			
<u>Pro-social behaviour</u> “child shares his toys with other children when told”			
<b>Administration</b>	10 minutes to complete		
<b>Languages</b>	English, Romanian		

Table 3.6 continues

*Emotional competence screening for preschoolers (SCE) and Social competence screening for preschoolers (SCS)*

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**PSYCOMETRIC PROPERTIES**

**Validity:**

*Construct validity:* Factor structure – validated by experts in the field who agreed on the items.

All scales had high internal consistency, Parents and teacher versions of the SCE and SCS measure similar constructs as other instruments.

*Convergent validity* – validated against SSRS (self-controlled scale form. Pearson product –moment correlations for SCE-P and SCE-E were in the medium range. SCS from SSRS parent and teacher correlated positively with SCS-P and SCS-E in the medium to high range.

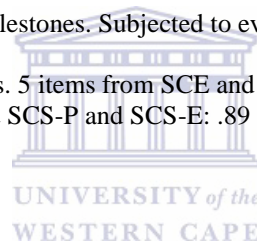
*Concurrent validity:* Pearson correlations between SCS-P and SCS-E and the Behaviour Problem scale from the SSRS Parents and Teachers versions were medium negative correlations.

*Predictive validity:* results indicated that screening for emotional and social competencies is a good predictor for a child’s performance on school tasks and that children’s success can be predicted by social and emotional competencies in preschool.

**Item difficulty & analyses:** Item collection based on age-appropriate milestones. Subjected to evaluation by group of 8 experts, 32 pre-school teachers and 32 parents.

On three versions of the screening completed by 123 teachers and parents. 5 items from SCE and 4 items from SCS were dropped after factor analyses.

*Internal consistency: (Cronbach alpha)* - SCE-P and SCE-E: .80 - .93 & SCS-P and SCS-E: .89 - .95



**Reliability**

*Test retest reliability:*

SCE and SCS for 5-7.5 age group at 3 month interval: .72-.83

Good stability of the scales over time

*Inter rater reliability:* between parent and teacher forms

<b>Age:</b> 2.5-4years	SCE: -.15	SCS: -.14
4-5years	-.36	-.32
5-7.5 years	-.14	-.31

Inter rater reliability coefficients were low showing that competencies were evaluated in different settings (home and school), where parent and teacher ratings measures mirror different aspects of child behaviour.

**Piloting/ Sample size and demographics:** 824 Romanian children. 57.2% urban, 42.8% rural. Ages between 2.5 and 7.5 years, with almost equal distribution between age groups 2.5-4 years (n=258) and 4-5 years (n=256) and 5-7.5 (n=310), and equal distribution of boys and girls. Children were selected from a medium to high socio-economic grouping as parents all had a high school or higher education qualification.

### 3.10.4 The Preschool Behavioural and Emotional Rating Scale (PreBERS)

The PreBERS (Epstein et al, 2009) is a 42-item, strength-based diagnostic test that was developed, standardised and norm referenced in the USA. The PreBERS measures emotional and behavioural strengths of 3-5 year old pre-school children. The test specifically measures competencies in the areas of *emotion regulation, school readiness, social confidence and family involvement*. Teachers and staff who are knowledgeable about the child may complete the test. The scale takes approximately 10 minutes to complete. The final version of 42 items was piloted amongst two groups of pre-school children (n=239). The test was normed on a sample of 1471 pre-schoolers with (13%) and without disabilities (87%), in 26 states and Washington, DC. The demographics of the children were 52%, male and 48%, female. The demographic composition of the sample was as follows: 80% White, 13% Black and 7% unidentified. The majority were English speaking (86%) and 14 % spoke Spanish.

All items were coded on a 4-point Likert scale. A total score on each scale is obtained by summation of items in the sub-scales. Raw scores can be converted into standard scores with a mean of ten and a standard deviation of three. An overall strength index is derived by summation of the standard scores of the four sub-scales and converting the sum into a standard score. Psychometric properties showed good internal consistency and inter relationships between factors and scales. The sub-scales and the total instrument appear remarkably stable and consistent (.84 to .98). Content validation was reported on, inclusive of item development, item identification, item discrimination and data-reduction strategies. Criterion validity showed significant differences between children with and without disabilities: t-test results ( $p < .001$ ) and Hedges effect sizes were moderate to large.

Table 3.7 below provides a summary of PreBERS with reference to the type of instrument, aim and target group, definitions of the constructs (theoretical and operational), structure, domains, items, administration and scoring methods and psychometric properties.

Table 3.7

*The Preschool Behavioural and Emotional Rating Scale (PreBERS)*

Developers: Epstein et al. (2009)

<b>Type of instrument</b>	Diagnostic, Strength based standardized, norm reference test	
<b>Aim</b>	Measurement of emotional and behavioural strengths of Preschool Children.	
<b>Target group</b>	Pre-school children, 3-5 years.	
<b>Brief description of test</b>	42 item completed by teachers and staff	
<b>Theoretical definitions</b>	No definitions in this article. Author refers to BERS (Epstein, 2004; Epstein, & Synhorst, 1998) for theoretical definitions.	
<b>Geographical location</b>	Washington D.C and 26 states.	
<b>Operational definitions</b>	<u>Emotional regulation</u> : measures a child’s ability to regulate or govern his or her behavior in social situations with peers of adults <u>School readiness</u> : assesses a child’s language, pre-literacy, and attention to-task skills <u>Social confidence</u> : focuses on a child’s ability to socially interact and get along with peers. <u>Family involvement</u> : assesses a child’s participation and relationship with his/ her family	
<b>Examples of items in domains</b>	<b>No. of items</b>	<b>Scoring</b>
<u>Emotional regulation</u> : “takes turns in play situations”	13 items	4-point Likert-type scale (0)-not at all like the child, (1)-not much like the child, (2)-like the child, (3)-Total raw score is calculated for each subscale, converted to standard score with a mean of 10 and a standard deviation of 3. Strength index: sum of standard scores, converted to a standard score.
<u>School readiness</u> : “ follows multi-step directions”	13 items	
<u>Social confidence</u> : “identifies own feelings”	9 items	
<u>Family involvement</u> : “participates in family activities”	7 items	
<b>Administration</b>	10 minutes to complete	
<b>Languages</b>	English	

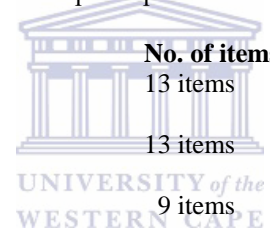


Table 3.7 continues

*The Preschool Behavioural and Emotional Rating Scale (PreBERS)*

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## PSYCHOMETRIC PROPERTIES

### Validity

*Internal consistency: (Cronbach alpha)*

The average alpha coefficients for the subscale and total scores were highly acceptable. .836-.980

*Content validation:* included item development, item identification, item discrimination and data-reduction strategies. (e.g., 52 items from original behavioral and emotional rating scale sent to 150 pre-school teachers that rated the appropriateness of each item for use with pre-school children. Twenty-one items were deleted. Literature research of other available inventories resulted in 39 items added to the prototype. Piloted in two groups of children with and without disabilities.

Eight items that did not differentiate between the two samples were dropped.

Final version of 62 items piloted on 239 preschoolers.

Exploratory factor analyses resulted in deletion of 5 items = 57-item prototype scale.)

*Criterion validity:*

T-test results showed significant differences between children with and without disabilities. ( $p < .001$ ).

Hedges effect sizes: moderate to large

*Convergent validity* – not established in this study. Mentioned as a limitation and focus for future research

*Concurrent validity* – not established in this study. Mentioned as a limitation and focus for future research

*Predictive validity:* - not established in this study. Mentioned as a limitation and focus for future research

### Reliability:

*Test retest reliability:*

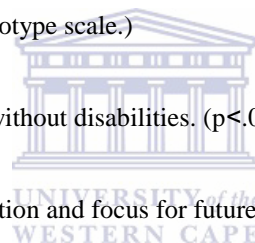
Not done in this study, reported in previous study on BERS. ((Epstein, 2004; Epstein, & Synhorst, 1998)

*Inter rater reliability:* Not done in this study, this study included ratings by teachers alone.

### Piloting and sample size and demographics:

1471 pre-school children with and without disabilities.

The test was normed on a sample of 1471 preschoolers with (13%) and without disabilities (87%), in 26 states and Washington, DC. The demographics of the children were 52%, male and 48%, female. 80% of the sample was white children, 13% black and 7% unidentified. 86% were English speaking and 14 % Spanish.





### 3.11 SUMMARY

Four instruments were identified from the review of which two were screening tools (the EDI and the SCS and SCE scales) and two were diagnostic instruments (the PreBERS and the Busse-SR) measuring emotional and/or social competence as important domains of school readiness in pre-school children. The diagnostic and screening instruments had noticeably different aims. The focus of the diagnostic instruments was to highlight what is working well in the life of a child and to predict mental health problems and possible school readiness problems based on the child's emotional and social skills development. The results would then aid in decisions about educational placement and intervention strategies. The focus of the screening instruments was on the assessment of school readiness to *identify* areas that require further focus for development and to *predict* school readiness and possible mental health problems based on the child's emotional and social skills development.

Three to six domains were identified in each instrument. The items in these domains were closely linked to the theoretical and operational definitions of the instruments. The instruments identified different respondent groups to complete the questionnaires. Two of the instruments (one diagnostic and one screening) were designed to be completed by teachers only, while the other two were designed to be completed by either a teacher and/or a parent in separate forms. The instruments varied in length from a brief 28 items to a lengthier 103 items. Likert scales were used in three of the instruments while one instrument (EDI) used mean scores as the scoring system.

All instruments showed sound psychometric properties and can therefore be used confidently to fulfill their intended purposes. Results were also explained in terms of reliability. The screening measures demonstrated adequate internal consistency and inter-rater reliability scores and the reliability index scores were indicated. In terms of validity, the screening tools illustrated satisfactory scores in terms of construct and criterion validity. There was a focus on predictive validity which was important in terms of whether the measure is successful in assessing emotional social readiness (Bustin, 2007, Epstein et al., 2009, Stefan et al., 2009, Janus & Offord, 2007). In

terms of analysis, the various authors made use of numerous statistical measures to demonstrate areas of strengths and weaknesses in their instruments. Such statistical measures included; Cronbach's alpha, Pearson's product moment correlation co-efficient, Factor analysis, and the Discrimination index (Bustin, 2007; Epstein et al., 2009; Janus & Offord, 2007; Stefan et al., 2009).

### **3.12 CONCLUSION AND RECOMMENDATIONS**

Systematic review A reported on available instruments to measure social-emotional competence and their psychometric properties. Four measures were identified from the articles included in the final review of which all proved to have sound psychometric properties. The findings indicated that few good quality research studies exist in the school readiness field with specific reference to instruments for measuring social/emotional competence. Epstein et al. (2009) made a case for a strengths-based instead of deficit-based assessment instrument, which, given the South African history, would be a very suitable approach to pursue. It thus seems as if a strength-based screening tool that would allow for a wider application would be more applicable and beneficial in the South African context. This suggests a move away from the current notion in South Africa where assessment is essentially diagnostic, remedial, and limited to health professionals (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2014). It will also widen access to screening measures that would contribute to a better chance for earlier intervention if needed. This would ultimately mean that children would get access to early screening and intervention, which is not primarily dependent on differential access based on gender, race, class and SES (Albino & Berry, 2013; Hall, Meintjes & Sambu, 2014). In particular, Ebrahim and Seleti (2013) underscored that screening tools rather than diagnostic tools were more useful for developing contexts and contexts with large variation in access to stimulating early academic environments.

This review clearly identified the development of appropriate scales as a focus for further research. This is specifically applicable in the South African context as only one locally developed diagnostic tool (BUSSE-SR) was found and reported on. Research recommended that a single form-

screening tool that is easy to administer, integrated and easy to interpret seems to be a viable focus for development (Bustin, 2007; Epstein et al., 2009; Janus & Offord, 2007). Laher and Cockcroft (2013) as well as Foxcroft and Roodt (2013) recommended that there remains a need for contextually sensitive or appropriate instruments for use in the South African context as an urgent focus in future research.



## **SECTION THREE**

### **SYSTEMATIC REVIEW B**

#### **Definitions of Emotional and Social Competence in School ready children (Gr. R).**

This section includes an outline of the review question and scope, the process results and descriptive meta-synthesis for the second review. The descriptive meta-synthesis provides a summary of the core themes and findings of the articles.

### **3.13 REVIEW SCOPE**

#### **3.13.1 Review aim**

To identify definitions of emotional/ social competence in preschool children (Gr. R) inclusive of theoretical underpinnings, theoretical and operational definitions.

#### **3.13.2 Review question**

What definitions and domains of emotional and social competence in school ready children are included in good quality literature on school readiness?

### **3.14 INCLUSION CRITERIA**

#### **3.14.1 Time period**

In order to obtain the most recent information, only studies carried out between January 2003- December 2013. The period represented the last ten years from the time that the field work was conducted.

#### **3.14.2 Target group**

The target group was preschool children between the ages of three and seven years old. All studies that defined social/emotional competence, or a variant thereof, were included.

#### **3.14.3 Type of studies**

Studies comprising of both quantitative and qualitative designs were considered as the aim of the review was to identify definitions of emotional-social competence used in all research designs.

### **3.14.4 Text selection**

Peer reviewed full text articles that could be obtained on the data bases of UWC were used. The review was also limited to articles written only in English. In addition to the peer-reviewed articles, reference mining was added to make sure that all the relevant studies on the topic were considered. Grey literature in the form of unpublished theses were also considered.

### **3.15 EXCLUSION CRITERIA**

Any articles before 2003 were excluded as per the stipulated time period for the review. Studies written in languages other than English were excluded.

### **3.16 SEARCH STRATEGY**

#### **3.16.1 Keyword Identification**

The initial keywords that were used in various Boolean phrases in the initial search in Ebscohost before the reviewers were paired included: *School readiness, emotional and social competence, emotional competence, social competence, emotional intelligence, emotionality, pre-school, Grade R, South Africa, define, definition*. (All variations of these terms including spelling were considered).

Once having searched the databases, it was found that many of these keywords did not produce appropriate data for the review. The search results were particularly limited or non-existent when using keywords such as *South Africa* or *definition/define*. The primary researcher and reviewers decided to only use the following three keywords/ phrases in order to obtain appropriate articles for the review:

- school readiness
- school readiness AND emotional social competence
- school readiness AND emotional social competence AND preschool

The following databases were searched Academic Search Complete, EbscoHost including, PsycArticles, Sage Online, SocINDEX, PubMed, Sabinet and ERIC.

### 3.17 PROCESS RESULTS

The process results are a report of the outcomes of each of the operational steps included in the four review processes. Figure 3.3 below provides a schematic summary of the number of articles identified at every stage of the review process.

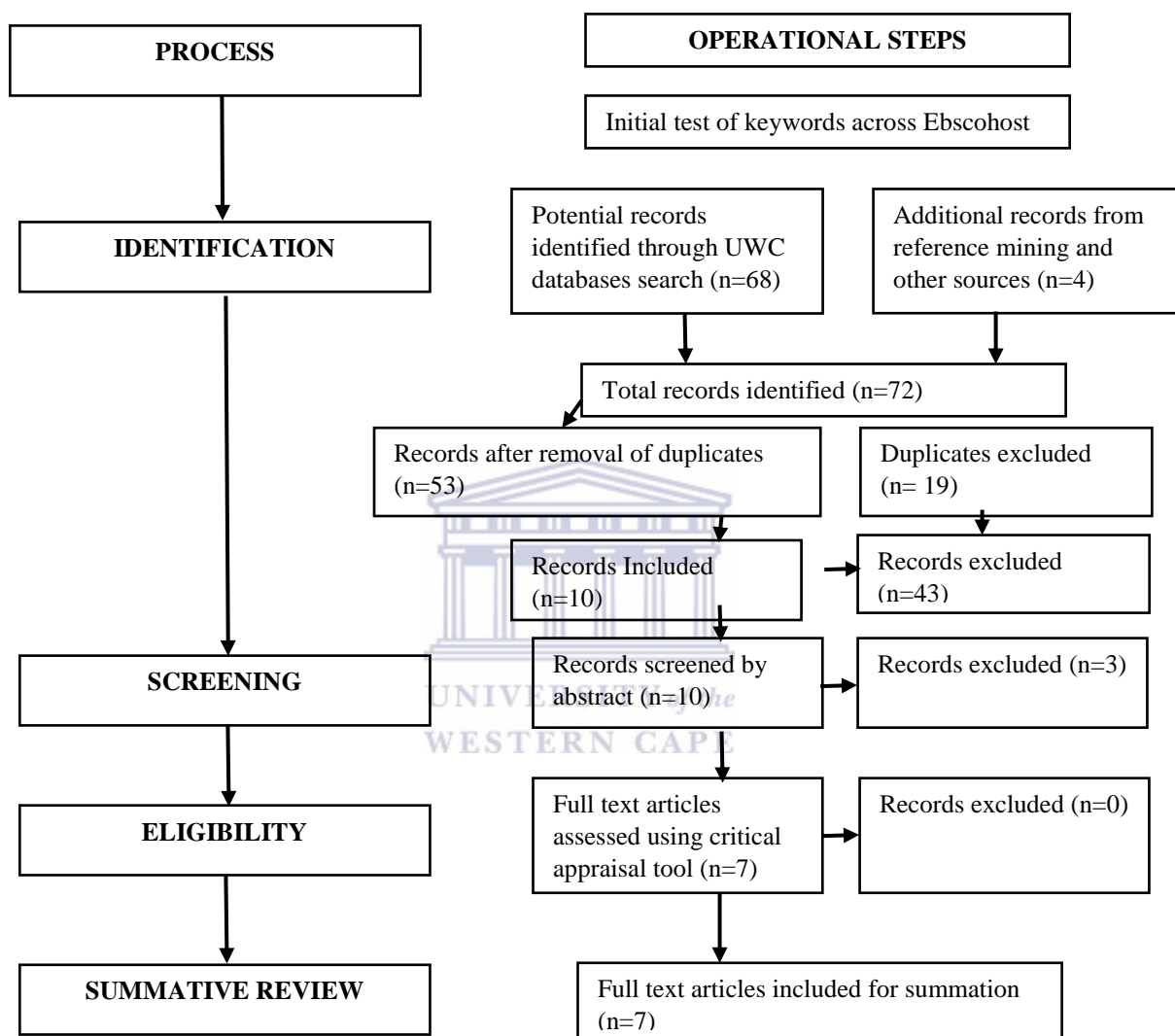


Figure 3.3: Completed Levels of Review B

*Step One: Identification.* Potential records that were identified from the database search amounted to 68. Four additional records were identified from reference mining including two published articles and two unpublished doctoral theses from grey literature. In the list of potential records, 19 duplicates were identified. That is to say that the same article appeared in more than one

database. Duplications were found between Sabinet and Ebscohost, as well as between Eric and Ebscohost. After excluding these duplications there were 53 titles. Forty-three (43) articles did not meet the inclusion criteria and were excluded. The main reasons for exclusion were that the topic was not related to emotional social competence per se. Only ten titles were retained at the end of the first step and their abstracts were retrieved for screening purposes (Appendix O).

*Step Two: Screening.* Ten abstracts were screened for further inclusion based on the inclusion criteria specified. Three were excluded in total. Three entries were excluded, because they were systematic reviews. Seven articles were included for evaluation with the critical appraisal tool (Appendix P).

*Step Three: Eligibility.* The SFS scoring system was used to assess the quality of the methodologies of full text articles. Version E (Appendix Q) of the scoring system was used. This version allows screening for eligibility in articles that had quantitative and qualitative approaches. It also allows for the appraisal of definitions and operationalisation of constructs under investigation. Version E included three subsections. The first subsection was titled “*purpose*” and included nine questions around the aim, literature review, theoretical framework, theoretical and operational definitions, constructs underlying the variables. The second subsection was entitled, “*methodological rigour*” and included sixteen questions on design, sampling, data collection, data analyses and results relative to qualitative or quantitative approaches. The third subsection was titled, “*general considerations*” and included two questions about the status of the article. By rating these components, using 27 questions, the article could score a maximum of 79 points. Each article had the potential to obtain a total score based on the overall quality of the article that was categorised as either weak (0-25%), moderate (26-50%), strong (51-75%), or excellent (76-100%). An article needed to score a subminimum of 50% (at least 40 out of 79) or more on the appraisal tool in order to be included in the review. The scores for each of the articles were captured in a rating form. Seven articles were appraised and all included in the final summation.

### 3.17.1 Ranking

All seven articles obtained threshold scores of well above 50% and were therefore all included in the review. The range of scores on the appraisals varied between 93.7% and 86.1% indicating quality scores consistent with strong methodological rigour. The seven included studies obtained scores that suggested good quality research as evidenced by scores exceeding the 50% threshold score. The seven articles deemed eligible for inclusion in the final summation were ranked based on their scores obtained on the critical appraisal tool. Table 3.8 below reflects the ranking of the seven articles based on methodological rigour on the total score as well as scores obtained in the subsections.

Table 3.8  
*Ranking of Articles*

Reference	Rank	Total score	% obtained	Purpose (maximum score = 22)	Methodological rigour (maximum score = 52)	General considerations (maximum score = 5)	Quality
Bustin (2007)	1	74	93.7%	21	50	3	Excellent
Mohamed (2013)	1	74	93.7%	21	50	3	Excellent
Epstein et al. (2009)	1	74	93.7%	18	51	5	Excellent
Stefan et al. (2009)	4	72	91.1%	20	47	5	Excellent
Deacon & van Rensburg (2012)	5	70	88.6%	18	47	5	Excellent
Hymel, LeMare & McKee (2011)	6	69	87.3%	18	46	5	Excellent
Janus et al. (2007)	7	68	86.1%	19	44	5	Excellent

As seen in Table 3.8, three articles were ranked jointly in first (1<sup>st</sup>) place with a rating of 93.7%, namely Bustin (2007), Mohamed (2013) and Epstein et al. (2009). These articles scored the highest across the first two subsections. Bustin (2007) and Mohamed (2013) ranked first (1<sup>st</sup>) in purpose, Epstein et al. (2009) ranked fourth, because theoretical definitions were implied and a theoretical framework was not mentioned. Bustin (2007) and Mohamed (2013) scored lower on General Considerations as they were unpublished doctoral theses and thus not peer reviewed or



published. Bustin (2007), Mohamed (2013) and Epstein et al. (2009) ranked first on methodological rigor suggesting that they reported extensively on all aspects of methodology, thus they had the most comprehensive overall methodological coherence. Janus et al. (2007) obtained the lowest score with a rating of 86.1%, with the lowest ranking on methodological rigour across the seven articles. The author did not report on Cronbach alpha levels or ethical principles and did not identify avenues for recourse in the event of questions or concerns. Although these details were lacking, the score on methodological rigour was still well above the stated threshold score for methodological rigour.

Table 3.9 summarizes the final list of included articles.

Table 3.9  
*Final list of articles screened for eligibility and included in Systematic Review B*

Author(s)	Title	Publication Date	Source of Article
Bustin, C.	The Development and Validation of a Social Emotional School Readiness Scale	Unpublished Doctoral Thesis 2007	Google
Mohammed, S.A.	Preschool Screening for Emotional and Social competencies – Development and Psychometric properties	Unpublished Doctoral Thesis 2013	Google
Janus, M., & Offord, D.R.	Development and Psychometric Properties of the Early Development Instrument (EDI): A Measure of Children's School Readiness	2007	Ebscohost
Ştefan, CA., Bălaj, A., Porumb, M., Albu.M., & Miclea, M.	Preschool Screening For Social and Emotional Competencies – Development and Psychometric Properties	2009	Ebscohost
Hymel, S., Le Mare, L. & McKee, W.	The Early Development Instrument: An examination of Convergent and Discriminant Validity	2011	ERIC
Epstein, M.H., Synhorst, L.L., Cress, C.J., & Allen, E.A.	Development and Standardization of a Test to Measure the Emotional and Behavioral Strengths of Preschool Children	2009	Reference mining Sage
Deacon, E. & van Rensburg, E.	Enhancing Emotional and Social Competence in a group of South African school beginners: A Preliminary study	2012	Reference mining Ebscohost

### 3.18 DESCRIPTIVE META-SYNTHESIS

The descriptive meta-synthesis includes a summary of core findings, extracted as themes across the identified articles. The themes that theoretical and operational definitions of emotional

and social competence in pre-school children were extracted from the final articles and are reported below.

### 3.18.1 Theoretical Definitions of emotional social competence

The seven articles included in the summation all used instruments to measure emotional-social competence. Table 3.10 presents the instruments used in the respective articles.

Table 3.10  
*Summary of instruments per article*

<b>Reference</b>	<b>Instrument</b>	<b>Abbreviation</b>
Bustin (2007)	Behaviours Underpinning Skills for Social-Emotional School Readiness	BUSSE-SR
Mohammed (2013)	School readiness screening instrument for Gr. 00 (Pre-grade R) Learners	
Janus & Offord (2007)	Early Development Instrument	EDI
Stefan et al. (2009)	Emotional Competence Screening for Pre-schoolers Social Competence Screening for Pre-schoolers	SCE SCS
Epstein et al. (2009)	Preschool Behavioural and Emotional Rating Scale	PreBERS
Hymel et al. (2001)	Early Development Instrument	EDI
Deacon & van Rensburg, (2012)	Social Competence and Behavioral Evaluation	SCBE

Table 3.11 below, provides a summary of the *theoretical* definitions of emotional and social competence as a domain of school readiness in each of the seven identified instruments.

Table 3.11

*Theoretical definitions of emotional social competence as a domain of school readiness.*

<p><b>1</b> <b>BUSSE-SR</b> <i>Behaviours Underpinning Skills for Social-Emotional School Readiness</i>, (Bustin, C. 2007)</p>	<p><b>Emotional social competence is defined as:</b> 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 &amp; Cohen, 2001; Denham, 2003, Goleman, 1996; Rose-Krasnor, 1997.</p> <p>Social-emotional competence is then conceptualised as adaptations between the child’s emotional dispositions in interaction with the environment” (Rose-Krasnor, 1997 as cited in Bustin, 2007).</p>
<p><b>2</b> <i>School readiness screening instrument for Gr. 00 (Pre-grade R) Learners</i> (Mohamed, S.A. 2013)</p>	<p><b>Social competency is defined as</b> including the three components of thinking, feeling and behaviour to achieve social tasks (Topping et al., 2000).</p> <p><b>Emotional competence is defined as</b> the ability to express, regulate and understand emotion. (Denham, 1998, 2006; Denham et al., 2003). This involves perception and expression of emotion analysis and understanding of emotion, and the ability to regulate emotion in self and others.</p>
<p><b>3</b> <b>EDI</b> <i>The Early Development Instrument</i> (Janus, M. &amp; Offord, D.R., 2007)</p>	<p>No theoretical definition mentioned per se.</p>
<p><b>4</b> <b>SCE: Emotional Competence Screening for Preschoolers</b>  <b>SCS: Social Competence Screening for Preschoolers</b> (Stefan, C.A. et.al., 2009)</p>	<p><b>Emotional competence is defined as</b> the ability to be self-efficient in dealing with emotion eliciting situations in order to ensure adaptation to the social context. (Buckely, Storino, &amp;Saarni, 2003; Saarni, 2001)</p> <p><b>Social competence is defined as</b> the ability to manifest socially acceptable behaviours with positive outcomes, which allow people to achieve their goals. (Gimpel and Merrell, 1998 in Mendez, McDermott, &amp;Fantuzzo, 2002). It refers to the evaluative component of social behaviours, and includes social skills/ specific behaviours enacted in order to adapt to a specific social context. (Sheridan, Hungelmann, &amp;Poppenga Mauhen, 1999).</p>
<p><b>5</b> <b>PreBERS: Preschool Behavioural and Emotional Rating Scale</b> (Epstein et al., 2009)</p>	<p>No definitions in this article. Author refers to BERS (Epstein, 2004; Epstein, &amp; Synhorst, 1998) for theoretical definitions.</p>
<p><b>6</b> <b>EDI: Early Development Instrument</b> (Hymel, S. &amp; Le Mare, L. &amp; McKee, W, 2011)</p>	<p>No theoretical definitions were available in this article, only broad definitions of social and emotional competence were found.</p>
<p><b>7</b> <b>SCBE: Social Competence and Behavioural Evaluation, Preschool Edition</b> (Deacon &amp; van Rensburg, 2012)</p>	<p>No theoretical definitions were available in this article. This study was an intervention-based study.</p>

It is noteworthy that all of the authors' definitions were imbedded in a particular theoretical framework. Mohamed (2013) followed a multidimensional approach in the process of developing the school readiness screening instrument. The development of the EDI by Janus and Offord (2007) followed a social constructivist approach. Both the aforementioned studies emphasized the holistic, interrelated nature of child development and the influence of the environment on children and their readiness for school. Bustin (2007) followed an ecosystemic approach in the development of a social emotional school readiness scale (BUSSE-SR). Bustin's (2007) opinion that social emotional competence is interrelated to the other domains of school readiness and that the construct does not develop in isolation, fits in with the theoretical stance of Mohamed (2013) and Janus and Offord (2007). It is evident that the newer school readiness measures of Bustin (2007), Mohamed (2013) and Janus and Offord (2007) were in line with the recent global movement towards a more holistic, multidimensional and ecosystemic approach to school readiness. This approach does not only focus on the child, but also focuses on the readiness of schools and communities as well as factors like maternal literacy and the environment in which the child is raised (Amod & Heafield, 2013, cited in Laher & Cockcroft, 2013). In contrast with the recent move towards a more holistic approach to school readiness, Stefan et al. (2009) relied on the developmental approach to develop a preschool screening tool for social and emotional competencies. Some of the variations in definitions could thus be because different authors have been approaching the definition from their different theoretical perspectives.

It is noteworthy that most authors resorted in using established theoretical definitions of other authors in their conceptualisation of the constructs. The two South African studies, Bustin (2007) and Mohamed (2013) mostly relied on existing definitions of emotional and social competence in their attempt to define emotional social competence:

Bustin (2007) derived the following definition for the purpose of her thesis from several authors: “*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). She also expressed that these emotions needs to be seen as interdependent. “*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 aforementioned definition accentuated Bustin’s (2007) view that the impact of social and cultural environments on the development of emotional social competence are very important, especially in a multicultural South Africa.

Mohamed (2013) used the following definitions for the purpose of her thesis “*Social competency is defined as including the three components of thinking, feeling and behaviour to achieve social tasks* (Topping et al., 2000) and “*Emotional competence is defined as the ability to express, regulate and understand emotion which involve perception and expression of emotion analysis and understanding of emotion, and the ability to regulate emotion in self and others*” (Denham, 1998, 2006; Denham et al., 2003). She also quoted a definition from Sheridan et al. (2010): “*Social and emotional competencies facilitate the development of each domain and are seen as the key component of school readiness*”. The aforementioned definition emphasised the importance of the development of emotional social competence and the impact it has on the development of other domains.

Stefan et al. (2009) did not give a clear theoretical or operational definition for emotional social competence, but used existing definitions for the domains of emotional and social competence (for example Buckley et al., 2003; Gimpel & Merrell, 1998).

Two overseas studies, Hymel et al. (2011) and Janus and Offord (2007), did not have any definitions regarding emotional social competence. Definitions were limited to a broader definition of school readiness. A local intervention-based assessment study by Deacon and van Rensburg (2012), mentioned the operational definitions of the constructs, but did not refer to the theoretical definitions of the measure that she used.

Four studies, Bustin (2007), Stefan et al. (2009), Mohamed (2013) and Epstein et al. (2008), all identified emotion regulation as an important domain of emotional social competence. Although Epstein et al. (2008) did not reference the definitions quoted in the study, the definition of emotional regulation was similar to Denham's (2003) definitions, extracted from Mohammed (2013). As the Epstein et al. (2009) study was a refinement of an existing measurement, reporting on definitions per se was limited.

Most of the studies concluded that emotional social competence was a very difficult construct to define, as there are many different domains that are all interrelated. This finding is similar to findings by Zigler and Styfco, 1997 as cited in Bustin (2007), stating that due to the increased interest in the domains of school readiness, a proliferation in the number of proposed definitions were seen, but that little consensus about what constitutes emotional social competence had been reached.

### **3.18.2 Operational Definitions of emotional social competence**

Table 3.11 provides a summary of the *operational* definitions of emotional and social competence as a domain of school readiness in each of the seven instruments as identified above. A brief summary of the most prevalent findings are discussed after Table 3.11.

Table 3.12

*Operational definitions/ domains and underpinning behaviour*

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**TEST OPERATIONAL DEFINITIONS/ DOMAINS/ UNDERPINNING BEHAVIOUR**

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1. **Domains** of social-emotional competence include Self-understanding and awareness, Self and emotional regulation, Empathy and emotional growth, Social relationships and Coping skills and life skills.  
**Underpinning behaviours:** *Self-regulation:* 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).  
*Self efficacy;* Awareness of own and others emotions; ability to regulate own emotions 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 social needs  
*Empathy:* empathy is akin to understanding people and how they feel (Thompson, 2002).  
*Coping skills and life skills:* are seen as adaptive behaviours to adapt to social and emotional contexts and demands like school admission (Bar-On, 2007).  
*Social relationships:* Nurturing, stable consistent relationships are the key to healthy growth, development and learning (Pianta, 1999, Raver & Zigler, 1997, Shonkoff & Phillips, p.2000).
  
  2. **Domains** of school readiness include Cognitive, Perceptual, Neurological, Speech, **Emotional, Social**, Developmental and Independence.  
**Underpinning behaviours** in Emotional confidence identified as empathy, emotional regulation and self-confidence.  
**Underpinning behaviours** in Social domain identified as interpersonal competencies, social regulation behavior, social graces and play.  
*Emotion-knowledge* involves the child's ability to recognise and label expressions of emotion (Izard, 2001).  
*Emotion understanding* involves the ability to know one's own emotional state, recognise emotions in others and then effectively communicate by using a vocabulary of feelings (Kidwell et al., 2010).  
*Emotion related self-regulation* refers to processes that are used to manage and change one's emotional state and emotion related motivational and physiological states and how emotions are expressed behaviourally (Denham et al., 2012; Eisenberg, Hofer, & Vaughan, as cited in Eisenberg, Valiente & Eggum, 2010).  
*Empathy:* involves an interaction of cognitions and affect in response to another's emotional state (Preston & De Waal, 2002). With an emerging self-awareness. The ability to empathise shows recognition and awareness of another's feeling, a strong indicator of emotional literacy (Goleman, 1996).  
*Interpersonal competencies:* refers to what individuals do and 'social competencies' to how well they do it (Lidz, 2003).  
*Social skills* are involved in responding to the demands of a social situation (classroom setting). Social skills include those that are used in emotional, social and cognitive domains (Raver & Zigler, 1997).  
*Social regulation behavior:* refers to the effectiveness of the child in social situations and relationships with adults and peer that call upon emotion regulatory skills. At the top of the hierarchy is children's social adjustment, contextualised as a global expression and culmination of social functioning over time (Spritz et al., 2010).  
*Social graces:* Manners are the most basic lessons of social interaction and are acquired in early interactions. Learning basic manners or the skills of elementary interaction, such as saying "please" and "thank you", "sorry", and greeting appropriately, teach children the unspoken rules of social harmony. (Goleman, 1996).  
*Play:* Play provides vital clues to the developmental milestones of children, and observing and assessing it gives an indication of a preschooler's readiness to learn and his or her emotional-social competency levels in negotiating the social world (Lindsey & Colwell, 2003).
-

Table 3.12 continues

*Operational definitions/ domains & underpinning behaviour*

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3. **Domains include** Physical health and well-being, **Social competence**, **Emotional maturity**, Language and communication, Cognitive development and general knowledge.  
Social competence include areas such as competence and cooperation in working with others, ability to remember and follow rules, curiosity and eagerness, approaches to learning and problem solving.  
**Underpinning behaviours:** (Social competence): competence and cooperation in working together, ability to remember & follow rules, curiosity & eagerness, approaches to learning & problem solving, (Emotional maturity): pro-social behavior, aggression, inattention and hyperactivity, and anxious behavior.
  4. **Domains include** Social competence and Emotional competence.  
Subdomains for Social competence are identified as Compliance to rules: ability to comply with rules and follow directions (Kotler & McMahon, 2002), Interpersonal skills: ability to properly interact with other children, adults, and Pro-social behaviors: wide range of voluntary actions, directed at other peoples benefit (Krueger, Hicks, & McGrue, 2001).  
Subdomains for Emotional competence are identified as: Emotion understanding: receptive and expressive understanding of emotions (Denham, 2006), Emotional expressiveness: ability to convey emotional messages in a socially expected way and being able to manage emotions (Denham, 2007) and Emotion regulation: evaluating, monitoring and modifying emotional reactions (Thomson, 1994).  
**Underpinning behaviours** include ability to be self-efficient in dealing with emotion eliciting situations in order to ensure adaptation to the social context, being able to manage emotions, ability to identify emotions, ability to name emotions based on non-verbal cues, sending affective messages and to convey emotional messages in a socially accepted manner.
  5. **Domains include Emotional regulation**, School readiness, **Social confidence** and Family involvement.  
Emotional regulation refers to a child's ability to regulate or govern his or her behavior in social situations with peers of adults.  
Social confidence focuses on a child's ability to socially interact and get along with peers.
  6. **Domains include** Physical health and wellbeing, **Social competence**, **Emotional maturity**, Language/ Cognition and Communication/ General Knowledge.  
**Social competence:** evaluate competence and cooperation in working with others, ability to remember and follow rules, curiosity and eagerness, approaches to learning and problem solving.  
**Emotional maturity** addresses pro-social behaviour, aggression, inattention and hyperactivity, and anxious behaviours.
  7. **Domains include Social competence**, Internalisation of problems, Externalisation of problems, General adjustment.  
**Social competence:** Behaviour, attitudes and understanding that support the development of good relationships and enables children and adults to be successful in tasks involving others (Stewart-Brown & Edmunds, 2003).  
**Emotional competence:** Adept in the expression of appropriate positive and negative emotions with positive affect dominating (Kidwell et al., 2010).
-



Four articles divided emotional social competence into two sections namely, Emotional Competence and Social Competence (Hymel et al., 2011; Janus & Offord, 2007; Mohamed, 2013; Stefan et al., 2009). Emotional and social competence had different sub-domains in each of the articles.

Bustin (2007) identified five domains of *emotional social competence* namely, Self-understanding and Awareness, Social Relationships, Empathy and Emotional Growth, Self and Emotion Regulation and Coping Skills and Life Skills. These domains included attributes such as self-efficacy and social adaptability, the ability to form nurturing and stable relationships over time, the ability to understand people and more specifically how they feel and the ability to adapt to social and emotional contexts and demands.

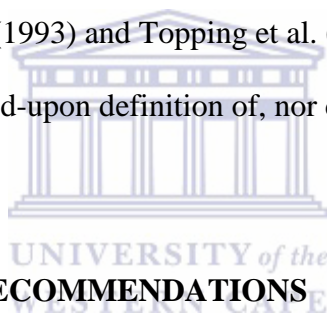
Stefan et al. (2009) subdivided the Emotional Competence domain into Emotional Understanding, Emotion Expression and Emotion Regulation. The Social Competence domain was subdivided into Compliance to Rules, Interpersonal Skills and Pro-social Behaviour. These domains included attributes such as emotional knowledge, emotional understanding, emotionally related self-regulation, social adjustment, ability to follow rules and the ability to act in socially harmonious ways.

Epstein et al. (2008) identified four domains of emotional social competence namely, Emotional Regulation, School Readiness, Social Confidence and Family Involvement. The domains of emotional regulation and social confidence included attributes such as the ability to regulate or govern behavior in social situations with peers or adults and the ability to socially interact and get along with peers. Emotional regulation was a domain that most of the studies identified (Epstein et.al, 2008; Janus & Offord, 2007; Stefan et. al, 2009).

When comparing definitions of both social competence and emotional competence it was noted that some of these definitions have components that fit into both categories. For

example “pro-social behaviour” is seen as part of the definition of social competence in Stefan’s (2009) study whilst both Janus and Offord (2007) and Hymel et al. (2011) included it as a sub-domain under emotional competence.

There seems to be general consensus amongst the authors in the articles reviewed that the domains of emotional and social competence are separate domains, but that they are interrelated and interdependent. Each domain consists of different sub-domains and separating them into discreet elements is challenging (Bustin, 2007; Epstein et al., 2009; Janus & Offord, 2007; Mohamed, 2013). Stefan et al. (2009) stated that the assessment of children’s social competence generally has been an area fraught with difficulties and to date, despite numerous conceptual papers on the topic for example Masten et al. (1995), Pellegrini and Glickman (1990), Schneider (1993) and Topping et al. (2000) and Hymel et al., (2011) underscored that no clear or agreed-upon definition of, nor consensus about the breadth of the construct has been reached.



### **3.19 CONCLUSION AND RECOMMENDATIONS**

One of the key conclusions that can be drawn from this review is that there is a lack of peer reviewed, good quality published research on emotional social competence as a domain of school readiness, particularly by South African researchers. Apart from the small pilot study of Deacon and van Rensburg (2012), there were no other published South African studies found that were relevant to the topic. The two unpublished South African doctoral thesis have yielded several definitions of the construct of emotional social competence, but most of these definitions were borrowed from overseas researchers. It became clear that emotional-social competence is a very broad construct and therefore it is difficult to define. Most of the articles also had different sub-domains for emotional-social competence, which were not always clearly defined. Across the literature, there were consistent similarities in terms of the domains of emotional competence, and there seems to be consensus amongst

most of the research about these similarities. It is evident from the above results that there is-- overlap between the different dimensions and trying to separate them into distinct elements could be problematic at the operational level.

The implication of not having the domains adequately defined with clearly detailed sub-domains has far-reaching implications for school readiness assessments, school readiness intervention programmes and for policy formulation. Further research into emotional-social competence is of critical importance given that it has been identified as a key determinant for school readiness and for subsequent academic success. Thus, any future research must include a rigorous methodological process for defining emotional-social competence.



## SECTION FOUR

### SUMMARY AND RECOMMENDATIONS

The overall aim of this chapter was to identify and report on the attempt to consolidate the literature on emotional-social competence and identifying good quality literature from which meta-syntheses could be made about the definitions of emotional/ social competence in school-readiness and instruments assessing school readiness.

#### 3.20 SUMMARY OF THE MAJOR FINDINGS

##### 3.20.1 Lack of good quality research

Overall, there was very little good quality research available on instruments that measure emotional/ social school readiness and definitions of emotional and social competence.

##### 3.20.2 No clear definition agreed upon for emotional social competence

The systematic reviews emphasised that understandings of emotional social competence varied and that no clear consensus has been reached around the definition. Eisenberg (2000) emphasised that it will not be an easy task to develop a representative definition of emotional and social competence in a multi-cultural South Africa.

##### 3.20.3 Domains (emotional competence and social competence) and their sub-domains/ elements are interrelated and interdependent in nature

There seems to be general consensus amongst the authors in the articles reviewed that *emotional competence and social competence* are separate, but interrelated and inter-dependant constructs. Each domain consists of different sub-domains and separating them into discreet elements will be challenging. Across the literature, there are consistent similarities in terms of the domains of *emotional competence*, and there seems to be consensus amongst most of the research about these similarities. What is evident from the

above results is that there is overlap between the different sub-domains and elements and trying to separate them into distinct elements could be problematic at the operational level.

From the studies reviewed, it was quite apparent that the domain of *social competence* is still relatively undefined and hence the elements that constitute this domain are unclear. This poses quite a challenge for the assessment of this domain from a school readiness perspective.

#### **3.20.4 The need for a contextually appropriate assessment measure**

The need for a local measure with adequate psychometric properties that assess children's emotional social competence was underscored. A screening instrument that is easy to administer in a single form format might easily lend itself to the purpose stated above. A measure that is cost effective and contextually appropriate will assist stakeholders in the early identification of strengths and weaknesses in children's emotional social skills, ensuring a preventative rather than a curative focus. Successful intervention programmes are dependent on adequate screening measures, but screening measures cannot be developed unless the constructs are adequately defined and operationalised. Items should be selected and written based on the dimensions (domains and sub-domains) of the identified emotional social competencies and age relevant developmental milestones of preschool children.

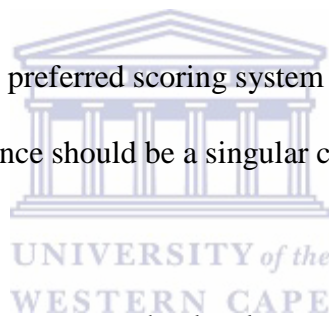
#### **3.21 LIMITATIONS OF THE REVIEW STUDIES**

In both reviews, it was evident that publication bias may be a limitation in that the systematic reviews drew on mainly published studies, which are not necessarily an accurate representation of the larger body of research that has been conducted. Grey literature and reference mining was included in the reviews to alleviate publication bias. Language bias was also present as the inclusion criteria specified that only articles in English were considered for the reviews. In terms of comprehensiveness, these reviews were limited in that it excluded

paid journals and the reviews included only those articles that were found in the databases of the University of the Western Cape, which may have limited the comprehensiveness of these studies.

### **3.22 RECOMMENDATIONS FOR THE SUBSEQUENT PHASES**

- The development of theoretical and operational definitions should include wider stakeholder input
- A strengths-based screening instrument was recommended as the format of the proposed instrument
- A singular instrument for use by a wider and more inclusive user-group is recommended
- Likert scales would be the preferred scoring system for the screening instrument.
- Emotional-social competence should be a singular construct with sub-domains rather than artificially separated



Chapter Four of the study reports on the development of a concept map for the construct emotional-social competence as a domain of school readiness in response to the findings and recommendations of Phase One.

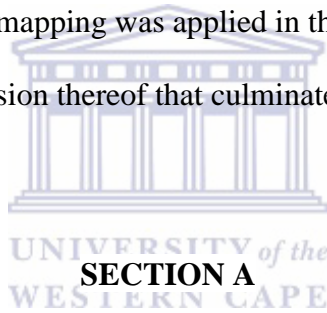
## **CHAPTER FOUR**

### **Phase Two**

## **CONCEPT MAPPING**

### **4.1 INTRODUCTION**

The overall aim of this chapter is to report on the second phase of the study , namely concept mapping. The second phase addressed the second objective of the present study which was to establish a concept map based on emotional/social readiness as a domain of school readiness. The chapter is structured along the steps of concept mapping and the traditional headings (for example data collection and analysis) are presented under the steps where they were incorporated. This chapter consists of two sections. Section A reports on how the methodology of concept mapping was applied in the present study. Section B presents the findings and a discussion thereof that culminates in a presentation of the resultant concept map.



### **SECTION A**

#### **METHODOLOGICAL APPLICATION**

### **4.2 OBJECTIVE**

To develop a concept map of emotional social readiness/ competence.

### **4.3 RESEARCH QUESTION**

What are the perceptions of stakeholders regarding emotional social readiness/ competence?

### **4.4 DESIGN: CONCEPT MAPPING**

As mentioned in chapter one, concept mapping was selected as the design for the second phase. This chapter reports on the operational steps followed in executing the concept mapping.

#### 4.4.1 Steps in concept mapping

Concept mapping is a group approach and well-suited for situations where teams or groups of stakeholders have to work together. Concept mapping generally has five steps, namely, (1) *Preparation*; (2) *Generation/ Brainstorming* (3) *Structuring of statements*; (4) *Analyses*, and finally (5) *Interpretation and Utilization of maps* (Daley, 2004; Novak & Canas, 2006; Trochim & Kane, 2005). These five steps are illustrated in Figure 4.1 below.



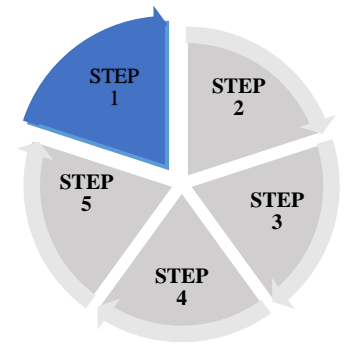
Figure 4.1: Steps in concept mapping

Below is an explanation of each step with an indication of how it has been modified and applied to the present study.



#### 4.4.1.1 *Step One: Preparation of the study*

The first step, *preparation*, entails the conceptualisation of the study, the selection of the participants, and the determination of a time frame/ schedule (Novak & Canas, 2006). For the purposes of the concept mapping, the second objective of the present study was adopted and is reflected below. The key consideration here was to identify key stakeholders in the process of determining school readiness and enrolment into Grade One, as well as the research setting. The fieldwork for this phase was conducted between February and April 2015.



##### 4.4.1.1.1 *Research setting*

The Metro North Education District was chosen as the research setting. The Metro North district includes a mixture of socio-economic statuses that could provide a cross-section of contextual considerations at play. For example, Durbanville (predominantly higher SES); Brackenfell, Parow, Bellville (High and Middle SES); Goodwood, Belhar, Kraaifontein (Middle to Low SES); Kasselsvlei, Wallacedene, Mfuleni, Elsiesriver and Wesbank (Low SES). In addition, the district has a balance of governmental and non-governmental schools including private and community-based options for enrolment into Grade R as the reception year.

##### 4.4.1.1.2 *Participants and sample*

Participants were recruited from three stakeholder groups: a) Caregiver/ parents/ guardians of preschool-aged children, b) Professionals registered with the HPCSA who conduct assessments and interventions aimed at school readiness, and c) Teachers working in the reception year/ Grade R and Grade 1. Purposive sampling was used to recruit participants that satisfy the above inclusion criteria. Given (2008) asserted that this type of sampling was appropriate when there is no investment in ensuring that every eligible candidate has an equal chance of being included in the sample or study, but that strategic decisions about inclusion

in the sample or study is relative to the objectives of the study. He further argued that purposive sampling is particularly useful in the context of research that requires the identification of major stakeholders for inclusion in the study. The intended sample was a minimum of eight participants per subgroup. Below is a brief exposition of the process of recruitment and the composition of the final sample per stakeholder group.

*a) Health professionals:* Professionals working in the field of early childhood development were targeted (for example psychologists, social workers, occupational therapists, and paediatricians). Participants were selected on the basis that they worked in the Metro North Education district and that their primary focus included early intervention, assessment or treatment in the school readiness domain. All of the participants were regarded as experts in the field of child development based on their qualification and years of experience.

Nine health professionals were recruited and represented the following professions: psychology, social work, occupational therapy and paediatrics. The majority of health professionals' worked across all three ECD sectors, for example government (schools and special schools), private (private practise and programmes that enhance social emotional skills in children), and Community (community-based centres). Table 4.1 below reflects the profile of the professionals that participated in the study.

Table 4.1  
*Demographic profile of health professionals (n=9)*

<b>HEALTH PROFESSIONALS (n=9)</b>				
<b>Profession</b>	<b>Qualification</b>	<b>n</b>	<b>Years of service</b>	<b>Sector of work</b>
Occupational therapist	B.Sc (OT)	1	15 years	Private practise, schools, clinics
Paediatrician	MMed	1	21 years	Private practise, special school locum and community (locum in semi-urban areas – west coast)
Psychologists:				
• Educational	M.Ed Psych	2	12-21 years	Private practise and schools
• Counselling	MA. Psych	1	15 years	
Social workers	B.SW.	4	12-21 years	Private practise and community based projects, NPOs.

From the table above, it becomes evident that the participants were very experienced in early childhood issues as demonstrated by their years of experience that ranged from 12 – 21 years in their respective service areas or industries. Health professionals saw children from a vast geographical area comprising of low, middle and high SES areas. These areas included Kraaifontein, Scotsdene, Goodwood, Parow, Elsiesriver, Belhar, Mitchell’s Plain (low SES), Brackenfell, Bellville, Kuilsriver (middle SES), and Durbanville (high SES). Thus, they were aware of contextual challenges.

b) *Educators*. Educators were recruited from the Metro North District and represented the two sectors of pre-schools, for example governmental and non-governmental pre-schools including private and community-based pre-schools. The targeted educators included those working in the reception year (Gr.R), foundation phase (Gr.1), and educational facilitators/coaches of programmes that enhance social emotional competencies in pre-school children. The target group was expanded to include student teachers busy with their internships at ECD centres. Twenty-three educators agreed to participate in the study. Table 4.2 reflects the profile of the educators that participated in the study.

Table 4.2  
*Demographic profile of educators (n=23)*

EDUCATORS (n=23)				
Profession	Qualification	n	Years of service	Sector of work
ECD (Early childhood educators)	N4-7	10	2-23 years	Non-governmental: Community based centres
ECD Interns	N5	3	6 months	Non-governmental: Community based centres Government based centres
ECD Educare teachers	N4-N7	4	4-12 years	Government based centres
• Interns	N5	3	6 months	
• Coaches (child care workers)	In service training	2	1-10 years	Government and non-governmental, private centres
ECD Educare teacher	Hons/ N5	1	18 years	Non-governmental: Private school

The teachers, coaches and facilitators were affiliated to schools across low, middle and high socio-economic statuses. Schools from Kraaifontein, Scottsdene, Goodwood, Parow, Elsiesriver, Goodwood, and Kensington represented low SES status. Schools from Brackenfell, Bellville and Kuilsriver represented middle SES status. Schools from Durbanville and Panorama represented high SES status. Educators' experience varied from two to twenty-three years post qualification. Six interns based in Governmental and community settings participated in the study. All the participants were female.

c) *Caregivers and parents.* Although this subgroup theoretically included parents and caregivers of children in Gr. R and Gr.1, only mothers responded to the invitation to participate. A primary motivation provided by the mothers was that they were the caregivers who assumed primary responsibility for the child's care during this developmental phase. Some participants indicated that they were single parents. The gendered nature of the response was noted and was thought to be reflective of who engaged with the education structure or school on behalf of the child for this sample. Thus, the recruitment of male

participants was not pursued further, but identified as a subgroup for further exploration.

Table 4.3 reflects the profile of the caregivers who participated in the study.

*Table 4.3  
Demographic profile of caregivers (n=9)*

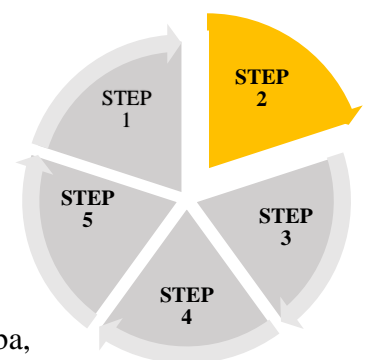
CAREGIVERS (n=9)				
Sector in which child attend pre-school	Grade R	Grade 1	n	SES area
Non-governmental: Community	3	2	5	Low SES
Governmental	3		3	Middle and high SES
Non-governmental: Private	1		1	High SES

Nine participants were recruited in this subgroup. This was a mixed group of mothers that included single (n=5) and married (n=4) women. Participants included first time mothers (n=2), mothers who already had an older child in school (n=2), and mothers with their first child in Gr. R and a second child that is younger (n=5). Five mothers were single parents (n=5), two mothers had part time work (n=2), the others were unemployed. Mothers' ages ranged between 23 and 46. Four of the mothers stayed in Durbanville (high SES), Brackenfell and Bellville (middle and high SES), whilst five of the mothers stayed in Wesbank and Eersteriver (low SES) area.

In total, the final sample size of the study participants was forty-one including nine professionals, twenty-three teachers and nine parents.

#### **4.4.1.2 Step Two: Generate ideas**

The second step entailed the generation of statements/ brainstorming/" mind dumping or the gathering of ideas though some form of brainstorming either "live" or via the web (Engelbrecht, Mintzes, Brown & Kelso, 2005). For the purposes of the present study, qualitative methods of data collection were adopted to achieve this goal. The focus of qualitative methodologies tends to be on understanding the meaning imbedded in participant responses through an open-ended unstructured and subjective approach (Lincoln, Lynhan & Guba,



2011). Novak (1998) indicated that concept maps could provide one strategy to deal with the methodological challenges in qualitative research by framing the research and reducing qualitative data to highlight themes and interconnections in findings. Daley (2004) expanded this notion by stating that concept maps allowed the researcher to see and connect participants' meanings across concepts or bodies of knowledge in a specific context. The study incorporated two qualitative methods of data collection namely a) focus groups and b) individual interviews based on Babbie's (2013) conclusion that focus groups and interviews were the most used methods of data collection with qualitative research. Focus groups were the primary method of data collection and interviews were used where participants were unable to fit into scheduled group sessions. Five focus groups and two individual semi-structured interviews were conducted in total.

#### *4.4.1.2.1 Focus groups*

A focus group is a group interview with usually between six and twelve people who meet in an informal setting to talk about a particular topic that has been set by the researcher (Longhurst, 2003). The facilitator keeps the group on topic, but is otherwise non-directive, allowing the group members to explore the subject from as many angles as they please (Smithson, 2000). Smithson further explained that focus groups are useful because they provide an opportunity for different forms of interactions where direct and subtle challenges result in a depth of dialogue and the emergence of a collective voice from participants. An advantage of focus groups is that they are a quick way of gathering in-depth data that are rich and that convey a variety of opinions, whereas limitations include the tendency for certain types of socially acceptable opinions to be voiced (Myers, 1998). Certain participants might dominate the research process and focus groups cannot produce useful numerical results (Gill, Steward, Treasure & Chadwick, 2008).

The focus group schedule generally consists of a loose schedule of topics to be discussed. Questions move from general to more specific questions and are usually relative to the importance of issues in the research agenda (Steward & Shamdasani, 2014). Gill et.al. (2008) recommended that a loose schedule also allowed for the discovery or elaboration of information that is important to the participants that may not have been thought of as pertinent by the researcher. Such a schedule will also create the space to diverge from a specific answer in order to explore an idea or response in more detail (Acocella, 2012). Thus, a semi-structured format was employed facilitated by the use of several open ended, neutral and easy to understand, key questions that assisted to define the areas for exploration.

Questions were asked to yield as much information as possible about the study phenomenon to address the aims and objectives of the research (Acocella, 2012). Questions should be open-ended and neutral (Gill et.al. 2008). Although the interviewer prepares a list of pre-determined questions, the focus group discussion unfolds in a conversational manner (Brinkmann, 2014; Longhurst, 2003).

The following questions were carefully chosen as focus prompts with the aim to introduce important aspects that needed to be discussed to address the aim and objectives of the study. It aimed to elicit as much information about the study phenomenon as possible without being too prescriptive. These questions were carefully selected out of a pool of questions compiled by the researcher and her supervisor after familiarising themselves with the field of study. The researcher made sure that the prompt questions adhered to the basic requirements (clarity, neutrality etcetera) stipulated in the research that was already mentioned earlier.

The questions guided the process from the general field (school readiness) to more specific areas such as participant's understandings of emotional and social readiness/competence. The focus groups and interviews were guided by the following questions:

- How do you understand/ define school readiness?
- Are there different components or domains that are important in school readiness?
- How do you define emotional readiness?
- How do you define social readiness?
- Are the two related?
- What are some of the factors that influence emotional social readiness?
- Who are the role players in developing children's emotional social readiness/ competence?

The researcher decided to have separate focus groups with professionals, educators and caregivers in order to preserve the stakeholders groups and to be able to represent their collective views and perceptions based on experiences. The length of focus groups was between 70 and 80 minutes long. Focus groups were audio recorded and transcribed. Five group discussions were facilitated to gather relevant information from the identified stakeholder groups. The venues for the focus groups were determined by considerations such as accessibility and suitability (for example to allow for privacy and interaction free from distractions).

The order in which the focus groups were conducted was not pre-determined and the scheduling and timing was primarily dependent on the availability of the participants. The focus groups were conducted at a place and time convenient for the respective participant groups. Focus group attendance varied from four to thirteen participants per group.

Two focus groups, (FG1) and (FG4), targeted professionals working in the field of school readiness; their specific areas of interest included assessment for school readiness and/or treatment/ support for children identified with difficulties on emotional / social levels. As mentioned before, all the participants were regarded as experts in the field of child



development. Participants were from occupational therapy, psychology and social work. Both focus groups were held in clinical settings.

The next category of stakeholders approached and seen in two focus groups, (FG2 and FG3) were caregivers. This group included stay-at-home mothers, as well as mothers who were employed. Focus group three was facilitated at a private home space and focus group two was facilitated in a secure office space. Both venues allowed for uninterrupted conversation.

The last focus group, (FG5) was facilitated with Grade R teachers from a predominantly low SES environment. This focus group had participants from five different pre-schools. The focus group for teachers were held in a pre-school setting that was familiar to all participants. The focus group was facilitated by the researcher and allowed participants to represent their collective views based on their unique experiences in these pre-school settings.

#### *4.4.1.2.2 Semi-structured individual interviews*

A semi-structured interview is a verbal interchange where one person, the interviewer, attempts to elicit information from another person by asking questions (Brinkmann, 2014). The semi-structured interviews used the same guiding questions as the focus groups. As mentioned before, interviews were only conducted with participants who were unable to slot into the scheduled focus groups. Two individual interviews were conducted, one with a health professional (paediatrician) working in all the identified sectors, and the other with a principal/ Gr. 1 teacher from private pre-school in a high SES environment. An added benefit of these interviews was that it ensured that a full complement of the relevant role-players was accessed. Individual interviews were between 30 and 40 minutes long, audio recorded and transcribed. The researcher conducted both interviews and allowed the interviewees to express their views based on their respective experiences in their field of work.

#### *4.4.1.2.3 Data collection procedure*

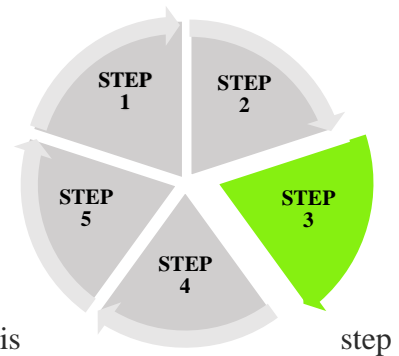
All participants were welcomed at the beginning of the interview or focus group sessions. They were informed about the scope of the study and given assurance about ethical principles such as confidentiality and anonymity. All participants signed consent forms to participate in the study as outlined in Chapter One. Each group/ interview started with the same focus question and thereafter, similar questions were used to facilitate sessions. Flow of discussion was only interrupted if the focus of the discussion became too broad and needed to be guided towards the focus area. Participants were encouraged to speak in the language that they felt most comfortable with. Participants opted to use English as the primary language. A few participants chose to speak Afrikaans. If they spoke Afrikaans, their responses were translated to other participants on request.

The facilitators' primary aim was to engage the focus group participants/ interviewees in the process. I adhered to the basic principles of facilitation proposed by Gill et.al. (2008) and Cresswell (2004) by engaging in a respectful and positive way; guiding the process rather than joining it; being aware of my own personal biases and characteristics that might impact the process, and remaining aware that every participant needed an equal chance to engage. The facilitators' training as a clinical psychologist/ therapist and in-depth fund of knowledge in the field of early development were helpful in the facilitation of the groups/ interviews. It was also valuable in the establishment of rapport. I was able to use my repertoire of clinical interviewing skills to listen attentively, to adopt an open and neutral stance towards the participants, and to clarify, reflect on, and summarise content where necessary. The focus groups and individual interviews were audio recorded and transcribed by the researcher.

#### 4.4.1.3 Step Three: Structure of ideas into themes

The ideas that were generated in the previous step were sorted *and ranked* on the dimensions of importance for the study in the third step in accordance with Novak and Canas' (2006) recommendation.

In the *structuring of statements*, themes that were identified were compared, analysed and linked to note any similarities or differences across them (Trochim & Kane, 2005). Thus, this



represented the **data analysis process**. Data collection and analysis happened concurrently until saturation was reached, as recommended by Cresswell (2007). In this step, three key issues are reported on namely, a) method of analysis employed, b) reflexivity, and c) issues of trustworthiness, credibility, and dependability of the data.

#### 4.4.2 Method of analyses employed

Thematic Analysis was used as the method of analyses. Braun and Clarke (2006) defined thematic analysis as “a method for identifying, analysing and reporting patterns within data” (p.79). Rice and Ezzy (1999) explained that thematic analyses are done through the identification of themes by the careful reading and re-reading of data. Thematic analysis is relatively easy to use, allows for flexibility in interpretation and produce rich, detailed and complex descriptions of data. However, it has limited interpretable power beyond mere description if it is not used within an existing theoretical framework (Braun & Clarke, 2006). Thematic analysis is usually done in a systematic way with pre-determined steps. These steps are not unique to thematic analyses but similar to other qualitative research modalities (Braun & Clarke, 2006). For the purpose of this study, thematic analysis was completed through a step-by-step process outlined by Cresswell (2007).

First, the data was prepared and organised for analyses. All focus groups and individual interviews were transcribed by the facilitator. This created the opportunity to engage with the data and to get a general sense of all of the information conveyed by the participants.

Second, the major categories/ themes from the data were identified and noted by the researcher. The researcher read through each transcript and asked what the information conveyed. This included general ideas and patterns of experiences conveyed from all of the stakeholder groups/ interviews. While reading though each of the transcripts, major categories/ themes were identified and notes were made in the margins of the transcripts to capture general thoughts and meanings derived. During this process, the data was coded according to relationships between any of the themes.

The third process, referred to as elaboration, entailed focusing on the finer nuances of the themes (Evers, 2015). This was done by dividing the major themes into sub-themes. In the fourth step, similarities and differences across stakeholder groups were identified and discussed. The major aim was to establish if perceptions across stakeholder groups were similar or different. In the fifth step, the findings were prepared and presented per theme and sub-theme. The themes were illustrated with verbatim quotations from stakeholders and presented in tabular form. The sixth and last step included the researcher's reflection on the process. This included reflections of a personal nature, which are imbedded in the culture, history and experiences of the researcher that are described below under the heading of reflexivity

#### **4.4.3 Reflexivity**

Reflexivity is the act of reflecting on the role that the researcher plays through her own personal, political and intellectual autobiographies in creating, interpreting and theorising data (McKay, Ryan & Sumsion, 2003). Identifying preconceived ideas, thoughts and opinions, which each individual possesses, is important for a researcher, especially when

conducting a study that could be of specific bias for that individual (Morrow, 2005).

Throughout the research process, I reflected on myself as the researcher, clinical psychologist and a mother and considered the potential impact I had on the research process. In particular during data collection and the way that I conducted the groups. I reflected on content and process by doing written reflections after each focus group, writing down first impressions, most important content that I remembered and general notes about process. I also incorporated my personal reflections, emotions experienced and lessons that I felt I learned from each group. I consulted with my supervisor before and after each group and discussed major impressions about the group and myself as the convener of the group, after each group.

I used my micro interviewing skills to establish rapport with the participants.. This assisted to explore concepts that the participants shared on a more nuanced level, via reflective statements. I was aware of how the interactions with the different groups differed and reflected on the possible bearing this could have had on the nature and outcome of the groups. For example, as I gained more knowledge from the first group, I adapted my questioning and reflections during further groups to gain a deeper understanding of the perceptions those role-players had of factors that influenced emotional social competence. Reflections helped participants to open up, disclose their views more freely, and openly discuss their experiences on a more personal level. This resulted in a richness of the data collected during the last focus groups, although the last focus groups generally conveyed similar data to the initial groups. As already mentioned, the first focus groups were with professionals that work with young children. They had around 15 years' experience in the field and enabled me to gather a rich amount of data and allowed me to explore identified themes more specifically later on.

As a teacher, clinical psychologist and therapist, I have a keen interest in assessment practises, developmental psychology, emotional intelligence, emotional and behavioral challenges in children and therapeutic interventions. I had to guard against the impact that these professional identities might have on the group process. I needed to be cautious, not to be too didactic, too analytic or too therapeutic. I tried to stay aware of the possible impact that this might have on the process and participants. For example, in the first interview I had to guard against reflecting on my own experiences as a clinical psychologist in the field when I heard that participants had similar or opposing experiences with children that they assess or see therapeutically. I had to set my own conceptual understanding aside continually in order to elicit the participants' experiences. I readily acknowledge that even my interest and experiences in this field is a function of prior experiences. I had to acknowledge that the way in which I communicated non-verbally and through my ability to follow the interviewees, was at the very least familiar territory. I was able to identify with the work that they did; assessment and treatment of young children who have developmental delays or struggles to cope emotionally or socially. In this way, I was constructed as a “kindred spirit” that validated the experiences of participants through conducting the study. Thus, my perceptions and the participants' perceptions of each other and our respective locations on school readiness and emotional/ social competence in children created an interactive, co-constructive process during the course of the research.

I also had to guard against over identifying with the groups of teachers (being aware of my own experiences as lecturer and mother). I felt a huge amount of empathy and could relate to the struggles that they experience within the system, the challenges that they have with the learners within the home structure and the struggles that they have to fulfil the different roles of being educator and parent.

An important aspect I had to remain reflective of was my own experiences as a young child. Growing up in another era, being aware of the impact that this have on my stance in today's society. Even more recently, to reflect on my experiences as a mother and a parent, who had a child that struggled to adjust to the demands of formal schooling. I had to be aware, and guard against identifying too closely with those mothers that are struggling to cope in very adverse situations.

Lastly, I tried to remain aware of my almost automatic will to provide support and comfort to participants, especially when I heard about their personal challenges as mothers, teachers and professionals. I tried to remind myself that I am in the role of researcher and that my main aim is to elicit responses and gather data. This stance assisted me to do research that is meaningful and that would eventually contribute to support the notion to better our children's futures.

*To summarise*, this topic is a well-established interest of mine. As such, my own preconceptions, judgements, views and biases were taken into account when collecting, analysing and interpreting the data. Self-awareness and reflexivity of all the aspects of my subject position were essential to maintain the rigour and integrity of the data and research process. To facilitate continuous self-awareness and reflexivity, I wrote reflections after each of the groups. I engaged in continuous supervision, before and after each group to adopt a reflective stance towards both content and process in the gathering of data and analyses thereof. This contributed to the adequacy of my preparation for the groups and interviews.

#### **4.4.4 Trustworthiness of the data**

Golafshani (2003) recommended that trustworthiness of the data should be established through three core features namely credibility, transferability, and dependability. Similarly, Cutcliffe and McKenna (2001) recommended that the purpose of establishing trustworthiness

was to increase the rigour of the methodology and to enhance the credibility of the study by ensuring that the findings, interpretations and conclusions were supported by the data.

#### ***4.4.4.1 Credibility***

Credibility in qualitative research involves establishing that the results of the research are believable (Golafshani, 2003). Credibility was pursued by prolonged engagement in semi-structured interviewing, the adoption of well-established research methods and developing early familiarity with the participants. Interviewing and focus groups are two methods that are utilised for data collection in social science research. The researcher was well-versed with these methods. Debriefing, summation and paraphrasing were done throughout the interviews to test the researcher's impressions of the core elements of the discussion and improve the trustworthiness of the data as recommended by Cresswell (2007). In addition, the researcher used clinical techniques to reflect on content and process. In doing so, participants had an opportunity to verify the correctness of impressions relative to their contributions as suggested by Krueger and Casey (2000). Participants responded by clarifying and elaborating on these summations and questions offered by the researcher.

#### ***4.4.4.2 Transferability***

Transferability approximates generalizability in quantitative research (Aguinaldo, 2004). Transferability is achieved by ensuring that one can begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people by providing a thick and detailed description of phenomenon under study. To this end, a clear description of the research setting and participants was provided in this study to allow the reader to assess the extent to which the results are transferrable.

#### ***4.4.4.3 Dependability***

Dependability relates to the reliability of the study (Cohen & Crabtree, 2008). A description of all research practices followed was provided. To promote trustworthiness of



data I transcribed all interviews and focus groups personally. Furthermore, two researchers, the principle researcher and a research assistant were involved in the analysis. The analysis was done independently by the primary researcher and her research assistant. Disagreements between researchers were discussed until a consensus was reached consistent with recommendations by Cresswell (2004). The researcher and research supervisor further reviewed the themes and clusters identified, and resolved differences in the labelling through discussion and reflection until consensus was reached. To summarise, double rating, consensual validation, reflexivity and supervisory input as external auditing were used to enhance the dependability of the data analysis and interpretation processes.

#### ***4.4.4.4 Confirmability***

Shenton (2004) referred to confirmability as the researcher's concern with objectivity. That is, the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning (Lincoln & Guba, 1985; 1989). Guba (1981) and Krefting (1991) advised that the researcher should provide documentation for every claim or interpretation from at least two sources to ensure that the data support the researcher's analysis and interpretation of the findings. Shenton (2004) mentions that triangulation and the extent to which the researcher acknowledged his or her predispositions, would help to reduce data collection and analysis to discuss and compare instrumental processes, reflexive comments and findings, as well as the interpretation of the findings. Moreover, the analysis were done in a systematic way with pre-determined steps.

#### ***4.4.4.5 Authenticity***

Elo and colleagues (2014) referred to authenticity as the extent to which researchers, showed a range of realities, not only those aspects that supported their ideas. To support authenticity in this research, peer review was used. For example, the focus groups and

individual interviews were critically analysed and discussed by the researcher and her supervisor to allow variation in interpretation and understandings.



## SECTION B

### RESULTS

#### 4.4.1.4 Step Four: Interpretation of maps

The fourth step was focused on the interpretation of results to make sure that the objectives of the study have been reached (Daley, 2004; Trochim & Kane, 2005). The findings or themes were tabularised and are presented with illustrative quotes from each stakeholder group. Four main thematic categories with related themes and subsidiary themes were identified in analyses of the data. Table 4.4 reflects the categories and related themes.

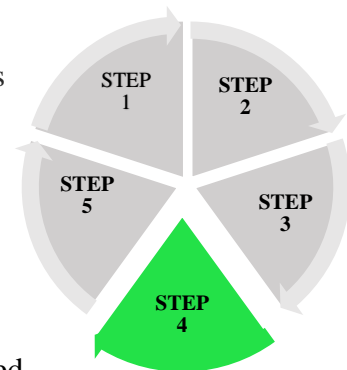


Table 4.4  
*Categories and themes identified in data analysis*

Category	Themes
1. Perspectives on child development	<i>Characteristics of child development</i>
2. Factors that impact child development, school readiness and emotional social competence	<i>Societal factors</i> <i>Educational factors</i> <i>Familial factors</i>
3. Perspectives on school readiness	<i>Understandings of school readiness</i> <i>Characteristics of school readiness</i> <i>Measurement and school readiness</i> <i>Interventions and school readiness</i>
4. Perspectives on emotional social readiness	<i>Understandings of emotional readiness</i> <i>Understandings of social readiness</i>

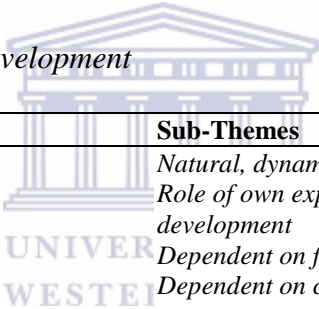
Themes and sub-themes were identified within each of these four categories. Illustrative examples were extracted from the transcripts per theme and sub-themes across stakeholder's groups to illustrate similarities and differences of perception. The results of each of the four thematic categories will be illustrated and discussed as follows: The first table in each category will present a synopsis of the theme(s) and subthemes that were identified. Subsequent tables will provide illustrative quotations from the different stakeholders per themes and sub-themes. A short summary of the main findings per category

will conclude the discussion of the category. After the four categories have been discussed, the chapter will conclude with a graphic illustration of the resultant concept map and a short summary of the main findings distilled in the concept map.

### **Thematic Category One: Perspectives on Development**

The first thematic category spoke to role-players’ perspectives on child development. The category included a singular theme in which stakeholders addressed the nature of child development. The participants understood child development in a number of ways that were merged into *four sub-themes*. Table 4.5 below indicates the sub-themes in the first thematic category that illustrate the stakeholders’ perspectives on child development.

Table 4.5  
*Category One: Perspectives on development*



<b>Theme</b>	<b>Sub-Themes</b>
1.Characteristics of development	<i>Natural, dynamic and holistic</i> <i>Role of own experiences in perceptions of child development</i> <i>Dependent on family context</i> <i>Dependent on community context</i>

### **Theme One: Characteristics of development**

#### **Subtheme One: Child development is natural, dynamic and holistic**

Role-players had a grasp on the importance of knowledge about children and the pace at which children develop. They saw development as a natural, but dynamic process that happens at different paces within specific developmental phases. They described child development as a process that included body, mind, personality and temperament. Almost everyone emphasised that children are unique and that development needs to be seen in this light. Table 4.6 provide illustrative quotations from the different stakeholders.

Table 4.6  
*The natural, dynamic and holistic nature of development*

Parents	Teachers	Professionals
Children develop at different paces, some a bit sooner, some a bit later than others (FG2). Development is a natural process. Children's body and minds develop, as they grow older (FG3).	I honestly believe that children have different "spurts" of development. Your development is not my development (II2).  The child knows the way in which they behave, therefore their bodies are following the way that their mind is going and working in sync (II2).	Development is a normal process. It is important to know what is normally expected of children, the developmental milestones are important to understand how a child develops (FG1).  Looking at the child holistically is very important. It is also important to know each child's unique personality, for example temperament: is the child intro- or extroverted how does this impact on development and behaviour (FG1).

### Subtheme Two: The role of own experiences in child development

Role players' perceptions of child development were related to their own knowledge and experiences with and about children. Table 4.7 provide illustrative quotations from the different stakeholders.



Table: 4.7  
*The role of own experiences in perceptions of child development*

Parents	Teachers	Professionals
You also have to look at your own subjective perceptions, how your experiences as a mother inform your understanding of development, school readiness and emotional and social competence (FG2).  It is easier to deal with second and third children in pre-primary because you have been through the process before as a parent (FG3).	If we standardise our perceptions of development and have a standardised universal system, we lose track of uniqueness and diversity within societies. Children are already losing their uniqueness because of their life experiences not being rich (II2).	Sometimes teacher and parent's observations differ because of their different point of reference, understanding, knowledge (or a lack thereof) and experiences in child development (FG1).  I think what theory teaches us that development is not always on par. What I read about theory and what I see in practise is two different things. Children are far more advanced than what developmental theory suggests especially in terms of social emotional skills (FG4).

Caregivers understood development mainly as a process governed by their own understandings and experiences. Teachers and professionals had a more academic understanding of development. They linked child development to developmental process but

also acknowledge the role that the environment play in children’s development. They felt that the child’s development is governed by various factors such as the impact of the child’s early endowment on development. They also identified how broader contextual challenges affects child development. Role-players perceptions of child development differed because their own experiences and fund of knowledge about the construct influence these understandings.

**Subtheme Three: Dependent on family context**

Role players emphasised that child development could not be separated from the environment in which it happens. Caregivers, siblings, family and friends were mentioned as important role-players in the child’s developmental trajectory. Development is thus shaped by the child’s experiences in the family and broader context in which they function. Table 4.8 provides illustrative quotations from the different stakeholders.



Table 4.8  
*Dependent on family context*

Parents	Teachers	Professionals
There are a lot of factors that could influence our children development, this includes things like parents or family members fighting, divorce, bullying (FG3).	We have a staggering number of children in the family where the older ones teach the younger ones, Children learn faster from peers than from the adult that are in their environment (II2).	Parents need to play a vital role in their child’s life. Children learn through modelling, parental attitudes towards one another are the basis of the child’s attitude towards peers and teachers (FG1).

Across the stakeholder groups the importance of parents, siblings and friends as partners in children’s learning and the development of relevant skills received emphasis. All agreed that families are what matters. Families were seen as the primary agents of the child in his/her preparation for school.

**Subtheme Four: Dependent on community context**

Role-players felt that the broader contextual challenges in the communities such as violence, abuse and poverty have significant impact on children’s development. Table 4.9 provides illustrative quotations from the different stakeholders.

Table 4.9  
*Dependent on community context*

Parents	Teachers	Professionals
Children are exposed too early to group pressures and risk, they are bullied, and there is violence around (FG2).	The children that are excelling are the children with good life experiences, rich environments, notwithstanding the area that they living in, this aids in your love for learning and preparation for life (II2).	How does different context like low SES shape our view and understanding of development? (FG1).
Children also learn from their fathers. The father works all week, the father gets paid by the end of the week and drink the whole weekend (FG3).	Children are resilient; they grow up and develop notwithstanding adverse situations, such as violence and abuse. Children are able to catch up (II2).	We need to ask questions in terms of culture and diversity, for instance how does culture impact on our understanding of children's development? (FG1).

Some of the barriers mentioned by all role-players included low SES, impact of changing demands of work on child rearing practises, and the influence of violence and abuse on optimal development. These factors will receive further attention in thematic category Two. Role-players stressed the importance of acknowledging diversity, culture and adversity and the affect thereof in children's development.



**Summary of main findings in Category One**

Role players agreed that child development is a natural but dynamic process. They stressed the importance of a holistic view on child development inclusive of the child's physical, emotional, social dimensions. This is similar to views on normative development expressed by Carr (2015) and Raikes (2015). Role-players emphasised that children's developmental needs would only be fully understood if the context in which they develop is explored. They stressed the important role that caregivers, siblings, family members and even community play in the developmental trajectory of the child. This is in agreement with findings by Kaplan and Sadock, (2016), Tomlinson (2013) and Young (2015) that emphasised the important role of family and caregivers in the early optimal development of the child. Role-players have different understandings of child development, because their own experiences and knowledge influence these understandings.

**Thematic Category Two: Factors that impact child development (CD), school readiness (SR) and emotional-social competence (ESC)**

The second thematic category spoke to factors that influence child development, school readiness and emotional-social competence. The category included three themes identified by stakeholders namely 1) Societal-, 2) Educational- and 3) Familial factors. Stakeholders agreed that a variety of factors influence the way in which children develop (CD), their school readiness, (SR) and ultimately their emotional social competence (ESC). They identified various facilitators and barriers that impacts CD, SR and ESC. Table 4.10 below presents the themes and sub-themes in the second thematic category.

Table 4.10  
*Thematic Category 2: Factors influencing CD, SR and ESC*

<b>Theme</b>	<b>Subthemes</b>
1. Societal	<p><b><i>Community factors</i></b>                      Unemployment and caregiver literacy                      Socio economic status (SES)                      Culture as moderator</p> <p><b><i>Environmental factors</i></b>                      Violence, trauma and substance abuse</p>
2. Educational	<p>Early stimulation                      Teachers as facilitators                      Lack of training &amp; limited access to resources                      Collaboration and cooperation between stakeholders</p>
3. Family/ Caregivers	<p>Parents as role models                      Variations in child rearing practises:                      Responsive parenting                      Uninvolved parenting                      Over protective parenting</p>

**Category Two: Factors influencing CD, SR and ESC**

**Theme One: Societal factors**

The first theme that roleplayers identified were broader societal factors that influences CD, SR and ESC. This theme included two distinct contextual influences, namely community and environmental factors. Tables 4.11 -4.14 provides illustrative quotations across the



stakeholder groups for each of the identified sub-themes. A short synopsis of roleplayers' perceptions follows the respective quotes.

**Subtheme One: Community factors**

Community factors included factors such as unemployment, caregiver literacy, SES and cultural diversity. Unemployment and caregiver literacy were mentioned across stakeholder groups as important barriers that affect CD, SR and ESC. Table 4.11 provides illustrative quotations of stakeholder perceptions of community factors across stakeholder groups.

Table 4.11  
*Unemployment and caregiver literacy*

Parents	Teachers	Professionals
I know a mother that kept her child at home; she tried to survive, did not have a job or money (FG3).	Maybe parents are not educated to help their children.. maybe they are not educated enough in terms of what is required (FG5).	Some parents do not want to send their children to school earlier than 5-years old because they cannot afford it financially. The first formal contact with education is Gr. R or even Gr. 1. (FG5).
My child was never in crèche, he never got the chance to learn what he was supposed to learn in crèche. I did not have enough money to send him to crèche (FG3).	Generally, parents are not well read in terms of raising their children (II2).	The social context is related to the type of family structure that the child comes from. It has a huge impact on how parents, children perceive themselves, and how they understand life and how they would gravitate towards others and behave in similar ways (II1).
Children can also teach their parents new skills, to read or a third language (FG2).	Parents seem more driven to be involved and to educate themselves in terms of development and the contribution that they can make in their child's life (II2).	
Some parents might also not be educated enough in terms of what is required to help their children (FG3).		

Caregivers mentioned that chronic financial struggle impact on parent's ability to provide a nurturing and secure environment for children's optimal development, school readiness and emotional social competence. They mentioned community factors such as unemployment and poverty and environmental factors such as violence, trauma and abuse as chronic barriers that hinders caregivers' meaningful interaction with their children. These perceptions are similar to findings in many research studies that reports on the significant impact environmental- and community factors have on child development, school readiness

and emotional social readiness (Ebrahim & Seleti, 2013; Slemming & Saloojee, 2013; Ward & Makuhsa, 2015; Ward & Wessels, 2013). Similar to Young (2015), caregivers agreed that issues like financial survival, the provision of food for their families and their children’s safety remain a primary focus. Across stakeholder groups, consistent with research findings, caregivers’ literacy and education were mentioned as important facilitators of child development, school readiness and emotional competence (Albino & Berry, 2013; Case, Fertig, & Paxson, 2005; Hall & De Lannoy, 2015).

Socio Economic Status (SES) was emphasised across stakeholder groups as an important contextual influence that affect CD, SR and ESC. When mothers spoke about children’s development and social/ emotional readiness, it brought up social and emotional challenges that they experienced in their own lives as a direct effect of socio-economic difficulties. These difficulties included, but were not limited to, financial struggles, partner violence, sexual abuse as well as substance use and abuse. The struggles affected caregivers’ ability to provide their child with the basic *emotional social* skills needed for healthy development and entry into formal education. Table 4.12 provides illustrative quotations of stakeholder perceptions.

Table 4.12  
*Socio Economic Status (SES)*

Parents	Teachers	Professionals
You don’t often see a child of this area going to University. Not a lot of our children have the opportunity to finish Gr. 12, they drop out of school, start to drink, as small as 6 years old, they use drugs, engage in sex (FG3).	Parents don’t stimulate their children; it is just the way it is, because of the environment that they grew up in and their children are now growing up in (FG5).	In higher SES environments, most parents are too busy. Parents do everything for their children, children are never taught to be responsible, work ethics are lacking (II1).
My understanding of development and emotional social learning is closely linked to my own experiences. I grew up with my mom taking care of my basic needs at home; therefore, I want to give this experience to my children (FG2).	Children compare life at home and what they get from home in the pre-school environment, i.e. My dad has more money than yours, I have more money to buy sweets. This leads to low self-esteem, sometimes conflict, and unrealistic demands on parents. It is the parents’ responsibility to help children to understand that these comparisons are not always healthy (II2).	In low SES there is less of an understanding of what parenting entails, most parents swear, use substances and are also lower functioning. There is a lack of discipline; parents let their children do whatever they want to (II1).  In lower SES in most cases, there is just no parenting, no responsibility, lower cognitive functioning or less child rearing practices (FG5).

From the table above, caregivers spoke about their communities and the danger that surround them. These findings closely resemble findings by Tomlinson (2013), where he stressed how important caregivers' health is for the optimal development of their children. Teachers expressed concern about the different social contexts that the child is exposed to in their respective communities, homes and at crèches. Professionals felt that a relationship exists between children's readiness to pursue schooling and the type of SES environment that a child emanates from. This is similar to research that stress the direct relationship between SES and the quality of caring for the child (Bradley & Corwyn, 2002; Edwards, Baxter, Smart, Sarson, & Hayes, 2009). Professionals also accentuated that a child would perceive and understand the world through the lenses that were instilled by the broader community and family, and that the child would gravitate towards others that represent similar experiences and behaviour. This again is similar to research findings that emphasise the pronounced effect of community and environmental factors on Child development (CD) and School readiness (SR) (Ngwaru, 2012; Ward & Makusha, 2015; Webster-Stratton & Taylor, 2001).



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Culture as a moderator was emphasised across stakeholder groups as an important contextual influence that affect CD, SR and ESC. Across stakeholder groups, it was stressed that understandings and perceptions of development, school readiness and emotional social skills are embedded in culture beliefs, values and traditions and should be understood within the specific cultural context that the child is functioning. Table 4.13 provides illustrative quotations of stakeholder perceptions.

Table 4.13  
*Culture as a moderator*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>A lack of understanding of cultural differences can influence a child's emotional and social functioning. As a foreigner, my child was the outsider and he found it very difficult to adjust, other children were nasty towards him (FG2).</p>	<p>Children in different parts of the world are experiencing life in different ways. Cultures differs and caregivers have different understandings of what to prioritise in their children's development (II2).</p> <p>Parents in certain cultures are very sociable, they party every weekend, and the child would fit into groups easily because they are used to partying (FG5).</p>	<p>Emotional social competence is a culturally influenced construct because in certain cultures children are not encouraged to share emotions (FG1).</p> <p>Children will gravitate towards other children that have the same type of experiences in social context (FG1).</p> <p>Children from rural environments or even other countries find it difficult to adjust to the formal structure of school. Language poses problems; they also come into contact with different cultures, communities (FG1).</p>

Parents shared stories that illustrated how different perceptions about culture and diversity impact their children's development. The relationship between cultural practises, beliefs and values and how this relate to child rearing practises at school and at home were highlighted in the teacher and professional groups. This is similar to research findings by Janus and Offord (2007) and Raikes (2015) that accentuated that development is experience dependent and therefor vary because of different cultural ad contextual influences. For instance, that some children are not encouraged to share emotions because of cultural beliefs, because interpersonal relationships and collaboration takes precedence over the more individualistic outlook that emotions need to be regulated and shared appropriately. Similarly, the professional group stressed that in society where collectivism is emphasised, social skills would take preference over emotional competence, whilst in a more westernised society the focus would be on the child as an individual that have to master emotions and act independently.

## **Subtheme Two: Environmental factors**

Stakeholder groups identified barriers such as violence and trauma as important environmental factors that affects CD, SR and ESC.

Violence, trauma and substance abuse: The majority of caregivers expressed strong views on how violence and abuse affect their ability to take care of their children. They also expressed how unemployment increases the risk of violence, abuse, promiscuity and neglect in their homes. Caregivers felt that parents might engage in destructive behaviour and consequently violate the basic rights of the children. Furthermore, participants felt that children learn through modelling and therefore exposure to violence and trauma increase the risk of children engaging in these practises in the school environment (for example swearing, bullying) becomes more prominent. Educators were very aware of how children's exposure to these risks affects their development and emotional social needs. They were able to convey excerpts of situations in class where children's behaviour reflected their experiences at home and in their community. Professionals also discussed how the environment that children function in shapes the challenges that children present within therapy. Table 4.14 provides illustrative quotations across stakeholder groups.

Table 4.14  
*Violence, trauma and substance*

Parents	Teachers	Professionals
<p>The child was exposed to drinking, swearing and drugs. When the child got to Gr. 1 the child practiced the same at school, he started bullying other children. He will most probably drink and fight someday (FG3).</p> <p>Children are exposed to sex and violence too early. My child knows when they are shooting outside and tell me to be careful. I need to be so careful that my child is not exposed to abuse. She has witnessed a rape a few months ago but was too scared to tell me about it (FG3).</p>	<p>Children are exposed to group pressures and risks; they come face to face with bullying and violence (FG5).</p> <p>Maybe if a parent's language is all about swearing, every second word a swear word, the child is going to bring it across. The child will accept it in their language, there is nothing wrong with it (FG5).</p>	<p>Trauma, death and divorce impacts children's emotional development. Some children develop notwithstanding these issues; others find it difficult to cope (II1).</p>

The manner in which children are stimulated, engaged or provided an early and enriched academic environment still follows a racialized and economic pattern that in turn impacts CD, SR and ESC. Children's exposure to environmental influences such as drinking, bullying and trauma have a direct effect on their development, thus deprivation and excess seems to have similar results. These findings are similar to studies that emphasised how important a safe environment and early stimulation in the context of home, school and community is to the optimal development of the child (Barbarin, Richter, & De Wet, 2001; Dawes & Donald, 2000; Janus & Offord, 2007; Kumpulainen et al, 2016 ; Mistry, Benner, Biesanz, Clark & Howes, 2010).

## **Category Two: Factors influencing CD, SR and ESC**

### **Theme Two: Educational factors**

The *second theme* that roleplayers identified as impacting CD, SR and EC was educational factors. This theme included four subthemes that spoke to the identified thematic content.

The three stakeholder groups acknowledged education as an essential component of optimal development. They stressed that educators have an important role to play especially in a society where social norms are changing. Role-players mentioned that parents are not always able to attend to the needs of their children as the pace of life is accelerating and much more is expected of parents both organisationally and personally. Teachers were seen as important role models and facilitators of learning in the child's early environment. Stakeholders discussed barriers such as how the lack of teacher support and training and how a lack of collaboration between the relevant stakeholders impacts CD, SR and ESC. Illustrative quotes have been tabularised for each of the identified sub-themes across the stakeholder groups.

### **Subtheme One: Early stimulation**

Stakeholder groups identified early stimulation in pre-school contexts as an important moderator in children's optimal development before entry into formal schooling. Caregivers and educators felt that it is imperative that children go to crèche and pre-school. They reported that early exposure to a different context than home maximises the opportunity to optimal development and growth. Table 4.15 provides quotations across stakeholder groups.

Table 4.15  
*Early stimulation*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
Early stimulation prepares children to go to school. It is important that children go to crèche or pre-school. They get used to being with many children, playing and learning, the stuff that they do in Gr. 1 is most of the stuff that they did in crèche (FG3).	Initially it is important to include children in social frameworks to prepare them for school. They have to attend crèche or get used to playing with friends (FG5).  We support children to learn through play and to learn from other children (FG5).	Earlier exposure to formal teaching from Gr. R provides the opportunity for earlier assessment; and an opportunity to see if the child is able to adjust to the formal structure of school, thus ensuring earlier intervention if necessary (FG1).

Teachers stressed that most learning in crèche and pre-primary happens in a natural way and that play acts as a facilitator for maximum growth. Professionals emphasised the

importance of early stimulation and added that children learn primarily through observation and modelling. They stressed the importance of caregiver attitude towards one another and the role of siblings and educators as potential facilitators in the development of emotional social skills. Role-players' perspectives were similar to studies by Goldblatt (2004), Jones, Bailey and Jacob (2014), and Webster-Stratton and Reid (2004) who found that early exposure to a conducive learning environment (school and classroom) was essential to foster academic and emotional-social skills.

### **Subtheme Two: Teachers as facilitators**

Stakeholders concurred that teachers are key figures in the development of children's skills/ abilities. Teachers were seen as educators, but also as role models and facilitators of optimal development. Stakeholders agreed that educators are essential guides in the process of learning. Teachers were described as partners to support children to acquire the essential building blocks for academic, emotional and social skills. Mothers emphasised that teachers can act as "substitutes" to stimulate and educate the child in situations where they were unable to do so. Table 4.16 provides illustrative quotations across stakeholder groups.



Table 4.16  
*Teachers as facilitators*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
Teachers are important role players in a child's life; they are with teachers most of the day (FG2).	The parent's contribution is essential. They have an equal role to play in educating their child (II2).	It is important for teachers not to push children too much (FG1).
Children learn from teachers, my child learned three languages, Xhosa, English and Afrikaans (FG3).	We teach mothers that you have to be in your child's life today to be in your child's future (FG5).	Children also fails to learn the basic skills such as reading and writing in the foundational phase (Gr. 1-3) this highlights challenges with infrastructures at school, a lack of resources (FG1).
Some teachers are bad role models; they swear, give hidings and are abusive towards children (FG3).	A child whose mother is always shouting and screaming, in the classroom you will say, no, no, my darling that is not the way to do it, don't shout like that, it scares me. If the child stops you will praise him and say well done, praising the child for what he did (FG5).	Children are not learning the basic skills in Gr. 1-3, because schools lack adequate resources, classes are too big, children who have intellectual or emotional social challenges are stuck in a system that does not cater for them, and there is a lack of resources to refer these children. In some instances, children have to wait for three years to gain access to special schools (FG2).
If parents are absent teachers can act as replacements, they can nurture children (FG2).		

Caregivers emphasised the negative impact that a lack of receptiveness can have on the child's emotional and social development. It needs to be emphasised that these perceptions of teachers were based on caregivers' personal experiences with educators and school systems in general. Professionals saw teachers as important facilitators of learning and as important role-players to identify early barriers through assessment practises to inform decisions about intervention practises. Research similarly emphasised that a close, nurturing relationship between children and teachers play an important role in the acquisition of academic as well as, social and emotional skills (Howes et al., 2008 Mashburn et al., 2003; Yoleri, 2016).

### **Subtheme Three: Lack of training and limited access to resources**

Role-players identified various barriers that might affect educators' ability to provide an optimal environment to facilitate CD, SR and ESC. Table 4.17 provides illustrative quotations across stakeholder groups.

Table 4.17  
*Lack of training and limited access to resources*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
Not all teachers are qualified teachers (FG3).	Now you take that vulnerable child from home to school, you get untrained teachers; it is also then difficult for the teacher. We need ECD to train teachers to deal with these situations (FG3).	It is important for teachers not to push children too much (FG1).
We need trained teachers and teachers that are good for our children (FG2).	We as teachers also have to adjust. Our curriculums change the whole time, methods change. They way that you must bring knowledge across to children change, the way that you implement it change, reports change (FG5).	Children also fails to learn the basic skills such as reading and writing in the foundational phase (Gr. 1-3) this highlights challenges with infrastructures at school, a lack of resources (FG1).
Teachers teach for the money but they treat our children badly. They swear and hit them and do not want to help them when they are in need of help (FG3).	Not all schools are the same, the methods of teaching are not the same, it is hectic on the child if he needs to change schools (FG5).	Children are not learning the basic skills in Gr. 1-3, because schools lack adequate resources, classes are too big, children who have intellectual or emotional social challenges are stuck in a system that does not cater for them, and there is a lack of resources to refer these children. In some instances, children have to wait for three years to gain access to special schools (FG2).

Caregivers mainly focused on the impact that teachers' qualifications and the teacher's behaviour towards children might have on CD, SR and ESC. Teachers and professionals mentioned other important barriers such as difficulties with infrastructure in the school environment such as big classes, lack of qualified and motivated personnel at centres, unrealistic expectations from their superiors, changing curriculums and unrealistic demands from caregivers. They agreed with caregivers that this sometimes impacts negatively on children's chances to benefit maximally from learning at crèches, pre-schools and educational settings. The barriers identified in the present study have been reported in the literature including research studies (for example Janse van Rensburg, 2015, Rimm-Kaufman & Sandilos, 2017; Vorster et al. 2016) and policy documents such as The National Action Plan for Children, 2012-2017 (DWCPD, 2012), National Audit of ECD policies and services, 1994-2004 (Williams et al., 2001), South African National Curriculum Framework– children birth to four, 2015 (DOE, 2014b), and the Policy on Minimum Requirement for Programmes

leading to Qualifications in Higher Education for Early Childhood Development Educators (DHET, 2017). Researchers also acknowledged that implementation of these policies on primary, secondary and national level requires urgent attention despite the progress made to date (Hall & De Lannoy 2015; Neuman & Hatipoglu, 2015; Raikes, 2015).

#### **Subtheme Four: Collaboration and cooperation between stakeholders**

Stakeholders agreed that ongoing collaboration is paramount to children's optimal development. The importance of ongoing collaboration between caregiver, parent and professional was a focus point in most of the discussions. Caregivers, teachers and professionals felt that clear and continuous communication and collaboration with each other would ensure that the child have the best possible chance to acquire the set of skills necessary for optimal development, school entry and that this would create a balanced upbringing. Teachers and parents commented that effective communication between stakeholders is not always forthcoming and that they sometimes struggle to maintain collaborative relationships because of other chronic environmental pressures. The importance of the caregiver, peer, and teacher in developing social skills, especially the relationship between the teacher and the caregiver, were emphasised as an important determinant of SR and ESC. Table 4.18 provides illustrative quotations across stakeholder groups.

Table 4.18  
*Collaboration and cooperation between stakeholders*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
Communication between parents and teachers are very important (FG2).	Teachers are usually in tune with the children's behaviour and will call the caregiver if they note something noteworthy or any changes in the child's behaviour. (II2).	Communication between caregivers and teachers about children's behaviour at school and at home will foster reliable and valid monitoring of children's development and growth (FG1).
You need to ask as a parent, what did you do at school today? You need to work hand in hand with the teacher. You are raising one child and this is the future of the child (FG3).	We have regular meetings with the parents at the crèche, where we explain what needs to be revised at home (FG5).	It is difficult to assess all the component of school readiness in one session. We are only able to assess this if we have collateral from the teacher and parents (FG1).
We as parents need to help. If the teacher asks us to help we have to help with homework (FG3).		

Teachers and parents reported that a close collaborative relationship between teacher and parent are vital to the child's capacity to build emotional social skills. This collaboration was seen as an important determinant for the optimal development of skills, especially on an emotional social level. Viewpoints from caregivers and teachers on professional involvement was not so prominent, most probably because professionals are mainly involved once assessment and intervention becomes the focus point. The importance of collaboration between the different role-players in child development has been the focus of various studies that emphasized that collaboration between the different ecological systems (parents, educators, community) is of paramount important for the optimal development of the child's academic and social skills (Janus & Offord, 2007; Mashburn et al., 2008; Rimm-Kaufman et al., 2000; Rimm-Kaufmann & Sandilos, 2017).

## **Category Two: Factors influencing CD, SR and ESC**

### **Theme Three: Familial factors**

The *third theme* that roleplayers identified as impacting CD, SR and ESC were familial factors. This theme included sub themes such as the important role that mothers play in their children's developmental trajectory and how a variation in child rearing practises

affect CD, SR and ESC. Tables 4.19- 4.22 provide illustrative quotations across the stakeholder groups for each of the identified sub-themes. A short discussion, which highlights stakeholder perceptions follows after each table.

**Subtheme One: Parents as role models**

The important role of primary caregivers as facilitators of the child’s development/ education received attention across stakeholder groups. Stakeholders rated parental attitude as one of the most essential building blocks for the child being able to develop the necessary abilities on cognitive and social emotional level to be ready for school. Table 4.19 provides illustrative quotations across stakeholder groups.

Table 4.19  
*Parents as role models*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>A child learns through modelling, parents’ attitude towards one another is the basis of the child’s attitude towards peers and teachers (FG2).</p> <p>I also had to adjust myself as a mother. I adjust how I speak to them, the way I conduct myself, I must set an example for my children, for their future (FG3).</p>	<p>Social skills are taught through behaviour. Parents set clear examples of what is acceptable and non-acceptable behaviour – e.g. the tone in which the parent speaks to a child, the way that parents approach the children and give them tasks, the way that children are handled in front of other children (II2).</p>	<p>Parents are responsible and take on the responsibility of social and emotional development as part of raising their children is it not a skill that can be taught at school, like maths and reading It is part of parenting a child. Thus if the child has challenges, the parent automatically feels as if they have failed the child (FG1).</p>

Stakeholders emphasised the importance of parental attitude and involvement in the development and education of children similar to studies by Ward and Makusha, (2015), Ward and Wessels (2013), as well as Ngwaru (2012). Stakeholders agreed that a lack of involvement, under-stimulation and a lack of cooperation with other role-players to foster cognitive, emotional and social skills in children hampers healthy development. Teachers and professionals felt that caregivers main foci were on the provision of basic needs such as food and a safe environment and that these needs takes precedence before educational needs. Most parents have to work extensive hours to earn enough to provide in the basic needs of their children. Teachers had mixed views in terms of parents being able to take responsibility for

the wellbeing and particular the emotional social well-being of their children. Teachers and professionals expressed the view that parents tend to shift the responsibility to educators to teach academic, emotional and social skills. These two groups also acknowledged caregivers who are present in their children's life to enhance development.

### **Subtheme Two: Variations in child rearing practices**

Stakeholders agreed that differential child rearing practises influence children's development, SR and ESC. They identified responsive parenting as a facilitator and uninvolved, critical and overprotective parenting as possible barriers to CD, SR and ESR.

#### ***Responsive parenting***

Responsive parenting was identified as one of the major facilitators for successful transition into crèche, pre-school and school by all role-players. Parents felt that being in their children's lives enables the child to build a foundation from where they would be able to grow. They mentioned qualities such as emotional responsiveness, availability and open communication as essential components of responsive parenting. They also stressed that a good example early in life, by peers and friends, impact positively on acquiring the skills necessary to become school ready. Teachers and professionals highlighted that parents need to be able to provide the blueprint for their children through modelling and effective discipline. This would build character and instil values such as respect and responsibility in children. Table 4.20 provides illustrative quotations across stakeholder groups.

Table 4.20  
*Responsive parenting*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>As parents, we have to play a vital role in our children's lives to teach them what is right and what is wrong, they have to be able to say no to abuse, feel comfortable to speak to us about emotions or things that happened at school that they are unsure about. If they can't trust us whom are they going to tell? (FG2).</p> <p>Children that have other children in the home, learn from them (FG2).</p>	<p>Parents seem to be more responsible nowadays to attend to their children's needs (II2).</p> <p>Parenting is not as valued as it is supposed to be, therefore children takes strain in terms of language and are generally underdeveloped (II2).</p> <p>Parents sending their child to school for the first time have to explain to the child, I am sending you to school for education. They have to encourage the child to go to school, to socialise with other children, to do their homework (FG5).</p> <p>Children learn from their siblings, parents and friends (FG4).</p>	<p>Well establish emotional bonds with a parent(s) are very important pre-requisites for normal development of social and emotional skills, over involvement or a lack thereof may lead to overdependence on parents, "grown up" children or neglect (FG1).</p> <p>Parental viewpoints and behavior impacts school readiness. Parents need to act responsible and set appropriate boundaries, if they are overprotective or neglectful this might impact children's behavior at school. Parental styles directly impact children's development (FG1).</p> <p>Children learn from other siblings and children, especially older children in their environment (FG4).</p>



### *Uninvolved parenting*

Stakeholders agreed that barriers to CD, SR and ESC included uninvolved/unresponsive caregivers who are not able to provide a caring/ nurturing environment for their children. Table 4.21 provides illustrative quotations across stakeholder groups.

Table 4.21  
*Uninvolved parenting*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>If parents are absent teachers have an important role to fulfil at school, they can act as replacements or can nurture children who have parents that are absent, that does nothing (FG2).</p>	<p>Some parents do not stimulate their children (FG5).</p> <p>In many situations mothers don't have another women taking the role and ensuring that children are fed, bathed and that there is interaction with them and stories are read and children are put to bed. They (parents) try to juggle and then the children are not getting what they need in terms of their development (II2).</p>	<p>Some parents over stimulate their children whilst others do nothing (FG1).</p>

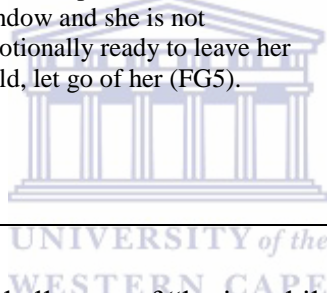
Role-players concurred that a balanced stance is necessary to allow children to maximise their potential. This will allow children enough freedom to explore and grow in a safe and nurturing environment.

***Overprotective parenting***

Stakeholders identified overinvolved parents, who are unable to set appropriate boundaries to allow children to develop on their own as a potential barrier in CD, SR and ESC. Table 4.22 provides illustrative quotations across stakeholder groups.

Table 4.22  
*Over-protective parenting*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>Although I feel exited that my son is going to school this year, I am also sad and I worry if he would be able to adjust (FG2).</p> <p>They wanted me to “drop my child and go”. This was very difficult (FG2).</p>	<p>Can you see that emotional thing where the parents stand at the window and she is not emotionally ready to leave her child, let go of her (FG5).</p>	<p>Parents sometimes struggle to let their children go. They want continue to nurture. Sometimes parents are scared to set appropriate boundaries, this impact their relationship with their children (FG1).</p>



Caregivers expressed the challenges of “letting children go”. Mothers were able to talk about their children’s emotional social needs primarily from a mother’s perspective. They highlighted experiences that they had as children and how this translates to their understandings and their contributions to the emotional social needs of their children. Teachers expressed concern about parents’ inability to teach the child to be independent and responsible, whilst professionals emphasised how important it is to foster independent behaviour in children.

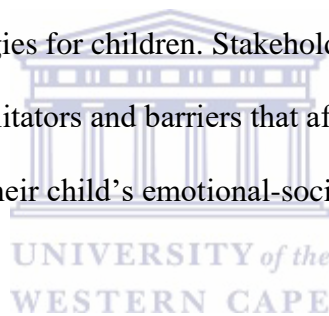
Overall research generally underscored the responsive style of parenting as beneficial to enhance academic abilities in children (Landry, Smith, Swank, Assel & Vellet, 2001; Sheridan et.al, 2011). For example, Denheim and Weissberg (2004) reported that unresponsive parenting styles, such as, being overcritical, overinvolved, and distant, act as



barriers for children to develop good academic and social emotional skills. Similarly, The present study concurred with findings of Sheridan et al. (2011) that responsive caregiving supports the child's emerging autonomy and facilitates active participation in learning.

### **Summary of main findings in Thematic Category Two: Factors influencing CD, SR and ESC**

Caregivers, teachers and professionals stressed that decisions around child development, school readiness, and the child's emotional and social competence cannot be separated from broader contextual issues that affects the child, caregivers, schools, and the community in which the child functions. A nuanced and contextualised understanding of the factors that affect CD, SR and ESC is necessary to facilitate optimal early stimulation, education and intervention strategies for children. Stakeholders were aware of the various socio-cultural and ecological facilitators and barriers that affects children's development, school readiness and influences their child's emotional-social development.



### **Thematic Category Three**

#### **Perspectives on School readiness**

The *third thematic category* spoke to role-players' understandings of school readiness. This theme included *four subthemes* that spoke to the identified thematic content. Role-players shared various thoughts on the meaning of school readiness and the underlying components/ attributes or essential underpinnings of the construct. Their understandings of the construct were merged into four sub-themes. Table 4.23 below shows the themes and sub-themes in the third thematic category that illustrate the stakeholders' perspectives on school readiness.

Table 4.23  
*Thematic Category 3: Perspectives on School readiness*

<b>Theme</b>	<b>Subthemes</b>
<b>1. Definitions</b>	<i>Disparate understandings</i> <i>Components of school readiness</i> <i>Age versus skills</i>
<b>2. Characteristics</b>	<i>Elements/ Attributes of school readiness</i>
<b>3. Assessment</b>	<i>Different views on assessment</i> <i>Factors influencing assessment</i>
<b>4. Interventions</b>	<i>Additional support</i> <i>Access to intervention and support</i>

**Category Three: Perspectives on School readiness**

**Theme One: Definitions of School readiness**

**Subtheme One: Disparate understandings**

Role-players expressed disparate views about school readiness. Parents found it difficult to formulate an understanding of what school readiness entails, whereas teachers and professionals were able to formulate their understanding of school readiness based on their theoretical knowledge of the construct. Teachers and professionals in particular stressed the fact that school readiness is a derived construct aiming to measure the child’s abilities/ skills, with the overarching aim to inform decisions around entry into mainstream education. Parents were less sure about the definition of school readiness. They could also not readily identify what constituted readiness. Table 4.24 provides illustrative quotations from the different stakeholders.

Table 4.24  
*Disparate understandings*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
I don't have a clear understanding of what school readiness entails. I had to find my own way; there was no guidance from teachers or the crèche (FG2).	Education needs to happen from a holistic point of view, looking at the body, mind, soul and spirit of the child, how each facet functions to make the child a well-balanced person where no area takes precedence over another (II2).	School readiness refers to the child's ability to learn or to engage in work, the academic process (FG1).
You have a kind of an idea, but what is it? You are not told, but you need to help the child to get ready, you don't know (FG3).	For me school readiness is the child's whole body development, the social emotional, the cognitive. It is a holistic kind of a thing (FG5).	We always look at the academic and intellectual first, then the different skills (building blocks) that are necessary to engage academically i.e. gross motor skills, fine motor skills, proprioception, vestibular, crossing the midline, etc. Finally, we also need to consider impact of for instance divorce or trauma on school readiness (FG1).
My understanding is based on what my child should be able to do when he moved from Gr. R to Gr. 1. (FG3).		

From the table it becomes evident that parents understanding of readiness is experience based. They were only able to report on what they learned about school readiness after their children went to school. Educators and professionals understanding were based on their training and work experiences. The disparity in understandings is in agreement with research who reported that stakeholders' perceptions of school readiness differ. (Dockett & Perry, 2002; Mohamed, 2013).

### **Subtheme Two: Components of school readiness**

The majority of role-players commented that school readiness is connected to the child's ability to learn, especially on physical, academic and emotional-social levels. Table 4.25 provides illustrative quotations across stakeholder groups.

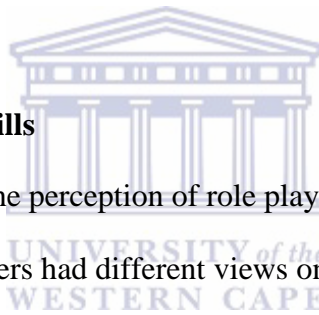
Table 4.25  
*Components of school readiness*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
<p>The main focus in Gr. R is on a child's academic and physical skills (FG2).</p> <p>By the end of the year you get a rapport saying: I can skip, yes, I can walk in a straight line, yes... I can't remember anything asked about social. I highly doubt if we are going to get anything that states what your child need to be able to do to be ready for Gr. 1. (FG2).</p> <p>When my daughter went for her Gr. 1 interview the principal asked: What is your name, what is your phone number, where do you live, I am going to ask you four things, so pick up the pencil, smell the flower, etc.. It was all factual, what could you physically do. Emotional and social gets left behind (FG2).</p>	<p>I think about brain and cognitive functioning. This is a very important aspect that needs attention (FG5).</p> <p>Children need to be ready to spell, read and count (FG4).</p> <p>Children need to be able to tell others about their experiences, emotions and be able to express emotions relevantly, thus communicate emotions appropriately (FG5).</p> <p>There is a lot of focus on physical abilities in Gr. R but not on emotional social abilities (FG5).</p>	<p>There are certain skills that children need to possess, physical, academic and social. The emphasis is on skills that need to be developed. This needs to be measured. The skills that come to mind are motor skills, reading and maths and life orientation (FG4).</p> <p>Cognitive development needs to take preference, because if the cognitive is behind all the other facets are lagging behind (II1).</p> <p>Most parents focus on the academics, the intellectual, there is less awareness of the effect that changes or trauma have on their children's' lives (FG4).</p> <p>Children's' bodies need to be physically ready to learn the skills. They won't be able to hold a pencil if they are not developed enough to do so. They won't be able to see or hear if there are problems with their eyes and ears (FG1).</p>



Role-players focused on cognitive skills and the importance of these skills as pre-requisite for entry into mainstream education. Stakeholders placed greater emphasis on academic (cognitive) skills when decisions around school readiness had to be made. For example, one parent (FG2) said that academic and physical skills were the most important skills children need to acquire to be school ready. A mother remembered that the principal asked their child specific questions pertaining to cognitive skills when they went for their Grade One admission interview. Teachers (FG5) mentioned that children have to be good in spelling and reading to be school ready and Professionals felt that a focus on cognitive skills would constitute the basis for successful entry into Gr. 1 (FG4). Teachers and Professionals also identified emotional and social skills as important facets of school readiness. For example, teachers stressed the importance of friendships with peers, pro-social behaviour and

being able to follow rules as important skills for entry into mainstream education (FG4). Professionals felt that a focus on emotional social skills would enable the child to be more resilient and able to resolve difficult situations such as trauma (FG4). From the table above it becomes evident that both cognitive and social emotional competencies were identified as important pre-requisites for school entry. The findings above were consistent with the literature. For example, researchers emphasized the importance of cognitive skills in school readiness (Amod & Heafield, 2013; Bustin, 2007; Rimm-Kaufmann & Sandilos, 2017). Similarly, studies identified emotional/social competence as an important skill (Denheim et al., 2012; Janus & Offord, 2007). Local studies underscored the need for a more prominent focus on emotional social competence as a component of school readiness (Bustin, 2007; Mohamed, 2013).



### **Subtheme Three: Age versus skills**

This subtheme speaks to the perception of role players about how to decide if a child should enter schooling. Role-players had different views on how to establish if a child is ready for school. Table 4.26 provides illustrative quotations from different stakeholders.

Table 4.26  
*Age versus skills*

<b>Parents</b>	<b>Teachers</b>	<b>Professionals</b>
My child was not ready in Gr. 1. I wanted to put him into Gr. R when he was 6 years old, but they told me he needs to go to Gr. 1. (FG3).	At age 6 children seem more ready to go to school; they are able to be independent and are stronger emotionally (FG5).	There are certain skills that children need to possess, physical, academic and social. The emphasis is on skills that need to be developed. This needs to be measured. The skills that come to mind are motor skills, reading and maths and life orientation (FG4).
My child has been at crèche since age 3. I think that she is school ready. It helps a lot if a child is at crèche before going to school (FG3).	By the end of the day there are certain milestones that needs to be met in order to enter formal schooling. The child needs to possess skills in certain areas (II2).	

Most caregivers felt that children are usually ready to enter school at age six.

Caregivers used their children's ages as the main indicator of school readiness. Fewer parents

focused on readiness because of an acquired set of skills. Professionals and teachers highlighted that age and skills sets on academic, physical, emotional and social levels were necessary pre-requisites for children to be school ready. The findings in this theme are similar to the perspectives highlighted in the literature. For example, some studies reported that stakeholders, in particular caregivers, felt that school readiness was directly related to the child's chronological age and prior experience in crèche (Mohamed, 2013; Rimm-Kaufmann & Sandilos, 2017). Similarly, other studies that included educators and professionals reported that developmental aspects of physical, academic and social skills contributed to determining the child's readiness (Goldblatt, 2004; La Paro & Pianta, 2000).

### **Category Three: Perspectives on School readiness**

#### **Theme Two: Characteristics of school readiness**

The *second theme* in this category related to characteristics of school readiness. This theme included a single subtheme that spoke to the identified thematic content.

#### **Subtheme One: Elements/ attributes of school readiness**

Role-players were able to identify various elements/ abilities/ attributes that constitute school readiness. This included abilities across the physical, academic (cognitive) and emotional/ social domains. Teachers and parents stated that school readiness is about acquiring skills on different levels, the physical (motor skills), the academic (reading and maths), the cognitive (phonics, concentration), but also the emotional/ social. They mentioned gross and fine motor skills, such as, the ability to cut, tie laces, and draw patterns, as important pre-requisites for entering mainstream school. Teachers also highlighted that children need to be ready to leave the home environment. They also felt that children must be independent and able to do certain activities on their own. Emotional maturity was identified as an important attribute. Teachers stated that children need to be able to separate from

caregivers without emotional struggles. Table 4.27 provides illustrative quotations across stakeholder groups.

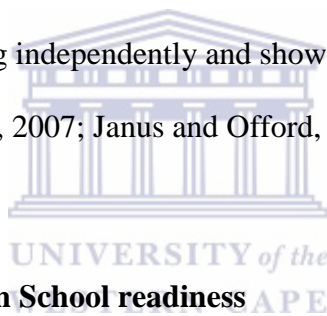
Table 4.27  
*Elements/attributes of school readiness*

<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
There are certain activities that a child needs to be able to do, tying laces, draw patterns, hold a pen correctly, begin to form letters, know and write the ABC. Can they touch their left ear with their right hand? (FG3).	Can the child hold a scissor correctly, cut, fine motor skills, phonics, sound, basic maths, counting, know colour and shapes, solve problems (FG5).	You assess motor skills, reading, maths, it would also include life skills (FG4).
Children start to be independent. The child is leaving the mothers' hand and saying that I am ready to go there alone (FG3).	We are not there to feed him, he is out there. He needs to put his own clothes in his bag, dress himself, sit still, go to the toilet, wash his hands (FG5).	Building blocks include gross motor, fine motor, visual perceptual, auditory, sensory skills, ability to concentrate and pay attention and emotional skills (FG1).
Emotional is also important, my child was like an "Ever ready" bunny, a dreamer, he did not want to read, I did not worry if he is able to read, write, cut, for me it was more important that he was emotionally more independent (FG2).	There are criteria that needs to be met to enter formal schooling, that certain children are competent and other we hold another year in pre-school. Some children would not be stimulated enough, they will have to go to primary school, even skip a grade because of their intellect (II2).	They need to be able to sit still, concentrate and follow instructions (FG1).
		On an emotional social level, the child needs to be able to act independently (take care of books, lunch boxes) and be responsible, they need to be able to distinguish right from wrong, to respect others (FG4).

Caregivers stressed that academic abilities/ skills are needed before children are ready to go to school. These skills include knowing numbers, letters, and how to hold a pen correctly. The participants also mentioned self-care skills such as being independent and emotionally ready for school as important skills to be mastered to be school ready. Professionals emphasised that school readiness is about academic ability and intellectual/ cognitive functioning, language as well as obtaining foundational skills in the areas of gross and fine motor skills, visual perceptual skills, auditory sensory skills, ability to concentrate and pay attention etc. Professionals further felt that emotional competency is an important pre-requisite for school readiness; they stressed that children need to be able to deal with the transition to formal schooling, be able to act independently, solve simple problems and be able to respond favourable to instructions and discipline. Personal attributes such as

confidence in yourself, respect for others and the ability to comply with basic rules were highlighted as important skills for children to be school ready.

The views expressed by the different role player groups resonated with the existing body of literature. For example, Sheridan et al. (2008) also reported that caregivers focused on academic abilities or skills as indicators of school readiness. Similarly, Rimm-Kaufmann and Sandilos (2017) reported that teachers identified cognitive and social-emotional skills as important skills to facilitate school entry. In the present study, participating teachers placed less emphasis on the value of literacy and numeracy and stressed that emotional and social skills were vital to children's successful transition into school. Literature highlighted the importance of emotional and social attributes such as building and maintaining relationships with others; self-regulation; acting independently and showing social grace as important facets of school readiness (Bustin, 2007; Janus and Offord, 2007; Mohamed, 2013; Stefan et al., 2007; Tomlinson, 2013).



### **Category Three: Perspectives on School readiness**

#### **Theme Three: Assessment of school readiness**

The *third theme* centred on participants' views on assessment of school readiness.

The theme included two subthemes.

#### **Subtheme One: Different views on assessment**

Role-players had different viewpoints on assessment as it pertains to school readiness. Parents gauged if their child is ready by taking individual factors (for example counting, writing of name etcetera) into account and comparing their child's ability against siblings or peers. Teachers and professionals also used the same methods but comparison were made to developmental cohorts. These comparisons were based on content and experience and progress from a basic to a more experienced and systematised assessment of individual



differences against clearly defined reference groups. Table 4.28 provide illustrative quotations across stakeholder groups.

Table 4.28  
*Different views on assessment*

<b>Parent</b>	<b>Teacher</b>	<b>Professional</b>
I don't think parents have a measure, checklist. Parents generally gage, ok, my child seems to be the same as all his friends. Maybe he is ready to go to school (FG3).	The baseline assessments are what is been instituted now when looking at the CAPS (II2).	We use tests and observations to assess functioning on the different levels, physical, perceptual, emotional and intellectual (FG1).
Assessment is usually about skills that the child needs to have such as kicking a ball, counting, climbing a ladder, I have yet to see something that the teacher asks to make sure that my child is socially or emotionally ready for school (FG2).	In the formal sense, school readiness is being constructed to tick boxes, at a certain age in different areas, such as physical, emotional, fine motor, cognitively (II2).	We can see how the child experiences the world by looking at his drawings (FG4).
	We observe, make notes what the child find easy/ struggle with. We have themes weekly. Themes have cognitive, social, emotional or behavioural contexts. You observe what the child finds easy and what the child struggles with (FG5).	We use the JSAIS for cognitive functioning. There are no specific measures to assess emotional social competence, the existing ones that we sometimes use for life skills are SEGO and Vineland's Social Maturity Scales (FG1).

From the above table it becomes evident that parents assess readiness informally through comparison with the child's siblings and peer group. Caregivers focus on "what the child can do, for example to kick a ball and count" and if it is in line with what peers do. Teachers and professionals see assessment as a formalised process where observations and standardised measures are used to obtain information about the child's functioning. Parents were mostly unaware of formal assessment practises until teachers or professionals alerted them to it (Bustin, 2007, Mohamed, 2013).

### **Subtheme Two: Factors influencing assessment**

Role-players raised concern around a variety of factors that might influence the way that children are assessed. Caregivers identified challenges such as inaccurate assessment practises and variation in child performance in class as barriers that might affect assessment,

whereas educators focused on the lack of flexibility in assessments to capture developmental differences and professionals focused on diversity and culture fairness of tests. Table 4.29 provides illustrative quotations across stakeholder groups.

Table 4.29  
*Factors influencing assessment*

<b>Parent</b>	<b>Teacher</b>	<b>Professional</b>
<p>I don't think that assessments are accurate (FG2).</p> <p>Teachers might have "bad days" on the days that they assess. Children as well. It is important to evaluate in different contexts, by more than one person (FG3).</p> <p>School readiness tests are expensive and only accessible to parents who have the money to pay for the tests. There is a lack of resources to do these tests, waiting lists at the Department of Education is long (FG3).</p> <p>By the end of the year we get reports, we don't always understand them (FG2).</p>	<p>Assessments for school readiness is of great concern as children's development fluctuates week by week, which brings the question if assessments are really accurate? (II2).</p> <p>Assessment measures do not always capture differences amongst children. (FG5). It does not consider home context and that children are changing (II2).</p>	<p>Scales does not account for diversity; we are a multi-cultural society." How can one use one set of scales across the board, is it really valid? Cultures and context differ in South Africa; we need different norms for different communities (FG1).</p> <p>It is important not to over interpret, over analyse and over generalise when you do assessments. Assessment results always have to be verified by other collateral (FG1).</p> <p>It is important that a child is assessed in different context. If behaviour or emotions are not pervasive in different contexts the problem might be in one specific context only (FG1).</p> <p>One also needs one's own clinical judgement to assess which makes this process subjective (FG1).</p>



Caregivers expressed numerous concerns about assessment practises. They felt that the child and the educator's attitude towards assessment might influence assessment results. One mother mentioned that assessments would be inaccurate if the child or the teacher had a "bad day". Access and affordability were also listed as major barriers by caregivers. Teachers and professionals raised concerns about the validity and reliability of measures, especially in a multi-cultural context. They mentioned that other modes of assessment needed to be incorporated into assessment practises to ensure that valid and reliable results are obtained. Caregivers expressed similar concerns in a study by Goldblatt (2004), where factors such as teacher's qualifications, experience, and style of engagement with children were raised as factors that might affect teacher's ability to do accurate assessments. Two recent local studies

on school readiness and assessment practises (Foxcroft & Roodt, 2011; Mohamed, 2013) emphasised the lack of research in school readiness and more specifically the lack of appropriate measures that is culture fair, easily accessible and cost effective for use in the South African context.

### **Category Three: Perspectives on School readiness**

#### **Theme Four: Intervention**

The *fourth theme* centred around the relationship between school readiness and intervention practises. The theme included two subthemes, the role of additional support and access to intervention and support.

#### **Subtheme One: Additional support**

Role-players emphasised that support is often only sought after the child has been assessed and the huge need for early intervention is emphasised. The importance of multi-disciplinary interventions involving caregivers, teachers and/ or professionals also received attention. Although intervention practises was not introduced as a main discussion point, role-players stressed the importance of collaboration that would ensure access to intervention programmes and practises for children in need. Professionals saw treatment as a multi-modal process that needs to involve speech therapists, doctors, social workers, psychologists, the learner and their caregivers. Table 4.30 provides illustrative quotations across stakeholder groups.

Table 4.30  
*Additional support*

<b>Parent</b>	<b>Teacher</b>	<b>Professional</b>
If a child needs support to develop their skills, we as parents need to seek extra-curricular help (FG2).	Only now when the child hit Gr. 4, a parent goes, uh, there is something wrong and they rush off to see an OT or psychologist? It could probably have been avoided if they were aware of their child's need (FG5).  Parents only take note of the importance of assessment in the last quarter before the child has to go to school. They then want to tick off boxes and rush off to occupational therapist to do damage control (II2).	Treatment is a multi-modal process that needs to involve speech therapists, doctors, social workers, psychologists, teachers and parents (FG1).  Treatment needs to focus on child as well as the context that he is living in. It is essential to understand this context and to try to involve parents, the school and even government if necessary in terms of feeding schemes, health and social grants (II1).  If a decision is made to hold a child back, it is of utmost importance that the child receives support to help him in skills that are lacking. With no intervention, the challenges will remain or would even get worse. (FG1).

Educators felt that most parents were unaware of the child's need for extra support until it was brought to their attention, mostly after formal assessment at school. One teacher stated that parents exercise "damage control", where they rush the child off to an occupational therapist after they became aware of the challenges the child is facing. Professionals emphasised that teamwork between parents, teachers and professional groups is needed to understand and help the child within their unique context. The lack of awareness by caregivers complicate the early identification of delays and prohibits the early intervention that is needed to optimise children's functioning. Similar to the views expressed by stakeholders, previous research acknowledge the importance of early intervention. Dawes and Donald (2000) emphasised how important timely and appropriate interventions are to reverse the effects of early deprivation. Similar to educational and professional viewpoints, researchers also placed emphasis on the importance of assistance for caregivers in the form of parental programmes and/or psycho-education (Dawes & Donald, 2000; Ramey & Ramey, 2004). Similar to parental views, Ward and Wessels (2013) stressed the importance of early

parental programmes at community and school level to facilitate a more optimal environment to foster skills for school readiness.

**Subtheme Two: Access to intervention and support**

Role-players emphasised that ongoing challenges hampers children chances to receive additional support. Teachers and professionals stated that the reality often is that they struggle to work as a team to improve the child’s learning experience and that access to intervention programmes are limited within and outside the education system. Caregiver and teachers recognised the need for early intervention for children to optimise growth but stated that access to these professionals, assessment practises and programmes are limited and costly. Children are often only able to access support when they have already fallen behind, were kept back, or display behavioural and emotional difficulties. Table 4.31 provides illustrative quotations across stakeholder groups.

Table 4.31  
*Access to intervention and support*



<b>Parents</b>	<b>Teacher</b>	<b>Professional</b>
Extra help is costly and many parents can’t afford this (FG2).	One has to seek extracurricular help if a child has difficulties with behaviour. Most of the programme’s cost money and are only accessible to those who can afford it (FG5)	There is currently a two year waiting list for placements in special schools. (FG1)  Therapy is just used to debrief the child; it fails to teach the child specific skills. (FG4).

Stakeholders identified the most prominent barrier to early intervention as a lack of access to intervention programmes. They identified various barriers that affect access to support. Parents mentioned that extra help is costly and teachers expressed concern about accessibility and affordability. Professionals agreed with teachers and expressed concerns around access to “special schools” as well as accessibility to longer-term treatment options that aims to build and enhance children’s skills. Problems with access to treatment were also identified by several researchers (Amod & Heafield, 2013; Hoadley, 2013; Laher &

Cockcroft, 2013; Roodt et al., 2013; Winter & Kelley, 2008). Access to early intervention and parental programmes were earmarked on governmental and primary health care level in South Africa (NPC, 2012; NICDP, 2015) and are receiving ongoing attention.

### **Summary of main findings in Category Three: Perspectives on School readiness**

The views of stakeholders on school readiness were disparate. Stakeholders' understandings of school readiness were informed by their knowledge and own experiences, and were imbedded in maturational and developmental perspectives. The majority of role-players commented that school readiness was connected to the child's ability to learn, especially on physical, academic and emotional/ social levels. Role-players were able to identify various elements/ abilities/ attributes that constitutes school readiness. This included abilities across the physical, academic (cognitive), and emotional/ social domains. The way of assessing children seems to become more formalised from parental systems to educational systems to remedial and professional systems. Participants agreed that a lack of appropriate assessment measures and access to assessment complicated attempts to assess whether children are school ready. Similarly, availability of resources to aid in intervention programmes also affects children's readiness. These aspects need to receive focus and ongoing attention.

### **Thematic Category Four**

#### **Perspectives on Emotional and Social readiness**

The *fourth and last thematic category* spoke to role-players perspectives on emotional social readiness. Role-players had different understandings of emotional social readiness and the underlying elements or underpinnings of emotional social readiness. Their understandings of the construct were distilled into three themes. Table 4.32 below shows the themes and sub-

themes in the fourth thematic category that illustrate stakeholders' perspectives on emotional and social readiness.

Table 4.32

*Thematic Category 4: Perspectives on emotional and social readiness*

<b>Theme</b>	<b>Subthemes</b>
1. Emotional social readiness	<i>One or separate constructs</i>
2. Emotional readiness	<i>Understandings of emotional readiness Elements of emotional readiness</i>
3. Social readiness	<i>Understandings of social readiness Elements of social readiness</i>

It was difficult for the majority of role-players to define the constructs (emotional and social) on a purely academic and theoretical level. The themes identified attempt to capture how participants thought of the constructs. Below is an exposition of the identified themes.

#### **Category Four: Perspectives on Emotional and Social Readiness**

##### **Theme One: Emotional social readiness**

The *first theme* related to emotional social readiness and how stakeholders understood the construct. The theme included one subtheme.

##### **Subtheme One: One or separate constructs**

Role-players generally found it difficult to think about emotional and social skills separately, they felt that it made more sense to look at them as interactive and co-dependent. Stakeholders within the educator and professional groups debated whether the construct of emotional-social competence was one or more constructs. Professionals' (in particular psychologists) did manage to define the constructs as separate entities and were able to operationalise both as sets of skills that needed to be developed. Caregivers found it difficult to verbalise thoughts about the constructs, one parent commented that the constructs "fit together", but were unable to explain why. Educators also felt that constructs were related and should thus be treated as one entity. This might reflect how training and scope of practise

influence understanding of the constructs. Table 4.33 provides illustrative quotations across stakeholder groups.

Table 4.33

*One or separate constructs*

<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
I don't think social and emotional fits together, for me the social is very important (FG2).	It is difficult to distinguish between social and emotional; the one impact the other, for instance temperament affects your ability to lead in a group (FG5).  I must say if I think about my reports, I am speaking about socio-emotional functioning, I don't make a distinction, I treat it as one (FG5).  Your emotions influence your social development. Children needs to be strong in order to feel happy, at ease with themselves, children have to be able to feel calm and happy within themselves, not tripped up and grumpy and sad (II2).	Emotional and social are intertwined. Emotions and social cannot be separated. We are emotional beings, what you feel would predict your behaviour, what I feel inside is going to predict what I say, and do. Emotions dictate actions. Emotional flows into social, if you able to identify other's emotions and you are aware of your own, you are able to decide how you want to react to it (FG1).  Your emotional-social side is something that I or the next person has little control over. It is mainly centred on emotions, or expression of emotions, which might be seen via behaviour. Your behaviour manifests itself socially or emotionally (FG1).

From the above table it became evident that stakeholders could not reach consensus on whether emotional and social readiness were a singular or separate constructs. The tension was not limited between stakeholder groups but also within stakeholder groups. The reported tension between one and multiple constructs in the present study resonated with the extant literature. Epstein et al. (2003) explicitly stated that this was an ongoing tension or debate between stakeholders. Similarly, local studies expressed the same sentiment (Bustin, 2007; Mohamed, 2013).

**Category Four: Perspectives on Emotional and Social Readiness**

**Theme Two: Emotional readiness**

**Subtheme One: Understandings of emotional readiness**

Role-players saw emotional readiness as synonymous with awareness, identification and expression of emotions. Parents used their experiences with their children to identify and



discuss emotional skills sets that they felt necessary as a pre-requisite for entry into mainstream education. Teachers used their experiences as educators to identify sets of skills that a child would need to attain before they are school ready, and professionals used their experiences as assessment specialists and therapists as a frame of reference to operationalise their understanding of the construct. Table 4.34 provides illustrative quotations of understandings of emotional readiness across stakeholder groups.

Table 4.34  
*Understandings of emotional readiness*

<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
I tell my child, if you want to cry my child, you can cry. If someone hurts you, you don't keep it to yourself, you tell someone, it is important to talk, to express your views and feelings (FG3).	Emotional would be what you are experiencing, bringing into a situation and how are you reacting and enacting (FG5)  To know, understand and manage myself (be able to express myself), therefore I would be able to understand others as well and manage relationships through communication (language) (FG5).  Emotional competence is about awareness of emotions how you feel on the inside, identification, how you see it on the face, in the body. This then relates to social, one needs to be able to communicate these emotions (FG5)	Emotional is about recognition of your own emotions, how this influences you and how you manage it (FG1).  Emotional is controlling behaviour from the inside. It is empowering the individual to drive his/ her life (FG1).  Emotional and social is interlinked, your emotional side have an influence on your social development (FG1).

From the table above it becomes evident that parents understanding of the construct is focused on children's ability to regulate emotions and their ability to share this experience with others. Teachers understood emotional readiness as the ability to be aware of emotions, understand emotions and manage emotions through appropriate communication with others. Professionals shared similar understandings. They understood emotional readiness as being able to recognise the emotions and manage these emotions from an intrapersonal perspective. They felt that emotional readiness/competence was an intrapersonal construct, which controlled behaviour from the inside; they felt that it was something that others had little control over, and that it was internally driven. From the findings above it emerges that the

emotional component of a child aids in his/ her reacting and enacting in the environment.

This is similar to the views of Stefan et al. (2009), Bustin, (2007), Deacon and van Rensburg (2012), and Mohamed (2013) that placed emphasis on children's need to be able to perceive emotions, understand emotions and manage and express them in the emotional social aspects of their lives.

### **Subtheme Two: Elements of emotional readiness**

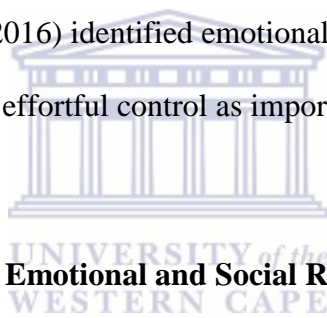
Role-players emphasised different abilities/skills as important attributes of emotional readiness. Parents explained their understanding of emotional readiness as the ability to act independently and emphasised that temperament plays a role in the regulation of emotions. Difficulties in this domain usually became apparent when children displayed anxious behaviour or physical symptoms such as headaches, nausea or anxiety. Teachers and professionals emphasised that children need to be aware of their emotions, identify their emotions and regulate their emotions appropriately. They also stressed that effective communication skills are vital to ensure appropriate regulation of emotions. Teachers and professionals also stressed that children would resort to temper tantrums, physical complaints, and tears if they were not emotionally mature enough to communicate their feelings appropriately. Independence and the role of temperament were acknowledged as important aspects of emotional competence. Table 4.35 provides illustrative quotations across stakeholder groups.

Table 4.35  
*Elements of emotional readiness*

<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
Children need to be able to learn to function and act independently (FG3).	Children need to be able to feel secure and confident enough to act independently, for instance walk to the classroom alone (II2).	To be able to identify emotions, to be able to recognise the emotion and to acknowledge it is part of you, be able to locate it on your face and inside of you. You then have to manage it (FG1).
It is easier to require skills if the child is prepared, able to separate from the parent (FG2).	They must be able to trust that parents will come and fetch them in the afternoon (FG5).	Children need to learn how to function independently (FG1).
It is important to acknowledge the importance of a child's temperament. If a child is an introvert, she will most probably be quiet and play alongside children (FG2).	Children sometimes needs to be on their own, you don't always have to have friends around you, you don't always have to be interacting, you can just learn to be your own best friend, you can be on your own and feel ok about it (II2).	Does the child understand feelings, to be able to articulate feelings into words, and then into actions, their language needs to be developed enough to allow this otherwise they would resort to temper tantrums and tears to make themselves understood? Is there immaturity or manipulation to get things done? (II1).
As soon as my daughter is not able to speak about her problems, her tummy begins to ache or she complains of headaches, she says that she is not hungry or even complains of being nauseas. I then know that something is not right (FG3).	How does the child understand feelings, to articulate the feelings into words, to transfer it into actions? Whether their expressive language is strong enough to be understood and acted upon by their peers. Children require a strong competence in language with their emotional intelligence, to get their needs understood and to request what they need or to tell someone to back off and leave them alone (II2).	Temperament plays a vital role in emotional readiness; it determines how the child is going to react if there are obstacles (II1).
	Do they resort to temper tantrums or tears in order to make themselves understood? If there is a level of maturity or manipulation to get things done in their environment (II2).	I always assess motivation; this includes responsibility and then also sensitivity or resilience (II1). If children are not able to communicate their feelings, it presents through somatic complaints (aches) or changes in behaviour (not eating breakfast or vomiting) (II1).

Parents highlighted the importance of independent behaviour as an element in emotional readiness. They felt that a child's ability to separate from his parents is vital to emotional readiness. Teachers mentioned elements such as the ability to be confident, secure and independent as important facets of emotional readiness. Professionals mentioned elements such as emotional awareness, understanding and expression/ regulation of emotions as important attributes of emotional readiness. They also felt that the child's ability to take responsibility and ability to act maturely were important elements of emotional readiness. Teachers and Professionals included the ability to communicate feelings and needs to peers and adults as an important facet of emotional readiness Thus, the important link with

language was emphasised. Parents and Professionals felt that a child's temperament also influences emotional readiness. Role-players referred to difficulties that might arise if a child is not ready on an emotional level. This included the display of physical symptoms such as headaches, nausea and vomiting and behavioural symptoms such as temper tantrums. The elements that role players identified as important determinants of emotional readiness were similar to operational definitions from the systematic review on definitions of emotional readiness/ competence in Phase One. For example, Bustin (2013) and Stefan et al. (2009) both defined or operationalized emotional readiness as being emotionally understanding, expressive, self-efficient, self-aware, independent and emotionally mature. Similar to Parents and Professional perceptions that temperament affects a child's emotional competence, Epstein et al. (2009) and Yoleri (2016) identified emotional regulation qualities such as temperament, emotional tone and effortful control as important attributes to consider in the child's emotional skill set.



#### **Category Four: Perspectives on Emotional and Social Readiness**

##### **Theme Three: Social readiness**

The *third theme* in category four referred to social readiness. This theme include two subthemes.

##### **Subtheme One: Understandings of social readiness**

Parents emphasised that social readiness is about relationships and how the child acts and reacts in relation to others. Educators saw social readiness as the child's ability to get along with peers and teachers in formal settings like the classroom and more informally on the playground. Parents and teachers commented that social readiness is a culturally embedded construct that needs to be understood within a specific cultural context. Professionals saw social readiness as an interpersonal construct, related to the child's interaction with the environment and people. Role-players saw social readiness mainly as the

child’s ability to interact with others individually or in a group. Table 4.36 provides illustrative quotations across stakeholder groups.

Table 4.36  
*Understandings of social readiness*

<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
Being socially competent means that you would be able to function in a group (FG2).	Social is seen in the interaction in the classroom with other learners and the teacher”. Also if the child can take the lead or help others? (II2).	Social for me is how one related to others, but also how you react to others when they give you instructions (FG1).
I really don’t get what you are asking? In terms of social, you know social is white, what do you mean? Ubuntu? It has double meaning, it means getting along with others as well. It means respect for the next person, respect for the elders (FG3).	Social would be in the context of a group and more than one person, even though you can be alongside the group (FG5).	Social refers to interaction with the environment and people and how they react to you (FG1).
Social skills are taught through behaviour (FG3).	Social is also culturally defined, what is acceptable in one culture is not always in the other, e.g. good manners to let the girl walk in front is acceptable in one culture but not in another (FG5).	
	We would look at how the child interacts with the group (FG5).	

From the table it becomes evident that role-players definitions of *social readiness* mainly centred on the child’s ability to establish and maintain interpersonal relationships. It was noteworthy that mothers in one of the groups found it difficult to find an equivalent word for “social”. It highlighted the fact that social readiness is a culturally defined construct and understandings of the construct might differ along cultural groups. The sentiments expressed in this theme were similar to the findings reported in Raver and Knitze (2003) where they emphasised the importance of culture and how this affects understandings of readiness on an emotional and social level. Similarly, articles included in the systematic review summation resonated with the theme expressed that an awareness of the cultural influences are essential in understandings of emotional and social readiness (Bustin, 2007; Mohamed, 2013; Stefan et al., 2009). The findings here also resonate with the recommendation from Foxcroft (2004), as well as Laher and Cockcroft (2014) that the cross-cultural sensitivity and adaptations in tests in multi-cultural societies must be prioritised.

## Subtheme Two: Elements of social readiness

Role-players felt that social skills are related to a child's ability to form and maintain friendships and significant relationships. The general perception conveyed by role-players were that a child's social skills is about their formal and informal interaction with the environment or a lack thereof. The ability to form and maintain friendships, effective communication and compliance to rules were mentioned as important attributes of social readiness. Table 4.37 provides illustrative quotes across stakeholder groups.

Table 4.37  
*Elements of social readiness*

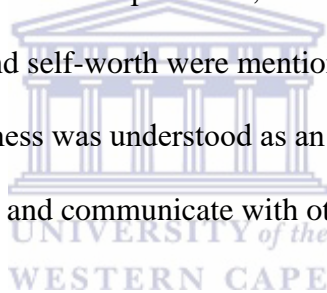
<i>Parents</i>	<i>Teachers</i>	<i>Professionals</i>
They can make friends and they can communicate with friends, they can share, they can learn from friends, can speak about it, share your feelings in that context (FG2).	How does the child interact with the group, to be able to tell someone to back off and leave them alone? (II2).	Socialisation is not only the ability to play but also ta ability to understand rejection in a group (FG1).
How to fit into a group, do they have friends and respect for friends? (FG3).	How children are able to lead and follow, if you do not lead it does not mean that you are less than. You might be able to understand, cooperate, and participate (II2).	Social is seen in the dynamic between children, my ability influences your ability and vice versa, it is not only being able to function in a group with a specific set of rules, it is also the communication between the children that is important. Thus, the ability to communicate is essential in social readiness (FG1).
The moment you see a child interacting with his peers, you would find out at school who is the leader (FG2).	Social is not only about interaction amongst children, but also looking at the alongside and how are they within the environment but not necessarily engaged with everybody else but able to function alongside and yet feeling part of it (II2).	

Parents highlighted elements such as the ability to play and communicate with friends and peers, the ability to share and to fit into group activities and to have respect and to form close relationships, as important facets of social readiness. Teachers emphasised that children need to be able to participate and to be cooperative in groups if they are socially ready. Professionals highlighted that the ability to be social and to communicate in a group as well as the ability to comply and follow rules are important elements in social readiness. These elements identified by role players were similar to the attributes and domains identified in the systematic review B from Phase One, where domains such as compliance to rules, pro-social

behaviour, communication and social skills were highlighted as important facets of social readiness/ competence (Bustin, 2007; Mohamed, 2013; Stefan et al., 2009).

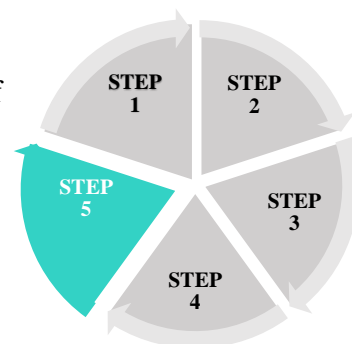
### **Summary of main findings in Category Four: Perspectives on Emotional and Social Readiness**

The majority of stakeholders agreed that emotional and social abilities/skills had an important role to play in the child's ability to prepare for and to adjust in the school setting. Role-players felt that emotional and social skills might influence other areas of development, such as cognitive functioning. Emotional and social readiness were considered as inter-dependent constructs. Emotional readiness was mainly seen as the child's ability to focus "inwards". Elements/ attributes such as independence, emotional awareness, identification of emotions, emotional regulation and self-worth were mentioned as important components of emotional readiness. Social readiness was understood as an "interactive" skill set. Thus how the child is able to relate to others and communicate with others within the context of specific rules.

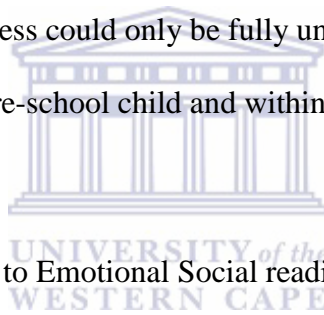


#### ***4.4.1.5 Step Five: Utilisation of maps***

The fifth step in concept mapping relates to the use of maps to illustrate how the findings address the stated research objectives. In this instance, the objective was to obtain stakeholder perspectives on emotional/social competence as a domain of school readiness. The findings presented earlier were distilled into a concept map that demonstrated the relationship between the various thematic content. The resultant concept map consisted of four quadrants that represented each of the thematic categories extrapolated from the role player groups. The quadrants were depicted as intersecting. The first quadrant represented perspectives on child development. In this



quadrant it is emphasised that development is a natural process and that developmental processes are interrelated and dynamic. This quadrant relates to general developmental processes and speaks to the myriad of rapid changes that children undergo, especially in the first six years. The outcome of these developmental processes are generally identified as physical maturity and mastery of several developmental milestones including, but not limited to school readiness. The second quadrant referred to perspectives of school readiness. In this quadrant the developmental trajectory is placed centrally in the achievement of school readiness. The second quadrant underscores the importance of holding multiple perspectives in mind when conceptualizing school readiness. Thus, this quadrant is a logical extension of the first in the same manner that school readiness is a logical outflow of dynamic development. Thus, school readiness could only be fully understood within the developmental trajectory of the pre-school child and within the contextual perspectives from a wide range of stakeholders.



The third quadrant related to Emotional Social readiness. In this quadrant, emotional-social readiness was identified as an important component of school readiness. Role-players emphasised the importance of emotional social readiness in school readiness assessments. Thus in this quadrant, the importance of emotional social readiness is extrapolated as a domain that requires substantial unpacking and deconstruction. In the fourth quadrant, the known barriers and facilitators to school readiness reflective of the South African context are identified. These barriers affect children's overall development that feeds back into the first quadrant and also impacts the development of emotional social readiness that constitutes a recursive influence to the third quadrant. Thus, this quadrant ensures that contextual relevance and sensitivity is maintained by articulating this as a central quadrant in the concept map. The resultant concept map illustrated that emotional social competence was seen as an



important component of school readiness and milestone in the pre-school child's development. It also alerted one to the fact that emotional social competence is affected by a variety of contextual issues. The concept map is illustrated in Figure 4.2 below.

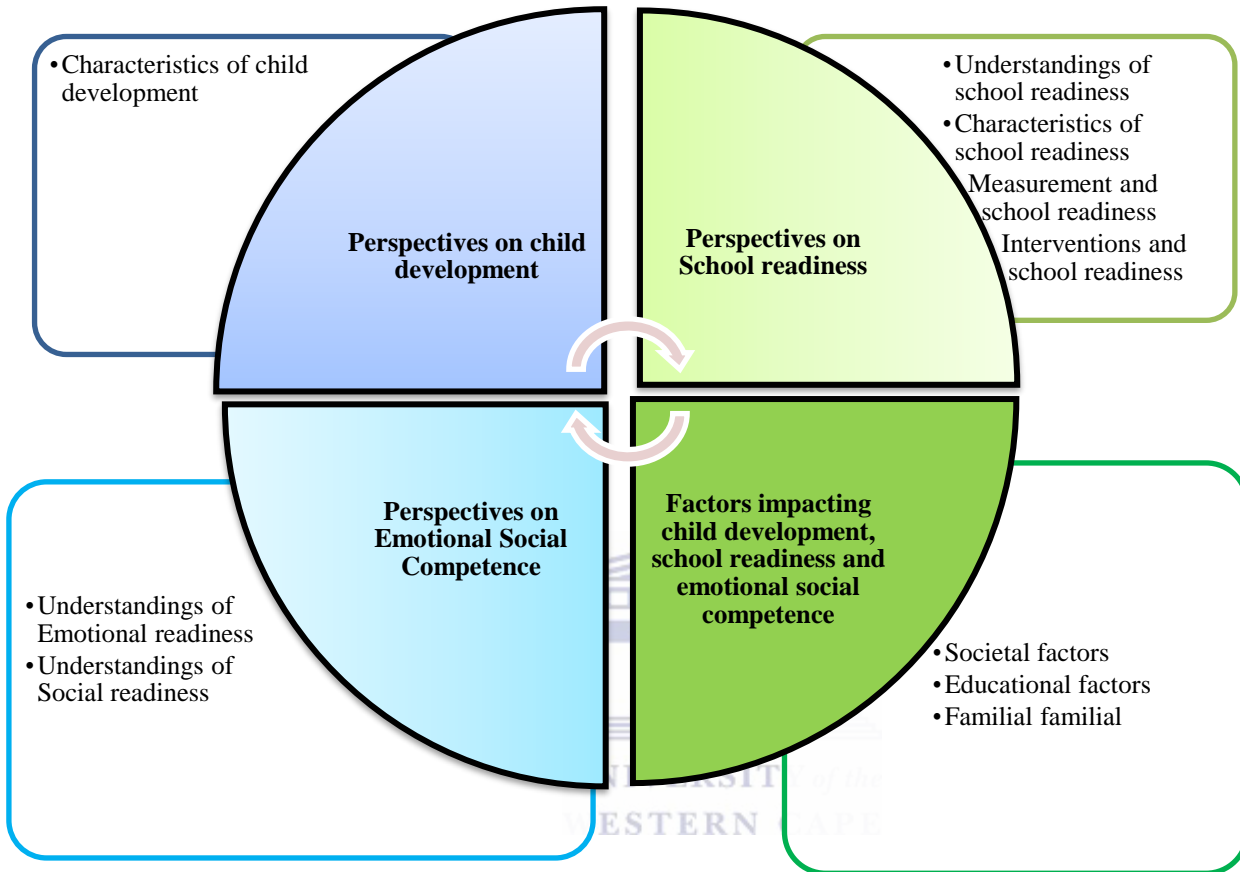


Figure 4.2 Concept map of emotional social readiness

The concept map illustrated that understandings of children's emotional social readiness cannot be separated from the systems within which they function. Societal, community, educational and familial systems act as the overarching framework and influence children's' emotional social readiness before school entry. A more nuanced and contextualised understanding of emotional social readiness is important when decisions are made in the construction phase of the proposed instrument.

## 4.5 CHAPTER SUMMARY

The main aim of the chapter was to establish a concept map for emotional-social competence as a domain of school readiness through the perceptions of various stakeholders including parents, teachers and professionals. Stakeholders expressed different and unique viewpoints about constructs that might lend itself to new meanings and labels improving mutual understanding and communication between professionals, but might exclude anyone else. Thus, different meanings are ascribed by different stakeholders to different constructs consistent with the finding of Pokharel (2005). This was evident in the understandings of constructs such as school readiness, emotional and social readiness across cultural groups.

Stakeholders highlighted (similar to the previous chapter) that no clear-cut understanding of or agreement on school readiness and emotional social readiness exists. They highlighted the complexity of constructs such as emotional and social readiness, and emphasised that these constructs are often multi-faceted in nature, complex to understand, because they are embedded in cultural values and identities. Emotional and social readiness were seen as important components of children's readiness to enter mainstream education. It was interesting to note that assessment of school readiness and emotional social readiness seemed to become more formalised from parental systems to remedial and professional systems. A lack of appropriate assessment measures and access to assessment was identified as prominent barriers to assess if children is school ready or not.

Results also emphasised that children's individual developmental needs and their readiness for school could only be fully understood if the interaction between societal, educational, familial and individual factors are explored and understood. This is similar to the findings of researchers who emphasised that early predictors of school success is directly related to a sensitive and stimulating family environment, high quality childcare environments and early stimulating environments (Bustin, 2007; Rimm-Kaufman & Sandilos,

2017; Young, 2015). Decisions around school readiness cannot be separated from broader contextual issues that affect the child, caregivers, schools and the community in which the child functions. A nuanced and contextualised understanding of these factors are necessary to facilitate optimal early stimulation, education and intervention strategies for children. Contextually-sensitive interventions should address barriers and facilitators at all levels e.g. capacity building to strengthen caregiver relationships with their children, training and support in education and enhancing safe communities to facilitate an optimum environment for children's capacity to learn. This will enhance school readiness.

#### **4.6 LIMITATIONS**

During the recruitment phase of the stakeholders, only mothers responded to attend the focus groups for caregivers. It was also noteworthy that only women participated in the Educator focus group. As already mentioned, the gendered nature of the response was noted and was thought to be reflective of who engaged with the education structure or school on behalf of the child and who teach in the foundation phase. The gendered nature, however understood, remains a limitation as it excludes male perspectives. As mentioned before, further study with male participants as a subgroup remain a focus for further exploration in future research.

Trustworthiness of data could have been improved by a follow up meeting with each of the focus group after data analyses to make sure that the data represented stakeholders understandings. This was not done due to time constraints. This limitation was off-set by the triangular nature of the multiple role-player groups.

#### **4.7 RECOMMENDATIONS FOR NEXT CHAPTER**

Chapter Four emphasised that understandings of emotional social readiness as a domain of school readiness cannot be separated from broader contextual issues. The

importance of sound methodological decisions that are contextually relevant in the South African context needs ongoing attention. The next chapter aims to report on the construction of the instrument in the third phase of the study. A nuanced understanding of context will contribute to contextually appropriate definitions of constructs and operationalisation of these constructs.



**CHAPTER FIVE**  
**PHASE THREE A**  
**TEST CONSTRUCTION**

**5.1 INTRODUCTION**

This chapter reports on the construction of the instrument in the third phase of the study. The findings of Phase One and Two informed the decisions in the construction phase. The chapter focused on design principle, structural choices and general administrative considerations. The Chapter ends with a summary of the most important considerations and a brief discussion of the way forward.

**5.2 AIM OF THE INSTRUMENT**

The first consideration in the planning phase is usually to determine and state the overarching aim for the intended measure. The aim generally refers to the intention or purpose of the measure. The purpose of the measure is clearly vital, as it serves the basis for constructing the measure (Foxcroft, 2013).

The aim of the proposed instrument was to:

- a) *screen* for emotional-social readiness in pre-school children
- b) identify specific *strengths and weaknesses* in emotional-social competence as a domain of school readiness
- c) develop a profile of the strengths and weaknesses of the child in the domains of emotional-social competence.

**5.3 DEFINING THE TARGET CONSTRUCT**

This step will clarify the characteristics of the construct to be measured, what the measure will be used for, and the target group (population) for the measure (Taguma, 2000). These decisions are usually informed by available theory related to the measurement problem

at hand (DeVilles, 2016). Effective scale development is contingent on clear and specific conceptual formulations that include theoretical and operational definitions (DeVilles, 2016). The target construct was *emotional social competence* as a domain of school readiness.

The literature review (Chapter 2), systematic reviews (Chapter 3) and concept mapping (Chapter 4) highlighted that consensus has not been reached on the theoretical and operational definitions of emotional-social competence. It became clear that emotional-social competence was largely seen as an unobservable hypothetical construct, which together with others, formed part of a theory that explains certain behaviours or observations in adults and children (Huysamen, 1996). These constructs must be operationalised in order to facilitate measurement (Bustin, 2007). Once operationalised, these behaviours help us to understand the relationship between emotional and social attributes and domains of school readiness.

The two systematic reviews in Phase One (Chapter Three) provided a global and local (South African) overview of perspectives on emotional and social competence from good quality research. The reviews assisted to establish an overview of existing theoretical and operational definitions (construct and content domain) for emotional social competence internationally and in the South African context. Phase Two (Chapter Four), concept mapping, allowed the opportunity to view the constructs in the context of the population of interest by highlighting perceptions of all the major stakeholders on child development, school readiness and more specifically on the operationalisation of emotional social competence as a domain of school readiness in the South African context. The findings in these Chapters were used as the overarching framework for identification of domains, sub-domains and attributes. For the present study, emotional social competence was conceptualized as an interrelated set of skills including intrapersonal (emotional) and interpersonal (social) competencies related to the child's abilities to effectively cope with age appropriate challenges across settings.

Emotional social competence was further conceptualised as consisting of two interrelated domains, namely emotional competence and social competence. Emotional Competence and Social Competence as the primary domains were conceptualised as consisting of *sub-domains*. Theoretical and operational definitions were adapted or adjusted to reflect the underlying attributes for each subdomain.

### **5.3.1 Emotional competence**

For the purposes of the present study, the theoretical definition of emotional competence was distilled from the general literature review and the systematic reviews. Thus, emotional competence was defined as behavior that is directed by the child's internal sense of self and is mostly focused inward. Emotional competence entails confidence in well-being related to feeling states (emotions) and an accompanying skill set that enables coping with age appropriate challenges in formal and informal settings.

At an operational level, emotional competence was comprised of five subdomains that included a) Emotional maturity, b) Emotional management, c) Independence, d) Positive sense of self, and e) Mental wellbeing and Alertness. Table 5.1 below reflects the theoretical definitions of the identified subdomains in emotional competence. In addition, personal attributes were included for each of these subdomains.

Table 5.1  
*Theoretical definitions of subdomains in emotional competence*

<b>Subdomain</b>	<b>Definition</b>	<b>Personal attributes (how well the child is able to)</b>
<b><i>Emotional maturity</i></b>	The ability to be self-reflective about choices and actions and how it might impact self and others.	<ul style="list-style-type: none"> <li>- take responsibility for actions and emotions</li> <li>- learn from experiences</li> <li>- adjust to changes in a positive/ functional way</li> <li>- deal with their emotions in an age appropriate way</li> </ul>
<b><i>Emotional management</i></b>	The ability to become aware of own and others', emotions, to identify emotions, to understand these emotions in context and regulate these emotions appropriately.	<ul style="list-style-type: none"> <li>- become aware of their own and others' emotions</li> <li>- to identify emotions</li> <li>- to understand these emotions in context</li> <li>- regulate these emotions appropriately.</li> </ul>
<b><i>Independence</i></b>	The ability to initiate behaviour and take responsibility for actions in a developmentally appropriate way.	<ul style="list-style-type: none"> <li>- self-direct behaviour and thoughts</li> <li>- take responsibility for his/ her thoughts, feelings and actions whether alone or in a group.</li> </ul>
<b><i>Positive sense of self</i></b>	The ability to hold onto a coherent and constructive sense of self that is not subject to situational outcomes.	<ul style="list-style-type: none"> <li>- show confidence in themselves</li> <li>- can see benefits in required tasks or requests</li> <li>- show willingness to engage with challenges</li> <li>- show a willingness to persevere</li> <li>- can accept negative feedback and see it as separate from the self.</li> </ul>
<b><i>Mental wellbeing and alertness</i></b>	<p><i>Mental wellbeing</i> - The presence of a general sense of wellbeing and the absence of significant symptoms that are not age appropriate and do not fit the specific situation.</p> <p><i>Alertness</i> refers to the ability to be attentive and to answer age appropriate questions.</p>	<ul style="list-style-type: none"> <li>- function in a societal context and meet the demands of everyday life.</li> <li>- identify own strengths and can build on them</li> <li>- focus on own assets and abilities rather than on problems or weaknesses.</li> <li>- demonstrate an absence of physical, emotional or psychological symptoms</li> <li>- demonstrate general knowledge</li> <li>- awareness of surroundings</li> <li>- general reasoning</li> </ul>

### 5.3.2 Social competence

As mentioned before, the theoretical definitions were derived from systematic reviews and literature. For the purposes of the present study, social competence was defined as having a more interpersonal or relational focus. The focus was on the relationship with the external world/ environment, and thus focuses on the interactional skills including relationships with people and cooperative endeavours such as play. These skills are integral to the ability to relate to and communicate with others in formal and informal settings. Four subdomains made up social competence namely a) Social skills/ confidence, b) Pro-social behavior, c)



Compliance with rules, and d) Communication. Table 5.2 reflects the theoretical definitions of the identified subdomains in social competence with their respective personal attributes.

Table 5.2  
*Theoretical definitions of subdomains in social competence*

<b>Subdomain</b>	<b>Definition</b>	<b>Personal attributes (how well the child is able to)</b>
<i>Social skills/ confidence</i>	The ability to interact with others in a developmentally appropriate way.	<ul style="list-style-type: none"> <li>- establish warm and empathic relationships</li> <li>- maintain productive and constructive interpersonal relationships</li> <li>- assert him or herself in social contexts in a socially acceptable manner</li> <li>- successfully achieve social tasks by being aware of thoughts and feelings of others</li> <li>- direct actions appropriately to achieve goals.</li> </ul>
<i>Pro-social behaviour</i>	Refers to behaviour and actions that are to the benefit of others.	<ul style="list-style-type: none"> <li>- cooperate with others</li> <li>- act in the interest of others</li> <li>- show respect towards others</li> <li>- show thoughtfulness towards others</li> </ul>
<i>Compliance with rules</i>	Refers to the ability to comply with and to follow rules in specific settings.	<ul style="list-style-type: none"> <li>- understand social rules</li> <li>- adhere to ground rules stipulated in specific contexts</li> <li>- follow instructions</li> <li>- cope with discipline and reprimand</li> <li>- be responsive to feedback about behaviour in relation to compliance with rules</li> </ul>
<i>Communication skills</i>	Refers to the ability to use language and non-verbal expression clearly and effectively in the service of expressing thoughts, feelings and needs.	<ul style="list-style-type: none"> <li>- articulate his or her needs effectively, confidently and clearly</li> <li>- be aware of the need to pay attention to the expressed thoughts, feelings and needs of others</li> <li>- listen to and understand the expressed thoughts, feelings and needs of others.</li> <li>- read and accurately understand non-verbal cues.</li> </ul>

#### 5.4 TARGET GROUP

The target group was identified as *five to seven year old* preschool children based on the following considerations. In South Africa, based on maturation, seven-year-old children are legally mandated to enter primary school (South African Schools Act, 1997). The children in the age category five to seven years, fall in the *pre-foundational phase* of schooling, Gr. RR and Gr. R. (The Education Laws Amendment Act, 2002). The

foundational phase aims to enhance skills in children to prepare them on cognitive, physical, emotional and social levels for the more structured formal transition into mainstream education (DOE, 2013). This phase is an important phase to hone children's emotional and social competencies/skills before entry into mainstream education (Bustin, 2007 ; Denham et.al, 2012; Epstein et.al, 2009; Hymel et.al, 2011; Janus & Offord, 2007; Mohamed, 2013; Stefan. et.al. 2009). The final consideration is based on good quality research findings in Systematic review A (Chapter 3) where the majority of assessment measures for emotional social competence identified the pre-school target group as children aged five to seven years.

## **5.5 DEFINING USER AND RESPONDENT GROUPS**

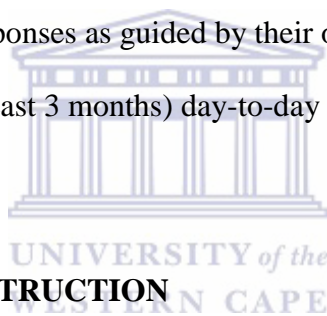
A further aspect that needed careful consideration was the identification of *user* and *respondent* groups. Bustin (2007) concluded that observations as an alternative to verbal or written self-reports provide useful ways to establish competency on emotional and social levels with populations who are developmentally unable to reflect or express their self-knowledge. Observation was thus the preferred choice to gather information. It was noted that researchers cautioned against this way of establishing competency. They reasoned that inbuilt bias that relates to the perceptions of the user and personal reactions to the behavior of the child might exist (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). The value of observation as a method has long been understood in seminal texts to be contingent on the ecological validity of such behavioural observations and the ability of the respondent to observe and report on changes over time (Anastasi & Urbani, 2006).

It needs to be noted that parent and/or teacher observation was the preferred choice to gather information in all of the diagnostic and screening instruments that were identified and discussed in the systematic review (Chapter Three, Review One). This confirms that observation as a methodological choice to gather information, is central to the evaluations of

children in the pre-school category (five -seven years). These observations are usually made by the relevant role-players including teachers, parents and professionals.

*User groups:* The user groups for the proposed instrument were identified as teachers and professionals as the most pertinent stakeholders in school-readiness assessment. The user group would refer to individuals who would use the information gathered in the form of observations to screen for emotional and socially readiness. The user group for the proposed instrument was professionals inclusive of educators, social workers, occupational therapists, psychologists and pediatricians.

*Respondent groups:* The respondent group referred to individuals who will complete the screening instrument. The respondent should therefore know the child well, which would allow for informed choices in responses as guided by their observations. It will include anyone that have substantial (at least 3 months) day-to-day interaction with the child namely parents, caregivers or teachers.



## **5.6 LANGUAGE OF CONSTRUCTION**

The choice of language is an essential and often crucial consideration in test construction (De Kock, Kanjee & Roodt, 2013). Hambleton, Merenda and Spielberger, (2004) emphasized that the language used in the “directions, rubrics and items” should be appropriate for the intended cultural and language populations. The researcher was very aware of the impact of choice of language in both the construction and administration phases given the socio-political and multi-lingual context in South Africa. To this end, the impact of culture and language in the understanding of school readiness and more specifically emotional social competency was examined in the Concept Mapping phase of the study. In the construction phase it became clear that *English* was increasingly mentioned as the preferred language. The preference related to a number of considerations including, but not limited to social mobility, internationalisation and adoptability (Hambleton et al., 2004). De

Kock, Kanjee, and Roodt (2013) concurred that English was currently perceived as the primary language in mainstream schooling and most often used as the preferred medium of communication across contexts in South Africa. Common understandings of the constructs were used as the basis for the theoretical definitions and operationalization of the construct and accompanying item writing. Therefore, English was chosen as the source language in the construction of the proposed instrument. Parallel development of a multi-lingual instrument or multilingual forms was beyond the scope of this study, but translations to other official South African languages will remain a focus for further research and development.

## **5.7 STRUCTURAL DECISIONS**

Important decisions about the test design, including the choice of *format* for the proposed instrument namely screening versus diagnostic tool, the *structure* of the instrument for example biographical questionnaire and self-report measures, decisions about *administration and scoring* for example mode and timing of administration, summative versus formative assessments and *item format* and *scaling*, were made. These decisions and the rationale for their use are briefly presented and discussed below.

### **5.7.1 Format of the proposed instrument**

The format for measurement needs to be determined parallel to item writing. The choice of format usually depend on the phenomenon under investigation (DeVilles, 2016). The format chosen for the proposed instrument was a *screening instrument*. The following features of a screening instrument were considered advantageous and appropriate for the aim of the proposed instrument. Screening instruments are user friendly and easy to administer (Pool & Hourcade, 2011). Stefan et al. (2009) identified that screening tools are time and cost efficient. Screening instruments often categorise children into groups (for example risk groups) with good accuracy for example emotionally-socially competent (Lonigan, Allan &

Lerner, 2011). Thus, screening tools can give a reasonably good indication of whether the child is likely to have mastered the targeted construct or ability (Stefan et al., 2009). Reports from screening instruments can be available immediately and tend to be simple, clear and uncomplicated (Stefan et al., 2009). Thus, the screening tool was adopted as the format for the proposed measure. The screening format will enable the tool to identify whether children are competent in the emotional and social realms. The cost and time efficient nature of screening instruments will increase accessibility and adoption as it will have a greater ease of use.

A wider audience usually use screening instruments (Maruish, 2017). Foxcroft (2013) stated that screening instruments usually take on a multi-rater perspective, having different respondents (for example parents and teachers), and may have different forms. For example, two of the screening instruments identified in Systematic review A (Chapter 3) had multi-rater perspectives. The SCE/SCS included separate forms for teachers and parents (Stefan et al., 2009). The EDI used a singular form for all raters (Janus & Offord, 2007).

A multi-rater perspective with a single form was adopted for the proposed instrument, because multiple groups would be interested and able to use a screening measure for emotional social competence. Interest groups or possible user groups might include:

- a) professionals (for example psychologists, occupational therapists, social workers, speech therapists and pediatricians) who in their respective scopes of practice would deal with children's emotional-social readiness for school and accompanying aspects of child development,
- b) education specialists (teachers) who deal with aspects of emotional social competence in their classrooms, who are familiar with the child's behaviour patterns, general traits and abilities, and

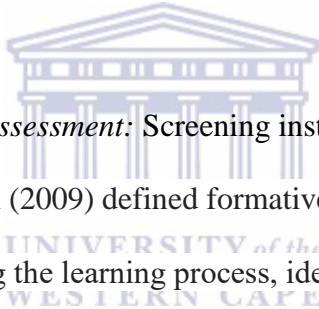
c) caregivers can also complete the screening instrument to gauge their children's abilities in this realm.

The proposed format of a *screening instrument* chosen was adapted to be a singular form that can be completed by multiple respondent groups (for example caregivers and teachers).

Screening measures can be either strengths-based or deficit-based (Epstein & Sharma, 1998). Strength-based screening measures have multiple benefits. This include a focused attention on children's strengths instead of their challenges, which leads to accompanying opportunities for learning and growth (Epstein, 2004). Completing screening measures allows the family to be involved in planning and execution of the interventions (Epstein & Sharma, 1998). Strength based screening focus on improved identification of competencies for progress monitoring of interventions (Meisels & Atkins-Burnett, 2005). A strength-based assessment measure would thus focus on the improvement and development of positive behaviors or skills that are incompatible with problem behaviors (Epstein et al., 2009). Conversely, a strength-based assessment moves away from the reduction of problem behaviors or deficits (Stefan et. al., 2009). Griffith et al. (2010) recommended that competence-based measures could refocus teachers, parents, and children on positive attributes of behaviour. Thus, the proposed screening format was further augmented to be a *strength-based* assessment measure.

*Questionnaire format:* A questionnaire format for the competency based screening measure was selected in order to evaluate emotional social competence as a domain of school readiness. Questionnaires as self-report measures, are contextually appropriate, cost effective in time, relatively inexpensive, and are able to incorporate the experiences and observations of significant stakeholders in a summary format (Babbie, 2013). Owens et al. (2015) added that this type of measurement usually consists of items that are tested and selected with

acceptable degrees of reliability, construct validity and factorial purity. However, Bustin, (2007) cautioned that the value of the instrument depends partly on the quality of the responses. A *close-ended question format* was selected as the response format for items. This format clarifies the response options for the respondent and reduces the possibility of vague or inconclusive answers (Breakwill, Hammond & Fileschaw, 1998 as cited in Fauconnier, 2005). Forced choice items makes respondents choose a response option in response to a statement that indicates a definite opinion. Items would be introduced with a standard phrase namely “the child:” followed by the specific statement. The selection of forced choice items was consistent with the typical or common format of questionnaires, where two or more choices are presented at the same time and respondents are asked to indicate their preference/choice (Foxcroft, 2013).



*Formative vs Summative assessment:* Screening instruments can be either summative or formative. Dunn and Mulvenon (2009) defined formative assessments as assessments that monitor children’s progress during the learning process, identifying aspects of learning that need to receive ongoing attention and intervention. Formative assessments identify strengths and weaknesses in the specific domains e.g. strengths in independence or weaknesses in communication skills. Thus, formative assessments can identify target areas if specific interventions might be needed. Formative assessments are done on a recommended or specified schedule e.g. quarterly. Summative refers to assessments of progress at the end of a specific time period (Dunn & Mulvenon, 2009). Summative assessments would be used to evaluate specific outcomes against some standard or benchmark (Garrison & Ehringhaus, 2007).

The proposed instrument can be used formatively and summatively to assess mastery relative to the developmental milestones of five to seven year old pre-school children in their reception year (Gr.R). Formative assessments should be done quarterly to align with the

assessment policy of the Department of Basic Educations (National Protocol for Assessment Grades R-12, 2012). Summative assessments can assess the child's emotional social skills at the end of the reception year (Gr. R).

*In summary*, the format for the proposed instrument has been finalised to be a competency-based screening instrument in questionnaire format. The instrument will be a single form that can be completed by multiple raters who will respond to close-ended items. The proposed instrument can be used in both summative and formative assessments.

### **5.7.2 Multicultural sensitivity/ Culture fairness**

A further consideration in the development plan, was that the instrument should at least be applicable to the majority of cultural groups in South Africa (Foxcroft, 2013). This was given special consideration when constructs were defined and operationalized in Phase One and Two of the present study. In the Systematic reviews (Phase One), a wide variety of sources were consulted to identify available tests and theoretical and operational definitions within the South African context. In Phase Two (Concept Mapping), the opinions of different cultural groups were sought to highlight differences in the cross-cultural understandings of constructs when different cultural groups participated in the focus groups. The core findings in Chapter Four (Concept mapping) highlighted that culture remains an important consideration in understanding and meaning ascribed to target constructs. However, although cultural and societal practises still needs consideration, Venter (2010) postulated that in all cultures the developmental cascade is almost the same in children's development and depend primarily on functional maturation and on learning opportunities. From these findings, it emerged that a sensitivity needs to exist in the choice of constructs, as one needs to recognize the complexities of living and learning in a multilingual society. Thus, the empirical process followed in the construction including stakeholder participation contributed to the culture



fairness or cultural sensitivity of the proposed measure. An on-going commitment to empirically testing the resultant instrument in different cultural contexts was undertaken at a philosophical level. For the present study, the piloting process was identified as an important step in further testing the multicultural sensitivity of the resultant screening instrument.

## **5.8 STRUCTURE OF THE PROPOSED INSTRUMENT**

The proposed instrument was conceptualised as having three parts:

### **5.8.1 Part One: Biographical section**

The first part of the questionnaire included questions about demographics for the child, caregiver and respondent. In other words demographic information for a maximum of three people were requested. Information related to the child included the child's name, birth date, gender, birth order, ethnicity, home language, name of pre-school attending and language of instruction. This section asked questions about any trauma or history of trauma in the child's life. This section also obtained information about the family composition including how many children in the family, their ages and gender. Information related to the caregiver(s)/ parent(s) included occupational status, age and marital status. This section also enquired about financial support such as receipt of governmental assistance or grants. Information related to the respondent included how long (in months) the respondent knew the child and whether the child has ever been referred for additional support.

The information obtained in the biographical section of the questionnaire allowed the user to obtain a more nuanced understanding of the child in the context of his family and school. The last two questions in the biographical section of the questionnaire required the respondent to provide an overall rating of the child's readiness for school on a social and emotional level. These items were taken into account when scores are calculated on the screening instrument, and to determine the overall *perception of the respondent* around the child's emotional and social readiness to enter school. It was considered important for these

two questions to be asked before the respondent completed the items on the domains of readiness. This provided the respondent's initial impressions of the school readiness of the child on emotional and social levels.

### **5.8.2 Part Two: Emotional and Social competencies/ skills questionnaire**

Part Two comprised of a list of items per domain and sub-domain that described the child's emotional or social competencies. The respondents had to rate the child's competencies on each item in each sub-domain. It was envisaged that statements of behaviours that underpin emotional social competence could be formulated in forced-choice response format. Items were conceptualised as being grouped together to feed into specific sub-domains and ultimately into the primary domains. The actual item writing process will be described later in this chapter after the primary scaling decision are presented.

## **5.9 SCALING DECISIONS**

A combination of Likert and analogue scaling was selected for the instrument. Both types of scales were considered appropriate with forced choice items (Foxcroft, 2013).

*Likert Scale:* The Likert rating scale format was selected as it allowed users to indicate the degree or frequency of agreement with the statement on the emotional and social behaviours, skills and strategies displayed by the child. *Likert scaling* is one format that is widely used in instruments that measure opinions, beliefs and attitudes. The response items must accurately reflect true differences of opinion (DeVilles, 2016). A good Likert item should state the construct under study in clear terms (Norman, 2010).

A five-point Likert scale was proposed for rating that included easily understandable descriptors. Jamieson (2004) recommended that the words for each scale point must be precise and descriptive in order to increase the reliability of the tool. The chosen Likert scale allowed respondents to express how much they agree or disagree with a particular statement

about the child's emotional and social competencies. The scale options were arranged in ascending order to assist in positive framing of the child's competencies ranging from a child that is not displaying the specific competency at all to a child that has mastered the competency across contexts. The 5-point Likert scale was selected to range from "never true for the child" to "almost always true for the child". Below are the five qualifiers that were used in the Likert scale:

- "Never" true for the child. The child is not displaying the mentioned competency or skill in any context.
- "Rarely" true for the child. The child is displaying this competency on rare and isolated occasions, mostly in only one context.
- "Not consistently true" for the child. Although sometimes present, consistency is not present and context might be varied.
- "Most of the time true" for the child. The child is showing that he has mastered the mentioned competency/ skill most of the time.
- "Almost always true" for the child. The child has mastered this competency, across contexts.

*Analogue scale:* A visual analogue scale consists of a horizontal line of numerical values that gives a graphic global measure to an attribute (Huysamen, 1996). Loewenthal (2001) further identified that visual analogue scales provide an objective value to a subjective interpretation. Visual analogue scaling was used in the last two questions in the biographical section and in the main (second) section of the questionnaire. In the last two questions of the biographical questionnaire the respondent was asked to rate the child's emotional and social readiness for entry to mainstream education on a four point scale from "Excellent (1), Still needs some attention (2), Needs lots of attention (3) to Poor (4)". In the main section of the instrument, visual analogue scaling was applied to the five points of the Likert scale

described above. The numerical ratings indicated the extent to which the child possesses certain emotional and social attributes. The numerical values were applied in ascending order to correspond to an incremental reflection of ability or competence related to the statement on the respective items. The analogue Likert scale started at one rather than zero because zero might be associated with the total absence of skills, which is not true as children usually have acquired the skill to some degree but it might not be observable yet and could therefore not be assessed accurately. Thus, the final Likert and visual analogue scale were presented as follows:

1. “Never” true for the child. The child is not displaying the mentioned competency or skill in any context
2. “Rarely” true for the child. The child is displaying this competency on rare and isolated occasions, mostly in only one context
3. “Not consistently true” for the child. Although sometimes present, consistency is not present and context might be varied
4. “Most of the time true” for the child. The child is showing that he has mastered the mentioned competency/ skill most of the time
5. “Almost always true” for the child. The child has mastered this competency, across contexts

## **5.10 ADMINISTRATION**

Administration involves a number of aspects including administration guidelines, time to complete, mode of administration and timing of administration.

### **5.10.1 Instruction guidelines (general information)**

In the second part of the questionnaire the screening items are introduced by a short explanation to guide the respondents on how to complete the instrument. It reads as follows:

“Below is a list of statements that describe children’s emotional and social competencies/ skills. For each item you need to choose one description that best fit the child’s emotional social competency skills now or within the past three months”.

### **5.10.2 Time to complete**

It is anticipated that the questionnaire in its final form will take 15- 20 minutes to complete. The average time for administration allocated for screening measures with items ranging from 28 – 103 items is 7 – 20 minutes (Bustin, 2007; Epstein et al., 2009; Janus & Offord, 2007; Stefan et al., 2009). In order to increase the likelihood of adoption in classroom contexts, the maximum time to complete the screening instrument should not exceed 20-30 minutes.

### **5.10.3 Timing of administration**

Two guidelines for timing of administration were identified. For formative assessments, the ideal timing of administration is at the end of each quarter of the reception year. This will allow the user to develop a profile of the child over the course of the academic year. Terms are typically 8-10 weeks and approximate a three-month period, which is the minimum period required for developmental changes to be noticeable (DBE, 2013). As mentioned before, quarterly applications align with the assessment policy of the Department of Basic Education, National Protocol for Assessment Grades R-12 (DBE, 2012). For summative assessments, the ideal timing of administration would be the second last quarter of the reception year.

### **5.10.4 Mode of administration**

Screening instruments can be administered in two ways: Paper-based administration or computer-based administration. Foxcroft (2013) reported that computer-based administration gained popularity in research and clinical practice. Foxcroft (2011) cautioned

developers against the use of computer-based instruments as socio-economic and cultural factors could affect test performance. Access to computers might be a barrier, as this assumed both access to and familiarity with computers that might be economically and racially patterned in the current South African context (Kanjee, 2001). In addition, the costs associated with piloting and initial scale development can increase exponentially if computer-based applications were chosen.

Paper-based administrations entails completion of the instruments on paper versions. Paper-administrations require manual coding and data entry for computer or software analysis (Gwaltney, Shields & Shiffman, 2008). This might be a cumbersome process, but allows for spontaneous data curing and verification that the questionnaire has been completed accurately (Gwaltney et al, 2008). Paper-based administration is the primary modality used in the Department of Education and increase the likelihood of compliance and completion (DOE, 2013). In addition, paper-based applications are familiar forms of administration, known to respondent groups such as, caregivers and educators (DBE, 2014). Paper-based administration is the most preferred mode of administration based on socio-economic and cultural factors in the South African context (Foxcroft, 2011). Thus, *paper-based administration* was selected for the proposed measure.

The proposed instrument was further conceptualised to be administered at an individual level rather than a group level. The use of observations and the inability of the target group to self-report essentially excluded group administration as an option (Foxcroft & Roodt, 2013). Thus, the proposed mode of administration was an individual, paper-based administration test, based on the observations of the respondent group.

## 5.11 SCORING

The user group would allocate scores that are reflective of the child's competencies. Scores are selected from the analogue scale assigned to the Likert scale. Thus, each item in a sub-domain would receive a score from one to five. The scores allocated are recorded in a column. Each sub-domain derive a sub-domain score that is a composite score computed across items in the sub-domain. Sub-domain scores are recorded in designated sub-total blocks. The sub-domain score reflects whether the child has achieved competency in that sub-domain. The sub domains scores and individual items in the sub-domains might highlight some of the specific challenges the child is faced with. A low score in a specific sub domain and a score of one or two on a specific item might indicate specific weaknesses in an area that that might need attention. These aspects can receive attention in specific interventions.

Each domain will derive a domain score that is a composite score computed across all items in the domain. The subtotals are added together to calculate a total score for each of the domains. The domain scores will reflect whether the child is emotionally and/ or socially ready for school. The results of the **total score** for each domain will give an indication of the level of readiness on an emotional level or a social level to enter mainstream education. For example, the total score for *emotional competence* could then be classified in one of three categories defined as:

1. definitely ready on an emotional level
2. ready for school on an emotional level with additional support
3. not ready on an emotional level for school.

The total score for social competence could be classified in one of three categories defined as:

1. definitely ready on a social level
2. ready for school on an social level with additional support
3. not ready on an social level for school.

## 5.12 PROPOSED INSTRUMENT NAME

The proposed name for the instrument is the Emotional Social Screening Tool for School Readiness. For ease of reference, the acronym E3SR will be used to refer to the proposed tool in subsequent chapters.

## 5.13 ITEM CONSTRUCTION

After the target construct was defined and operationalised, the researcher proceeded to the identification and selection of items. This decision was based on Foxcroft's (2013) recommendation that decisions regarding item choice/ construction should be considered during the planning/ conceptualization stage. The developmental milestones of five to seven year old children were used as a baseline for item writing. The developmental milestones take into account how these emotional and social competencies correspond with the child's chronological/ development. Consequently, the ability to accurately screen for children's emotional and social abilities could be enhanced. The decisions about scale construction included, 1) the number of items, 2) the complexity of items, and 3) the format of items. Items were selected and/ or written based on their representation of the construct being measured.

*The number of items:* A tenacious balance must be maintained in the number of items that are included in an instrument. For example, Foxcroft (2013) recommended that while larger numbers of items can improve the reliability of a test, too many items may lead to other response effects for the respondent. Seminal texts in test construction recommend that at least five items per domain should be included and overall approximately fifty items are usually recommended for a measure (Anastasi & Urbina, 2006). In line with these recommendations, it was decided that the final range of items included in the proposed measure would be between 50-60 items.



*Generating a pool of items:* DeVilles (2016) suggested that an initial pool of items must be generated from which the final items will be selected for inclusion on the instrument. The initial pool of items can be comprised of items from existing measures or items developed by the construction team (Kline, 2015). Items must be selected to tap into and reflect the construct(s) of interest (Kline, 2015). DeVilles (2016) recommended that the initial pool of items needs to be at least three to four times as large as the final scale to ensure that internal consistency is increased. The number of items in the instruments in the systematic review A (Chapter Three) was used as a baseline to establish how many items needed to be developed in the initial item pool. For instance, the average scale lengths of the instruments in the systematic review A (Chapter Three) of 28-103 items, aided in the decision that a pool of at least 100 items needed to be generated across the 9 sub-domains. For the present study, 112 items were sourced from a list of identified instruments. Table 5.3 provides an overview of the instruments that were used as a guide to item writing.

Table 5.3.  
*Instruments that guided item writing*

Name of Instrument	Acronym	Author	Source
School readiness checklist		Kidsfirst Children Services (2014)	www.kids-first.com.au
Preschool Screening for Emotional and Social competencies		Mohamed, S.A. (2013)	Unpublished doctoral thesis
Pre-school behavioural and emotional rating scale	Pre-BERS	Epstein et. al. (2009)	Ebscohost
Pre-school screening for emotional and social competencies	SSRS	Stefan. et.al. (2009)	Ebscohost
Early Development Instrument	EDI	Janus and Offord (2007)	Ebscohost
Emotional school readiness checklist		Fauconnier, J. (2005)	Unpublished masters thesis
Vineland Adaptive behavior scales	Vineland II	Sparrow, Cicchetti & Balla, (2008)	Pearson distributors
South African Child assessment schedule	SACAS	Barbarin, O.A. (1996)	Eric
Social attribute checklist		McClellan & Katz (2001)	Eric digest
The school readiness inventory		Cedoline, A. J. (1972)	Eric
Child behavioural rating scale	CBRS	Belhar & Springfield (1972)	Ebscohost

### 5.13.1 Identification and extraction of test items

After becoming familiar with what constitutes a clear and concise item, the researcher began to identify and extract items that fulfilled the requirements of the aims of the screening instruments. The items were then matched with the identified domains and sub-domains with graduate attributes as guidelines. Each item in the pool was carefully scrutinized by the researcher and her supervisor to avoid confusing wording, ambiguity, possible bias and grammatical errors taking into account concerns raised by stakeholders in Phase Two. Where necessary items were adjusted and re-written to be clear, concise and in line with children's specific developmental milestones. The initial pool of items was thus assessed to determine if the items tapped into the identified attributes and were aligned with specific developmental milestones. These items also needed to be clear, concise and easily understood.

The items were distributed across the subdomains. The emotional competence domain included 61 provisional items. Table 5.4 summarises the items per sub-domain in the emotional competence domain.

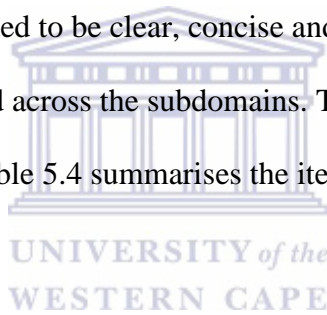


Table 5.4  
*Emotional competence: Pool of items per sub-domain*

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**EMOTIONAL COMPETENCE: Is the child able to:**

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**EMOTIONAL MATURITY**

1. \*Ask for help if he/ she needs to do a task or home work, 2. Accept discipline, authority at home/ school, 3. Apologise if acted wrong (hurt a sibling or friend, broke a toy), 4. Comforts other children who are upset, 5. Accept responsibility for actions, 6. Takes turns without being asked, 7. Able to distinguish right from wrong in context (i.e. I cannot ask to go to the bathroom just after break time 8. Able to take her/ his own initiative to solve simple problems (decides which colour crayons to use?) by herself/ himself, 9. Accept correction cheerfully, 10. Able to hold her/ his own in a group, 11. Able to observe and learn from peers, teachers, 12. Able to deal with differences of opinion with friends, mediate effectively.

**EMOTIONAL MANAGEMENT**

1. Aware of own emotions (sadness, anger, fear), 2. Can say precisely what he/ she feels (i.e. I am happy, I am scared), 3. Has a positive attitude, 4. Shows little affection towards people (absence of smiles, hugs, kind words towards others), 5. Uses words to express happiness or concern for others (i.e. “you won”, are you ok, do you need help?), 6. Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”), 7. \*Rapid shifts between sadness and excitement, 8. \*Has trouble adjusting to changes, 9. \*Have less fun than other children (usually sitting quiet when other are playing), 10. Knows strategies to calm down, displays self-control, 11. Able to communicate with teacher or parents that he/ she did not have a good day.

\* The asterisks indicate reversed items

**INDEPENDENCE**

1. Able to separate from caregiver without signs of discomfort (e.g. walk to class alone), 2. Unable to make simple two-choice decisions (e.g. milk or tea, Yes or No), 3. Able to work alone, sit still in class/ home and do what is expected of her/ him (e.g. homework) without asking every few minutes if it is right, 4. Needs constant direction, unable to find interesting things to do by her/ himself (e.g. play by himself for 5 minutes or more), 5. Able to work quietly and calmly without constant praise, 6. Shows confidence in working by himself/ herself, 7. Can be alone and feel ok about it? 8. Able to stand his/ her ground in a group but still be able to belong to the group, 9. Able to work by her/himself without becoming teary, angry or frustrated, 10. Cleans up after work or play, 11. Cares for belongings.

**POSITIVE SENSE OF SELF**

1. Generally enthusiastic, positive about self and life (proud of accomplishments), 2. Acts with self-confidence when asked to do something, 3. Cheerful, happy and content at school/ home, 4. Sensitive to feedback from teachers/ caregivers? 5. Is willing to learn/ take a risk even if a task is new or seems difficult, 6. \*Gives up easily, say I cannot do this, without even trying, 7. Stands up for him/ herself, 8. Take care of his/her own needs, 9. \*Scared to speak in class/ at home, 10. Positive orientation towards school/ pre-school, 11. \*Scared/ anxious of being reprimanded or punished, 12. Able to take the lead when expected at home or in school, 13. Acts responsible (i.e. knows what homework needs to be done), 14. Able to stand his own ground if peers/ siblings have unrealistic demands? 15. Is a bad loser, 16. Puts forth best effort.

**MENTAL WELLBEING/ ALERTNESS**

1. Tell his/ her full address without help, 2. Tell his/ her age without using his/ her fingers, 3. Complete a task given to him/ her within reasonable time, 4. Sit still when asked to do so while busy with a task, 5. Attentive in class and at home on a task at hand, 6. Extremely fearful of new situations, 7. High incidence of stomach aches, nausea, bodily complaints at school/ home, 8. Extremely active, aggressive when playing with other children, 9. Extremely quiet/ shy or withdrawn, 10. Cries easily or resort to temper outbursts, 11. Unable to show remorse.

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The social competence domain included 51 provisional items. Table 5.5 summarises the items per sub-domain in the social competence domain.

Table 5.5  
*Social competence: Pool of items per sub-domain*

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<b>SOCIAL COMPETENCE: Is the child able to:</b>
<p><b>SOCIAL SKILLS</b></p> <p>1. Have a friend or friends that he/ she play with and give preference to (other than family members), 2. Considerate towards his friends (Give them a chance to “go first” or stand “in front” in the row), 3. Generally accepted and liked by other children, 4. Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment), 5. Finds it difficult to play with other children Rather be alone than with others, avoids social interaction, 6. Able to assert him/ herself in an appropriate way. Settle conflict by verbally communicating rather than fighting, hitting, screaming or grabbing. 7. Constantly fight with other children. 8. Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way, 9. Able to ask someone to back off if he/ she need their space, 10. Able to make and maintain new friendships over time.</p>
<p><b>PRO-SOCIAL BEHAVIOUR</b></p> <p>1. Play cooperatively with one or more children for up to 5 minutes with minimal supervision, 2. Refrains from harmfully teasing others, 3. Developing good manners (Uses “please” when asking for something and “thank you” when something is given), 4. Willingly share his/ her possessions with others his/ her own age, 5. Enjoys doing something for others, 6. Able to give peers/ sibling a turn to start or play, 7. Able to help another child is distress, 8. Demonstrates respect for adults (refrain from coarse language or oppositional behaviour), 9. Able to help peer feel better (e.g. play with us), 10. Tries to help/ intervene when someone is hurt, consideration towards others, 11. Demonstrates respect for other children, 12. Able to invite others to join the group that is not part of the group, 13. Always wants to be first in line or to be first to answer questions, 14. Able to disagree with friend and still be friends.</p>
<p><b>COMPLIANCE WITH RULES</b></p> <p>1. Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner), 2. Listen to and follow simple directions/ instructions from an adult after only being told once? 3. Adhere to rules when playing a game, when asked to follow rules in class., 4. Ask permission before using objects belonging to or being used by another, 5. Refused to do what is ask constantly, 6. Obeys when asked to stop misbehaving, 7. Accepts changes without fighting against them or becoming upset Able to wait for his/ her turn, 8. Able to stand quietly until adult is able to attend to his/ her request. 9. Able to cope with discipline without becoming sad, anxious or oppositional? 10. Able to sit still in a group and listen to story.</p>
<p><b>COMMUNICATION</b></p> <p>1. Speak without whispering or shouting, clear and audibly, 2. When asked tells the name of his caregiver(s)/ sibling(s), teacher, 3. Able to ask for what he/ she needs in understandable language, 4. Able to say what he is feeling, thinking, 5. Able to communicate, say something in group, 6. Able to put up hand to ask a question, 7. Able to listen to a short story without interrupting, 8. Able to answer direct question that teacher is asking, 9. Follow directions well, 10. Listens while others speaks.</p>

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## 5.14 CHAPTER CONCLUSION

The above decisions were applied in the construction of a draft version of the proposed screening tool (E3SR) for emotional social competence. The next step was to subject the instrument to experts in the field of child development, education and test construction for content validation and feedback on the construction/ scalar choices that were made. This was done in the form of a Delphi study. The process and results of the validation process as subsumed in a Delphi study is presented and discussed in Chapter Six, Phase Three B.



**CHAPTER SIX**  
**PHASE THREE B**  
**TEST VALIDATION**

**6.1 INTRODUCTION**

The overall aim of this chapter is to report on the second part of the third phase of the study i.e. test validation. Phase Three B addressed the fourth objective of the present study, which was to validate the screening instrument. This chapter reports on the steps of the Delphi that were followed in this phase. Given the iterative nature the analysis and discussion for the respective rounds will be presented immediately after the round.

**6.2 RESEARCH QUESTION**

Does the E3SR have content validity?

**6.3 OBJECTIVE**

To establish content validity of the E3SR or newly developed screening instrument.

**6.4 DESIGN**

As mentioned before, the Delphi technique was adopted as the methodology for this phase of the present study. The Delphi is an iterative process in which respondents provide feedback on a stimulus document until participants reach consensus on the review questions (Skulmoski & Hartman, 2007).

Below is a brief exposition of the operational steps followed in the Delphi study.

**6.4.1 Operational steps**

The chapter has been organised to report on the following operational steps for this phase:

- The selection of expert panelists

- The development of a stimulus document
- Consensus
- Mode of administration
- Rounds (dissemination of information and analyses of feedback after each round)

#### ***6.4.1.1 The identification and selection of expert panelists***

Linstone and Turnoff (2002) recommended that experts must satisfy four criteria in order to be selected for participation in a Delphi study. First, potential candidates must have technical knowledge and professional experience in the specified field/s. For the purposes of the present study, three fields of expertise were identified, namely test construction, child development and education. These fields were not mutually exclusive, but constituted three well-established areas that were integral to the current study. In the area of test construction, advanced knowledge would enable the panelist to comment on the construction decisions made as reported in the previous chapter. In the field of child development, advanced knowledge of developmental milestones for the target group was essential. In the area of education, expertise would enable the panelist to comment on the aspects pertaining to skills required for school readiness.

Second, potential candidates must be willing and able to participate in the study. For the purposes of the present study, a recruitment process was designed that allowed potential candidates to respond to an invitation. Candidates were informed what participation would entail. Thus, positive responses would constitute evidence that the candidates understood, were both willing and able to partake in the study. This process is described in detail in the ethics and in the participants sections. Third, potential candidates must be able to remain neutral in their assessment and maintain confidentiality. For the purposes of promoting neutrality, a data management process was devised that would ensure that the identity and

contribution of participants would remain anonymous and confidential. This process was described in detail under the ethics section and instrumentation process. Fourth, potential candidates must agree to participate in such a procedure. For the purpose of the present study, voluntary participation was procured through informed consent and other ethics principles. This process is described under the ethics section.

A list of experts was identified and compiled across the identified fields. Forty-one (N=41) prospective panelists were identified by the researcher and her supervisor across nine Higher Education Institutions, community, private, and state organisations. Twenty (n=20) potential participants were identified in test construction Twelve (n=12) potential participants were identified in the developmental field, and nine (n=9) potential participants were identified in the field of education. The potential participants were all invited to participate in the Delphi study.

The recruitment of expert panelists: A unique and easy identifiable google email address (emunnik.phduwc@gmail.com) was created to direct all correspondence to panelists. The email address allowed for easy identification in inboxes and for the researcher to have all communications in a centralized location for easy referencing. All communications were managed from this account. It was hoped that this would enhance participation. On 22 July 2016 the prospective panelists (N=41) were invited via an email sent to partake in the Delphi study (Appendix I). The email gave a brief synopsis of the intended aim and purpose of the study and specified what participation would entail. A formal letter of invitation (Appendix D), an information sheet (Appendix D) and the ethics clearance certificate (Appendix A), were attached to the initial email invitation. The invited panelists were asked to study the attached documents and respond with a YES or a NO in the subject line to indicate whether they were willing to participate.



A confirmation email was sent to panelists who responded with a “YES” to acknowledge their willingness to participate. The panelists who confirmed their willingness to participate in the study received a unique identity number that had to be used in subsequent rounds and communications. The unique identifier made the administrative process easier and allowed for contact that is more personal and allowed the researcher to send out reminders and thank you letters to individuals in the respective rounds. This personal contact decreased the risk of attrition or drop out. In addition, the identifier code enabled the researcher to track responses from the respective respondents across the rounds.

The confirmation e-mail contained clear directions on what the subsequent process entailed and how to use the online Google platform. A link to the demographic questionnaire on google drive was embedded in the confirmation e-mail. The demographic questionnaire consisted of two sections: The first section allowed participants to formally consent that they were willing to participate in the study. The second, allowed them to complete important demographic information that assisted in creating a profile of the panellists. It included questions on gender, occupation, years of experience, areas of expertise and a short paragraph on their viewpoints on the importance of the focus on emotional social development and assessment in pre-school children.

Response rates: The initial recruitment email was sent to 41 prospective panelists. Within a week, six prospective panelists (14.6%) responded with a “NO.” The main reasons for negative responses were a perceived lack of knowledge about the construct being measured and time constraints. Eleven prospective panelists responded positively with a “YES” (26.8%). Thus, the initial overall response rate was 41.4% (14.6% + 26.8% = 41.4%). Twenty-four panelists (58.5%) were non-responsive after one week.

A follow-up email was sent after two weeks to non-responsive panelists to allow them an opportunity to still participate. Seven of the non-responsive panelists responded with a

“YES” after the second invitation. Eighteen panelists confirmed their willingness to participate in the study. Thus, the response rate increased to 43.9%. This was consistent with low response rates reported in the recruitment phase of other Delphi studies (Boukedid et al’s, 2011; Wakefield & Watson, 2014). Wakefield and Watson (2014) attributed low response rates to the time consuming nature of sustained participation in the iterative process of Delphi studies. It was decided to proceed with the Delphi based on Boukedid et al’s (2011) recommendation. A decision was made that eighteen panelists would offer good results in a Delphi study. Wakefield and Watson (2014) underscored that the expertise of panelists outweighed the number of participants. Thus, the panel of 18 members was considered a suitable amount to proceed with the study.

Of the 18 panelists, 14 completed the consent and demographics forms. Eleven panelists completed the consent form and demographic questionnaire within a two-week period. After the consent form and demographic questionnaire were returned, an online link to the stimulus document was provided. The link was only sent to the eleven panelists who responded within the two-week period, since it was important to keep the rounds synchronised in order to collate feedback and integrate into successive iterations. Thus, eleven panelists participated in the Delphi process. Table 6.1 below summarises the demographic profiles of the 11 panellists that consented and participated in the study.

Table 6.1  
*Demographic profiles of the Delphi panelists (N=11)*

<b>Demographic information</b>	<b>Years of experience</b>	<b>Are of experties</b>	<b>Sectors of work</b>	<b>Current profession</b>
Female	11-15 years	Test construction, Teaching, Assessment	Higher Education, Training and development, Private sector	Researcher
Female	21 years and above	Test construction, Teaching, Assessment	Basic Education (Gr.1-12), Higher Education, Monitoring and evaluation	Psychologist, Researcher
Female	21 years and above	Test construction, Teaching, Assessment, Child Development	Preschool Education, Social Welfare, Policy development, Monitoring and evaluation, Training and development	Psychologist, Researcher
Female	21 years and above	Test construction, Teaching, Assessment, Child development.	Health, Basic Education (Gr.1-12), Higher Education	Lecturer/ Academic
Male	11-15 years	Test construction, Teaching, Assessment	Higher Education	Psychologist
Female	16-20 years	Test construction	Higher Education	Lecturer/ Academic
Female	6-10 years	Assessment, Child development, Therapeutic interventions,	Health	Psychologist
Male	11-15 years	Test construction, Teaching, Assessment	Higher Education, Policy development, Research	Psychologist, Lecturer/ Academic
Male	16-20 years	Test construction, Teaching, Assessment, Child development, Therapeutic interventions	Health	Psychologist
Male	21 years and above	Test construction, Assessment , Child development, Therapeutic interventions,	Higher Education	Lecturer/ Academic
Female	1-5 years	Assessment, Child development, Therapeutic interventions	Health, Preschool Education, Social Welfare, Training and development	Psychologist, Lecturer/ Academic

The 11 panelists that completed the biographical questionnaire included four male (36%) and seven female (64%) participants. The professions of the panelists ranged from psychologists 64%, (n=7), to lecturers/ academics 46%, (n=5) and researchers 27%, (n=3). The minimum years of experience working within their respective fields ranged between one to five years and the maximum was more than 21 years. More than 81%, (n=9) of the experts had more than 11 years of experience, whilst 36%, (n=4) had more than 21 years of experience in their respective fields. The experts worked in the following sectors: 36% in Health (n=4); 13% in Pre-school Education, (n=2); 13% in Basic Education (n=2); 63% in Higher Education (n=7); 13% in Social Welfare (n=2); 27% in Policy Development (n=3); 13% in Monitoring and Evaluation (n=2); 13% in Training and Development (n=2); and 13% in unspecified sectors (n=2). Their areas of expertise included Test construction (82%, n=9); Child Development (55%, n=6); Teaching (64%, n=7); Therapeutic Interventions (36%, n=4) and Assessment (91%, n=10).

#### ***6.4.1.2 The development of the stimulus document***

The draft stimulus document was prepared by the researcher in consultation with her supervisor in August 2016. The stimulus document included 107 questions about the newly constructed screening instrument. The format of the stimulus document allowed the panel to rigorously comment on relevant issues pertaining to the screening instrument and invited advice on possible limitations and/ or corrections needed.

Figure 6.1 gives a synopsis of the sections included in the stimulus document. The original stimulus document for Round 1 is included as an appendix (Appendix Q).

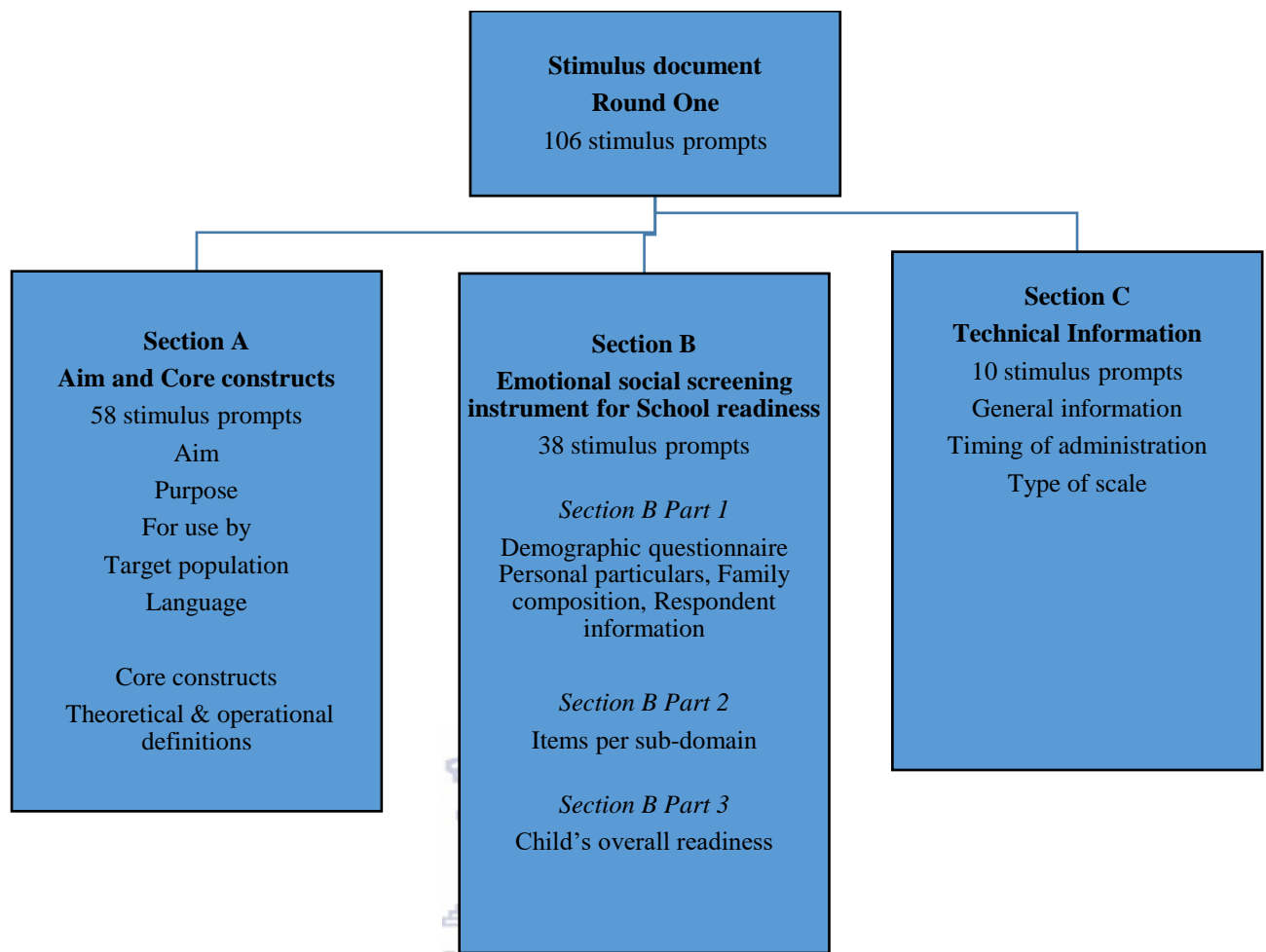


Figure 6.1. Sections included in the stimulus document, Round One

The stimulus document included three sections, Sections A, B and C. Section A was entitled, Aim and Core Constructs. Section B was entitled Emotional Social Screening Instrument for School Readiness. Section C was entitled Technical Information. Below is a brief explanation of each section.

#### 6.4.1.2.1 Section A: Aim and Core Constructs

This section consisted of 58 stimulus prompts about the intended aim and purpose, as well as considerations in test design. Test design included type of measure chosen, user group, target population and language. This section also included core constructs, theoretical and operational definitions, and underlying attributes. The stimulus prompts included a forced choice statement such as “Is the aim of the instrument clearly stated” and an

opportunity to respond with comments or possible revisions if panelists did not agree with the statement.

#### 6.4.1.2.2 Section B: Emotional-Social Screening Instrument for School readiness

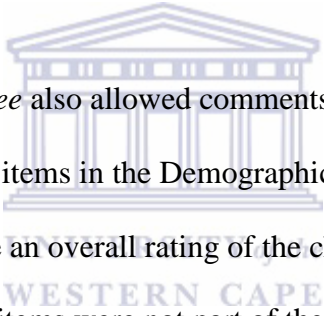
This section consisted of 38 stimulus prompts in three sub-sections.

*Section B, Part One* included questions about the proposed *demographics* of the questionnaire in three sub sections namely sub-section one, personal particulars of the child, sub-section two, family composition and sub-section three, respondent information. Each of these sub-sections listed all of the proposed demographics in a checklist format. The panelists were asked to tick each item that they felt needs to be included in the respective sub-sections. They also had the opportunity to mention in paragraph format if any additional information needed to be considered, e.g. *“Is there any additional information about the family composition that should be included”*.

*Section B, Part Two* included questions in checklist format about the proposed items per sub-domain tapping into the appropriateness, relevance and clarity of items. The items were preceded by the relevant operational definitions and accompanying personal attributes of each sub-domain. Panelists were asked to select the items that appropriately measure and reflect the definition and personal attributes in each of the nine sub-domains. The stimulus prompts asked panelists to *“Indicate whether you agree with the inclusion of the information/ item by selecting the respective boxes next to the variable”* or *“which of the following items appropriately measures or reflect the definition and personal attributes of the sub domain (e.g. emotional maturity)”*. These checklists were followed with paragraph format questions to allow panelist to comment on their choices, e.g. *“Please provide comment on the appropriate action you would recommend for the items that you did not select”*.

Panelists were allowed to recommend retaining, omitting or revising items. Items were thus either: a) retained in their original format, b) retained and revised, or c) omitted.

Items were *retained* in their original format if a level of consensus of 70% and more were met, and the panelists recommended no revision. Items were *retained and revised* if a consensus of above 70% were reached between panelists. Expressed concerns about linguistic errors, double-barreled questions, complex language and clarity by panelists were also taken into account in item revisions for round two. Revisions included word order changes, correction of language mistakes and double-barreled items were broken up into single units to ensure that they cover one central theme only. *Items were omitted* if they obtained a level of consensus below 70%. *New items* were only included in Round two in sub-domains where exclusions resulted in a low item count per sub-domain. The new items included extracted items, newly written items, as well as items suggested as more appropriate by panel members.



*Section B Part Three* also allowed comments on the users rating about the child's overall readiness. The two items in the Demographic section of the instrument required the respondent to provide an overall rating of the child's readiness for school on a social and emotional level. These items were not part of the scores obtained on the screening instrument, but were used to determine the overall perception of the respondent. The two stimulus prompts that were included were "*Are the items appropriate for obtaining an overall impression from the respondent?*" and "*If no, provide comment on possible revisions you would recommend*".

#### *6.4.1.2.3 Section C: Technical Information*

This section included 10 prompts about the general information given to respondents, timing of administration, and the type of scale to be used in the proposed screening tool. In this section general information about the proposed format (pen and paper test), proposed period (needed to complete in 15-20 minutes), and information to guide the completion of the questionnaire (without any disruptions, to be as honest as possible) were given. This

information would be included in the questionnaire to assist users to understand the basic format of the questionnaire and to guide them on how to use the questionnaire. Panelists were asked “*if the general information provided was sufficient to inform and guide users to complete the questionnaire*”. Panelists were also asked to “*comment on possible revisions*”.

Stimulus prompts about the use of the instrument as a summative and formative assessment, as well as the proposed methods for the timing of administration, were also presented. It included a motivation on the use of both methods as a way to evaluate specific outcomes in children and assess specific strengths and weakness in the specified domains. The panelists were asked “*if the distinction between the use of the two methods was explained clearly and if they felt that the use of both methods would be useful*”. The last stimulus prompt gave a layout of the proposed 5-point Likert scale that would be used in the instrument. Panelists were asked to comment on “*the appropriateness of Likert type scaling for the screening tool and to provide comment on possible revisions*”.

To conclude: In this Delphi process, both forced choice and open-ended items were included. Forced choice items were constructed in the form of checklists and forced choices formats, followed by an opportunity for panelists to give feedback in open-ended questions. The open-ended questions allowed panelists to motivate their choices and or suggest changes that needs to be affected.

#### *6.4.1.3 Consensus*

The level of agreement reached in the Delphi technique is an important notion. The level or agreement needs to be determined before the study commences. In general, the Delphi process is concluded when the research question is answered. For example, when consensus is reached, theoretical saturation is achieved, or when sufficient information has been exchanged (Hsu, 2007). In this study a high level of agreement was deemed important



as it would represent an aggregated opinion that the instrument has content validity as demonstrated by a) agreement on the definitions, domains and sub-domains b) items, c) format and technical aspects. It was decided that a level of agreement of 70% would constitute an agreeable level of consensus. Stimulus prompts on which panelists obtained less than 70% agreement had to be carried over with suggested corrections to consecutive rounds until the minimum percentage of 70% consensus is reached. The Delphi process would be completed when a minimum consensus was reached for all stimulus prompts.

#### *6.4.1.4 Mode of administration*

The Delphi process was administered online. Online administration was deemed appropriate to allow panelists easy access to email and internet connections and to complete the questionnaire at any time of the day. Thus, fitting it into their daily schedules at a time and place convenient for them. Furthermore, it enabled the researcher to ensure anonymity, being able to hide identities of the participant, etcetera. A further benefit was that it allowed ease of administration being able to send out repeated mailings and follow up. The researcher decided to use the Google platform, more specifically Google Drive as basis for the Delphi. Google Drive was used to create the stimulus documents and prompts, acting as the platform for data collection. This allowed 24 hours access to complete the rounds at a time convenient for the panelists and allow for basic statistical analyses. Kennedy and Vargus (2001) identified low and biased response rates as disadvantages of online surveys. For online surveys, a response rate between 20 – 47% can be expected with an average of 33% that is consistent with other modes of administration (Deutskens, Ruyter, Wetzels & Oosterveld, 2004). More recently, Babbie (2013) suggested that a response rate of 60 percent is good and a response rate of 70 percent is very good. He further stated that a response rate of 50 percent is considered adequate for analysis and reporting (Babbie, 2013). A target response rate of at

least 50% was deemed appropriate for this study, as the operational steps were carefully planned to enhance continued participation.

## **6.5 DATA ANALYSES**

According to literature, the major statistical techniques used in Delphi studies are measures of central tendency (mean, median, and mode) and levels of dispersion (standard deviation and inter-quartile range) in order to present information concerning the collective judgements of respondents (Hasson, Keeney, & McKenna, 2000). In this study, quantitative data (forced choice items) were analysed in terms of a predetermined level of agreement reached between panelists on each of the stimulus prompts. In the respective rounds, responses to the stimulus prompts were divided into three categories based on the level of agreement that was reached. If the level of consensus on the specific stimulus prompt was strong (above 70%), the prompt (namely specific definitions or item) was retained and not included again in subsequent rounds to panelists. Stimulus prompts were revised if the level of agreement was between 50% and 70%. Revisions were based on the feedback of the panelists. Revised items or prompts were included in subsequent rounds. Items that obtained levels of agreement that were below 35% were revised, replaced or omitted. The replacement stimulus prompts and revised prompts were included in the subsequent rounds.

Qualitative data were also obtained during this Delphi study. According to Hsu and Sandford (2007), researchers need to find an appropriate method to deal with the qualitative data. The qualitative data were used to highlight specific issues that needed attention, the qualitative responses were mainly used to modify or rewrite stimulus prompts or to modify or rewrite items. The researcher reflected on the qualitative responses and used this data to provide comments for application and consideration of the revised questionnaire in the consecutive rounds.

### **6.5.1 Rounds (dissemination of information and analyses of feedback after each round)**

The first round of the Delphi study commenced with the dissemination of the prepared stimulus document via google drive to the eleven expert panelists. All panelists (N=11) participated in the first round. The second round started three weeks later after collation of the first round responses and the revision of the stimulus document. All panelists (N=11) participated in the second round. This was the last round as consensus was reached on all prompts presented to the panelists by the second round. An integrated discussion of the results within each of the rounds is presented below.

#### **6.5.1.1 Round One**

Round One of the Delphi commenced on 9 September 2016. As mentioned before, panellists were required to comment on three sections of the stimulus document namely Section A (Aim and Core Constructs), Section B (Emotional Social Screening instrument for School readiness) and Section C (Technical information). The panel was asked to submit the completed questionnaire via the link provided. A follow up email was sent to panelists on 20 September 2016 to alert them that feedback will be collated in the last week of September to allow the second round to commence on 1 October 2016. The responses were analysed in the last week of September. Feedback was collated and incorporated to the revisions of the stimulus document in preparation of the document for the second round.

The aim of the analyses of the first round was to determine if panelists reached a 70% level of agreement on any of the stimulus prompts. The results and revisions after Round One are presented and discussed below per section.

## RESULTS

### ROUND ONE

#### 6.6 Results and revisions after Round one

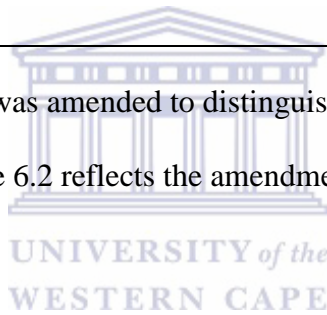
##### 6.6.1 Section A: Aim and Core Constructs

The percentage of approval on the proposed Aim, Purpose, Type of measure and Target population exceeded 70%. The proposed Aim of the instrument was endorsed or approved by all panelists (100%). The proposed purpose of the instrument was endorsed by 90.9% of the panelists. One panelist felt that the inclusion of a “step up” programme to formulate practical interventions for children identified as having weaknesses in the emotional and/ or social domain, could guide teachers and parents in terms of developmentally appropriate interventions and should be included in the manual of the instrument. This recommendation must be kept in mind, but was beyond the scope of the current study i.e. primarily the development of the screening tool. The screening tool was endorsed as the proposed type of measure by 81.8% of the panelists. The majority of the panelists (81.8%) endorsed the proposed target population. The same comment was made in this section by panelists about the inclusion of practical feedback regarding possible interventions to parents and teachers. The proposed *user group* was endorsed by only 54.5% of the panelists. Panelists felt that the distinction between user groups and respondent groups was not stated clearly enough. In addition, the qualifying criteria such as the degree of contact with the child to be evaluated was not specified clearly enough. Table 6.2 provides excerpts of comments by the panelists on the proposed “user group”.

Table 6.2  
 Comments by panelists on “user group” specification

Stimulus prompt in round one	Comments by panelists	Revisions
<p><b>“For use by”</b></p> <p><i>Can be completed by anyone that have substantial (at least 3 months of day to day interaction with the child) i.e. parents caregivers or teachers</i></p>	<p>“It seems as if unqualified persons with no clinical background will be able to administer the instrument.”</p> <p>This indicates who may complete the assessment , but not who will receive or work with the results”</p> <p>“It is not clear if the time spent with the child needs to be continuous”</p> <p>“Is it not better to focus on the familiarity that the caregiver have with the child’s behavioural patterns, general traits and abilities across contexts, and attitudes to testing?”</p> <p>“Perhaps specify the type of interaction with the child”</p>	<p><b>For use by:</b> The screening tool can be used by <i>professionals</i> who in their respective scopes of practice would deal with emotional social readiness for school and child development. For example, teachers, psychologists, occupational therapists, pediatricians.</p> <p>The questionnaire can be <i>completed</i> by caregivers/ teachers that are familiar with the child's behavioral patterns, general traits and abilities across contexts. The user needs to have had substantial day to day interaction with the child in the preceding 3 months before screening.</p>

The proposed user group was amended to distinguish between *user* and *respondent* groups. The third column in Table 6.2 reflects the amendments effected and included in the round two-stimulus document.



The last stimulus prompt in Section A asked the panelists to comment on “English as the primary language for the instrument”. They also had to comment on two official languages that should be prioritised after the construction and piloting have been completed. Multi-lingual development with English as the primary language and isiXhosa, Zulu and Afrikaans depending on the region of use was recommended. It was suggested to use census data to establish which South African languages were most prominently used in educational settings.

### 6.6.2 Definitions of core constructs

The panelists were presented with 13 definitions. The proposed operational definitions of school readiness, emotional social competence, emotional competence and social competence were endorsed by panelists. The definition of school readiness was

endorsed by 72.7% of the panelists. The definition of emotional social competence was endorsed by 72.7% of the panel. The definition of social competence was approved by 72.7% of the panel. Thus consensus was reached. Some of the qualitative remarks by panelists on the above definitions were focused on the use of academic language such as “gestalt”, “intra-personal” and “interpersonal”. The panelists felt that wording should be basic and clear to facilitate understanding of basic constructs by the respondent group. Although the 70% level of agreement were reached, these definitions were refined to improve the clarity of constructs that in turn will enhance the understanding of the basic constructs.

Only 45.5% of the panel endorsed the proposed operational definition of emotional competence as acceptable and appropriate. Thus, consensus *was not reached* on the operational definition of Emotional Competence. Table 6.3 below reflects extracts from the comments of the panel. Overall, the panel felt that the terminology used was too vague and that more emphasis needed to be placed on the underlying attributes of emotional competence.

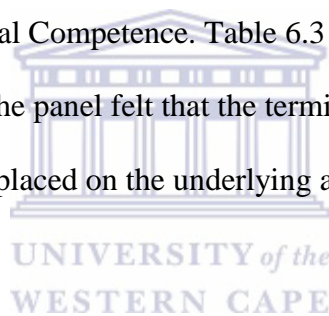


Table 6.3  
*Comments by panelists on the operational definition of emotional competence*

<b>Stimulus prompt in round one</b>	<b>Comments by panelists</b>	<b>Revisions</b>
<p><b>Is the definition of Emotional competence appropriate?</b>  <i>Emotional competence is directed by the child's internal sense of self and are mostly focused inward. Emotional competence entails confidence in well-being related to feeling states (emotions) and an accompanying skill set that enable coping with age appropriate challenges in formal and informal settings.</i></p>	<p>“confidence in well-being related to feeling states are difficult to read and comprehend”</p> <p>“I really don’t like the definition of emotional competence as “confidence in wellbeing related to feeling states”.</p> <p>“It is about the ability to respond, apply, identify and direct their own emotions”</p> <p>Consider clarifying the accompanying skills set”</p> <p>“Rather be more specific about the skills that are age appropriate”.</p> <p>“You might want to include the sub-domains that you listed below”.</p>	<p>Emotional competencies are directed by the child’s internal sense of self and are mostly focused inward.</p> <p>Emotional competencies include the sub-domains of emotional maturity, emotional management, and positive sense of self, mental wellbeing and alertness, which would enable the child to cope with age appropriate challenges in emotional eliciting situations across contexts.</p>

The operational definition *was amended* to address the concerns raised by the panel. The third column in Table 6.3 reflects the amendment to the operational definition of emotional competence. The revised definition was included in the second round for consideration by the panel.

More than 70% of the panelists endorsed the operational definitions and accompanying attributes for the nine sub-domains of Emotional and Social Competence. The consensus among panelists was as follows per domain: Emotional maturity (90.9%), Emotional management (90.9%), Independence (81.8%), Positive sense of self (90.9%), Mental wellbeing and alertness (81.8%), Social skills/ confidence (90.9%), Pro-social behavior (81.8%), Compliance with rules (100.0%) and Communication skills (100%). Thus, the proposed operational definitions were retained and no further revisions were implemented.

### 6.6.3 Section B: Proposed Emotional Social Screening instrument for school readiness

As mentioned before, the panelists were presented with the prototype or draft of the screening instrument. The instrument was presented in three parts, namely 1) demographics, 2) items, and 3) qualitative evaluation. For each section, a pool of sample items was presented.

#### 6.6.3.1 Part One: Demographics

The demographics section included questions on the personal particulars of the child, the family composition of the child and respondent information. Tables 6.4 – 6.7 below reflect the pool of items included in the stimulus document for demographics in Section B, Part One to Three. These tables also reflect the percentage of panelists that endorsed the items for inclusion.



Table 6.4  
*Subsection 1: Personal particulars of the child*

Items	Percentage
Name and surname	100%
Birth date	90.9%
Age	90.9%
Gender	100%
Birth order (e.g. youngest, middle, eldest)	90.9%
Ethnic group	72.7%
Home language	100%
Nature of early academic environment (e.g. home, day mother, crèche, preschool)	100%
Time/ period spend in different early academic environment	100%
Name of pre-school	58.3%
Language of instruction at pre-school	90.9%
Illness or disability (specify physical, mental, cognitive)	.100%
Trauma (present or past e.g. family disruption, divorce, death, relocation, bullying)	90.9%

From Table 6.4 it becomes evident that consensus about inclusion (rating above 70%) was reached for all of the items in the personal particulars except the item that asked about the name of the pre-school that obtained a score of 58.3%. This question was considered redundant because it was already captured in another prompt in the demographic section.

Table 6.5



### *Subsection 2: Family composition*

<b>Items</b>	<b>Percentage</b>
How many children in the family?	81.8%
How many children living in the home?	100%
How many people living in the home?	100%
Parents/ caregivers (name(s) and age(s))	81.8%
Marital status of parents	81.8%
Occupation of caregiver(s). (Are they permanently employed. yes/ no. If yes specify)	81.8%

From Table 6.5 it becomes evident that consensus about inclusion (rating above 70%) was reached for all of the items in the family composition particulars.

Table 6.6  
*Subsection 3: Respondent information*

<b>Items</b>	<b>Percentage</b>
Form completed by (print full name)	90.9%
Gender	66.7%
Relationship to the child (specify teacher/ biological parent/ stepparent/ grandparent/ adoptive parent/ foster parent/ other)	100%
For how many months have you know this child? (specify months)	100%
How well do you know him/ her (specify: not well/ moderately well/ very well)	100%
Average day spent per week in contact with the child	90.9%
Has he/she ever been referred for special support? (specify: don't know, no, yes)	100%
Date of completion of form	100%

From Table 6.6 it becomes evident that consensus about inclusion (rating above 70%) was reached for all items in the respondent information particulars, except the item that asked about the gender of user, which obtained 66.7%. This question was considered redundant because it was already captured in other prompts in the biographical information.

Panelists suggested in the open-ended “additional information” under the prompts in the Demographics section that special support and the nature of the support be specified under respondent information. Panelists also felt that the phrase “average number of days spent per week with the child” be rephrased to be more specific. They also suggested the inclusion of “any medical concerns or medication used by the child” under personal particulars and “primary caregiver education” and “date of assessment” under family

composition. These suggestions and additions were considerations for inclusion in the biographical section of the questionnaire to be used in the pilot study.

### 6.6.3.2 Part Two: Items

The results indicate the percentages or frequencies for retaining, revising or omitting proposed items in each of the nine sub-domains. Table 6.5 below summarises the frequencies for the items in each sub-domain based on panelists' recommendations.

Table 6.7  
*Item outcomes per subdomain after Round One*

Sub-domains	Number of items	Item outcomes			New items
		Retained in original format	Retained and revised	Omitted	
Emotional maturity	12	3	4	5	3
Emotional management	11	5	3	3	2
Independence	11	5	2	4	1
Positive sense of self	16	7	3	6	0
Mental wellbeing and alertness	11	3	5	3	0
Social skills/confidence	13	18	2	3	0
Pro-social behavior	14	14	0	0	0
Compliance with rules	12	7	1	4	1
Communication	12	12	0	0	0

From Table 6.7 it becomes evident that the majority of the items were considered appropriate for inclusion. The main reasons for omitting items were ambiguity, irrelevance, or better representation in other sub-domains. Some of the items received lower ratings (9.1% - 63.6%). The majority of *reversed* items (negative items) obtained lower scores, most probably due to misinterpretation by panelists. These items were not identified in round one to the panelists as reversed items per se. A decision was made to retain relevant reversed items, but to identify them with an asterisk to establish if this would lead to an endorsement in the second round. Below is a brief presentation of the items, scores and resulting action, in tabular form per subdomain. Tables 6.8 - 6.16 were designed to give a breakdown of the items per subdomain in round one, the scores obtained and the decision made about retention, revision or omission.

The first table, Table 6.8 gives a breakdown of the *twelve items* included in the Emotional Maturity sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.8  
*Emotional maturity: Items, scores and resulting action*

<b>Sub domain: Emotional Maturity</b>		<b>Score</b>	<b>Action</b>
1	Accept discipline, authority at home/ school	100.0%	Revised
2	Seeks reassurance when executing tasks	9.1%	Omitted
3	Apologize if acted wrong (hurt a sibling or friend broke a toy)	81.8%	Revised
4	Comforts other children who are upset	63.6%	Omitted
5	Accept responsibility for actions	100%	Retained
6	Takes turns without being asked	63.6%	Omitted
7	Able to distinguish right from wrong in context? (i.e. not able to take something belonging to someone else)	90.9%	Retained
8	Able to take her/ his own initiative to solve simple problems (decides which color crayons to use?) by herself/ himself	72.7%	Revised
9	Accept correction	90.9%	Retained
10	Able to hold her/ his own in a group	45.5%	Omitted
11	Able to observe and learn from peers, teachers	72.7%	Revised
12	Able to deal with differences of opinion with friends, mediate effectively	63.6%	Omitted
<b>New items formulated after first round</b>			
13	Show empathy, e.g. when someone is hurt		
14	Accept things not going his/ her way		
15	Able to adjust to changes		
16	Accept authority at school		

From Table 6.8 it becomes evident that five items (2, 4, 6, 10, and 12) did not obtain the 70% level of consensus and were therefor omitted. Panelists felt either that these items were too vague, ambiguous (Item 2, 4 and 12) or that they measure other domains (for example Item 6: Compliance with rules, Item 10: Communication skills). Of the remaining seven items that met the consensus threshold of 70%, three items were retained in their original format (1, 3 and 5) whilst four items were revised. Revisions included splitting of double-barreled items into more than one item (for example adding item 16 derived from item 1) and rewriting items to ensure clarity of understanding (for example rephrasing of Items 7, 8, 9 and 11).

Table 6.9 gives a breakdown of the *eleven* items included in the Emotional Management sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.9  
*Emotional management: Items, scores and resulting action*

<b>Sub-domain: Emotional Management</b>		<b>Score</b>	<b>Action</b>
1	Aware of own emotions (sadness, anger, fear)	90.9%	Retained
2	Can say precisely what he/ she feels (i.e. I am happy, I am scared)	72.7%	Revised
3	Has a positive attitude	36.4%	Omitted
4	Shows little affection towards people (absence of smiles, hugs, kind words towards others)	27.3%	Omitted
5	Uses words to express happiness or concern for others (i.e. “you won”, are you ok, do you need help?)	90.9%	Retained
6	Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”)	100%	Retained
7	Rapid shifts between sadness and excitement	27.3%	Revised
8	Able to communicate with teacher or parents that he/ she did not have a good day.	81.8%	Retained
9	Have less fun than other children (usually sitting quiet when other are playing)	36.4%	Omitted
10	Knows strategies to calm down, displays self-control	90.9%	Retained
11	Has trouble adjusting to changes	45.5%	Omitted
<b>New items formulated after Round 1</b>			
12	Does not hug others		
13	Use kind words towards others		

From Table 6.9 it becomes evident that five items (3, 4, 7, 9 and 11) did not obtain the 70% level of consensus; four of these items (3, 4, 9 and 11) were omitted. The panelists felt that the omitted items were not representative of emotional management. Item 7, a reversed item, was retained, marked with an asterisk in round two, to establish if this would lead to an endorsement by panelists. Of the remaining six items that met the consensus threshold of 70%, five were retained in their original format (1, 5, 6, 8 and 10), whilst one item (2) was revised (“precisely” was removed). The two new items, item 12 and 13 were derived from items proposed by the expert panelists.

Table 6.10 gives a breakdown of the eleven items included in the Independence sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.10  
*Independence: Items, scores and resulting action*

	<b>Subdomain: Independence</b>	<b>Score</b>	<b>Action</b>
1	Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)	100%	Retained
2	Unable to make simple two-choice decisions (e.g. milk or tea, Yes or No)	54.5%	Revised
3	Able to work alone, sit still in class/ home and do what is expected of her/ him (e.g. homework) without asking every few minutes if it is right	100%	Revised
4	Needs constant direction, unable to find interesting things to do by her/ himself (e.g. play by himself for 5 minutes or more)	63.6%	Omitted
5	Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)	81.8%	Retained
6	Shows confidence in working by himself/ herself	72.7%	Retained
7	Can be alone and feel ok about it?	81.8%	Omitted
8	Able to stand his/ her ground in a group but still be able to belong to the group	90.9%	Retained
9	Able to work by her/himself without becoming teary, angry or frustrated	72.7%	Retained
10	Cleans up after work or play	63.6%	Omitted
11	Cares for belongings	63.6%	Omitted
<b>New items formulated after first round</b>			
12	Able to sit still in class/ home and engage with homework		
13	Able to pack/ unpack bag on his/her own		

From Table 6.10 it becomes evident that four items (2, 4, 10 and 11) did not obtain the 70% level of consensus. Three of these items (4, 10 and 11) were omitted. Panelists felt that these items lacked clarity. Item two was a reversed item. A decision was made to change the item to a competency-based statement and to include it in Round 2. Although item seven met the threshold of 81%, a decision was made to omit, because two panelists commented that they were unsure if this item is truly representative of the domain. Of the remaining six items (1, 3, 5, 6, 8 and 9) that met the consensus threshold of 70% five were retained in their original format (1, 5, 6, 8 and 9), whilst one item (3) that was double-barreled was revised. This item was revised into two separate items that read more easily. Thus, one of the two new questions was derived from Item (3) and the other was a new item, extracted from the items of existing instruments. (Table 5.3, Chapter 5). Table 6.9 gives a breakdown of the *sixteen* items included in the Positive sense of self sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.11  
*Positive sense of self: Items, scores and resulting action*

	<b>Subdomain: Positive sense of self</b>	<b>Score</b>	<b>Action</b>
1	Generally enthusiastic, positive about self and life (proud of accomplishments)	100%	Retained
2	Acts with self-confidence when asked to do something	90.9%	Retained
3	Cheerful, happy and content at school/ home	81.8%	Retained
4	Sensitive to feedback from teachers/ caregivers?	45.5%	Omitted
5	Is willing to learn/ take a risk even if a task is new of seems difficult	100%	Revised
6	*Gives up easily, says I cannot do this, without even trying	63.6%	Revised
7	Stands up for him/ herself	72.7%	Retained
8	Take care of his/her own needs	63.6%	Omitted
9	*Scared to speak in class/ at home	45.5%	Omitted
10	Positive orientation towards school/ pre-school	90.9%	Retained
11	*Scared/ anxious of being reprimanded or punished	54.5%	Retained
12	Able to take the lead when expected at home or in school	72.7%	Retained
13	Acts responsible (i.e. knows what homework needs to be done)	63.6%	Omitted
14	Able to stand his own ground if peers/ siblings have unrealistic demands?	72.7%	Retained
15	Is a bad loser	45.5%	Omitted
16	Puts forth best effort	63.6%	Omitted

From the table above it becomes evident that half of the items (4, 6, 8, 9, 11, 13, 15, and 16) did not obtain the 70% level of consensus; six of these items (4, 8, 9, 13, 15, and 16) were omitted. Items (6, 9, 11 and 15) were reversed items. A decision was made to retain items (6, 11) marked with an asterisk in round two, to establish if this would lead to an endorsement by panelists. Panelists felt that items (4, 8, 13, and 16) were ambiguous, unclear and lacked clarity. Of the remaining eight items (1, 2, 3, 5, 7, 10, 12, and 14) that met the consensus threshold of 70%, seven was retained (1, 2, 3, 7, 10, 12 and 14). Item five was retained with a minor revision to improve clarity. No new items were added.

Table 6.12 gives a breakdown of the *eleven* items included in the Mental Wellbeing and Alertness sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.12  
*Mental wellbeing and alertness: Items, scores and resulting action*

<b>Subdomain: Mental wellbeing and alertness</b>		<b>Score</b>	<b>Action</b>
1	Tell his/ her full address without help	72.0%	Revised
2	Tell his/ her age without using his/ her fingers	72.7%	Retained
3	Cries easily or resort to temper outbursts	63.6%	Revised
4	Sit still while told to do so while busy with a task	72.7%	Revised
5	Extremely active/ aggressive when playing with other children	36.4%	Revised
6	Handles new situations comfortably despite being anxious	90.9%	Revised
7	High incidence of stomach aches, nausea, bodily complaints at school/ home when facing challenges or new situations	63.3%	Revised
8	Attentive in class and at home on a task at hand	90.9%	Retained
9	Extremely quiet/ shy or withdrawn	54.5%	Omitted
10	Complete a task given to him/ her within reasonable time	72.7%	Retained
11	Able to show remorse	63.6%	Omitted
<b>New items formulated after first round</b>			
12	Often resorts to temper outbursts		

From Table 6.12 it becomes evident that six of the items (1, 2, 4, 6, 8 and 10) obtained the 70% level of consensus; three of these items (2, 8 and 10) were retained in its original format, whilst items (1, 4 and 6) were retained and revised. This included revision of word order, rewriting of items to be clear and concise. Although the remaining five items (3, 5, 7, 9 and 11) did not meet the consensus threshold, a decision was made to revise and retain items 3 and 7 as these were reversed items. Item three was split into two items, item 3 and 12 and an asterisk was added to item seven to indicate that it is a reversed item. No additional items were added.

Table 6.13 gives a breakdown of the *thirteen* items included in the Social skills/ confidence sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

Table 6.13  
*Social skills/ confidence: Items, scores and resulting action*

	<b>Subdomain: Social skills/ confidence</b>	<b>Score</b>	<b>Action</b>
1	Have a friend or friends that he/ she play with and give preference to? (other than family members)	100%	Revised
2	Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)	90.9%	Retained
3	Generally accepted and liked by other children	81.8%	Retained
4	Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)	90.9%	Retained
5	Prefers to play with children of the same age	72.7%	Retained
6	Can play with other children without being bossy or needy	81.8%	Retained
7	Able to make and maintain new friendships over time	81.8%	Retained
8	Rather be alone than with others, avoids social interaction	45.5%	Omitted
9	Able to assert him/ herself in an appropriate way? Settle conflict by verbally communicating rather than fighting, hitting, screaming or grabbing.	100%	Omitted
10	Constantly fight with other children?	72.7%	Revised
11	Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)	81.8%	Retained
12	Prefers to play with younger children	54.5%	Omitted
13	Able to ask someone to back off if he/ she needs their space?	72.7%	Retained

From Table 6.13 it became evident that eleven of the items obtained the 70% level of consensus. Of the eleven items, eight items (2, 3, 4, 5, 6, 7, 11 and 13) were retained in their original format, whilst minor linguistic changes were made to two items (1 and 10). Item nine was revised and included in the Emotional Management sub-domain as panelists felt that it was more representative of this domain. The remaining items, 8 and 12 did not meet the specified consensus and were omitted from Round Two. No additional items were added to the Social skills/ competence subdomain.

Table 6.14 gives a breakdown of the *fourteen* items included in the Pro-social behavior sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.



Table 6.14  
*Pro-social behaviour: Items, scores and resulting action*

	<b>Subdomain: Pro-social behaviour</b>	<b>Score</b>	<b>Action</b>
1	Play cooperatively with one or more children for up to 5 minutes with minimal supervision	100%	Retained
2	Refrains from harmfully teasing others	81.8%	Retained
3	Developing good manners (Uses “please” when asking for something and “thank you” when something is given)	72.7%	Retained
4	Willingly share his/ her possessions with others his/ her own age	90.9%	Retained
5	Enjoys doing something for others	81.8%	Retained
6	Able to give peers/ sibling a turn to start or play	90.9%	Retained
7	Able to help another child in distress	72.7%	Retained
8	Demonstrates respect for adults (refrain from coarse language or challenging behaviour)	81.8%	Retained
9	Able to help peer feel better (e.g. play with us).	81.8%	Retained
10	Tries to help/ intervene when someone is hurt, consideration towards others	90.9%	Retained
11	Demonstrates respect for other children	72.7%	Retained
12	Able to invite others to join the group that is not part of the group	81.8%	Retained
13	Able to accept when not first in line to answer questions	90.9%	Retained
14	Able to disagree with friend and still be friends	81.8%	Retained

From Table 6.14 it becomes evident that all items obtained the 70% level of agreement. Based on the consensus, this subdomain was not included in Round Two of the Delphi. Qualitative comments of the panelists included a suggestion that items (4, 5, 6, 7, 9 and 10) were very similar and that an overarching item that was representative of them all should be considered and selected.

Twelve items were included in the Compliance with rules sub-domain. Table 6.15 gives a breakdown of the scores obtained, as well as the accompanying decision to retain, revise or omit after Round One

Table 6.15  
*Compliance with rules: Items, scores and resulting action*

<b>Subdomain: Compliance with Rules</b>		<b>Score</b>	<b>Action</b>
1	Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner)	100%	Retained
2	Listen to and follow simple directions/ instructions from an adult after only being told once?	100%	Retained
3	Adhere to rules when playing a game.	81.8%	Retained
4	Able to follow rules in class or structured environments	90.9%	Retained
5	Ask permission before using objects belonging to or being used by another	81.8%	Revised
6	Refused to do what is ask constantly	54.5%	Omitted
7	Obeys when asked to stop misbehaving	90.9%	Retained
8	Accepts changes without fighting against them or becoming upset	54.5%	Omitted
9	Able to wait for his/ her turn.	81.8%	Retained
10	Able to stand quietly until adult is able to attend to his/ her request.	63.6%	Omitted
11	Able to cope with discipline without becoming sad, anxious or acting out.	63.6%	Omitted
12	Able to sit still in group and listen to story	81.8%	Retained
<b>New items formulated after first round</b>			
13	Take turns without being asked		

From Table 6.15 it becomes evident that eight of the twelve items (1, 2, 3, 4, 5, 7, 9, 12) obtained the 70% level of agreement. Seven items were retained, while one item, item 5 was retained with a minor editing. Four items (6, 8, 10 and 11) that did not meet the 70% level of agreement were omitted. The comments from the panelists included that the items were vague and ambiguous. One new item, item 13 was sourced from the existing instruments mentioned in Chapter Five (Table 5.3) and included in Round Two.

Table 6.16 gives a breakdown of the *twelve items* included in the Communication sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round One.

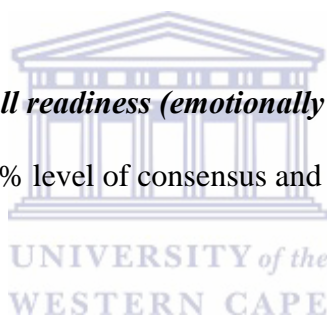
*Table 6.16*  
*Communication skills: Items, scores and resulting action*

<b>Subdomain: Communication skills</b>		<b>Score</b>	<b>Action</b>
1	Able to speak clearly and audibly without whispering or shouting.	100%	Retained
2	When asked tells the name of his caregiver(s)/ sibling(s), teacher	72.7%	Omitted
3	Able to ask for what he/ she needs in understandable language	100%	Retained
4	Able to say what he/ she is feeling, thinking	81.8%	Retained
5	Able to communicate, say something in group	90.9%	Retained
6	Able to put up hand to ask a question	81.8%	Retained
7	Able to listen to a short story without interrupting	81.8%	Retained
8	Able to answer direct question when asked	90.9%	Retained
9	Follow directions well	90.9%	Retained
10	Listens while others speaks	81.8%	Retained
11	Able to speak in full sentences	90.9%	Retained
12	Able to hold a conversation	90.9%	Retained

From Table 6.16 it becomes evident that all items obtained the 70% level of agreement. Based on the consensus, all items except item 2 were retained.

### **6.6.3.3 Part Three: Child's overall readiness (emotionally and socially)**

Both items obtained a 100% level of consensus and were deemed appropriate for inclusion in the questionnaire.



## **6.6.4 Section C: Technical information**

### **6.6.4.1 General information**

A 72.7% level of agreement between panelists suggested that the information supplied was sufficient to guide respondents on how to complete the questionnaire. In addition, panelists felt that it was necessary to add information about confidentiality. They also felt that the language used in the directions might need simplification.

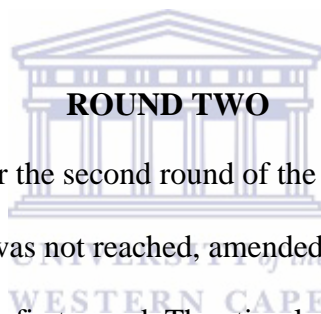
### **6.6.4.2 Timing of administration**

Panelists reached consensus (90.9%) that a clear distinction was made between the proposed use of summative and formative assessments. Panelists agreed (81.8%) that the timing of administration should be monitored so that the screening tool could be used as a

formative and summative assessment. However, a concern was raised about the burden that formative assessments would place on respondents. The proposed timing of administration was endorsed by 81.8% of the panel.

### **6.6.3.3 Type of scale**

Panelists reached consensus (83.3%) that Likert type scaling was an appropriate choice for the proposed screening instrument. A recommendation was made to include a “cannot rate” option as part of the proposed dimensions. For items where consensus was reached, qualitative feedback from the panelists was considered and incorporated for refinement of items and instructions in the final preparation of the screening instrument.



The stimulus document for the second round of the Delphi consisted of items in which agreement/ minimum consensus was not reached, amended items and rebuttals/ clarifications to the items or comments from the first round. The stimulus document was placed on the Google platform (Appendix R) to obtain feedback from the panelists.

## **6.7 Results and revisions after Round Two**

A brief summary of the stimulus prompts of the second round google document and the results are given below:

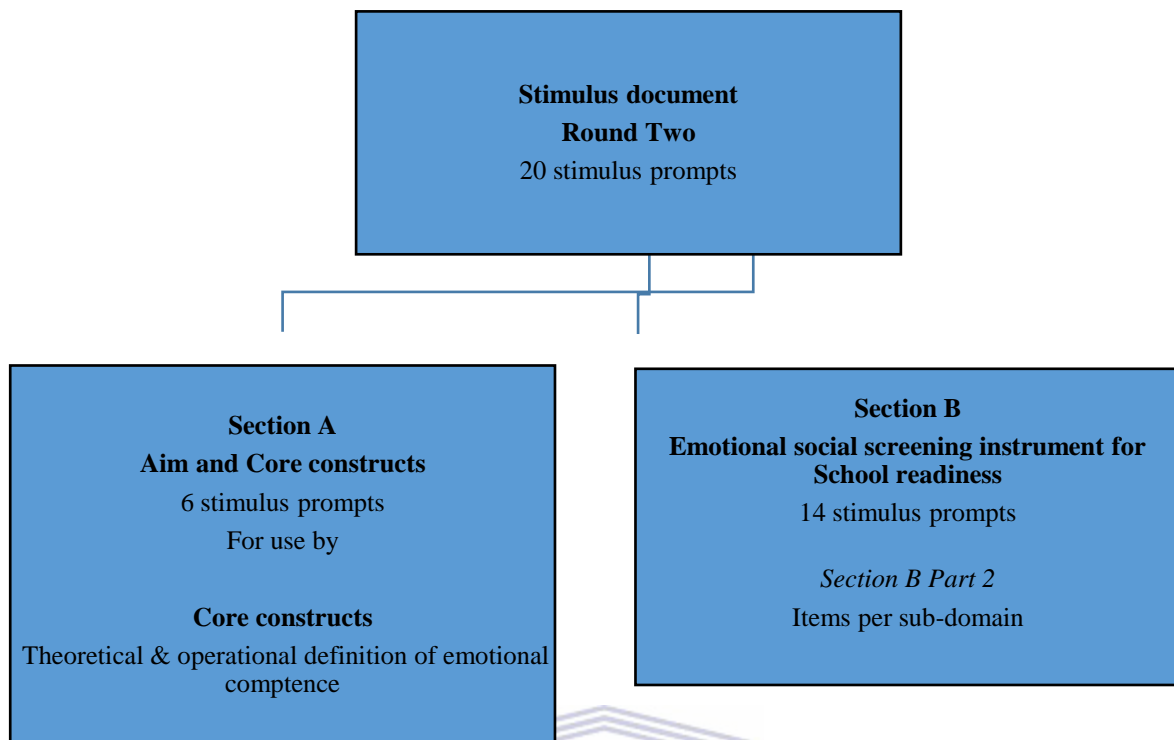
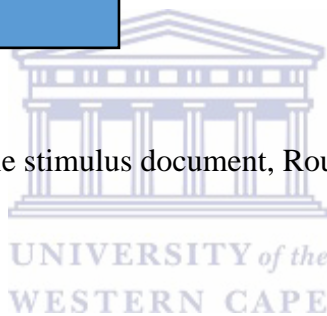


Figure 6.2 Sections included in the stimulus document, Round Two



### 6.7.1 Section A: Aim

A 100% consensus were reached on the amended descriptions of the user group. A 90.9% consensus were reached on the description of the respondent group. One panelist alerted the researcher to grammatical errors “The user needs to “have had” and “behaviour” instead of “behavioural”.

#### 6.7.1.1 Section A: Core Constructs

*Emotional Competence (amended description):* A 100% consensus was reached on the revised operational definition of Emotional Competence.

#### 6.7.1.2 Section B: Part Two: Proposed items per domain

The proposed items, including new, retained, revised and omitted items in the seven sub-domains Emotional Maturity, Emotional Management, Independence, Positive Sense of

Self, Mental Wellbeing and Alertness, Social Skills and Compliance with Rules were included in Round Two for panelists to review. The results indicate the percentages or frequencies for retaining, revising or omitting proposed items in each of the seven sub-domains. Table: 6.17 below summarises the frequencies for the items in each sub-domain based on panelists' recommendations after Round Two.

Table 6.17  
*Item outcomes per subdomain after Round Two*

Sub-domains	Number of items	Item outcomes			New items
		<i>Retained in original format</i>	<i>Retained and revised</i>	<i>Omitted</i>	
Emotional maturity	11	2	4	5	0
Emotional management	10	2	4	4	1
Independence	9	3	3	3	0
Positive sense of self	10	2	5	3	0
Mental wellbeing and alertness	10	0	6	4	0
Social skills/confidence	10	2	4	4	0
Compliance with rules	9	1	3	4	1

From Table 6.17 it becomes evident that the majority of items were retained and revised for inclusion. A slight increase in the retained and revised items (column 3) were apparent as this round allowed panelists to give more comprehensive feedback on item content- such as specificity, clarity and ambiguity, as well as on stylistic and linguistic matters. This allowed the researcher to refine and revise items. More items were omitted.

Table 6.18 gives a breakdown of the *eleven* items included in the Emotional Maturity sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.18

*Emotional maturity: Items, scores and resulting action after Round Two*

<b>Sub domain: Emotional Maturity</b>		<b>Score</b>	<b>Action</b>
1	Accept authority at home	54.5%	Omitted
2	Show empathy, e.g. when someone is hurt)	81.8%	Revised
3	Apologizes when in the wrong (hurt a sibling or friend broke a toy)	90.9%	Revised
4	Accept responsibility for actions	90.9%	Retained
5	Accepts things not going his/her way	90.9%	Retained
6	Able to distinguish right from wrong in context? (e.g. not able to take something belonging to someone else)	63.6%	Omitted
7	Able to use own initiative to solve problems independently (e.g. can decide what color crayons to use)	72.7%	Omitted
8	Accept correction	81.8%	Revised
9	Able to learn from peer or teacher	54.5%	Omitted
10	Able to adjust to changes	72.7%	Revised
11	Accepts authority at school	54.5%	Omitted

From Table 6.18 it becomes apparent that five items (1, 6, 7, 9 and 11) did not obtain the 70% level of consensus and were therefore omitted. Panelists felt that these items were too broad and stretched the definition too far. Of the remaining six items that met the consensus threshold of 70%, two items, item 4 and 5 were retained in their original format, whilst the remaining four items (2, 3, 8 and 10) were revised. Revisions included correction of linguistic errors and rewriting of items to improve clarity. Appendix S contains a detailed layout of all retained items that were revised in the subdomains.

Table 6.19 gives a breakdown of the *eleven* items included in the Emotional Management sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.19

*Emotional management: Items, scores and resulting action after Round Two*

<b>Sub-domain: Emotional Management</b>		<b>Score</b>	<b>Action</b>
1	Aware of own emotions (e.g. sadness, anger, fear)	81.8%	Revised
2	Can say what he/ she feels (i.e. I am happy, I am scared)	90.9%	Revised
3	Smiles often	27.3%	Omitted
4	Uses words to express happiness or concern for others (i.e. “you won”, are you ok, do you need help?)	100%	Retained
5	Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”)	90.9%	Revised
6	*Rapid shifts between sadness and excitement	45.5%	Omitted
7	Able to communicate with teacher or parents that he/ she did not have a good day.	90.9%	Revised
8	Knows strategies to calm down, displays self-control	100%	Retained
9	*Does not hug others	27.3%	Omitted
10	Use kind words towards others	45.5%	Omitted
11	<b>New item</b> Physically demonstrates emotions (e.g. hugs to express affection)		

From Table 6.19 it became evident that four items (3, 6, 9 and 10) did not obtain the 70% level of consensus and were therefore omitted. These items were omitted because panelists felt that its cultural appropriateness might vary. Of the remaining seven items that met the consensus threshold of 70%, two were retained in their original format. The remaining items were retained with minor revisions. These revisions included changes in word order and corrections in grammar. One newly written item, item 11 was added for the pilot study as the four omissions resulted in a low item count for this domain.

Table 6.20 gives a breakdown of the *nine items* included in the Independence sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.



Table 6.20

*Independence: Items, scores and resulting action after Round Two*

<b>Subdomain: Independence</b>		<b>Score</b>	<b>Action</b>
1	Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)	100%	Retained
2	Able to make simple two-choice decisions (e.g. milk or tea, Yes or No)	100%	Revised
3	Able to work alone (e.g. homework) without asking every few minutes if it is right	81.8%	Omitted
4	Able to pack/unpack bags of his/her own	81.8%	Retained
5	Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)	90.9%	Revised
6	Shows confidence in working by himself/ herself	90.9%	Retained
7	Able to stand his/ her ground in a group but still be able to belong to the group	81.8%	Omitted
8	Able to work by her/himself without becoming teary, angry or frustrated	81.8%	Revised
9	Able to sit still in class/ home and engage with homework	81.8%	Omitted

From Table 6.20 it became evident that all items obtained the 70% level of consensus.

Item three was a variation of item (5, 8 and 9) and was therefore omitted, while item seven were omitted based on better representation of the Emotional maturity sub-domain. Three of the retained items (2, 5, and 8) were revised. Revisions included minor linguistic and word order changes to enhance respondent understanding.

Table 6.21 gives a breakdown of the *ten* items included in the Positive Sense of Self sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.21

*Positive sense of self: Items, scores and resulting action after Round Two*

<b>Subdomain: Positive sense of self</b>		<b>Score</b>	<b>Action</b>
1	Generally enthusiastic, positive about self and life (proud of accomplishments)	90.9%	Revised
2	Acts with self-confidence when asked to do something	90.9%	Retained
3	Cheerful, happy and content at school/ home	63.6%	Omitted
4	Is willing to learn even if tasks are new or seems difficult	100%	Revised
5	*Gives up easily, say I cannot do this, without even trying	81.8%	Omitted
6	Stands up for him/ herself	90.9%	Retained
7	Positive orientation towards school/ pre-school	63.6%	Omitted
8.	*Scared/ anxious of being reprimanded or punished	72.7%	Omitted
9	Able to take the lead when expected at home or in school	81.8%	Revised
10	Able to stand his/own ground if peers/ siblings have unrealistic demands?	81.8%	Revised

From Table 6.21 it becomes evident that eight of the ten items obtained the 70% level of agreement. The two items (3 and 7) that did not obtain the threshold were omitted.

Additionally, the two reversed items were also omitted. Of the six remaining items, four items (1, 4, 9, and 10) were revised. The revisions made statements clear and less ambiguous.

Table 6.22 gives a breakdown of the *ten* items included in the Mental Wellbeing and Alertness sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.22

*Mental Wellbeing and Alertness: Items, scores and resulting action after Round Two*

<b>Subdomain: Mental Wellbeing and Alertness</b>		<b>Score</b>	<b>Action</b>
1	Tell his/ her address without help (street name and number, suburb/area)	72.7%	Omitted
2	Tell his/ her age without using his/ her fingers	72.7%	Omitted
3	*Cries easily	72.7%	Omitted
4	Sit still when asked to do so while busy with a task	90.9%	Revised
5	*Extremely active when playing with other children	45.5%	Omitted
6	Handles new situations comfortably despite being anxious	90.9%	Revised
7	*High incidence of stomach aches, nausea, bodily complaints at school/ home when facing challenges or new situations	72.7%	Revised
8	Attentive in class and at home on a task at hand	90.9%	Revised
9	Complete a task given to him/ her within reasonable time	81.8%	Revised
10	*Often resorts to temper outbursts	81.8%	Revised

From Table 6.22 it became evident that all items, with the exception of Item five, obtained the 70% level of agreement. The latter was omitted. Although Items (1-3) obtained the 70% consensus, feedback from panelists suggested that these items do not accurately represent the sub-domain, a decision was made to omit them. The remaining items were retained with minor linguistic revisions to improve readability.

Table 6.23 gives a breakdown of the *ten* items included in the Social skills/ confidence sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.23

*Social skills/ confidence: Items, scores and resulting action after Round Two*

	<b>Subdomain: Social skills/ confidence</b>	<b>Score</b>	<b>Action</b>
1	Have a friend or friends that he/ she play with and give preference to? (other than family members)	90.9%	Retained
2	Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)	90.9%	Revised
3	Generally accepted and liked by other children	81.8%	Revised
4	Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)	100%	Revised
5	Prefers to play with children of the same age	63.6%	Omitted
6	Can play with other children without being bossy or needy	81.8%	Omitted
7	Able to make and maintain new friendships over time	90.9%	Revised
8	*Fights with other children	72.7%	Omitted
9	Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)	72.7%	Omitted
10	Able to ask someone to back off if he/ she needs their space?	90.9%	Retained

From Table 6.23 it became evident that nine of the ten items obtained the 70% level of consensus. Two of these items (1 and 10) were retained. In addition, five of the retained items were revised. The main reason for the revision was linguistic errors and word order changes to make the items more readable. Three of the Items that obtained a 70% level of agreement. Items (3, 6, and 9) were also omitted. The main reason for their omission was vagueness.

Table 6.24 gives a breakdown of the *nine* items included in the Compliance with rules sub-domain, the scores obtained as well as the accompanying decision to retain, revise or omit after Round Two.

Table 6.24

*Compliance with rules: Items, scores and resulting action after Round Two*

<b>Subdomain: Compliance with Rules</b>		<b>Score</b>	<b>Action</b>
1	Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner)	100%	Revised
2	Listen to and follow simple directions/ instructions from an adult after only being told once?	100%	Revised
3	Adhere to rules when playing a game.	81.8%	Omitted
4	Able to follow rules in class or structured environments	100%	Revised
5	Ask permission before using objects belonging to or being used by another	90.9%	Omitted
6	Obeys when asked to stop misbehaving	100%	Retained
7	Able to wait for his/ her turn.	90.9%	Omitted
8	Able to sit still in group and listen to story	100%	Revised
9	Take turns without being asked	81.8%	Omitted
10	<b>New item</b> Only respond to instructions after three or more repetitions		

From Table 6.24 it became evident all items obtained the 70% level of agreement. A decision was made to omit items (3, 7, and 9), because these items seemed to tap into the same attribute. Item six was retained and the remaining items were revised. The revisions were mainly to improve ease of reading. One new item ten was sourced from the existing instruments mentioned in Chapter Five (Table 5.3) and included in the Pilot study.

*Conclusion:* The main aim of the Delphi was to establish face and content validity.

Consensus was reached on all stimulus prompts after two rounds. The items of the questionnaire were subjected to two rounds where experts in the field of test construction, child development and education were able to give feedback on the items. By means of this procedure, content validity was established and the instrument (E3SR) was ready to enter the last phase, piloting.

## **6.8 PREPARATION OF THE E3SR FOR THE PILOT STUDY**

After conclusion of the Delphi study, the pilot version of the questionnaire was compiled (Appendix T). The pilot version has two sections, Section A and Section B. Section A, the Demographic section, included questions on:

a) *The personal particulars* of the child such as the child's chronological age, gender, birth order, ethnicity, home language, language of instruction in school, if the child had an existing illness or disability and if there were trauma present in the child's life present or past.

b) *Respondent information*. Information about the teacher that did the observations and completed the questionnaire such as, the length of time that the child is known to the teacher, a rating on how well the child is known, if the child has been referred for special support.

This section concluded with a rating scale where the teacher is asked to rate the child's overall emotional readiness and social readiness for school on a four point Likert scale from *Excellent, Need some Attention, Need lots of Attention* and, *Poor*.

Section B started with a short description to provide the user with guidance on how to complete the questionnaire. The questionnaire consists of two domains, Emotional Competence and Social Competence with their respective sub-domains and the respective items. A total of 56 items were included in the pilot version. The Emotional Competence domain was comprised of 31 items and the Social Competence Domain was comprised of 25 items. The users had to rate these questions on a 5-point Likert scale from *Never, Rarely, Some of the Time, Most of the Time* and, *Almost Always*. Respondents also had an option to indicate that they were not able to assess the child on any particular item.

## **6.9 CHAPTER CONCLUSION**

Chapter 6 reported on the Delphi study in the validation process. The resultant pilot version of the E3SR was endorsed by participants for face validity as well as content validity.

## **6.10 RECOMMENDATIONS**

The pilot version of the screening instrument must be piloted with a diverse sample to establish the psychometric properties. In particular, reliability, as measured by internal

consistency must be established. In addition, reduction techniques such as, factor analysis, must be applied to test the proposed factor structure of two domains with nine sub-domains.

## **6.11 LIMITATIONS**

The response rate in the Delphi study was a limitation. The strict adherence to the turn-around time might have contributed to the lower response rates. The decisions taken in the study were clearly justified and it is acknowledged that the resultant process might have been influenced by the pressured timeframe for completion of the Delphi. A larger number of panelists would not necessarily have resulted in a more rigorous process, but it might have sparked more debate.

The resolution or consensus reached after only two rounds might have been a function of the reduced list of participants. In addition, the consensus threshold could have been set at a more stringent level in order to increase the possibility of multiple rounds.

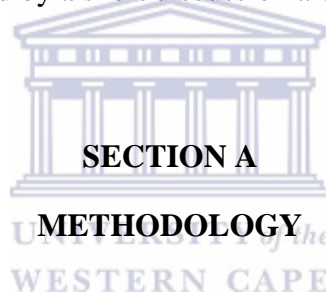
Test construction specialist were not able to optimally comment on the content universe that might have resulted in an inflated level of agreement. In retrospect, the selection of experts that have expertise in both test construction and developmental psychology could have been a better option. However, if potential panelists were required to have expertise in child development and/ or education in addition to test construction, that might have resulted in an even smaller pool of possible participants.

Some invitees declined to participate in the Delphi because they lacked expertise in test construction. A limitation of the study was that a singular stimulus prompt was developed for test construction or scalar decisions and for content or items. It might have been more productive to have parallel Delphi processes. One process could have tapped into issues of content while the other tapped into issues related to construction. The ensuing chapter reports on the pilot study aimed at establishing construct validity.

**CHAPTER SEVEN**  
**PHASE 4**  
**PILOT STUDY/ INSTRUMENT VALIDATION**

**7.1 INTRODUCTION**

This chapter reports on the fourth phase of the study that entailed the validation of the E3SR. The validation was done through a pilot study to establish the psychometric properties of the E3SR. The chapter has been organized in two sections, Section A and Section B. Section A reports on the methodological considerations that underpinned the pilot study and the data analyses. Section B reports on the results of the study. The results in Section B are presented in tabular form followed by a short discussion after each table.



**7.2 AIM**

To validate the E3SR with a local sample in the Western Cape, Cape Town region.

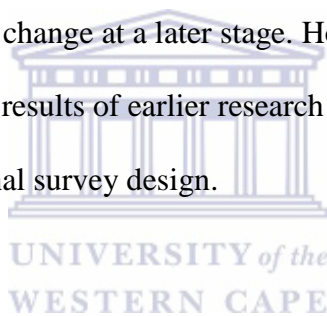
**7.3 OBJECTIVES**

- To establish the psychometric properties of the E3SR
- To test the assumptions for inferential statistics
- To establish whether the items within each domain and the relevant subdomains are homogeneous or correlated to one another (are reliable)
- To validate the dimensional structure of the E3SR

**7.4 RESEARCH DESIGN**

Survey research was selected as the design for the pilot study. Bhattacharjee (2012) recommended survey research for collecting data about people, their specific preferences,

thoughts, and behaviours in a systematic manner. Surveys provide a cross-sectional impression of the constructs measured and therefore cannot necessarily enable causal inferences or establish temporal order (Babbie, 2011). Surveys are easy to administer, economical in terms of time and cost (Evans & Mathur, 2005). Respondents can complete the survey at their own leisure (Fricker & Schonlau, 2002). There are two basic kinds of survey designs, namely longitudinal and cross-sectional surveys. The former involves collecting data at different points in time to study changes in a phenomenon over time (Babbie, 2011). The cross-sectional design refers to measurement taken at one point in time (Mann, 2003). This suggests that a particular variable is measured at one given point, as well as the relationships of that variable at the time of the study (Terre Blanche, Terre Blanche, Durheim, & Painter, 2011). Consequently, results may change at a later stage. However, researchers often revisit the phenomenon and build on the results of earlier research (De Vaus, 2002). The present study incorporated a cross-sectional survey design.



## **7.5 RESEARCH SETTING**

The research setting was pre-school/ educare centers registered under the Social Welfare Act in the Cape Town Metropole, Western Cape. For the purpose of this study the pre-schools were drawn from three categories, a) private sector/ independent pre-schools including schools with a specific philosophical focus such as Montessori schools, b) public/ governmental pre-schools, usually attached to primary schools and c) community pre-schools that functions independently but follow the pre-scribed ECD curricula. Pre-schools were identified in high, middle and low SES areas. Pre-schools in the Cape Town area were identified from areas such as Durbanville (predominantly higher SES); Brackenfell, Claremont (High and Middle SES); Goodwood, Belhar, Kraaifontein (Middle to Low SES); Kasselsvlei, Mfuleni, Bishop Lavis, Elsiesriver, Bonteheuwel (Low SES).



## **7.6 TARGET GROUP**

The unit of analyses/target population for the pilot study was children aged five to seven years who were attending preschools as specified above.

## **7.7 SAMPLE**

Stratified random sampling was selected as the preferred sampling technique.

Thompson (2012) explained that stratified random sampling techniques are used when the population is partitioned into regions or strata, and a sample is further defined or selected by simple random sampling. This sampling method was used since it is appropriate for use with groups that are mutually exclusive (Babbie, 2012). The sample was stratified into four sectors of schools: a) alternative preschool, b) private preschools, c) government preschools and d) community-based preschools. In each sector, preschools were identified for inclusion in the study if they offered Gr. R and RR classes. A list of pre-schools in the Cape Town area was compiled and they were invited to participate in the study. All the pre-schools that were approached agreed to partake in the pilot study. The sample thus comprised of ten preschools that offered Grade R and RR classes.

### **7.7.1 Respondent group**

The Grade RR and Gr. R teachers working in the chosen pre-school settings were selected as the respondent group to complete the pilot protocols of the E3SR. The minimum inclusion criteria for respondents were that they had to be full time employees at the respective pre-schools and that they were teaching Gr. RR or Gr. R. The teachers had to be familiar with the child's behavioural patterns, general traits and abilities across contexts through their day-to-day interaction with the child in the pre-school setting. Twenty-six teachers from ten preschool settings agreed to partake in the pilot study.

### **7.7.2 Protocols**

The anticipated sample size was a total sample of 300 completed protocols/questionnaires based on the teacher's observation of each child during the year. This was based on DeVellis' (2016) recommendation of five to ten cases per item up to 300 cases as a minimum threshold requirement. After the sample reached 300 cases, the ratio could be relaxed. The present study included protocols from four pre-school settings, alternative preschools (n=17), private preschools (n=110), government preschools (n=304) and community-based preschools (n=82). Thus, 513 protocols were collected before data curing and thus exceeded the threshold criterion recommended by DeVellis (2016).

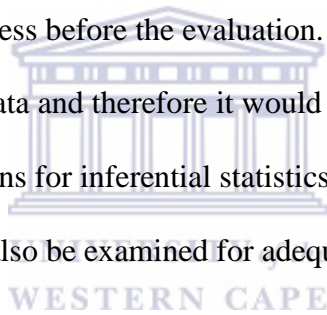
### **7.8 RECRUITMENT PROCEDURE**

In October 2016 a list of ten potential pre-schools were identified by the researcher and her supervisor that fulfilled the inclusion criteria. An email was sent to the principals of the pre-schools to ask if they were willing to participate in the pilot. The email stated the intended purpose of the pilot and a synopsis of what participation would entail. An ethical clearance certificate and information letter (Appendix A & D) accompanied the email. The principal was asked to discuss the invitation with the Grade R and RR teachers. If the teachers expressed interested to participate, the principal provided confirmation of their willingness by email to the researcher.

### **7.9 TIME SCHEDULE**

Most professionals and caregivers opt to do school readiness assessments in the last quarter of the year (Maxwell & Clifford, 2004). This is in line with the requirement of the DOE that specifies that documentation needs to be completed and submitted early in the last quarter, to inform decisions regarding placement of children for the following year (DOE, 2013). As the focus of this study was to pilot the screening tool and not to establish whether

children are emotionally and/ or socially ready, a deliberate decision was made to collect data towards the end of the last term of the academic school calendar. Two major considerations assisted to make this decision. Firstly, it would allow the respondents (teachers) to have a more comprehensive and clear picture of the children's emotional and social functioning and therefor aided in accurately reflecting the child's set of skills/ competencies. This period also coincided with teacher's formal evaluation of the child during the last term as a means of deciding if they were able to advance to Gr. 1. An added advantage was that it gave teachers the opportunity to gain more understanding, to learn more about the child's emotional social set of skills. Secondly, the target population (children) would have the opportunity to fully benefit from a full year of maturation and formal curriculum input in the preschool setting to maximize emotional social readiness before the evaluation. A potential disadvantage is that this might result in skewing the data and therefore it would be important to carefully assess the data in terms of the assumptions for inferential statistics before the proposed analysis commenced. The sample should also be examined for adequacy. Data were collected from November – December 2016.



## **7.10 DATA COLLECTION AND PROCESS**

After the preschools have confirmed that they were willing to participate in the study, a meeting between the principal, teachers and the researcher was scheduled at the respective setting, with the main purpose to give an overview of the research, the pilot study and what teacher's participation would entail. In the meeting the researcher contextualized the study (gave a comprehensive overview of the phases preceding the pilot), explained the main objectives of the pilot study and allowed discussion to clarify any uncertainties. Teachers were allowed to ask questions about the study and more specifically about the dissemination strategy, administration and the format of the E3SR. Teachers were able to see the pilot version of the E3SR, study it, and ask questions about it. A copy of the pilot questionnaire

was left with the teachers. They were asked to read the directions, go through the content and revert to the researcher if they had any queries about the administration. No questions were asked before the pilot commenced.

The researcher delivered the questionnaires and the consent forms to an identified teacher at each pre-school that voluntarily accepted responsibility for the distribution and collection of the questionnaires from all of the teachers that participated. These teachers were able to contact the researcher at any time via e-mail at [emunnik.phduwc@gmail.com](mailto:emunnik.phduwc@gmail.com) or telephonically to discuss any uncertainties or challenges that arose during the assessments. Teachers were asked to familiarise themselves with the questionnaire, meet as a group beforehand to give feedback about any uncertainties and return these back to the researcher for clarification before the individual evaluations commenced. Teachers at the respective schools met once before administration commenced to discuss their understanding of the instructions for completion. Feedback from these meetings to the researcher was generally positive with teachers expressing that they were familiar with the skills assessed in the protocol and that the protocol seemed easy to read and complete. Logistic queries included queries around the allocated period for completion of the protocols. Four of the teachers requested an extension of the data collection period to middle December 2016. This request was granted. Two teachers also asked if it was possible for classroom assistants to assist with the completion of the questionnaires. This request was discussed with the respective teachers and the inclusion criteria was explained to them. The teachers opted to complete the protocols themselves with the assistants present. The questionnaires accompanied by consent forms for each teacher were hand delivered at the respective schools after teachers indicated that they were ready to begin with the process. This commenced in the first week of November 2016. The due date of 15 December was agreed upon as collection time for completed questionnaires. Teachers indicated how many children were in their respective classes. The

specified amount with five additional questionnaires were delivered to the preschools for completion. This was done to ensure that enough questionnaires were available at each of the centres. During administration teachers were able to seek guidance telephonically or per email if any challenges were experienced. No queries were received during the administration period. The completed questionnaires were collected as soon as the teachers indicated that the questionnaires were completed. The last questionnaires were collected in the first week of December 2016 by the researcher after the teachers indicated that the questionnaires were ready for collection. All completed and blank questionnaires were returned. During the collection period three teachers approached the researcher, one teacher wanted to clarify why some of the items were “negatively stated?” Another teacher commented on double-barreled items and that this sometimes complicated allocation of a specific Likert score to an item. The last teacher asked that an additional category “good” be included in the rating of the child’s overall emotional and social functioning as the current rating progress from “Excellent” to “Still need some attention”. These conversations were valuable in that it added to some of the considerations post piloting in terms of reversed items, quality and clarity of items and rating considerations. In summary, the above steps were very effective as a means to ensure compliance with the administration instructions and by extension to add to the integrity of the data.

## **7.11 INSTRUMENTS**

The pilot version of the E3SR was used to collect data. A pen and paper format questionnaire was chosen as mode of administration. As mentioned before the questionnaire consisted of two sections, Section A, the Demographic section, included questions on the following:

### **7.11.1 The personal particulars**

Personal particulars of the child such as the child's chronological age, gender, birth order, ethnicity, home language, language of instruction in school, if the child had an existing illness or disability and if there were trauma present in the child's life present or past.

### **7.11.2 Respondent information**

Respondent information included information about the teacher that did the observations and completed the questionnaire such as the length of time that the child is known to the teacher, a rating on how well the child is known and if the child has been referred for special support. This section concluded with a rating scale where the teacher was asked to rate the child's overall emotional readiness and social readiness for school on a four point Likert scale from *Excellent, Need some Attention, Need lots of Attention* and *Poor*.

### **7.11.3 The E3SR**



Section B started with a short description to provide the user with guidance on how to complete the questionnaire. The Emotional Social Competence questionnaire consists of two sub-scales, Emotional Competence and Social Competence with their respective sub-scales followed with the respective items, 56 in total. Thirty-one items in the Emotional Competence domain and twenty-five items in the Social Competence domain. The respondents had to rate these questions on a five point Likert scale from *Never, Rarely, Some of the Time, Most of the Time, and Almost always*. A further response option was included that allowed the respondents to indicate that they were not able to assess the child.

## **7.12 ANALYSIS**

### **7.12.1 Data capturing, cleaning and editing**

A codebook was developed for the encoding of completed questionnaires before data capturing (Appendix V). The process of manual coding of all completed questionnaires was

completed by the primary researcher to ensure uniformity in the application of the codebook. Each protocol received a participant code. It was agreed that missing data would be identified with a period/ full stop (.). The coding process was done without any concerns being raised. In an attempt to improve data quality, each of the questionnaires were entered into the Statistical Software Package for the Social Sciences (SPSS) twice, once by the researcher and once by a research assistant. After the entries, the data sets were compared to make sure that the database was uniform.

A three-phase model as identified by Van den Broeck, Cunningham, Eeckels and Herbst (2005) was used to identify and edit suspected data abnormalities. First, the data set was *screened* for missing data, such as, missing biographical information, incomplete domains in the questionnaires and completed questionnaires that had a large number of extreme values (for example a score of five obtained on all questions). Second, in *the diagnostic phase* the researcher and the supervisor identified and discussed data abnormalities. The meeting resolved what needed to be done, i.e. to correct data, delete data or to leave data unchanged. In the case where data was missing, a decision was made to still code the protocol to obtain the dataset as is. Missing data was indicated with a full stop and the protocol number was written down to ensure that decisions could be made about the incomplete profiles before data analysis commenced. Third, in the *treatment phase*, the decisions that were made in the diagnostic meeting were implemented.

Five hundred and thirteen profiles (N=513) were collected from the preschools. On inspection of the entries it was noted that *three* profiles were blank, and *four* profiles were incomplete (the last three sub-scales were not completed). These profiles were omitted, which left five hundred and six profiles (N=506) that were entered on SPSS. On closer inspection of the data set, it was noted that ten children were younger than five years and one child was older than seven years. These profiles (n=11) were excluded from the dataset as the target group

range was identified as five to seven year old children. The data set was also subjected to a test of completeness by testing for the percentage of missing data per case. The threshold for missing data was set at 50% in keeping with the recommendation of Van den Broeck et al's. (2005) three-phased model. A further two profiles were identified that had missing data amounting to more than 50% and were excluded. Thus, the final sample of protocols for the analyses was 493 profiles.

### **7.12.2 Data analysis**

The Statistical Software Package for the Social Sciences (SPSS) was used to analyse data. The analysis included descriptive statistics, inferential statistics and data reduction techniques. The analysis aimed to fulfil four functions, namely, a) Summation of sample characteristics, b) testing data set for assumptions, c) establishing reliability estimates and d) data reduction procedures for establishing construct validity. Below is a brief description of the techniques used. To ensure the integrity of the analyses, the researcher and research assistant performed the analyses under supervision. Frequent meetings were convened to discuss analysis and results to ensure accuracy of interpretation.

#### ***7.12.2.1 Summation of sample characteristics***

Descriptive statistics were used to compile the demographic profile of the data collected. Descriptive statistics were appropriate for this purpose as it increased the familiarity with the sample (Clark-Carter, 2004). Sample characteristics were summarised using sample size, frequencies and percentages. Table 7.1 provides a demographic profile of the respondent group.



Table 7.1  
*Demographic composition of the respondent group/ teachers (N=26)*

Variable	N	%
<i>Sex</i>		
Female	25	97
Male	1	3
<i>Age</i>		
20-30	5	20
31-40	10	38
41-50	3	11
≤51	8	31
<i>Ethnicity</i>		
Coloured	11	43
Black	1	3
White	14	54
<i>Years in teaching</i>		
0-10	13	50
11-20	7	27
21-30	6	23
<i>Level of Education/ Qualification</i>		
Level 4 (Certificate)	7	27
Level 5 (Diploma)	7	27
Level 6&7 (Degree)	12	46

Table 7.1 indicates that the overwhelming majority (97%) of teachers were female. The majority of teachers were older teachers, (38%) were in the age group (31-40) whilst (31%) were over 51 years. The ratio in terms of ethnic denomination was 54% White, 43% Coloured and 3% Black. Most of the teachers (50%) were teaching 10 years or less in the foundational phase. Interestingly, the majority of the teachers had a degree as qualification, followed by 27% having a diploma and a certificate qualification. Table 7.2 below presents the sample composition per sector.

Table 7.2  
*Sample composition of preschools, respondents and protocols per sector*

Sectors	Pre-schools	Respondents (Teachers)	Protocols completed (N=513)	
	N	N	N	%
Alternative centres	1	2	17	3
Private centres	3	7	110	21
Governmental centres	3	11	304	60
Community based centres	3	6	82	16

Table 7.2 indicates that five hundred and thirteen profiles (N=513) were completed by 26 respondents (teachers) across ten pre-school settings. The majority of the protocols (60%) were completed in governmental pre-schools, followed by private pre-schools (21%), Community based centres (16%) and Alternative centres (3%). Table 7.3 provides a demographic profile of the target group or unit of analysis.

Table 7.3  
*Demographic composition of the target group/ children 5-7 year old*

Variable	N	%
<i>Age</i>		
5-6	130	26
6-7	365	74
<i>Gender</i>		
Male	293	59
Female	202	41
<i>Home language</i>		
English	291	59
Afrikaans	165	33
Xhosa	27	6
Other	6	2
<i>Ethnicity</i>		
Coloured	153	31
Black	69	36
White	178	36
Mixed race	10	2
Indian	14	3
Not disclosed	71	14

Table 7.3 indicates that the majority of children (74%) were in Gr. R. The Gr. RR group was a smaller group (26%). As far as gender is concerned, (59%) were male/ boys and (41%) were female/ girls. English was the most spoken first language (59%), followed by Afrikaans (33%), and Xhosa (6%). Other primary languages that were specified as mother tongues included Congolese, French and other South African languages Zulu/ Sepedi (2%).

#### 7.12.2.2 Testing data set for assumptions

There are three core assumptions, which were assessed before conducting multivariate

statistical analysis. The following screens were included for all the variables: Assumptions of normality, homogeneity of variance, and sample adequacy (Field, 2009). In addition, the assumptions of sample adequacy (size) and the assumption of correlation between variables were tested in order to determine if the data set would support the use of factor analysis for data reduction (Field, 2013).

#### *7.12.2.2.1 Assumption of normality*

The assumption of normality was tested with the Shapiro-Wilk test. Field (2013) recommended the test to be a strong and accurate test for the assumption of normality. In the Shapiro-Wilk test, a non-significant ( $p > .05$ ) statistic shows that the distribution of the particular sample is not significantly different from a normal distribution (Field, 2013). This would indicate that the distribution of the data approximated normality. If, the Shapiro Wilk statistic tested significant ( $p < .05$ ), this would indicate that the distribution of data differed significantly from a normal distribution that in turn suggests that the distribution was not normal.

#### *7.12.2.2.2 Assumption of sample adequacy*

The assumption of sampling adequacy was measured by the Kaiser–Meyer–Olkin test (KMO). This measure has been developed to assess whether the size of the sample is adequate (Field, 2013). The KMO statistic was calculated for individual and multiple variables, and represented the ratio of the squared correlation between variables to the squared partial correlation between variables (Field, 2009). Hutcheson and Sofroniou (1999, as cited in Field 2009) suggested the following interpretation classification for the statistics: values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb.

#### *7.12.2.2.3 Assumption of homogeneity of variance*

The assumption of homogeneity of variance was tested with Bartlett's test of sphericity (Field, 2013). This test assessed whether there are inter-correlations between variables and assisted in indicating whether the correlation matrix differed significantly from an identity matrix. When this test statistic is significant it indicates that, the correlations between variables are in general significantly different from zero. Thus, a significant value of this test is desirable. However, although a non-significant value of this test may be undesirable, it is essential to note that significance of tests does not necessarily mean that correlations are big enough to make the analysis meaningful. Low correlations on any identified variables against other variables should be considered as a reason for exclusion from the factor analysis (Field, 2013). Similarly, extreme multi-collinearity (variables that are highly correlated) and singularity (variables are perfectly correlated) is considered to be an issue in factor analysis (Field, 2009). Field (2013) underscored that the unique contribution a variable made to a factor is challenging to determine when variables are highly correlated. Moderate multi-collinearity would not pose a concern for factor analysis and thus significant moderate correlations are desired.

#### *7.12.2.3 Internal consistency*

Inferential statistics were used to assess the internal consistency of the instrument as an indicator of reliability. Scales are deemed reliable based on the extent that they consist of reliable items that share a common latent variable (DeVellis, 2016). Coefficient alpha corresponds closely to the classical definition of reliability, as the proportion of variance in a scale is attributable to the true score of the latent variable (DeVellis, 2016). Internal consistency is an assessment of the degree to which the component items of a scale coalesce around a coherent and stable central tendency (Streiner, 2003). The most frequently used index of internal consistency is Cronbach's coefficient alpha, which represents the average of

all possible split half reliabilities that can be performed on a scale (DeVellis, 2016). Internal consistency coefficients were calculated for the emotional-social composite scale, emotional sub-domain, social sub-domain and the nine sub-scales of the E3SR to determine whether the E3SR consist of reliable items that share a common latent variable.

Cronbach alphas usually have a value between 0 and 1 (Terwee et al., 2007). Tavakol and Dennick (2011) stated that researchers have different reports about the acceptable values of alpha ranging from 0.70 to 0.95. He further explained that a low value might be due to a low number of questions or poor interrelatedness between items or heterogeneous constructs. A too high value may be attributed to redundancies and that these specific items might be omitted as other similar items measuring the same construct might exist. The following interpretive guide as proposed by George and Mallery (2003) was used to interpret alpha values as showed in Table 7.4.

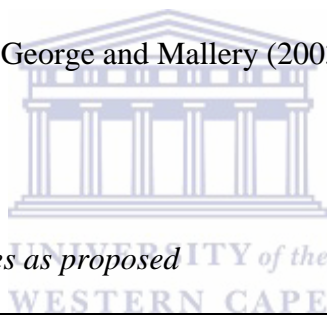


Table 7.4  
*Interpretive guide for Alpha values as proposed*

Quality descriptor	Alpha value ( $\alpha$ )	
	Lower limit	Upper limit
<i>Excellent</i>	0.91	1.00
<i>Good</i>	0.81	0.90
<i>Acceptable</i>	0.71	0.80
<i>Questionable</i>	0.61	0.70
<i>Poor</i>	0.51	0.60
<i>Unacceptable.</i>	0.10	0.50

*Note:* Derived from George and Mallery (2003).

For the purpose of this study, a Cronbach alpha of .80 or higher was set as a threshold value i.e. scales and subscales had to obtain a Cronbach alpha that was qualified as good or excellent.

#### **7.12.2.4 Data reduction procedures/ Multivariate analysis**

Data reduction procedures were used to establish construct validity. DeVilles (2016) stated that factor analysis was an appropriate reduction technique to 1) determine how many

latent variables underlie a set of items, 2) explain the variation among many original variables to reduce factors, and 3) to define the substantive content or meaning of the factors that account for the variation among a larger set of items. Thus, factor analysis is a form of multivariate analysis used to reduce the number of variables in a model or to detect relationships among variables (Bhattacharjee, 2012). Factor analysis is based on variables with interval data that is assumed to be normally distributed (Hayton, Allen & Scarpello, 2004). The goal of the analysis is to identify factorial structure. The main objective of factor analysis is to identify categories of similar statements or a small set of factors that can account for the important covariation among items (DeVellis, 2016). Kline (2016) identified three important decisions that must be taken before factor analyses can commence.

*The first decision* was to determine the choice of factor model, for example Confirmatory factor analyses (CFA) and/ or Exploratory factor analyses (EFA). Confirmatory factor analyses (CFA) is usually preferred when a theoretical model was identified or built *a priori* that is *before* the data collection and analysis. This usually implies one exclusive set of estimates and therefore no rotation phase (DeVellis, 2016). Kline (2013) recommended EFA as the preferred analysis when the main aim is to arrive at a reduced set of factors that summarises and describes the structural inter-relationships among the items in a concise and understandable manner. For the purpose of this study, it was decided to use both CFA and EFA.

#### 7.12.2.4.1 Sequence of analysis

A decision was made to use *confirmatory factor analyses* first with the main aim to investigate the dimensional structure of the established model of the E3SR and the expected causal connection between the variables. CFA, more specifically Structural equation modelling (SEM), was the preferred choice for data extraction to validate the identified structural domains of the E3SR. The assumption was that the constructs of emotional and

social competence can adequately account for the pattern of correlations among items in their respective domains and sub-domains. Thus CFA would be used first to test the theoretical model on which the E3SR was developed and EFA would be used if the model was not supported or there were source variance issues to be clarified and an alternate dimensional structure of the E3SR determined.

The *second decision* point in factor analysis was to decide which data matrix to be analysed, a correlation matrix versus a covariance matrix. Nunnally and Bernstein (1994) explained that a correlation matrix is a set of correlation coefficients among all the variables (items) being considered in the study and that factoring is not worthwhile, unless there are a substantial number of large correlations. A correlation matrix was used for both CFA and EFA.

The *third decision* in the analyses was to identify the set of indicators to be analysed and the composition and the size of the sample. In the construction phase of this study, the indicators/ domains and subdomains have already been identified and subjected to a panel of experts with the main aim to establish face and content validity. The sample items were revised and refined before piloting. The instrument has a total of 54 items across two domains and nine subdomains that were subjected to factorial analysis. The identified domains and sub-domains constituted a theoretical model and was tested in the CFA.

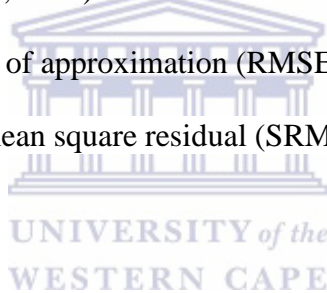
#### 7.12.2.4.2 Confirmatory factor analyses (CFA)

*Selecting indices:* Factor analysis produces a number of indices that can be used to assess the goodness of fit of theoretical or exploratory models. Four indices are typically identified in seminal texts on factor analytic techniques (Kline, 2005). Tabachnick and Fidell, (2007) advised that the squared multiple correlations of each equation also be included. Hooper, Coughlan and Mullen (2008) advocated for the use of Chi-Square, Root Mean

Squared Error of Approximation (RMSEA), Goodness of Fit Index (GFI) and Standardised Root Mean Square Residual (SRMR).

Hooper, Coughlan and Mullen (2008) made a distinction between absolute and incremental fit indices. *Absolute fit indices* are used to determine how well a constructed model fits the sample data (Kenny, 2014). *Incremental fit indices* are also known as comparative indices (Miles & Shevlin, 2007) or relative fit indices (Schreiber, Nora, Stage, Barlow & King, 2006). Incremental fit indices compares the chi square value to a baseline model until optimal model resolution is found (Kenny, 2014).

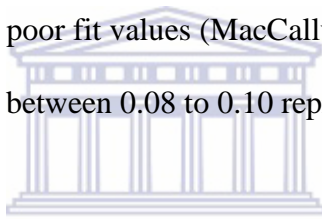
*Absolute fit indices* test whether the postulated CFA model best represent the present data set i.e. an absolute fit (Kenny, 2014). Absolute fit indices include a) Chi square (raw data), b) Root mean squared error of approximation (RMSEA), c) Goodness of fit index (GFI), and d) Standardised root mean square residual (SRMR). Below is an exposition of these absolute fit indices.



*Chi-square*: Hooper et al. (2008) explained that Chi-Square evaluates overall model fit by measuring the magnitude of discrepancy between the sample and fitted covariance matrices. When comparing models, a lower chi-square value indicates a better fit, given an equal number of degrees of freedom (Hooper et al., 2008; Kline, 2013). The chi-square value is called the CMIN. Hooper et al. (2008) cautioned researchers against the use of chi-square as an overall goodness of fit index, because the test assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified. Chi-Square statistic is a test of statistical significance that is sensitive to sample size, which means that the Chi-Square statistic nearly always rejects the model when large samples are used (Hooper et.al, 2008; Kline, 2013). These concerns amongst others have prompted researchers to seek alternative indices to assess model fit.



*Root mean squared error of approximation (RMSEA):* The RMSEA tells how well the model, with unknown but optimally chosen parameter estimates would fit the covariance matrix of the population (Byrne, 1998). Due to its sensitivity to the number of estimated parameters in the model, the index will favour the model with the lower number of parameters (Hooper et al., 2008). The RMSEA is a measure of the average residual variance and co-variance (Kline, 2013). Cutoff points for the RMSEA changed significantly since 2001 to include ranges that are more stringent. For example, Kenny (2014) concluded that researchers preferred a cutoff score of close to 0.06 and an upper limit of 0.07. Kline (2013) proposed a value at or below 0.08 as satisfactory, below or at 0.05 as a good fit value and 0.01 as excellent. In the late 1990s, scores of 0.05 to 0.10 were considered fair fit indices while values above 0.10 indicated poor fit values (MacCallum, Browne & Sugawara, 1996). During this period, an RMSEA of between 0.08 to 0.10 represented a mediocre fit and below 0.08 showed a good fit.



*Goodness of fit index (GFI):* The Goodness-of-Fit statistic (GFI) is used as an alternative to the Chi-Square test and calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidell, 2007). This statistic ranges from 0 to 1. A value over 0.9 generally indicate an acceptable model fit (Kline, 2013). Larger samples and more parameters usually lead to an increase in the index value (Kline, 2013). The GFI index has become less popular amongst researchers given the sensitivity of the index (Sharma, Mukherjee, Kumar & Dillon, 2005). Hooper et al. (2008) concluded that due to the often pernicious effect of sample size it is not relied upon as a stand-alone index, but often used in combination with other indices when reporting is done on covariance structure analyses.

*Standardised root mean square residual (SRMR):* The SRMR is defined as the standardised difference between the observed correlation and the predicted correlation

(Hooper et.al, 2008). Values for the SRMR range from zero (0) to one (1.0) with well-fitting models obtaining values less than .05 (Byrne, 2016). However values as high as 0.08 are deemed acceptable (Hu & Bentler, 1999). A SRMR of zero indicates perfect fit, but it must be noted that SRMR will be lower when there is a high number of parameters in the model and in models based on large sample sizes (Kline, 2013).

For the purposes of the present study, it was decided to compute all four indices. Chi Square would be used as a check only, but statistics for the RMSEA, the SRMR, and the GFI will be reported on due to their relative insensitivity to sample size, model misspecification and parameter estimates (Hooper et al., 2008; Kenny, 2014; Kline, 2013). The indices were considered jointly to make model fit decisions.

*Incremental fit indices* are incrementally tested against the null hypothesis that all variables are uncorrelated (Byrne, 2016). The Comparative fit index (CFI) is the most widely used incremental fit index used to test whether the CFA model best represents the present data set. A brief synopsis of the index is discussed below.

*Comparative fit index (CFI)*: The CFI index is a statistic that compares the sample covariance matrix with the null model, thus assuming that all latent variables are uncorrelated (Rigdon, 1996). The CFI index falls between zero and one, with values greater than 0.90 - 0.95 considered to be indicators of good fitting models (Kline, 2013; Hooper et.al, 2008; Hu & Bentler, 1999). A cut-off criterion of  $CFI \geq 0.90$  was initially advanced (Hooper et.al, 2008), however, recent studies have shown that a value greater than 0.90 is needed in order to ensure that incorrectly or poorly specified models are not accepted (Kline, 2013). The CFI is one of the most popularly reported fit indices due to being one of the measures least effected by sample size (Kline, 2013).

*Criteria for the fit indices:* As mentioned before, criteria for fit varied over time and have increasingly become more stringent (Schumacher & Lomax, 2004). For the present study a set of criteria for fit indices were distilled from Kline (2013) and Hu and Bentler (1999). Table 7.3 provides a summary of the fit indices and cut-off scores used to determine if the proposed models will represent good fit models for the dataset of the pilot study.

Table 7.5  
*Criteria for the fit indices*

<b>Indices</b>	<b>Symbol/ Acronym</b>	<b>General threshold decided upon</b>
Chi Square	$\chi^2$	Low $\chi^2$ relative to degrees of freedom with an insignificant p value ( $p > 0.05$ )
Goodness of fit index	GFI	Value greater than 0.9 generally indicate an acceptable model fit. (use with caution)
Root mean squared error of approximation and Standardised root mean square residual	RMSEA & SRMR	RMSEA of 0.06 or lower and a SRMR of 0.08 or lower
Comparative fit index and Standardised root mean square residual	CFI & SRMR	CFI of 0.90-0.95 or higher and a SRMR of 0.08 or lower considered to be good fit models

*Note:* Derived from Kline (2013) and Hu & Bentler (1999).

#### 7.12.2.4.3 Exploratory factor analyses EFA

EFA was used to further investigate the dimensional structure of the E3SR. The main aim was to gain more clarity on the structure of the set of variables that were identified and to reduce the 56 items of the scale to a more manageable size.

#### *Principal Components Analyses*

Principle Components Analysis (PCA) was selected as the method of extraction. Principal Components Analysis is a statistical technique that identify groups or clusters of variables. This technique has three main uses, firstly to understand the structure of a set of variables, secondly to construct a questionnaire to measure an underlying variable and, thirdly to reduce a data set to a more manageable size while retaining as much of the original information as possible (Field, 2009, p. 268). The main aim for using PCA in this analysis

was to gain more clarity on the structure of the set of identified variables and to reduce the 56 items of the scale to a more manageable size. The identified set of indicators were the 56 items in the E3SR (Emotional Social Competence domain), the identified sample size were a minimum of five items per identified domain and the data matrix used was an unreduced correlation matrix.

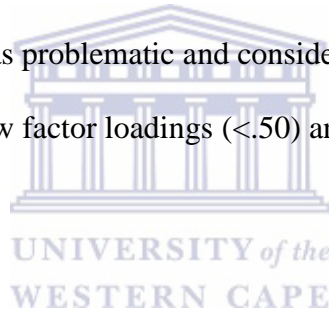
The next decision centered on the *method of rotation*. Kline (2013) explains that rotation is an integral part of any EFA and that the primary goal of the rotation is to make the meaning of factors more obvious to the researcher and enhance the interpretability of the retained factors. Kline (2013) further describes the rotation as a process where the initial factors are re-weighted according to pre-determined statistical criteria depending on the choice of method of rotation with the main aim to explain as much variance as possible in the non-overlapping sets of indicators. If an oblique rotation method is employed, the structure coefficients for the rotated factors should head towards either 0 or 1.0 in order to make the associations between factors and indicators more distinct (Kline, 2013). The method of *oblique rotation* allows the factors to co-vary and were therefore the choice of rotation method. The specific method of rotation that was used is Kaiser's varimax rotation, using the direct oblimin method, which maximizes the variance of the structure coefficients pushing each factor toward 0 or 1.0 by decreasing the standard errors of the loadings for the variables with small communalities while increasing those of the correlations among oblique factors (Kline, 2013 ). Fixed factor loading was selected and set to nine domains.

Interpretation of results are usually done by reviewing factor loadings, communalities and factor overdeterminations. Nunnally and Bernstein (1994) advised that researchers should look for a substantial number of large correlations, but commented, "how large is somewhat arbitrary" (pg. 469). Comrey and Lee (1992) suggested the following guidelines for the interpretation of loadings: .32 as poor, .45 as fair, .55 as good, .63 as very good, and

.71 as excellent. Costello and Osborne (2005) suggested that a factor loading less than .30 on an item is weak and that weak loadings suggest that an item might be unstable, whereas a loading of greater than .50 on an item could be seen as a desirable and strong loading, thus proposing a solid item. The above authors also emphasized that several variables with loadings in the very good to excellent range provide a basis for the researcher to make more definitive conclusions about the component. Nunnally and Bernstein (1994), Tabachnick and Fidell (2007), and Stevens (2009) advised caution when interpreting components with few variables. According to Stevens (2009), components with at least four loadings greater than .60 or at least three loadings greater than .80 are considered reliable. Variables can load clearly or can cross-load on more than one component. Costello and Osborne (2005) defined cross-loading as variables that load at .32 or higher on two or more components. The cross-loadings of the variables/ items can be explained either in terms of the wording of questions, the way the questions were posed, or the close relationship between the various dimensions tapped by the questions (Hair et al., 2010). Costello and Osborne (2005) explained that cross-loaded items that load on more than two components are usually an indication of poorly written items. Tabachnick and Fidell (2001) further propose that items that cross-loads should be dropped if there are other items in the specific components that loaded at .50 or higher. Hair et al. (2010) recommended that problematic items, that is, items that failed to load on any of the domains, should be further examined in the communalities table after the pattern matrix was interpreted. These items/ variables warrant additional questioning by the researcher relative to the appropriateness of the variable in contributing to a meaningful factorial solution. MacCallum, Widaman, Zhang and Hong, 1999 (cited in Brandon, 2011) defined communalities as the variance accounted for by all the extracted factors. The higher the communality, the more reliable it is an indicator. The authors stated that a desirable level of communality needs to be at least .70 and for communalities not to vary over a wide range.

Costello and Osborne (2005) suggested that item communalities higher than .80 is considered to be high, communalities between .40 to .70 is considered to be low to moderate and communalities less than .40 indicate that items are not related to other items, or that these items might tap into additional factors that needs further exploration. Thus, communalities and high overdeterminations (at least *three to seven* variables loading strongly on each factor) are important elements in achieving good recovery of population factors (Brandon, 2011).

For the purpose of this study items that loaded clearly on their respective components were retained if they had factor loadings greater than .50. Items that cross-loaded on two components were retained in the component in which they obtained the highest loading, on condition that they obtained a minimum loading of .50. Items that cross-loaded on more than two components were identified as problematic and considered for omission/ revision. Items that cross-loaded and obtained low factor loadings (<.50) and low communality scores (<.70) were recommended for omission.



## SECTION B

### RESULTS

#### 7.13 Assumption of normality (Shapiro-Wilk)

Tables 7.6 to 7.9 report on the Shapiro-Wilk test for the subscales in the emotional and social competence domain.

Table 7.6  
*Shapiro-Wilk output for the emotional competence subscales (N=493)*

Subscale	Statistic	df	N	Significance
<i>Emotional Maturity</i>				
EM1	.866		493	.000
EM2	.876		493	.000
EM3	.851		493	.000
EM4	.858		493	.000
EM5	.838		493	.000
EM6	.828		493	.000
<i>Emotional Management</i>				
EMX1	.753		493	.000
EMX2	.788		493	.000
EMX3	.805		493	.000
EMX4	.821		493	.000
EMX5	.760		493	.000
EMX6	.812		493	.000
EMX7	.864		493	.000
<i>Independence</i>				
IN1	.708		493	.000
IN2	.676		493	.000
IN3	.802		493	.000
IN4	.645		493	.000
IN5	.782		493	.000
IN6	.789		493	.000
<i>Positive sense of self</i>				
SOS1	.724		493	.000
SOS2	.834		493	.000
SOS3	.855		493	.000
SOS4	.838		493	.000
SOS5	.864		493	.000
SOS6	.845		493	.000
<i>Mental Wellbeing and Alertness</i>				
MW1	.851		493	.000
MW2	.864		493	.000
MW3rev.	.683		493	.000
MW4	.862		493	.000
MW5	.850		493	.000
MW6	.683		493	.000

From the above table it becomes evident that the Shapiro Wilk statistic for items across all five scales tested significant at a .01 alpha level. Thus, this suggests that the distribution of scores for the sample is significantly different compared to a normal distribution. Thus, the assumption of normality has been violated for the subtests in the emotional competence domain. Table 7.7 reflects the results for the subscales in the social competence domain.

Table 7.7  
Shapiro-Wilk output for the subscales in the social competence subscales (N=493)

Subscale	Statistic	df	N	Significance
<i>Social Skills</i>				
SS1	.814		493	.000
SS2	.835		493	.000
SS3	.793		493	.000
SS4	.831		493	.000
SS5	.818		493	.000
SS6	.865		493	.000
<i>Pro-social behaviour</i>				
PB1	.786		493	.000
PB2	.832		493	.000
PB3	.838		493	.000
PB4	.778		493	.000
PB5	.836		493	.000
PB6	.848		493	.000
<i>Compliance with rules</i>				
CR1	.732		493	.000
CR2	.768		493	.000
CR3	.770		493	.000
CR4 rev.	.888		493	.000
CR5	.794		493	.000
CR6	.810		493	.000
<i>Communication</i>				
COM1	.778		493	.000
COM2	.733		493	.000
COM3	.670		493	.000
COM4	.705		493	.000
COM5	.710		493	.000
COM 6	.735		493	.000
COM 7	.669		493	.000

Table 7.7 shows that the Shapiro Wilk statistic for items across all of four scales tested significant at a .01 alpha level. Thus, this suggests that the distribution of scores for the sample is significantly different compared to a normal distribution. Thus, the assumption



of normality has been violated for the subtests in the social competence domain. Overall the assumption of normal distribution was not met for the total sample across all nine domains (N=493).

This was expected as the target population (five to seven year old children) constitutes a wide developmental band that includes children with developmentally diverse skills sets that are dependent on maturation, formal instruction etc. The violation of normal distribution suggests that there might be a binomial distribution with two distinct developmental groups. This is supported by theoretical understandings of developmental milestones, as well as clinical/ educational observations. A decision was made to split the sample into two cohorts that theoretically would reflect greater coherence in terms of the developmental or maturational understanding. Group One consisted of five to six year olds and Group Two consisted of six to seven year olds. The Shapiro-Wilk test was then repeated on both groups using the sub-domain totals. Table 7.8 presents the results of the Shapiro-Wilk output for the nine domain totals / subscales for Group One.

Table 7.8

*Shapiro-Wilk output for the nine domain totals for Group One (n=129)*

<b>Subscales</b>	<b>Statistic</b>	<b>df</b>	<b>N</b>
Emotional Maturity	.973		128
Emotional management	.943		128
Independence	.934		128
Positive sense of self	.961		128
Mental Wellbeing	.976		128
Social Skills	.968		128
Pro-social behavior	.966		128
Compliance with rules	.944		128
Communication	.862		128

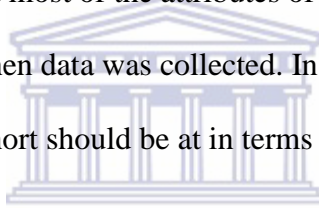
\* $p < 0.05$

From Table 7.8 it emerges that the assumption of normal distribution was met for Group One. Table 7.9 presents the results of the Shapiro-Wilk output for the nine domain totals / subscales for Group Two.

Table: 7.9  
*Shapiro-Wilk output for the nine domain totals for Group Two (n=364)*

Subscales	Statistic	df	N	Sig.
Emotional Maturity	.906		363	.000
Emotional management	.855		363	.000
Independence	.854		363	.000
Positive sense of self	.907		363	.000
Mental Wellbeing	.947		363	.000
Social Skills	.924		363	.000
Pro-social behavior	.887		363	.000
Compliance with rules	.893		363	.000
Communication	.781		363	.000

Upon closer investigation of Table 7.9, the results showed that the distribution was negatively skewed and the assumption of normality was not met for this group. This violation was in line with the expected results, as the six to seven year old group was assumed to already have mastered most of the attributes of emotional social readiness at the end of the 2016 academic year when data was collected. In other words, the distribution accurately reflected where the cohort should be at in terms of the measured competencies.



#### 7.14 Assumption of sample adequacy

The results of the *Kaiser–Meyer–Olkin (KMO)* test of sample adequacy for the total sample are presented in Table 7.10 below.

Table 7.10  
*KMO results for sample adequacy (N=493)*

KMO	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.966

\* $p < 0.05$

The KMO statistic in Table 7.9 supports that the assumption for sample adequacy has been met. The results suggest that the study sample satisfies the criteria used for a *superb* sample size.

### 7.15 Assumption of homogeneity of variance

The results of the Bartlett's test of sphericity were tabularized and presented in

Table 7.11.

Table 7.11  
*Bartlett's test for total sample (N=493)*

<b>Bartlett's Test</b>		
Bartlett's Test of Sphericity	Approx. Chi-Square	27578.741
	df	1540
	Sig.	.000

Table 7.11 shows that the Bartlett's test of Sphericity was significant at a 0.001 alpha level. This indicates that fundamentally, the correlations between variables are significantly different from zero, suggestive of a correlation matrix and not an identity matrix. Thus, the data will support the proposed factor analysis, as the assumption of homogeneity of variance was not violated.

**Summary:** Two of three assumptions, sample adequacy and homogeneity of variance were met for the total sample, while the assumption of normality was violated. When dividing the sample into age cohorts, normality was met for Group One (5-6 year olds), but not for Group Two (6-7 year olds). As this is line with theoretical expectations as already explained, the proposed analysis on the entire group could proceed. The data can thus be trusted to support multivariate statistics for the total sample. The next section therefore focused on reliability and validity computations to establish and report on the internal consistency and construct validity of the E3SR.

### 7.16 Reliability coefficients (Cronbach alpha)

The results of internal consistency for the composite scales are presented below in tabular form.

### 7.16.1 Composite scales

Three composite scales were subjected to internal consistency or reliability estimation. The Emotional social full scale consisted of 56 items. The Emotional competence subscale consisting of 31 items and the social competence subscale consisting of 25 items. Table 7.12 gives a breakdown of the resultant Cronbach alphas for the Emotional Social scale, the Emotional subscale and the Social subscale.

Table 7.12  
*Cronbach alphas for composite scales*

Scale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Emotional-social scale	.977	.978	56
Emotional scale	.960	.961	31
Social scale	.959	.961	25

From Table 7.12 it becomes evident that all three subscales obtained excellent Cronbach alphas. The Emotional social full scale reported a Cronbach alpha that suggested the scale obtained excellent reliability scores ( $\alpha = .977$ ). The Emotional competence subscale and the social competence subscale were found to have excellent reliability with Cronbach alphas of .960 and .959 respectively.

### 7.16.2 Subscales

The results of the internal consistency for each scale were very positive. All nine subscales showed good to excellent levels of internal consistency. Below is an exposition of the results for internal consistency/ reliability per scale in tabular form for the respective scales or subdomains.

Emotional Maturity (EM): The Emotional Maturity subscale consisted of six items. The subscale obtained an internal consistency score of .940. Table 7.13 reflects the Cronbach's alpha per item if that item were deleted.

Table 7.13  
*Emotional Maturity: Cronbach alphas per item (n=6)*

Subscale	Item statistics			
	<i>N</i>	<i>Mean</i>	<i>Std dev</i>	<i>α if item deleted</i>
<b><i>Emotional Maturity - α =.940</i></b>				
EM1	493	3.84	1.037	.938
EM2	493	3.76	1.050	.926
EM3	493	3.92	1.032	.923
EM4	493	3.88	1.013	.920
EM5	493	4.00	.988	.924
EM6	493	4.08	.922	.938

The results in Table 7.13 indicate that the Emotional Maturity subscale was found to be excellent ( $\alpha =.940$ ). It is also noteworthy that the internal consistency would not increase if any of the items on the sub-scale were omitted.

Emotional Management (EMX): The Emotional Management subscale consisted of seven items. The subscale obtained an internal consistency score of .902. Table 7.14 reflects the Cronbach's alpha per item if that item were deleted.

Table 7.14  
*Emotional Management: Cronbach alphas per item (n=7)*

Subscale	Item statistics			
	<i>N</i>	<i>Mean</i>	<i>Std dev</i>	<i>α if item deleted</i>
<b><i>Emotional Management =.902</i></b>				
EMX1	493	4.30	.863	.886
EMX2	493	4.21	.926	.876
EMX3	493	4.03	1.111	<b>.907</b>
EMX4	493	4.03	1.039	.885
EMX5	493	4.31	.857	.881
EMX6	493	4.09	.990	.881
EMX7	493	3.81	1.087	.899

The results in Table 7.14 indicate that the Emotional Management subscale was found to have good reliability as indicated by the Cronbach alpha ( $\alpha =.902$ ). It is noteworthy that the omission of Item EMX3 will lead to a marginal increase of alpha by .005 ( $\alpha =.907$ ) on the sub-scale. This item might thus be considered as an item for omission or revision, if necessary.

Independence (IN): The Independence subscale consisted of six items. The subscale obtained an internal consistency score of .865. Table 7.15 reflects the Cronbach's alpha per item if that item were deleted.

Table 7.15  
*Independence: Cronbach alphas per item (n=6)*

Subscale	Item statistics			
	<i>N</i>	<i>Mean</i>	<i>Std dev</i>	<i>α if item deleted</i>
<b>Independence =.865</b>				
IND1	493	4.42	.814	.861
IND2	493	4.50	.759	.842
IND3	493	4.14	.973	.836
IND4	493	4.56	.712	.855
IND5	493	4.22	.923	.817
IND6	493	4.21	.907	.840

The results in Table 7.15 indicate that the Independence subscale was found to be good as indicated by the Cronbach alpha ( $\alpha = .865$ ). It is also noteworthy that the internal consistency would not increase if any of the items on the sub-scale were omitted.

Positive Sense of Self (SOS): The Positive Sense of Self subscale consisted of six items. The subscale obtained an internal consistency score of .916. Table 7.16 reflects the Cronbach's alpha per item if that item were deleted.

Table 7.16  
*Positive sense of self: Cronbach alphas per item (n=6)*

Subscale	Item statistics			
	<i>N</i>	<i>Mean</i>	<i>Std dev</i>	<i>α if item deleted</i>
<b>Positive sense of self <math>\alpha = .916</math></b>				
SOS1	493	4.43	.761	<b>.920</b>
SOS2	493	4.05	.939	.897
SOS3	493	3.94	.964	.897
SOS4	493	4.01	.978	.904
SOS5	493	3.81	1.107	.885
SOS6	493	3.92	1.070	.895

The results in Table 7.16 indicate that the Positive Sense of Self subscale was found to have excellent reliability as indicated by the Cronbach alpha ( $\alpha = .916$ ). It is noteworthy that

the omission of Item SOS1 will lead to a marginal increase of alpha by .004 to  $\alpha = .920$  on the sub-scale. This item could thus be considered as an item for omission, if necessary.

Mental Wellbeing and Alertness (MW): The Mental Wellbeing and Alertness subscale consisted of six items. The subscale obtained an internal consistency score of .794. Table 7.17 reflects the Cronbach's alpha per item if that item were deleted.

Table 7.17  
Mental wellbeing/ Alertness: Cronbach alphas per item (n=6)

Subscale	Item statistics			
	N	Mean	Std dev	$\alpha$ if item deleted
<b>Mental wellbeing/ Alertness</b> $\alpha = .794$				
MW1	493	3.92	1.039	.731
MW2	493	3.87	.961	.740
MW3rev	493	3.86	1.040	.719
MW4	493	3.93	1.019	.736
MW5	493	3.77	1.249	.839
MW6rev	493	4.33	1.037	<b>.796</b>

The results in Table 7.14 indicate that the Mental wellbeing and Alertness subscale was found to be acceptable as indicated by the Cronbach alpha ( $\alpha = .794$ ). It is noteworthy that the omission of Item MW6rev will lead to a marginal increase of  $\alpha$  by .002 to  $\alpha = .796$  on the sub-scale. This item might thus be considered as an item for omission, if necessary.

Social Skills (SS): The Social Skills subscale consisted of six items. The subscale obtained an internal consistency score of .882. Table 7.18 reflects the impact on the Cronbach's alpha per item if that item were deleted.

Table 7.18  
Social skills: Cronbach alphas per item (n=6)

Subscale	Item statistics			
	N	Mean	Std dev	$\alpha$ if item deleted
<b>Social Skills <math>\alpha = .882</math></b>				
SS1	493	4.16	.862	.866
SS2	493	4.06	.922	.845
SS3	493	4.25	.802	.850
SS4	493	4.04	.973	.857
SS5	493	4.14	.874	.846
SS6	493	3.81	1.079	<b>.902</b>

The results in Table 7.18 indicate that the Social skills subscale was found to have good reliability as indicated by the Cronbach alpha ( $\alpha = .882$ ). It is noteworthy that the omission of Item SS6 will lead to a marginal increase of .010 to ( $\alpha = .902$ ). This item could be considered as an item for omission, if necessary.

Pro-social behaviour (PB): The Pro-social behavior subscale consisted of six items. The subscale obtained an internal consistency score of .925. Table 7.19 reflects the impact on the Cronbach alpha per item if that item were deleted.

Table 7.19  
*Pro-social behaviour: Cronbach alphas per item (n=6)*

Subscale	Item statistics			
	N	Mean	Std dev	$\alpha$ if item deleted
<b>Pro-social behaviour <math>\alpha = .925</math></b>				
PB1	493	4.24	.865	.912
PB2	493	4.08	.898	.906
PB3	493	4.03	.953	.902
PB4	493	4.22	.945	.916
PB5	493	4.00	1.016	.922
PB6	493	3.91	1.068	.912

The results in Table 7.19 indicate that the Pro-social behaviour subscale was found have excellent reliability as indicated by the Cronbach alpha ( $\alpha = .925$ ). ). It is also noteworthy that the internal consistency would not increase if any of the items on the sub-scale were omitted.

Compliance with rules (CR): The Compliance with Rules subscale consisted of six items. The subscale obtained an internal consistency score of .884. Table 7.20 reflects the impact on the Cronbach alpha per item if that item were deleted.

Table 7.20  
*Compliance with Rules: Cronbach alphas per item (n=6)*

Subscale	Item statistics			
	N	Mean	Std dev	$\alpha$ if item deleted
<b>Compliance with rules <math>\alpha = .884</math></b>				
CR1	493	4.43	.739	.862
CR2	493	4.29	.865	.841
CR3	493	4.28	.882	.838
CR4rev	493	4.20	.916	.856
CR5	493	4.11	.9817	.855
CR6	493	3.52	1.222	<b>.926</b>



The results in Table 7.20 indicate that the Compliance with Rules subscale was found to have good reliability as indicated by the Cronbach alpha ( $\alpha = .884$ ). It is noteworthy that the omission of Item CR6 will lead to an increase of  $\alpha = .042$  to  $\alpha = .926$  on the sub-scale. This item could thus be considered as an item for omission, if necessary.

Communication (COM): The Communication subscale consisted of six items. The subscale obtained an internal consistency score of .951. Table 7.21 reflects the impact on the Cronbach alpha per item if that item were deleted.

Table 7.21  
Communication: Cronbach alphas per item ( $n=7$ )

Subscale	Item statistics			
	<i>N</i>	<i>Mean</i>	<i>Std dev</i>	<i><math>\alpha</math> if item deleted</i>
<b>Communication <math>\alpha = .951</math></b>				
COM1	493	4.22	.947	.948
COM2	493	4.36	.841	.940
COM3	493	4.48	.810	.942
COM4	493	4.39	.894	.939
COM5	493	4.41	.840	.941
COM6	493	4.37	.844	.942
COM7	493	4.53	.725	.949

The results in Table 7.21 indicate that the Communication sub-scale was found to have excellent reliability as evidenced by the Cronbach alpha ( $\alpha = .951$ ). It is also noteworthy that the internal consistency would not increase if any of the items on the sub-scale were omitted.

**Summary:** Thus, overall the E3SR seems to be internally consistent per scale and subscales as evidenced by alpha levels that indicate a good to excellent reliability. The reported internal consistency estimates suggest that the items hang together in a reliable way. All of the subscales except the Mental Wellbeing and Alertness sub-scale obtained the set threshold score of .80. However, the mentioned subscale obtained Cronbach alphas above .70. A decision was made to retain the scale for subsequent factor analysis to gain further insight into the properties of the subscale. The results also indicate that the assumptions of sample adequacy and

homogeneity of variance have been met. In addition, the violation of normal distribution were explained theoretically as appropriate and an expected outcome of the time of data collection that reflected actual changes in the sample rather than measurement error. The abovementioned findings propose that the dataset can be trusted and support the application of factor analyses on the entire sample of five to seven year olds (N=493).

## 7.17 Factor analyses

The results of both Confirmatory Factor Analysis (CFA) and Exploratory factor analysis (EFA) are tabled and discussed sequentially in this section. Analyses was done with the SPSS, Amos statistical programme.

### 7.17.1 Confirmatory Factor analysis (CFA)

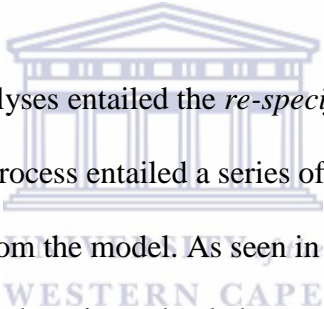
#### 7.17.1.1 Model One: Emotional Competence

Table 7.22 provides a summary of the results of the model fit analyses in Model One (CFA) followed by a discussion of the results.

Table 7.22  
*Model One: Fitness Indices for the Emotional Competence model*

	Chi-Square	df	Sig	CMIN	CFI	RMSEA	SRMR	GFI
EmoCom: Model1	2647.3	425	.000	6.229	.826	.103	.0939	
Remove mw3&6	2220.1	327	.000	6.050	.850	.101	.0927	
Covary e27-e28; e27-e29	2117.7	365	.000	5.802	.858	.099	.0854	
Covary e4-5;e18-19;e20-21,22,24	1858.7	360	.000	5.163	.879	.092	.0817	
Covary e21-22; e26-27,28	1703.7	357	.000	4.772	.891	.087	.0776	
Remove EMX3&IN1,4; SOS4 (.54; .56, .64; .65)	1504.8	306	.000	4.918	.898	.089	.0750	
Remove IN4; SOS4 (.64; .65)	1299.4	259	.000	5.017	.904	.090	.0741	
Covary e3-4, e28-29	1252.9	257	.000	4.875	.908	.089	.0720	
Covary e8-10; e9-10; e18-19; e23-25	1181.4	251	.000	4.707	.914	.087	.0673	.825

In the *first step* of CFA, Model One was fit to the dataset. The initial results of the model fit yielded mixed results about the fit of the model. The CMIN score was significant, which suggests that the model did not fit. However, as mentioned before this statistic would automatically reject the model based on the large sample size. The CFI index result was .826 that was below the lower cut-off score of .900. The RMSEA index result was 0.103, well above the 0.060 cut-off threshold score. The SRMR index result was 0.093, marginally above the specified 0.080 threshold score. Thus, the RMSEA score in combination with the SRMR score indicated a move towards an acceptable model fit. Thus, in the first step, not all the index scores fulfilled thresholds scores established for an acceptable model fit. The triangulated results clearly suggested that the model was moving towards an acceptable fit. Thus, a second step was required in the analysis.



The *second step* in the analyses entailed the *re-specification or modification* of the model to obtain a better fit. This process entailed a series of steps where items that were considered weak were removed from the model. As seen in Table 7.21 the decision was made to remove Items mw3 and mw6 as these items loaded very poorly on the dataset (less than 0.30). The next step in the re-specification entailed the removal of items with very low correlations against other variables/ items in their specific sub-scales. As seen in Table 7.21 the following items were removed, EMX3 (0.54), IN1 (0.56), IN4 (0.64) and SOS4 (0.65). The *next step* was to *covary* items that were identified as loading on additional factor(s); that depended on different factors or share or has an error correlation with another indicator, compared with the original model. This led to the co-variance of the factors e27-e28; e27-e29, e4-5;e18-19;e20-21,22,24; e21-22; e26-27,28; e3-4, e28-29 e8-10; e9-10; e18-19; e23-25 as illustrated in Figure 7.1.

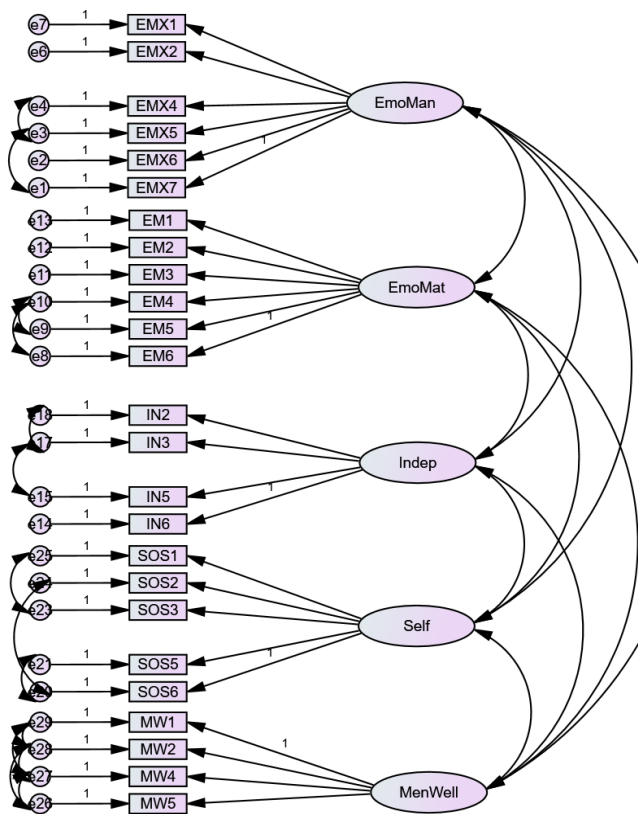


Figure 7.1: Model 1: Covariance of items in the re-specification phase of the analyses



7.17.1.1.1 The process of re-specification resulting in the revised model

From Table 7.22 it became evident that the impact of the revisions on the indices suggested a better fit. For example, results showed a steady decrease in the RMSEA index to 0.09 suggestive of a move towards a better-fit model. The results also showed a gradual decrease in the SRMR index score to 0.07, which was deemed appropriate and representative of how the expected model relates to the observed model. The CFI index showed a steady increase to 0.91 which suggests that the revised model was indicative of an acceptable model fit for emotional competence.

### 7.17.1.2 Model Two: Social Competence

The model fit analyses for social competence was tested in Model Two. Table 7.23 below provides a summary of the results.

Table 7.23  
*Model Two: Fitness Indices for the Social Competence model*

	Chi-Square	df	Sig	CMIN	CFI	RMSEA	SRMR	GFI
FirstRun	1516.7	269	.000	5.638	.893	.097	.0654	.792
Removed SS6 & CR4 (.47; -.40)	1346.7	224	.000	6.012	.901	.101	.0613	.802
Covary e2-e4; e10-11; e19-20; e20-21	1111.6	220	.000	5.053	.931	.091	.0585	.838
Covary e2-6; e3-6; e8-9; e7-13; e13-24	983.2	215	.000	4.573	.932	.085	.0600	.854

In the *first step* of CFA with Model Two, the model was fitted to the dataset. The CFI index result was .893, below the lower cut-off score of 0.9. Thus, suggestive of a good model fit. The initial results of the model fit did not yield an acceptable fit for the RMSEA index (.097) which was well above the .060 cutoff threshold score. However, the SRMR index result was .065, below the specified threshold score of .080 thus indicative of a good fit model. The RMSEA score in combination with the SRMR score indicated a move towards an acceptable model fit. Thus, in *the first step*, the index scores did not meet all of the established cut-off scores thresholds, but were moving towards an acceptable model fit.

The *second step* in the analyses entailed the *re-specification/ modification* of the model with the main aim to obtain a better-fit model. As seen in Table 7.23 items SS6 (0.47) and CR4 (0.40) were removed, because these items had very low correlations against other variables/ items in their respective sub-scales. The next step was to *covary* items that were identified as loading onto additional factor(s); that depended on different factors or share or has an error correlation with another indicator, compared with the original model. This lead to the co-variance of the factors e2-e4; e10-11; e19-20; e20-21; e2-6; e3-6; e8-9; e7-13; e13-24 as illustrated in Figure 7.2.

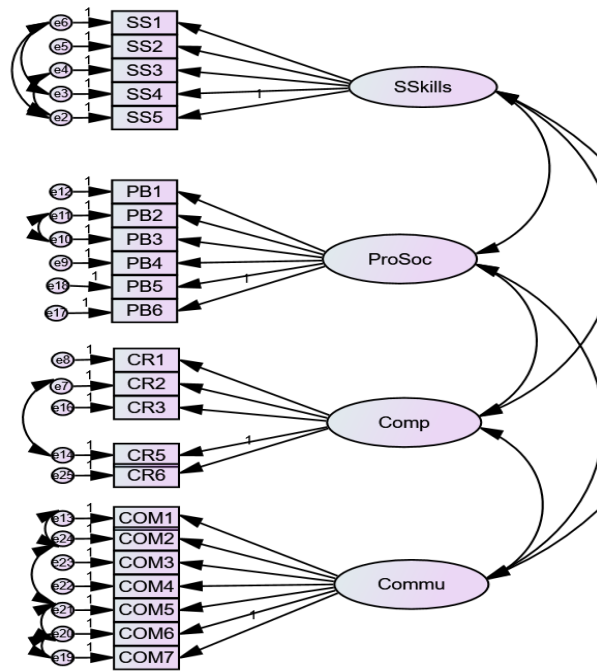
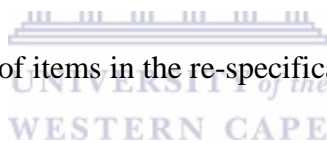


Figure 7.2: Model 2: Covariance of items in the re-specification phase of the analyses



7.17.1.2.1 The process of re-specification resulting in the revised model

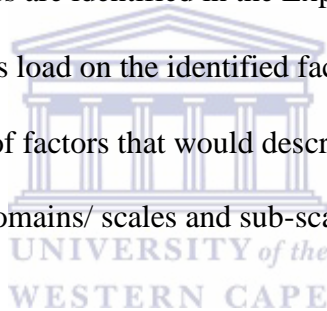
The process of re-specification resulted in a revised model (Model Two). From Table 7.23 the impact of the revisions on the respective indices showed a better fit model. The CFI index showed a steady increase to 0.932 which suggests that the revised model is moving towards a good fit model. The steady decrease in the RMSEA index to .085 suggested of a move towards a satisfactory model and the gradual decrease in the SRMR index score to 0.060 indicated a satisfactory model fit.

**Summary:** Overall, the confirmatory factor analysis demonstrated a move towards satisfactory fit after the proses of re-specification for both emotional competence and social competence. Thus in terms of establishing the construct validity of the E3SR the above analyses yielded the following results:

- The pre-assumptions confirmed that the sample data supported the analyses
- The Cronbach alpha analyses showed a high internal consistency in the respective domains and sub-domains and amongst items
- The triangulated results of the confirmatory factor analysis indicated a move toward a satisfactory model. The two most important indices combined (RMSEA and SRMR) did not support a clear-cut model, which shows that the proposed structure (domains and sub-domains) should be accepted with caution.

These results in combination with the large amount of items in the E3SR contributed to the decision to perform EFA on the whole scale to:

- Establish how many factors are identified in the Exploratory Factor analyses
- To clarify how many items load on the identified factors
- To identify a reduced set of factors that would describe the structural inter relationships among the domains/ scales and sub-scales in the E3SR.



### **7.17.2 Exploratory Factor Analyses (EFA)**

Based on the CFA and theoretical model of the scale, nine components were specified. A pattern matrix was used for interpretation to indicate the factor loadings for each item onto a particular component with the main aim to explore the expected factor loadings and structure. For ease of reference, it was decided to present the pattern matrices per identified component. The pattern matrices per component with their respective factor loadings on the first and final runs have been tabulated and are presented below. The Pattern Matrices of the first and final runs in its totality are attached in Appendix W. Factor loadings are discussed with specific reference to clear loadings, cross-loadings and the strength of the factor loadings.

### 7.17.2.1 Component One

The first component/ domain to emerge consisted of six items (EM1-EM6) related to Emotional Maturity (EM). Table 7.24 below reflects the factor loadings after the first and final runs.

Table 7.24  
*First and final Pattern Matrix for Component One*

	Component								
	1	2	3	4	5	6	7	8	9
	<i>1<sup>st</sup></i>	<i>Final</i>						<i>1<sup>st</sup></i>	
EM1	.550	.565							
EM2	.600	.625							
EM3	.659	.679							
EM4	.609	.635							
EM5	.628	.652							
EM6		.318						-.316	

Items EM1-EM5 loaded clearly on the proposed domain. EM1-EM5 had factor loadings ranging between .550 (EM1) and .659 (EM3) in the first run which indicate good (>.55) to very good (>.63) factor loadings. In the final run the loadings ranged between .565 (EM1) and .679 (EM3). EM1-EM5 were retained in Component One as they obtained good to very good loadings between .565 and .679 in this domain in the final run. In the first run, EM6 loaded on Component Eight with a factor loading of -.316. Interestingly EM6 loaded clearly on Component One in the final run with a factor loading of .318 suggesting a poor (<.32) factor loading. The loading obtained from the Commonalities Table (Appendix X) for EM6 was also low (.684) indicating that this item should be omitted as it does not contribute to any domain strongly enough.

**To summarise:** Items EM1-EM5 were retained in Component One. Item EM6 was removed from the screening tool. Component One was termed Emotional Maturity. A decision was made to retain Emotional Maturity as a domain of the E3SR.



### 7.17.2.2 Component Two

The second component to emerge consisted of six items (SOS1-SOS6) related to Sense of Self. Table 7.25 below reflects the factor loadings after the first and final runs.

Table 7.25  
*First and Final Pattern Matrix for Component Two*

	1	2		3	Component 4		5	6	7	8	9
		<i>1<sup>st</sup></i>	<i>Final</i>		<i>1<sup>st</sup></i>	<i>Final</i>					
SOS1		.322	.356								
SOS2		.498	.531		.352	.308					
SOS3		.448	.468		.362	.339					
SOS4		.825	.823								
SOS5		.682	.692								
SOS6		.733	.732								

All factors loaded as hypothesised on the proposed domain. Items SOS1, SOS4, SOS5 and SOS6 loaded clearly on the proposed domain. Item SOS1 had the lowest loading of .322 in the first run and .356 in the final run which indicate poor (<.32) loadings. Item SOS4 had the highest loading of .825 and the first run and .823 in the final run which indicate excellent (>.71) factor loadings. Item SOS2, and Item SOS3 cross-loaded on Component Four, Independence domain (IN) with factor loadings of .352 in the first run and .308 in the final run and .362 in the first run and .339 in the final run respectively. Item SOS2 was retained in Component Two as it obtained a fair loading of .531 in this domain in the final run. Item SOS3 (.468) loaded below the specified .500 in the final run and were therefore omitted. Item SOS1 loaded poorly in both runs on Component One. The loading obtained from the Commonalities Table (Appendix X) for SOS1 were also low (.575) indicating that this item should be omitted as it does not contribute to any domain strongly enough.

**To summarise:** SOS2, SOS4, SOS5 and SOS6 were retained in Component Two. Items SOS1 and SOS3 were removed as items from the screening tool. Component Two was termed Sense of Self. A decision was made to retain Sense of Self as a domain of the E3SR.

### 7.17.2.3 Component Three

The third component to emerge consisted of seven items (COM1-COM7) that loaded clearly on this proposed domain. The items related to Communication. Table 7.26 reflects the factor loadings after the first and final runs.

Table 7.26  
*First and Final Pattern Matrix for Component Three*

	1	2	3		Component				9
			<i>1<sup>st</sup></i>	<i>Final</i>	4	5	6	7	
COM1			-.814	-.818					
COM2			-.911	-.912					
COM3			-.984	-.985					
COM4			-.946	-.946					
COM5			-.891	-.888					
COM6			-.839	-.836					
COM7			-.673	-.670					

From Table 7.26 above it emerges that all of the factors loaded above .673 indicating very good to excellent factor loadings. Item COM7 reported the lowest factor loading of .673 in the first run and -.670 in the final run. Item COM3 reported the highest factor loading of -.984 in the first run and -.985 in the final run.

**To summarise:** COM1-COM7 were all retained in Component Three. Component Three was termed Communication. It was decided to retain this domain in the screening instrument.

### 7.17.2.4 Component Four

The fourth component to emerge consisted of six items (IN1-IN6) related to the Independence subscale. Table 7.27 below reflects below reflects the factor loadings after the first and final runs.

Table 7.27  
*First and Final Pattern Matrix for Component Four*

	Component																		
	1		2		3		4		5		6		7		8		9		
	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>	
IN1		.327	.338												-.600	-.607			
IN2															-.420	-.424			
IN3					.517	.551													
IN4	-.310				.491	.520	.348	.343											
IN5					.606	.602													
IN6					.571	.570													

Items IN3, IN5 and IN6 loaded clearly on the proposed domain. Item IN5 had the highest factor loading of .606 in the first run and .602 in the final run reflecting good (> .55) factor loadings. Item IN4 had the lowest loading of .491 in the first run and .520 in the second run indicating fair (> .45) factor loadings. Item IN1 cross-loaded on Component Two (SOS) with a factor loading of .327 in the first run and a factor loading of .338 in the final run. IN1 also loaded on Component Eight (a domain that consist of a combination of factors from different domains) with a factor loading of -.600 in the first run and -.607 in the final run. As the factor loading of IN1 in Component Eight is considered to be Good (>55), this item will be retained in Component Eight. Item IN2 loaded clearly on Component Eight with a factor loading of -.420 in the first run and -.424 in the final run and was therefore omitted from the screening tool as it did not obtain the .50 cutoff score. Item IN4 cross-loaded on Components One (EM), Four (IN) and Five (EMX), with factor loadings of -.310 (first run) and .520 (final run) and .343 (final run) respectively. Item IN4 would be retained in Component Four (Independence domain) as it obtained the highest factor loading of .520 (fair loading) in this domain. This item needs to be revised as it loaded on more than two components.

**To summarise:** Items IN3 - IN6 were retained in Component Four. Item IN4 should be revised. Component Four was termed Independence. It was decided to retain this domain in the E3SR, but overall revision was recommended.

### 7.17.2.5 Component Five

The fifth component to emerge consisted of six items (EMX1-EMX6) related to Emotional management subscale. Table 7.28 reflects the factor loadings after the first and final runs.

Table 7.28  
*First and Final Pattern Matrix for Component Five*

	1		2		3	4		Component 5		6	7	8	9
	<i>1<sup>st</sup> Final</i>		<i>1<sup>st</sup> Final</i>			<i>1<sup>st</sup> Final</i>							
EMX1								.696	.701				
EMX2								.625	.625				
EMX3								.788	.789				
EMX4								.810	.810				
EMX5								.784	.781				
EMX6		.332	.331					.526	.522				

All items except EMX6 loaded clearly on this proposed domain. Item EMX4 had the highest loading of .810 in the first run and final run, which indicate excellent ( $\geq .71$ ) factor loadings for this domain. Item EMX6 had the lowest factor loading of .526 in the first run and .522 in the final run which indicated fair ( $\geq .45$ ) factor loadings. Item EMX6 cross-loaded on Component Two (SOS) with a factor loading of .332 in the first run and .331 in the final run. EMX6 was retained in Component Five (EMX) as the factor loading of .522 was higher than the .331 in Component Two (SOS).

**To summarise:** Items EMX1-EMX6 were retained in Component Five. Component Five was termed Emotional Management. A decision was made to retain Emotional Management as a domain of the E3SR.

### 7.17.2.6 Component Six

The sixth component that emerged consisted of five items (MW1 and MW3 – MW6) related to the Mental Wellbeing and Alertness domain. Table 7.29 below reflects the factor loadings after the first and final runs.

Table 7.29  
*First and Final Pattern Matrix for Component Six*

	Component																		
	1		2		3		4		5		6		7		8		9		
	<i>1<sup>st</sup></i>	<i>Final</i>					<i>1<sup>st</sup></i>	<i>Final</i>			<i>1<sup>st</sup></i>	<i>Final</i>			<i>1<sup>st</sup></i>	<i>Final</i>			
MW1															.593	.537			
MW3											.855	.868							
MW4							.355	.399							.528	.467			
MW5							.432	.456							.377	.328			
MW6	.398	.420									.409	.400							

MW3 is the only factor that loaded clearly on Component Six (MW), with a factor loading of .855 in the first run and .868 in the final run indicating an excellent ( $>.71$ ) factor loading. All items (except Item MW3), cross-loaded on other components. Item MW1, MW4 and MW5 did not load on Component Six but cross-loaded on Component Four (IN) and Component Nine (CR). Although Items MW1 and MW4 obtained higher factor loadings of .537 and .467 indicating fair ( $\geq .45$ ) factor loadings in the final run on Component Nine (CR), only MW1 would be included in Component Nine as it obtained a factor loading of .537 in the final run, above the .50 cutoff score. Similarly Item MW5 cross-loaded on Component Four (IN) with a higher factor loading of .456. Item MW5 was omitted as it obtained a factor loading of less than the specified .50. MW6 was also omitted from the E3SR as it obtained a factor loading of .420 on Component One.

**To summarise:** Item MW3 is the only item retained in Component Six (MW). Item MW1 is retained in Component Nine (CR). Items MW4-6 were removed as items from the screening tool. Component Six was termed Mental Wellbeing. It was decided to retain this domain in the E3SR, but revision is recommended as the inclusion of this Component in the proposed structure of the E3SR are not fully supported by the analysis.

### 7.17.2.7 Component Seven

The seventh component to emerge consisted of 12 items related to the Social Skills subscale (SS1-SS6) and Pro-social behaviour subscale (PB1-PB6). Table 7.30 below reflects the factor loadings after the first and final runs.

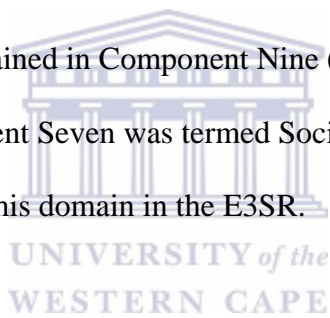
Table 7.30  
*First and Final Pattern Matrix for Component Seven*

	Component												
	1		2		3	4	5	6	7		8	9	
	<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>					<i>1<sup>st</sup></i>	<i>Final</i>		<i>1<sup>st</sup></i>	<i>Final</i>
SS1									.762	.748			
SS2									.694	.676			
SS3									.706	.691			
SS4									.533	.521			
SS5									.682	.665			
SS6			.672	.667					.310	.307			
PB1									.572	.553			
PB2									.616	.596			.316
PB3									.530	.513		.335	.367
PB4												.483	.505
PB5	.360	.354											
PB6	.339	.353							.343	.333			

The social skills items SS1-SS5 and PB1 loaded clearly on Component Seven. SS1-SS5 and PB1 obtained factor loadings between .533 and .762 on the first run and between .521 and .748 on the final run indicating fair to excellent factor loadings. SS6 cross-loaded on Component Two (SOS). Item SS6 obtained the higher loading of .672 in the first run and .667 in the final run on Component Two in comparison to loadings obtained in Component Seven on the first run .310 and .317 in the final run. Item SS6 would be retained in Component Two (SOS). Items PB2 and PB3 cross-loaded on Component Seven and Component Nine (CR). PB2 obtained a higher loading of .596 on Component Seven, compared to the lower loading of .316 in the final run on Component Nine (CR) and would therefore remain in Component Seven (SS). Item PB3 also cross-loaded on Component Nine (CR). It was decided to retain this item in Component Seven as the factor loading of .530 was higher than the factor loading of .335 in Component 9 (CR). Item PB4 loaded clearly on Component Nine (CR) with a factor loading of .483 in the first run and .505 in the final run.

PB4 would therefore be retained in Component Nine (CR). Although Item PB5 loaded clearly on Component One (EM) with factor loadings of .360 on the first run and .354 in the second run, it should be omitted as it did not obtain the .500 cutoff criteria. Similarly Item PB6 cross-loaded on Component Seven and Component One (EM). In the first run PB6 obtained a higher factor loading of .343 on Component Seven compared to the factor loading of .339 on Component One (EM). In the final run, PB6 obtained a higher factor loading of .353 on Component One compared to the factor loading of .333 in Component Seven. Item PB6 was therefore omitted as it did not obtain the .500 cutoff criteria.

*To summarise:* Component Seven comprised of Items from two theoretical domains, Social skills and Pro-social behavior. Items SS1-SS5 and PB1-PB3 were retained in Component Five. Item PB4 is retained in Component Nine (CR) while Items PB5 and PB6 is omitted from the E3SR. Component Seven was termed Social Skills and Pro-social behaviour (SSPB). It was decided to retain this domain in the E3SR.



### 7.17.2.8 Component Eight

The eighth domain to emerge was a “mixed” component that comprised of four items that loaded or cross-loaded from other Components. Table 7.31 below reflects the factor loadings after the first and final runs.

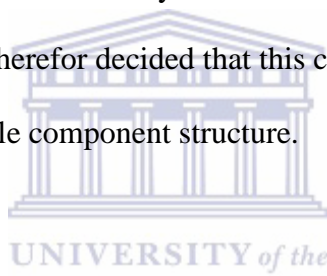
Table 7.31  
*First and Final Pattern Matrix for Component Eight*

	Component								
	1	2	3	4	5	6	7	8	9
	<i>I<sup>st</sup></i> <i>Final</i>				<i>I<sup>st</sup></i> <i>Final</i>		<i>I<sup>st</sup></i> <i>Final</i>		
EM6		.318						-.316	
IN1		.327	.338					-.600	-.607
IN2								-.420	-.424
CR4					.623	.629		.409	.390

As mentioned before, Item EM6 was omitted from the screening tool as the item did not contribute significantly to the factor loadings of any of the Components. Item IN1 was

retained in Component Eight as it obtained a good factor loading of -.607. Item IN2 loaded on Component Eight with a factor loading -.424. The loading obtained from the Commonalities Table (Appendix X) for IN2 were low (.670) indicating that this item should be omitted as it does not contribute to any domain strongly enough. The remaining Item CR4 cross-loaded on Component Six (MW) with a factor loading of .623 in the first run and .626 in the second run, higher than the factor loadings of .409 in the first run and .390 in the final run on Component Eight. Item CR4 should thus be retained in Component Six (MW).

**To summarise:** Component Eight was comprised of items of different theoretical domains/ subscales on the screening instrument. It included several items that cross-loaded from other Components. Item IN1 was the only item that obtained the minimum cut-off score of .50 in this Component. It was therefore decided that this component should be omitted as it did not seem to constitute a reliable component structure.



### 7.17.2.9 Component Nine

The ninth domain to emerge consisted of six items (CR1-CR6) related to the Compliance with Rules subscale. Table 7.32 below reflects the factor loadings after the first and final runs.

Table 7.32  
*First and Final Pattern Matrix for Component Nine*

	1		2	3	4	Component		7	8		9	
	<i>1<sup>st</sup></i>	<i>Final</i>				5	6		<i>1<sup>st</sup></i>	<i>Final</i>	<i>1<sup>st</sup></i>	<i>Final</i>
CR1											.804	.820
CR2											.776	.763
CR3											.783	.769
CR4						.623	.629		.409	.390		
CR5	.364	.371									.584	.586
CR6											.516	.474

The majority of these items (CR1-CR3 and CR6) loaded clearly on Component Nine with the highest factor loading of .804 for CR1 in the first run and .820 in the final run



representing excellent factor loadings. The lowest factor loading was recorded for CR6 of .516 in the first run and .474 in the final run representing fair factor loadings. CR6 was omitted from the E3SR as it did not obtain the cut-off score of .50. As mentioned before, Item CR4 cross-loaded on Component Six and was retained on that component due to higher factor loadings. Similarly Item CR5 cross-loaded on Component One (EM). However, the item obtained a higher factor loading of .584 in the first run on Component Nine and .586 in the final run. Item CR5 would thus be retained in Component Nine (CR).

***To summarise:*** Four items, Items CR1-CR3 and CR5 were retained in Component Nine (CR). Item CR4 was retained in Component Six while Item CR 6 was omitted. The component was named, Compliance with Rules. The component satisfied the criteria to be a reliable component and was therefore retained in the model. In summary, The PCA identified nine components of which eight components were endorsed as viable. Table 7.33 below summarizes the retained items per component and the domain names allocated to the components.

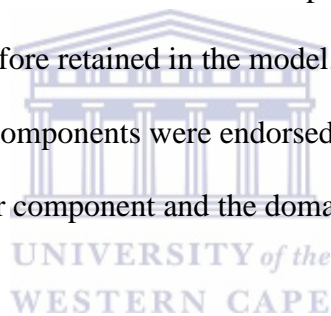


Table 7.33

*Domain names, Items, Factor loadings, decision and motivation*

<b>Component</b>	<b>Items</b>	<b>Factor loadings</b>	<b>Decision</b>	<b>Motivation</b>
<b>1. Emotional maturity (EM)</b>	EM1	.565	Retain	Clear factor loading above .500
	EM2	.625	Retain	Clear factor loading above .500
	EM3	.679	Retain	Clear factor loading above .500
	EM4	.635	Retain	Clear factor loading above .500
	EM5	.652	Retain	Clear factor loading above .500
	EM6	.318	Omit	Factor loading below .500
	PB5	.354	Omit	Factor loading below .500
	PB6	.353	Omit	Factor loading below .500
<b>2. Sense of Self (SOS)</b>	MW6	.420	Omit	Factor loading below .500
	SOS1	.356	Omit	Factor loading below .500
	SOS2	.531	Retain	Clear factor loading above .500
	SOS3	.468	Omit	Factor loading below .500
	SOS4	.823	Retain	Clear factor loading above .500
	SOS5	.692	Retain	Clear factor loading above .500
	SOS6	.732	Retain	Clear factor loading above .500
<b>3. Communication (COM)</b>	SS6	.667	Retain	Factor loading above .500
	COM1	-.818	Retain	Clear factor loading, above .500
	COM2	-.912	Retain	Clear factor loading, above .500
	COM3	-.985	Retain	Clear factor loading, above .500
	COM4	-.946	Retain	Clear factor loading, above .500
	COM5	-.888	Retain	Clear factor loading, above .500
	COM6	-.836	Retain	Clear factor loading, above .500
<b>4. Independence(IND)</b>	COM7	-.670	Retain	Clear factor loading, above .500
	IN3	.551	Retain	Clear factor loading above .500
	IN4	.520	Revise	Factor loading, above .500 loaded on more than two components
	IN5	.602	Retain	Clear factor loading above .500
	IN6	.570	Retain	Clear factor loading above .500
	MW5	.456	Omit	Factor loading below .500
<b>5. Emotional Management (EMX)</b>	EMX1	.701	Retain	Clear factor loading above .500
	EMX2	.625	Retain	Clear factor loading above .500
	EMX3	.789	Retain	Clear factor loading above .500
	EMX4	.810	Retain	Clear factor loading above .500
	EMX5	.781	Retain	Clear factor loading above .500
	EMX6	.522	Retain	Factor loading above .500
<b>6. Mental Wellbeing (MW)</b>	MW3	.868	Retain	Clear factor loading, above .500
	CR4	.629	Retain	Factor loading above .500
<b>7. Social skills and pro-social behavior (SSPB)</b>	SS1	.748	Retain	Clear factor loading above .500
	SS2	.676	Retain	Clear factor loading above .500
	SS3	.691	Retain	Clear factor loading above .500
	SS4	.521	Retain	Clear factor loading above .500
	SS5	.665	Retain	Clear factor loading above .500
	PB1	.553	Retain	Factor loading above .500
	PB2	.596	Retain	Factor loading above .500
PB3	.513	Retain	Factor loading above .500	

Table 7.33 continues

*Domain names, Items, Factor loadings, decision and motivation*

8. <b>Mixed component</b>	IN1	-.607	Retain	Factor loading above .500
	IN2	-.424	Omit	Factor loading below .500
9. <b>Compliance with rules (CR)</b>	CR1	.820	Retain	Factor loading above .500
	CR2	.763	Retain	Factor loading above .500
	CR3	.769	Retain	Factor loading above .500
	CR5	.586	Retain	Factor loading above .500
	CR6	.474	Omit	Factor loading below .500
	MW1	.537	Retain	Factor loading above .500
	MW4	.467	Omit	Factor loading below .500
	PB4	.505	Retain	Factor loading above .500

Table 7.33 includes the items, their factor loadings and the decision about retention or omission followed by the motivation for the decision based on the recommendation by Castello and Osborne (2005) that stated that a loading of greater than .5 on an item could be seen as a desirable loading and strong item.

The Principal components analysis resulted in a 41 Item, eight-component solution with a minimum of two items (MW) and a maximum of eight items (SSPB) per component. The resolution was based on Steven's (2009) recommendation that reliable components must have at least four loadings greater than .60 or at least three loadings greater than .80. Five components namely Emotional Maturity, Emotional Management, Sense of Self, Social Skills and Pro-social behavior, and Communication were deemed reliable components as they obtained at least four loadings greater than .60.

Compliance with Rules obtained three factor loadings above .60 with one item on .586. Mental Wellbeing had one factor loading greater than .80 and one loading above .60. Independence had only two items with one factor loading above .60. It needs to be mentioned that some of the Items in these components cross-loaded, which resulted in lower factor loadings. The items might still be valid but because of the interrelatedness of the domains loaded lower

than expected.

*To summarise:* Fifty-four items loaded onto nine identified domains in the first and final run of the EFA. Forty-one items were retained across eight domains. Five of the domains were retained as domains in the E3SR. The remaining three domains were accepted with caution and might need revision as the inclusion of these domains in the proposed structure of the E3SR were not fully supported by the analysis.

## **7.18 SUMMARY OF RESULTS**

The full dataset of 493 preschoolers aged five to seven years was operationally defined as the population for the establishment of psychometric properties of the E3SR. The pre-assumptions of sample adequacy and homogeneity of variance were met and the results of the assumption of normality were theoretically supported. These results proposed that the dataset could be trusted and that further psychometric properties, more specifically the factorial structure of the E3SR could be investigated as a means to validate the dimensional structure of the E3SR.

The sub-scales showed good to excellent reliability in this particular dataset with Cronbach Alpha's of .794 to .951 indicative of a high reliability and internal consistency between items.

Confirmatory Factor analysis showed that two of the three indices CFI and SRMR were suggestive of a good model fit, but the results did not yield a clear-cut model, which showed that the proposed structure (domains and sub-domains) should be accepted with caution.

The Exploratory factor analysis yielded nine components of which eight were retained as reliable components. Five of the eight components were retained on the basis of their factor loadings as domains. Three of the components (Independence, Mental Wellbeing and Alertness

and Compliance with Rules) needed further refinement in order to function as domains. The 8-component solution included 41-items. The proposed eight factor solution of the E3SR with the domain of *Emotional Competence* (N=21) including sub-domains Emotional Maturity (n=5), Emotional Management (n=6), Sense of Self (n=5), Independence (n=4) and Mental Wellbeing (n=2) and the domain of *Social Competence* (N=20), including and the sub-domains of Social Skills and Pro-social behavior (n=8), Compliance with rules (n= 5) and Communication (n=7) would be retained. Revision of the sub-domains Independence, Mental wellbeing and Compliance with rules was recommended.

## 7.19 CONCLUSIONS

The Cronbach alpha analysis indicated good to excellent reliability in the identified domains and sub-domains of the E3SR. The reported internal consistency suggested that items are homogeneous/ correlated to one another.

The results of the Confirmatory Factor Analysis confirmed the proposed nine-domain structure of the E3SR.

The results of the Exploratory Factor Analysis identified nine components of which eight were retained. Four components/ domains (Emotional Maturity, Emotional Management, Sense of Self and Communication) were retained based on their factor loadings while three components (Independence, Mental Wellbeing and Alertness and Compliance with Rules) obtained lower factor loadings and recommended for revision.

The EFA proposed the merger of Social Skills and Pro-social behavior, two separate domains in the theoretical model. This is understandable as these two domains are interrelated and interdependent with attributes that tap into similar hypothetical constructs (Stefan, et al., 2009). Although interrelated and interdependent in nature, these domains were operationalised as

separate sub-domains of social competence in literature (Stefan, et al., 2009). Based on the endorsement of the two domains as separate domains in the Delphi study as well as the results of the CFA it was decided to retain the two domains as separate domains, but to earmark the items for revision.

Based on the results of the CFA and EFA it was decided to retain the nine domain theoretical model of the E3SR, but that further revision of the model is recommended.

## **7.20 RECOMMENDATIONS**

- A clarification of Social Skills and Pro-social behavior as separate domains is needed to retain the proposed structure of the theoretical model.
- Revision of Independence, Mental Wellbeing and Alertness and Compliance with Rules sub-scales/ components is recommended.
- A pilot study is recommended with the revised instrument to re-test the factor structure.
- It is recommended that the pilot be conducted in the third quarter (August – September) to be fully aligned with the assessment schedule of the Department of Education, and to ensure that there are no residual concerns about normality of the data.

## **7.21 LIMITATIONS**

The ideal timing of administration of school readiness assessments (DOB, 2012) is towards the end of the last quarter of the reception year. The deliberate decision to collect data towards the end of the last term of the academic school year impacted the data set. The assumptions of normality for the cohort six to seven year olds was theoretically supported, but raised concerns about the assumption of normality as a prerequisite for data reduction or

multivariate analysis. Data collection towards the end of the third term (August to September) is recommended to assist in the establishment of the psychometric properties of the screening tool.



## CHAPTER EIGHT

### CONCLUSION

#### 8.1 EXECUTIVE SUMMARY

This study aimed to develop a screening tool for emotional social competence as a domain of school readiness in preschool children. The screening tool aimed to be developmentally and contextually appropriate, accessible, easy to use, and cost effective, and to complement current assessment practices. The development of the screening tool was conceptualized and operationalized against the backdrop of early childhood development and school readiness. Test construction theory was chosen as the preferred framework as this framework emphasized the construction process as a continuous and collaborative process. Test construction theory proposes a well-designed process with clearly defined steps to assist the researcher in the conceptualization, construction and validation of the proposed instrument. The instrument was constructed in four consecutive phases. A brief description of each phase and the core findings are presented below:

##### 8.1.1 Phase One

The first phase was primarily concerned with *conceptualisation*. The conceptualisation was informed by three core considerations: 1) a review of the general literature; filtration processes aimed at consolidating literature reporting on 2) the existing theoretical and operational definitions of emotional and social competence; as well as 3) instruments that measure emotional/ social competence. The literature identified that there was no consensus on the definition of emotional/ social competence amongst stakeholders. The brief review highlighted that socio-cultural and risk factors in the South African context not only impacts on



children's school readiness, but also impacts school readiness assessment and access to early intervention (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2013).

Bustin (2007) and Mohamed (2013) underscored the need for an instrument that prioritizes emotional/social competence as a domain of school readiness. Similar to Ebrahim and Seleti's (2013) recommendation that appropriate screening measures need to be developed for developmental contexts, the two systematic reviews clearly identified the lack of psychometrically sound, contextually appropriate measures for school readiness and more specifically emotional/social readiness as a domain of school readiness. The two systematic reviews obtained good quality filtered information about existing theoretical and operational definitions of emotional social competence, as well as an indication of available instruments and their psychometric properties that measure emotional social competence in preschoolers. General consensus amongst the authors in the articles included the view of emotional competence and social competence as separate constructs that are interrelated and inter-dependant. A decision was made by the researcher to define and operationalise emotional and social competence as separate, but related constructs that will articulate into separate but related scales (domains) and subscales (sub domains). These decisions were used as a platform in the construction of the theoretical model in the test construction phase or phase three of the study.

### **8.1.2 Phase Two**

The second phase was an attempt to respond to the recommendation to consult with stakeholders as a vital step in the construction of any assessment measures (Foxcroft et al., 2004; Laher & Cockcroft, 2013). The main aim of Phase Two was to establish a concept map of the perceptions of stakeholders about emotional social competence as a domain of school readiness

through a consultative process. The resultant concept map emphasised, similar to Goldblatt (2004) and Pokharel (2005), that parents, teachers and professionals had different understandings and perceptions of school readiness and emotional social competence closely linked to their subjective experiences and imbedded in their cultural beliefs. The complexity and multi-faceted nature of constructs were highlighted mainly because children's individual developmental needs and their readiness for school could only be fully understood if the interaction between societal, educational and familial factors were explored. The concept map illustrated that understandings of children's emotional social readiness could not be separated from the systems within which they function. Societal, community, educational and familial systems act as the overarching framework and influence children's' emotional social readiness before school entry. A more nuanced and contextualized understanding of emotional and social readiness needed to remain a focus, specifically in the construction phase of the instrument. Stakeholders emphasised the need for a contextually sensitive, cost effective and accessible measure. A measure of this nature need to be constructed by acknowledging these contextual influences and how it impacts on decisions about theoretical and operational definitions, items, the structure and format choices of the proposed instrument. The importance of ongoing consultation with the diverse group of stakeholders during the construction and validation phases of the study was also underscored and received ongoing attention in the subsequent phases.

### **8.1.3 Phase Three**

The main focus was the construction of a screening tool for emotional social competence as a domain of school readiness. The construction phase included important considerations such as, formulating the aim, target, user and respondent groups, item selection, structural choices including the general format of the tool, administrative considerations, and scoring. It was

decided that the tool would be a strength-based screening tool for emotional and social competence. Two domains and nine sub-domains were identified, defined theoretically and operationally, each with their respective underpinning attributes. The tool was constructed in questionnaire format with a five-point Likert type scaling. The nature of the questionnaire enabled users to screen for emotional and social readiness or to identify strengths and weaknesses in the child as a guide to further assessment or interventions. Thus, it could be used in a summative or formative way.

The construction decisions were presented to a panel of experts in the field of test construction, child development and education. A Delphi study was conducted with eleven experts to validate the scalar choices. The Delphi study was concluded in two rounds after which consensus was reached on the developmental version of the proposed scale. Most importantly, the Delphi panel endorsed the form, function and content of the proposed screening tool. Thus, the instrument's face and content validity were endorsed by the panel of experts in this phase. The name, E3SR (Emotional Social Screening Tool for School Readiness), was chosen to refer to the proposed tool.

#### **8.1.4 Phase Four**

This phase was focused on establishing the psychometric properties of the E3SR with a pilot study in a stratified sample of ten pre-schools including alternative-, private-, governmental- and community-based preschools in the Western Cape, Cape Town region. A total of twenty-six Gr. R and Gr One teachers partook in the pilot study. A total of 512 protocols were collected and 493 were subjected to analyses. The pre-assumptions of sample adequacy and homogeneity of variance were met and the concerns about the assumption of normality were theoretically supported. High levels of internal consistency, as indicated by Cronbach alpha

statistics, were established. The Confirmatory Factor analyses endorsed a good fit model with nine identified domains, and supported the theoretical model in different solutions. The exploratory factor analyses (EFA) yielded eight retained components. A decision was made to retain the nine domains of the E3SR. The domains Independence, Mental Wellbeing and Alertness and Compliance with Rules were earmarked for further attention based on the findings of the EFA.

## **8.2 CONCLUSION**

This study used a multiphase process to construct a screening tool for emotional and social competence. Each of the four phases of the study contributed to the empirical underpinning of the construction process. Methodological rigour was applied to the conceptualization of the instrument including well-established methodologies such as Systematic review, Concept mapping, Delphi study and Survey research for piloting.

The construction process consolidated the extant literature on emotional-social competence and school readiness; elicited stakeholder input and expert validation. Emotional- and social competence were identified as separate, but interrelated constructs. The emotional and social competence domains were defined and operationalized separately including sub-domains. The sub domains of emotional competence included Emotional Maturity, Emotional Management, Independence, Sense of Self and Mental Wellbeing and Alertness. The sub domains of Social Competence included Social Skills, Pro-social behaviour, Compliance with Rules and Communication. Contextual sensitivity and relevance were enhanced through consultation with stakeholders groups in the conceptualisation and construction phases. Parents, caregivers and professionals that participated in the focus group discussions represented different

cultural orientations and could operationalise these understandings in their contributions. The panel of multi-disciplinary experts in the Delphi phase of the study also represented different cultural groupings and could therefore comment on constructs from their own perspectives. The expert panel endorsed all scalar decisions. The resultant instrument was named the E3SR (Emotional Social Screening tool for School Readiness). The aim of the E3SR is to screen for emotional-social competence as a domain of school readiness in pre-schoolers. Face and content validity were endorsed by means of a Delphi study. Results from the pilot study reported good internal consistency in the nine domains suggesting that the E3SR is a reliable tool. Confirmatory factor analyses supported the theoretical model with a nine-factor structure. Exploratory factor analyses provided insight into the variance on the CFA. The EFA produced an 8-factor structure with Emotional Maturity, Emotional Management, Independence, Sense of Self, Mental Wellbeing and Alertness, Communication, Compliance with Rules, a mixed component, as well as Social Skills and Prosocial behaviour combined into one domain/component. The domains that were endorsed with clear loadings were Emotional Maturity, Emotional Management, Sense of Self, Communication, Social Skills and Pro-social Behaviour. Revisions of the sub-domains Independence, Mental wellbeing and Compliance with Rules were recommended. Thus, the CFA provided support for the theoretical model with clear recommendations for further investigations and revisions that were further elucidated by the EFA. The theoretical model for the E3SR was adopted with caution, on the basis of the empirical process followed during construction. Further piloting is recommended to test revisions.

### **8.3 SIGNIFICANCE OF THE STUDY**

The present study made a significant contribution to the growing literature on early child development and supported the adoption of a strengths-based approach to assessment of

emotional and social competencies as a domain of school readiness in South Africa. The resultant screening tool, the E3SR, has the potential to serve as a basis for the early identification of the strengths and weaknesses in the emotional and social functioning of the preschool child before school entry. The cost effectiveness, accessibility and user friendliness of the instrument is seen as a step towards making assessment assessable and affordable for the majority of parents, teachers and professionals in South Africa. The format of the instrument and alignment with national assessment schedules and protocols increase the likelihood of adoption that in turn will extend the reach of the research.

The present study began to address the identified scarcity of locally designed, contextually appropriate, assessment measures in South Africa identified by Mohamed (2013). The resultant instrument attempted to increase contextual relevance and appropriateness, and culture fairness as recommended by Laher and Cockcroft (2013). The present study provided a rigorous piloting process to establish psychometric properties that followed best practice and was replicable. The findings of the present study reported sound psychometric properties that addresses the need for local instruments that are psychometrically sound. Below is a brief exposition of the contribution of the study at the level of practice and application, research methodology and policy.

### **8.3.1 Contribution to practice and application**

This research contributed to practise as it produced a draft instrument to screen for emotional social competence in pre-school children that constituted new knowledge. This tool can be used by teachers in addition to the outcome based assessment measures as prescribed by the Department of Basic Education (DBE, 2002). The tool has been designed to be easily accessible, easy understandable, user friendly to complete, score and interpret. The screening

instrument can be used to screen for emotional and social readiness, to identify strengths and weaknesses in the child's emotional social skillset. The E3SR contributed to clarifying quality criteria that will enable teachers to assess and gain insight into the child's emotional and social needs. Specific areas or competencies that were defined and operationalized included emotional maturity, emotional management, independence, sense of self, mental wellbeing, social skills, pro-social behavior, compliance with rules and communication. The study produces specific attributes that would represent these competencies and provide a clear reference for teachers and caregivers. The study added to the skills conventionally assessed, such as, reading, writing, mathematics, language, creative arts, and self-help identified by Brown (2016). Emotional and social skills were identified in the literature (for example Brown, 2016), but the present study contributed to an enhanced and more nuanced understanding of the construct. This nuanced understanding of emotional- and social competence in turn can guide and inform classroom practises and assessment, feedback and identify areas for intervention.

The E3SR has a good basis for adoption as a screening instrument in educational and clinical contexts. The instrument is aligned with assessment schedules and criteria that compliments existing assessment practices in outcome-based programmes. It thus offers opportunities to teachers and parents to assess emotional and social competencies and further develop the skills sets of children to enhance overall academic success.

The screening tool can be used by clinicians (for example social workers, psychologists, occupational therapists, and pediatricians) in conjunction with existing instruments to screen for emotional and social readiness, thus constituting new knowledge. This screen could inform relevant referral for diagnostic purposes and/ or guide the practitioner to specific treatment modalities aimed to improve the child's skillset in the specific domain identified. In this way, the

screening tool would enhance the efficacy of the assessment by linking to ways to improve the emotional and social skill set of the child. The results of the screening could be used for identification of the specific strengths and weaknesses and then be conveyed to parents as a means to identify target areas and skills that the child still needs to develop. This feedback would also foster a closer collaboration between parents, professionals and teachers as they would work towards a common goal to strengthen the identified skills that need attention and work on ways to better these skill sets. The instrument also provides a common language and reference for the stakeholder to use.

The design of the E3SR facilitates either formative assessments at the end of each term or formative assessments. The use of the E3SR to guide summative assessment would allow teachers to build a picture of the child's skills in the third term in anticipation of entry into mainstream schooling. It can provide an estimation of the extent to which these skills have been developed. The instrument could augment standard assessment batteries used to assess school readiness and could guide decisions around further assessment or support as a pre-requisite to entry into mainstream education.

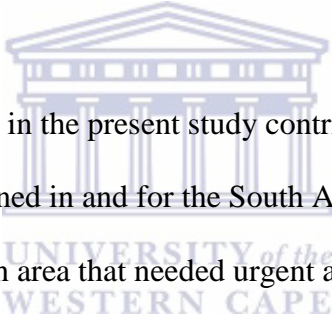
The use of the E3SR as a formative screen could be on a quarterly basis. The results at each term could inform feedback to parents and guide conversations about the way forward including additional support or specialized support. This will focus the attention on the ongoing strengthening of the child's skills in the emotional and social domains.

### **8.3.2 Contribution to research methodology**

The construction of the E3SR was guided by the use of multiple methodologies in a coherent whole to triangulate and strengthen the resultant theoretical model and screening instrument. The process involved four stages each with their own methodology. This proved to



be a thorough process that spoke to methodological rigour and coherence despite being time consuming and intense. This multi-method approach was not mixed methodology, but constituted methodological triangulation that could act as a blueprint/ conceptual framework for further studies on early child development and more specifically test construction in education and psychology. This study demonstrated the benefits of triangulation and using multiple methodologies to form a coherent whole. The present study represented a good practise case for the use of various methodologies. The study illustrated that a clear methodological process with sound methodological decisions assists in enhancing the end product without compromising the process of research and underscoring the importance of explicitly making methodological decisions.



The methodological choices in the present study contributed to the establishment of contextually appropriate tests designed in and for the South African context. As mentioned before, this has been identified as an area that needed urgent attention (Foxcroft, 2013). The present study also contributed to the limited research conducted in South Africa on test construction in general and the design of instruments to measure emotional social skills/ competencies as a domain of school readiness in particular identified in the literature (for example Bustin, 2007). The present study also contributed to addressing the lack of reliable and valid; instruments resulting from adaptation, test design or piloting (Laher & Cockcroft, 2013). The present study was a collaboration between the Department of Education and the University of the Western Cape as an Institution of Higher Education that demonstrated the synergy that could result from such initiatives. This study forged important stakeholder relationships that paved the way for further adaptation and refinement of the resultant screening instrument,

ongoing collaborative research and knowledge exchange, as well as knowledge translation of assessment principles and developmental milestones for the target group.

### **8.3.3 Contribution to policy**

The E3SR provides a practical way to begin to address policy directives on early intervention in order to facilitate access and retention in basic education. The E3SR provides the opportunity for stakeholders including parents, teachers, psychologists and social workers at district based- and specialised services to obtain a profile of the child's strengths and weaknesses in the emotional and social domain to guide early identification and appropriate support across systems. To allow for continuous assessment opportunities and impact on a national level, locally designed assessment measures such as the E3SR needs to be endorsed and incorporated into assessment curricula by larger bodies such as the Department of Education on a local, provincial and national level. The Department of Basic Education's policy on Screening, Identification and Support, SIAS, (DBE, 2014) identified stakeholders e.g. parents or primary caregivers, the School Based Support Team (SBST) e.g. teacher and learning support teacher, the District Based Support team (DSBT) e.g. psychologists, social workers, occupational therapists and specialist support teams e.g. speech therapists, occupational therapists and psychiatrists as major role-players when the child needs assessment and appropriate support. The SIAS policy specifies that these role-players need to be able to assist in the early identification of barriers of learning and to support children to overcome these barriers to allow them access to their basic right of education. The E3SR is designed to fulfil the latter as an easily accessible, time efficient and usable tool to identify children that might need further support in the emotional and social domain. The use of the E3SR as one of the additions to the learner profile as specified in the practical curriculum guidelines and standards, CAPS (DBE, 2014) will allow

early identification of strengths and weaknesses in the emotional social domain and would assist in identifying children who might need further assessment and support. This instrument can be seen as a way to further operationalize policy directives as specified in the National policy pertaining to the programme and promotion requirements of the national curriculum statement grades R – 12 (DBE,2013).

The use of the E3SR will speed up important decisions that need to be made inter-sectorally and would ensure that the child receives the attention and support that he needs to develop optimal emotional and social skills. The inclusion of a measure such as the E3SR as one of the assessment modalities would be a step towards the recognition of the importance of emotional social skills to foster successful transition into mainstream education. The move towards integrated schools and the exposure of learners to common curriculums (Mohamed, 2013) have highlighted the need for assessment measures to also move towards an integrated modality, reflective of the current status of integrative schooling. The development of a measure to screen for emotional and social readiness in children that is accessible, readily available, affordable and easy to implement in the education setting, which complement current assessment practises, are seen as a step in this direction.

The National development plan 2030 identified early childhood development as a priority area. This study has constituted new knowledge in the field of early childhood development with specific focus on the child's emotional and social competence and the important role that these skills play in the process of becoming school ready. The present study emphasised the importance of the contributions of all the stakeholders including the community, schools, families and caregivers in the creation of an optimal environment to fulfil the basic needs of

children. In the process of developing the E3SR more explicit attempts to foster cooperation between stakeholders were made through the methodological choices and theoretical orientation.

This study also attempted to action the spirit of the UNICEF children's charter by contributing to the acquisition of the rights of the child to basic education, stimulating early academic environments, health care and freedom from discrimination (UNICEF, 2016). This study directly and indirectly contributed to creating a more stimulating environment for children, access to education and improved chances of success by identifying obstacles earlier. In short, the contribution of this study to assessment practices assist with early identification and informing early intervention that in turn facilitate acquisition of the right to basic education.

The 10-year innovation plan of the Department of Science and Technology (DST) identified that PhD graduates must act as agents of change (DST, 2007). This research demonstrated the capacity of the doctoral research to be transformative. The present study transformed the nature of consultation between researchers in test construction at Institutions of Higher education and stakeholders. The stakeholder consultation acknowledged all partners in ECD and was empowering. It enabled knowledge exchange and increased ownership and buy-in to the aim and product of the research. Ultimately, it forged active collaborations and strengthened the dedication of stakeholders to the field of early childhood development. The partnerships and trust relationships built during the four-year period of this doctoral study contributed to enhanced citizenry for all stakeholders including preschool children who will benefit from the screening instrument through the removal of barriers to academic success and improved access to assessment.

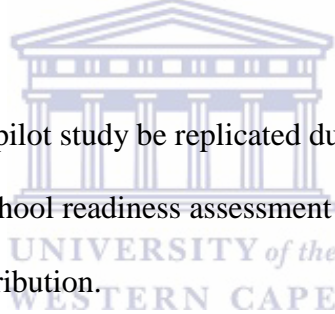
Through the development of the E3SR, knowledge translation became possible in that complex theoretical constructs were simplified, defined and operationalized to a level of specificity that identified the skills or attributes imbedded in these complex constructs. This provided a common reference for assessment, feedback and intervention that all stakeholders can use. In addition, the empirical processes of defining constructs and the resultant operational definitions enhanced the quality of screening and assessment practices. The resultant screening instrument made a significant contribution to the screening instruments available for use in assessment of emotional-social competence in preschool children and as such was transformative of customary practice.

The planning, execution and write-up of this study augmented and consolidated my skills set as the doctoral candidate. I developed skills in methodology, academic conventions, as well as test construction. In addition, I had opportunities to attend professional meetings such as conferences and seminars where I had the opportunity to present to professional audiences and received feedback that in turn enhanced my understanding and the resultant body of work. Thus through this process, I developed substantial capacity and learnt about myself in a reflexive sense. I also learnt about research supervision, application for funding and technical academic governance processes. All of these acquired skills augmented my capacity as a researcher and my potential as a research supervisor. The generalizability of the skills and knowledge acquired through doctoral level study contributed my ability to be an agent of change as conceptualized in the 10-year innovation plan (DST, 2007). I also acquired the understanding that my learning and development will be lifelong, and I have acquired the necessary skills to continue my journey of learning through engagement in participatory research.

## 8.4 RECOMMENDATION FOR FURTHER STUDY/ RESEARCH

This research outcome include the provision of a drive for future research and recommendations are based on the findings. This study is concluded with recommendations for further research.

- Confirmatory and Exploratory factor analyses suggested revisions of the sub-domains Independence, Mental wellbeing and Compliance with Rules. A clarification of Social Skills and Pro-social behavior as separate domains is also needed to retain the proposed structure of the theoretical model.
- A pilot study needs to be done with the revised version of the E3SR to test the underlying factor structure.
- It is recommended that the pilot study be replicated during August to September that will coincide with the current school readiness assessment practice framework and to avoid the violation of normal distribution.
- The present study was limited to a specific urban geographical area. After the proposed revision of the E3SR and the re-establishment of its psychometric properties, replications within different geographical locations is recommended to cross validate findings. Further studies should include samples from other provinces and rural areas to improve heterogeneity.
- Further study could explore a shortened version of the E3SR that could prove to be beneficial to address time constraints.
- The sampling frame of the pilot study included both Gr. R and Gr RR learners aged five to seven years. Further studies could investigate specific cut-off scores for the two cohorts: five to six and six to seven year olds respectively.



- Liaison with governmental structures such as the National Department of Education is recommended. The possibility of including the E3SR in existing assessment batteries should be investigated. Buy-in from broader governmental structures such as The Department of Education could not only enhance participation of schools and parents in the research, but could ultimately lead to more representative assessments and interventions strategies, as well as wider adoption of the instrument.
- The present study used teachers to administer the E3SR. A further area of study would entail the use of parents, teachers and other professionals for example psychologists, social workers, occupational therapists as respondents. The increased target user groups will allow for inter-rater (inter-scorer) reliability to be established.
- The E3SR has been develop in English only. Panelists in the Delphi study recommended multilingual versions of the E3SR in isiXhosa, Zulu, Afrikaans etc. The order in which the versions should be developed could be guided by the use of census data to establish which South African languages were most prominently used in educational settings. The adaptation of assessment measures is essential in a multicultural and multi-lingual society like South Africa (De Kock, Kanjee & Foxcroft, 2013). Cross-cultural test adaptation and translation studies to facilitate adaptation as well as the translation of the E3SR into different languages used in South Africa, is highly recommended.
- Further research to explore the interaction between social and emotional competence and other domains of school readiness such as cognitive, motor and language domains could also be done.
- The development of a “step up” programme as an adjunct to the screening measure could facilitate hands on intervention. This would mean that teachers would be able to not only

identify and discuss the child's strengths and weaknesses with parents but also supply parents with practical examples on how to intervene to assist the child in the development of the specific skill sets.





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## Appendix A: Project registration and ethics clearance



UNIVERSITY of the  
WESTERN CAPE

OFFICE OF THE DEAN

DEPARTMENT OF RESEARCH DEVELOPMENT

20 May 2014

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by: Mrs E Munnik (Psychology)

Research Project: The development of a screening tool for assessing emotional / social competence in preschoolers as a domain of school readiness.

Registration no: 14/2/8

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias  
Research Ethics Committee*

*Officer University of the Western Cape*

Private Bag X17, Bellville 7535, South Africa

T: +27 21 959 2988/2948

F: +27 21 959 3170

E: [pjosias@uwc.ac.za](mailto:pjosias@uwc.ac.za) [www.uwc.ac.za](http://www.uwc.ac.za)

A place of quality,  
a place to grow, from hope  
to action through knowledge

## Appendix B: Focus groups - Invitation letter and information sheet



UNIVERSITY OF THE WESTERN CAPE  
Department of Psychology  
Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-959 2283, Fax: 27 21-959 3515  
E-mail: mrsmith@uwc.ac.za

Dear

### **Request for permission to conduct research in the foundational phase.**

I hereby request permission to conduct research with teachers and parents of pre-schoolers in the foundation phase of education at your school and to write up the findings in fulfilment of the requirements of my Doctoral level studies at the University of the Western Cape. This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee. Permission would be obtained from the Department of Education/ School governing body as soon as your permission has been granted.

The proposed research aims to develop and validate a newly-constructed screening tool for emotional/ social competence as a domain of school readiness. The study has two phases. In phase 1, teachers and parents/ guardians of grade R learners will be required to participate in focus groups to gather perceptions about school readiness. In phase 2 parents/ teachers will be required to fill in a newly constructed questionnaire about the emotional/ social competence of their learner/ child. The screening tool will be self-administered and easy to use. Responses will be based on their observations of the learner/ child and will not require the child to participate in a personal capacity. Teachers will only complete assessments for children whose parents/ caregivers have agreed to participate in the study. In this way, we will have two screenings or completed questionnaires for each child that could provide useful insights into how the child/ learner is experienced or perceived in the home and school environment. The time to complete one screening is approximately 10-15 minutes.

As Grade R is currently seen as a "bridge year" it becomes more vital for parents and teachers to make informed decisions about learners' readiness to enter mainstream education. The availability of a sound screening tool that is valid and reliable and relatively easy to administer, will aid in the often challenging task to identify children at risk on an emotional/social level in a multi cultural South African context. This can assist in improving the tracking of children's development and could assist in early identification of children requiring further assessment and possibly intervention.

Psychometric assessments are usually costly and out of reach of most of the learners, parents and schools. It is thus viable to create an effective, practical and cost effective screening instrument for widespread use by parents, teachers and even professionals working in the field of assessment. This will also aid in the development of a relevant instrument that takes into account the unique needs of a diverse South African population.



The proposed study will sample preschools from the Metropole North District. Pending approval from your office to conduct the research, permission will be requested from The Department of Education to request access to staff and parents. Once permission has been granted, information letters explaining the nature of the study will be sent to, parents and teachers to explain the nature of the study. All the participants will also be required to sign a consent form. Participation is voluntary.

The questionnaires will be delivered and collected by the researcher to the participating schools for the educators to complete at a suitable time. The same questionnaire will be given to parents to complete at home. It is hoped that this would not interrupt any teaching time.

The benefits of participating in this research are that teachers would be able to incorporate this into their quarterly assessments, and create an opportunity to discuss and compare their assessments with parents.

The results of this study, if significant, will contribute to the psychometric tools available for the assessment of emotional/ social competence in preschool children. It will also add to the few locally developed instruments available and make screening affordable.

The researcher undertakes to provide a report to the school and feedback to the participating teachers and parents about the findings of the research.

Any questions about the research study itself, can be directed to myself, Erica Munnik at 021-9592283/ 0827753221 or via e-mail at emunnik@uwc.ac.za.

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact my supervisor, Dr. Mario Smith at 021-9592283/ 0823309284 or via e-mail at mrsmith@uwc.ac.za.

A full copy of the research proposal and of the ethics clearance certificate is attached.

I hope that this request is met with your favourable approval. Please do not hesitate to contact me if further information is required.

Yours sincerely

Erica Munnik  
Clinical Psychologist  
Phd student (Child psychology)

Dr. M. Smith  
Supervisor



# UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

## INFORMATION SHEET

### Focus Group Participant

Dear Participant,

**Project Title:** The development of a screening tool for assessing emotional/ social competence in pre-schoolers as a domain of school readiness.

#### Phase 2: Concept mapping

##### What is this study about?

This is a research project being conducted by Mrs. Erica Munnik and Dr. M. R. Smith at the University of the Western Cape. The study aims to develop a screening tool to assess emotional/ social competence in pre-schoolers for use in the South African context. In this current phase (#2), we are gathering perceptions about school readiness from stakeholder groups.

##### What will I be asked to do if I agree to participate?

Your participation will entail participating in a focus group discussion. You will be asked to respond to a prompt of stimulus question about school readiness.

##### Would my participation in this study be kept confidential?

All members in the group will be asked to sign a confidentiality binding form in which they agree not to disclose the identities or contributions of other participants. The focus group will be audio taped and transcribed. The transcription of the focus group discussion will be kept locked in a secure safe at all times whilst the recording will be destroyed after completion of the study. The information gathered in the focus group will be accessed by my supervisor and me. We will do our best to keep your personal information confidential. To help protect your confidentiality, your name will not be mentioned in my research project. If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

##### What are the risks of this research?

There are no known or anticipated risks to participating in this study.

##### What are the benefits of this research?

You will have an opportunity to engage reflexively in a discussion about the domains of school readiness that can enhance your relative engagement with preschool children. This project will generate knowledge

that can assist in the assessment of emotional/ social competence as a domain of school readiness in pre-schoolers and will contribute to the psychometric tools available in South Africa.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you withdraw at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

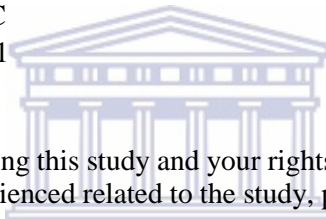
**Is any assistance available if I am negatively affected by participating in this study?**

Negative impacts are not anticipated, but appropriate referrals will be made if unforeseen negative impacts arise.

**What if I have questions?**

This research is being conducted by Erica Munnik at the Department of Psychology at the University of the Western Cape. If you have any questions about the research study itself, you can contact

Erica Munnik  
Dept of Psychology, UWC  
021-9592283/ 0827753221  
[emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za)



Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Supervisor: Dr. Mario Smith  
Dept of Psychology, UWC  
021-9592283/ 0823309284  
[mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

UNIVERSITY of the  
WESTERN CAPE

Head of Department: Dr. Michelle Andipatin  
Dept of Psychology, UWC  
021-9592283/ [mandipatin@uwc.ac.za](mailto:mandipatin@uwc.ac.za)

Dean of the Faculty of Community and Health Sciences: Prof. J. Frantz, University of the Western Cape,  
Private Bag X17, Bellville 7535, 021-959 2631/ [jfrantz@uwc.ac.za](mailto:jfrantz@uwc.ac.za)

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

## Appendix C: Delphi study - Invitation letter and information sheet



### UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

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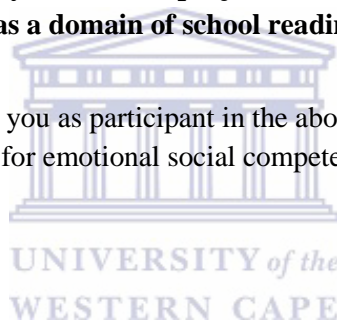
**E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)**

### INVITATION LETTER

Dear Sir/Madam,

**Request to participate in Delphi study – Research project: The development of a screening tool to assess emotional social competence as a domain of school readiness in pre-school children.**

I hereby request permission to include you as participant in the above study. The main aim is to comment on a newly constructed screening tool for emotional social competence that is in its first draft/developmental phase.

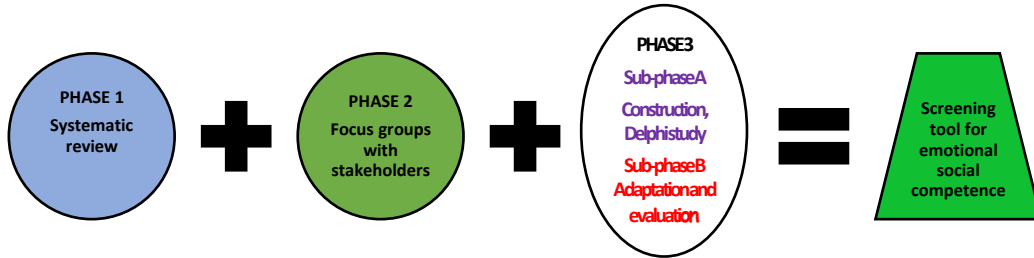


#### Background to the study:

The decision of whether a child is school ready or not is one of the most important decisions that caregivers and educators are faced with. As Grade R is currently seen as a “bridge year” it becomes more vital for caregivers and teachers to make informed decisions about learners’ readiness to enter mainstream education. The availability of a sound screening tool that is valid and reliable and relatively easy to administer, will aid in the often challenging task to identify children at risk on an emotional/social level in a multi-cultural South African context. This can assist in improving the tracking of children’s development and could assist in early identification of children requiring further assessment and possibly intervention.

Psychometric assessments are usually costly and out of reach for most of the learners, caregivers and schools. It is thus viable to create an effective, practical and cost effective screening instrument for widespread use by caregivers, teachers and even professionals working in the field of assessment. This will also aid in the development of a relevant instrument that takes into account the unique needs of a diverse South African population.

Phases of the project:



The study has three phases:

In *phase one* two systematic reviews were done to review the body of literature to a) identify the theoretical and operational definitions and underpinnings of emotional/ social competence and b) to establish which measures exist to assess emotional social competence in pre-school children.

*Phase two* included focus groups with relevant stakeholders including professionals, teachers and parents/ guardians of grade R learners from the Metropole North District to obtain information about their perceptions about school readiness and emotional/ social competence.

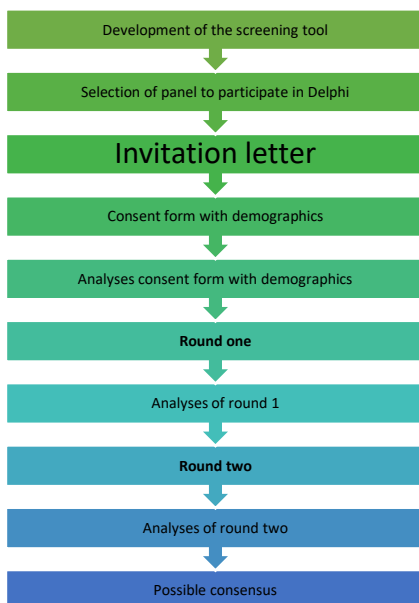
The first two phases informed the construction of the screening tool in *Phase 3* which have two sub-phases:

**Subphase A:** Draft of the instrument and Delphi study.

After completion of phase 1 and 2, a draft screening instrument with a pool of test items was developed by the primary researcher in consultation with her supervisor.

A pool of experts/ specialist in the field of education, psychology and test construction were identified and are invited to provide comment on the feasibility of the draft instrument (Delphi method) with the main aim to improve content and structural validity of the instrument.

The Delphi study is envisaged as follows:



If you agree to participate in this project the following will be asked of you:

**Round one:**

1) To complete the consent form and demographic questionnaire sent to you in an online Google format. The online format is easy to understand and would provide you with clear guidelines as to how to proceed.

2) After the consent and demographic questionnaire has been returned, an online link to the screening tool as well as a series of questions about the newly constructed screening tool would be provided via direct link. The format of the questionnaire will enable you to rigorously discuss relevant issues pertaining to the screening and to advice on possible limitations or corrections needed. After

completion of the questions you would be able to submit the completed questionnaire via the link provided. 3) After analyses (and incorporation of the feedback of the experts) you would be asked to look at the screening tool for a [second time](#) and the same questions will be asked again. This process will continue for a maximum of three rounds. The third round will engage with any items or issues identified for revision in the previous round.

### **Subphase B: Adaptation and evaluation**

The final phase of the project (sub phase B in phase 3) will commence after the Delphi study is concluded and this would involve a sample of parents (with children in Gr. R) / Gr. R teachers that will be invited to participate in completion of the newly constructed screening tool assessing the emotional/ social competence of their child / learner. Responses will be based on their observations of the learner/ child and will not require the child to participate in a personal capacity. After this, the results will be analysed to determine factor structure, possible biases. The test would be adapted to optimise scale strength.

It is hoped that the results of this project will contribute to the psychometric tools available for the assessment of emotional/ social competence in preschool children. It will also add to the few locally developed instruments available and make screening affordable.

Should you be willing to participate, please click on the link provided in the email sent to you and complete the first round as outlined above. On completion of this section please click the submit button and the information will then automatically be sent to the researcher. The next round of the Delphi will be sent to you as soon as possible and in the same format as the consent and demographic details section.

I hope that this request is met with your favourable approval; I am looking forward to hear from you.

Please do not hesitate to contact me if further information is required.

Yours sincerely

Erica Munnik

Clinical Psychologist

Phd student (Child psychology)

Dr. M. Smith

Supervisor

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee (Ref 14/2/8) in 2014.



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### INFORMATION SHEET DELPHI STUDY

Dear Panellist,

**Project Title:** The development of a screening tool for assessing emotional/ social competence in pre-schoolers as a domain of school readiness.

Phase 3 – Construction of screening tool, Delphi study

#### **What is this study about?**

This is a research project being conducted by Mrs. Erica Munnik and Dr. M. R. Smith at the University of the Western Cape. The study aims to develop a screening tool to assess emotional/ social competence in pre-schoolers for use in the South African context. In this current phase (#3), we are gathering feedback from identified individuals who have expertise in education, psychology and test construction.

#### **What will I be asked to do if I agree to participate?**

Your participation will entail acting as a member of a panel that will evaluate the screening tool for appropriateness, instrumental coherence and cultural or contextual applicability. You will be asked to evaluate the screening tool on a number of factors and to provide feedback about the suitability for use in the South African context.

#### **Would my participation in this study be kept confidential?**

This research project involves providing feedback about the screening tool. This information will be accessed by my supervisor and me. We will do our best to keep your personal information confidential. To help protect your confidentiality, your name will not be mentioned in my research project. This information will be kept locked in a secure safe at all times. If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

#### **What are the risks of this research?**

There are no known or anticipated risks to participating in this study.

#### **What are the benefits of this research?**

This project will generate knowledge that can assist in the assessment of emotional/ social competence as a domain of school readiness in pre-schoolers and will contribute to the psychometric tools available in South Africa.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you withdraw at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

**Is any assistance available if I am negatively affected by participating in this study?**

Negative impacts are not anticipated, but appropriate referrals will be made if unforeseen negative impacts arise.

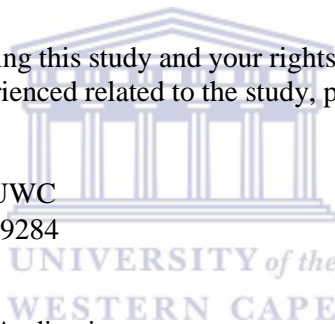
**What if I have questions?**

This research is being conducted by Erica Munnik at the Department of Psychology at the University of the Western Cape. If you have any questions about the research study itself, you can contact

Erica Munnik  
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021-9592283/ 0827753221  
[emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za)

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Supervisor: Dr. Mario Smith  
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021-9592283/ 0823309284  
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Head of Department: Dr. Michelle Andipatin  
Dept of Psychology, UWC  
021-9592283/ [mandipatin@uwc.ac.za](mailto:mandipatin@uwc.ac.za)

Dean of the Faculty of Community and Health Sciences: Prof. J. Frantz  
University of the Western Cape  
Private Bag X17  
Bellville 7535  
021-9592631/ [jfrantz@uwc.ac.za](mailto:jfrantz@uwc.ac.za)

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.



## Appendix D - Pilot study: Invitation letter and information sheet



### UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

28/10/16

The Principal  
CAPE TOWN  
8000

Dear Madam,

#### **Request for permission to conduct research in the foundational phase.**

I am conducting a study on emotional-social readiness in preschool children that has been approved by the Senate Research Committee of the University of the Western Cape (Ref 14/2/8). The study entails the development of a screening instrument that assesses several domains of emotional-social readiness as part of general readiness for entering into mainstream education. The current phase of the study entails the piloting of the screening instrument. This letter is to invite your school to participate in the pilot study. The most ideal time to evaluate for school readiness is in the final term and thus the pilot is scheduled to coincide with the evaluation phase of Grade R children in the fourth term.

Your participation will involve completing the screening instrument for Grade R children. Teachers or parents of grade R learners will be required to fill in a questionnaire about the emotional/ social competence of their learner/ child. The screening instrument is self-administered and easy to use. Responses will be based on observations of the learner/ child **and will not require the child to participate in a personal capacity**. The time to complete one screening is approximately 5-10 minutes. Provisional approval has been granted by the Western Cape Education Department and final approval is dependent on specific school first consenting to participate in the study.

The questionnaires will be delivered and collected by the researcher from the school, allowing the educators/ parents to complete the questionnaires at a suitable time. This will minimize interruption. The logistics will be finalized based on your recommendation about the most practical way to proceed. The benefits of participating in this research are that teachers would be able to incorporate the screening into their assessments, and stimulate thinking about readiness and evaluation of emotional-social competence that in turn can be discussed with parents.

The results of this study, if significant, will contribute to the psychometric instruments available for the assessment of emotional/ social competence in preschool children. It will also add to the few locally developed instruments available and make screening affordable.

The researcher undertakes to provide a report to the school and feedback to the participating teachers and parents about the findings of the research.

A copy of the ethics clearance certificate is attached.

I hope that this request is met with your favourable approval. Please do not hesitate to contact me if further information is required.

Yours sincerely

**Erica Munnik**  
**Clinical Psychologist**





## UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

### INFORMATION SHEET PILOT STUDY

Dear Participant,

**Project Title:** The development of a screening tool for assessing emotional/ social competence in pre-schoolers as a domain of school readiness.

Phase 3: **Pilot study**

#### **What is this study about?**

This is a research project being conducted by Mrs. Erica Munnik and Dr. M. R. Smith at the University of the Western Cape. The study aims to develop a screening instrument to assess emotional/ social competence in pre-schoolers for use in the South African context. In this current phase, we are piloting or testing a new screening instrument for emotional/ social competence in preschoolers.

#### **What will I be asked to do if I agree to participate?**

Your participation will entail completing a questionnaire (screening tool) about the emotional/social competence of each of the preschool-aged learners in your class. You will be asked to complete a checklist of items assessing these domains of school readiness.

#### **Would my participation in this study be kept confidential?**

The questionnaires are anonymous and will be coded to remove identifying information. The completed questionnaires will be kept locked in a secure safe at all times and will be accessed by my supervisor and me. We will do our best to keep personal information confidential. To help protect your confidentiality, your name will not be mentioned in my research project. If we write a report or article about this research project, your identity will be protected to the maximum extent possible.

#### **What are the risks of this research?**

There are no known or anticipated risks to participating in this study.

#### **What are the benefits of this research?**

You will have an opportunity to assess your learner's emotional/ social competence using the questionnaire. This might stimulate awareness of the importance of the developmental skills involved and increase the ability to track children's progress in this domain. This project will generate knowledge that can assist in the assessment of emotional/ social competence as a domain of school readiness in pre-schoolers and will contribute to the validation of the psychometric properties of the screening tool.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you withdraw at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

**Is any assistance available if I am negatively affected by participating in this study?**

Negative impacts are not anticipated, but appropriate referrals will be made if unforeseen negative impacts arise. For example, should you become aware that your learner appears to experience difficulties in some of the skills measured; referrals could be made for a more comprehensive assessment.

**What if I have questions?**

This research is being conducted by Erica Munnik at the Department of Psychology at the University of the Western Cape. If you have any questions about the research study itself, you can contact Erica Munnik

Dept of Psychology, UWC

021-9592283/ 0827753221

[emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za)

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.



Appendix E: Consent form - Focus groups



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Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

**CONSENT FORM (Phase 2)**

I, the undersigned, fully understand the research aims, my rights and my role as participant in the study, as well as issues related to confidentiality, as outlined in the information leaflet.

I agree to participate in the focus group sessions

I agree to a digital recording to be made of the focus group discussion

I also **undertake** to keep the content of the discussion and identities of participants **confidential** so as to protect the rights of every participant in the study.

I also grant permission to the researcher to disseminate the information obtained in the following formats:

Unpublished thesis

Conference presentation

Published manuscript or article

I take cognisance that all recordings will be destroyed at the end of the research process and that anonymous transcripts will be kept in a locked safe.

-----  
**Signature**

-----  
**Print Name**

-----  
**Date**

---

**This section is to be cut off and retained by the participant for future reference.**

**Researcher's Contact Details**

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Student: Erica Munnik, Dept of Psychology, UWC 021-9592283/ 0827753221, [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za)

Supervisor: Dr. Mario Smith, Dept of Psychology, UWC 021-9592283/0823309284, [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

*Thank you for your cooperation and you are welcome to contact me for any queries at the address given above.*

## Appendix F: Consent form - Delphi study



### UNIVERSITY OF THE WESTERN CAPE

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Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

#### CONSENT TO PARTICIPATE IN DELPHI STUDY

(via google docs)

1.

The Delphi study is a sub-component of the Phd study of Erica Munnik at University of the Western Cape titled: The development of a screening tool for assessing emotional/ social competence in preschoolers as a domain of school readiness. Mark only one oval.

2.

Do you consent to participate in the Delphi Study as requested by Mrs Erica Munnik, PHD student at the University of the Western Cape. \* By consenting you are acknowledging that you have read the invitation letter sent to you and understand its contents. You are further reminded that this process is confidential and your anonymity will be protected. You have the right to withdraw from this process at any time with no negative consequence. Mark only one block.

- Yes, I consent to participate in this Delphi study
- No, I do not consent to participate in this Delphi study

Please take note that when you start completing the form you need to complete and submit immediately as the form cannot be saved for you to return at a later stage to complete again.

**Appendix G: Consent form - Pilot study**



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**E-mail: [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za), [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)**

**CONSENT FORM**

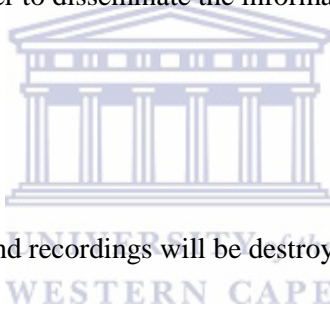
I, the undersigned, fully understand the research aims, my rights and my role as participant in the study, as well as issues related to confidentiality, as outlined in the information leaflet.

I also grant permission to the researcher to disseminate the information obtained in the following formats:

Unpublished thesis

Conference presentation

Published manuscript or article



I take cognisance that all documents and recordings will be destroyed at the end of the research process.

-----  
**Signature**

-----  
**Print Name**

-----  
**Date**

---

**This section is to be cut off and retained by the participant for future reference.**

**Researcher's Contact Details**

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Student: Erica Munnik, Dept of Psychology, UWC 021-9592283/ 0827753221, [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za)

Supervisor: Dr. Mario Smith, Dept of Psychology, UWC 021-9592283/0823309284, [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

***Thank you for your cooperation and you are welcome to contact me for any queries at the address given above.***

## Appendix H: Permission for focus groups and pilot study



### UNIVERSITY OF THE WESTERN CAPE

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1 November 2016

Directorate Research  
Western Cape Government  
Education  
Private Bag X9114  
**CAPE TOWN**  
8000

Dear Mr. Wyngaard,

#### **APPLICATION TO CONDUCT RESEARCH IN PUBLIC SCHOOLS (Foundational phase) WITHIN THE WESTERN CAPE.**

Attached please find the completed form as requested by your Department.

I am conducting a study on emotional-social readiness in preschool children that has been approved by the Senate Research Committee of the University of the Western Cape (Ref 14/2/8). The study entails the development of a screening instrument that assesses several domains of emotional-social readiness as part of general readiness for entering into mainstream education. The current phase of the study entails the piloting of the screening instrument.

The most ideal time to evaluate for school readiness is in the final term and thus the pilot is scheduled to coincide with the evaluation phase of Grade R children in the fourth term. Bastion Primary School's principle and teachers have already been approached and agreed in principle to participate in the pilot study.

The school's participation will involve completing the screening instrument for Grade R children. Teachers will be required to fill in a questionnaire about the emotional/ social competence of their learner/ child. The screening instrument is self-administered and easy to use. Responses will be based on the teacher's baseline knowledge of the child (observations through the year) **and will not require the child to participate in a personal capacity.**

The benefits of participating in this research are that teachers would be able to incorporate the screening into their assessments, and stimulate thinking about readiness and evaluation of emotional-social competence that in turn can be discussed with parents.



The results of this study, if significant, will contribute to the psychometric instruments available for the assessment of emotional/ social competence in preschool children. It will also add to the few locally developed instruments available and make screening affordable.

The researcher undertakes to provide a report to the school and feedback to the participating teachers and parents about the findings of the research.

I hope that this request is met with your favourable approval. Please do not hesitate to contact me if further information is required at 021-9592283/ 0827753221 or via e-mail at [emunnik@uwc.ac.za](mailto:emunnik@uwc.ac.za).

I hope that this request is met with your favourable approval.

Yours sincerely



**Erica Munnik**  
**Clinical Psychologist**



## Appendix I: Delphi study - First email to panelists

On 22 July 2016 at 13:17, Erica Munnik <[emunnik.phduwc@gmail.com](mailto:emunnik.phduwc@gmail.com)> wrote:

Dear colleague,

Request to participate in Delphi study

The above mentioned research study is being conducted by Erica Munnik at the University of the Western Cape. The study has received ethics clearance by the UWC Senate Research Committee (Ref 14/2/8). The study aims to develop a screening tool for emotional social competence in preschool children. The study has been conceptualized in four phases.

You are hereby invited to participate in Sub-phase B of Phase 3 in the present study. You have been identified as a possible participant based on your expertise in Education, Psychology and/or test construction. Your participation in the study would entail reviewing and commenting on a newly constructed screening tool for emotional social competence in pre-school children, in a three round process.

The rounds are envisaged as follows:

Round 1: Review of instrument

Round 2: Review of revised instrument

Round 3: Final review (if there were new recommendations after second round)



Find attached an ethics clearance certificate, information sheet and invitation letter with comprehensive details of the study. Should you be willing to participate, please respond to the email sent to you and indicate "YES" in the subject line. You will receive follow-up instructions for the Delphi.

Kind regards

Erica Munnik

## Appendix J: Delphi study - Unique identity number

Dear .....

Thank you for your recent response indicating your willingness to participate in my Delphi study. Delphi methodologies include a careful tracking of feedback until consensus amongst participant is reached. Thus it is required to track participants through the process. You have been assigned a unique identity number for the purposes of this study. **Your number is 018** and should be recorded on all submissions in the subsequent rounds.

I trust that you have read through and familiarized yourself with the documents attached to the initial electronic invitation (Invitation letter, Information sheet, and ethics clearance certificate). The documents are attached again for your records and convenience.

The next email will have an embedded consent form and demographics questionnaire.

I am looking forward to your participation.

Kind regards

Erica Munnik



**Appendix K: Systematic Review One - Abstract summary sheet**

<b>AUTHOR</b>	<b>DATE PUBLISHED</b>	<b>DATE OBTAINED</b>	<b>TITLE &amp; SOURCE</b>	<b>DATABASE</b>	<b>LOCATION WHERE STORED</b>
Bustin, C.	Nov 2007	7 March-2013	The Development and Validation of a Social Emotional School Readiness Scale, unpublished thesis	Grey Literature	<a href="http://etd.uovs.ac.za/ETD-db/theses/available/etd-09232008-145334/unrestricted/BustinC.pdf">http://etd.uovs.ac.za/ETD-db/theses/available/etd-09232008-145334/unrestricted/BustinC.pdf</a>
Cress, C.J., Synhorst, L., Epstein, M.H., & Allen, E.	Feb-2012	2 Oct-2013	Confirmatory Factor Analysis of the "Preschool Behavioral and Emotional Rating Scale" (PreBERS) with Preschool Children with Disabilities	Eric	doi: 10.1177/1534508411433499
Denham, S. A.	2006	2 Oct 2013	Social-Emotional Competence as Support for School Readiness: What Is It and How Do We Assess It?	Eric	<a href="http://dx.doi.org/10.1207/s15566935eed1701_4">http://dx.doi.org/10.1207/s15566935eed1701_4</a>
Denham, S.A., Wyatt, T.M., Bassett, H.H., Echeverria, D., & Knox, S.S.	2005	6 March-2013	Assessing social-emotional development in children from a longitudinal perspective.	Ebscohost	doi:10.1136/jech.2007.070797
Epstein, M.H., Synhorst, L.L., Cress, C.J. & Allen, E.A.	Feb-2012	3 Jun 2013 & 2 Oct 2013	Development and Standardization of a Test to Measure the Emotional and Behavioural Strengths of Preschool Children - Journal of Emotional and Behavioral Disorders	Sage & Eric	DOI: 10.1177/1063426608319223
Fauconnier, J.	2005	7 March-2013	Developing Indicators Of Emotional School Readiness Of South African Children And Possible Therapeutic Use Thereof	Grey Literature	<a href="http://upetd.up.ac.za/thesis/available/etd-09122005-133806/unrestricted/00dissertation.pdf">http://upetd.up.ac.za/thesis/available/etd-09122005-133806/unrestricted/00dissertation.pdf</a>
Griffith, A.K., Hurley, K.D., Trout, A.L., Synhorst, L., Epstein, M.H. & Allen, E.	1 Oct-2010	2 Oct-2013	Assessing the Strengths of Young Children at Risk: Examining Use of the Preschool Behavioural and Emotional Rating Scale With a Head Start Population.	Eric	DOI: 10.1177/1053815110384059
Helmsen J, Petermann F., & Wiedebusch S.	2009	6 March-2013	Assessment of social-emotional competence in health examination for school entry	Ebscohost	doi: 10.1055/s-0029-1239513.
Hymel, S., LeMare, L. & McKee, W.	Jun-2011	2 Oct-2013	The Early Development Instrument: An Examination of Convergent and Discriminant Validity	Ebscohost & Eric	DOI 10.1007/s11205-011-9845-2

Janus, M. & Offord, D.R.	2007	14 Jun-2013	Development and Psychometric Properties of the Early Development Instrument (EDI): A Measure of Children's School Readiness	Ebscohost	DOI: 10.1037/cjbs2007001
Kidwell, S.L., Young, M. E., Hinkle, L.D., Ratliff, A.D., Marcum, M.E., & Martin, C.N	5 Jul-2010	9 May-2013	Emotional competence and behavior problems: Differences across Preschool Assessment of Attachment classifications	Ebscohost & Sage	DOI: 10.1177/1359104510367589
Stefan, C.A.Balaj, A., Porumb, M., Albu, M. & Miclea, M.	Jun-2009	Jun-2013	Preschool Screening For Social And Emotional Competencies – Development And Psychometric Properties	Ebscohost	<a href="http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=64b50bf2-42c9-4f53-bc48-83c1c49fbd9b%40sessionmgr12&amp;vid=5&amp;hid=11">http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=64b50bf2-42c9-4f53-bc48-83c1c49fbd9b%40sessionmgr12&amp;vid=5&amp;hid=11</a>
Stewart-Brown, S. & Edmunds, L.	Dec-2003	5 Jun-2013	Assessing emotional and social competence in preschool and primary school settings: a review of instruments - Perspectives in Education	Sabinet & Ebscohost	<a href="http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=64b50bf2-42c9-4f53-bc48-83c1c49fbd9b%40sessionmgr12&amp;vid=5&amp;hid=11">http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=64b50bf2-42c9-4f53-bc48-83c1c49fbd9b%40sessionmgr12&amp;vid=5&amp;hid=11</a>
Swindells, D., & Stagnitti, K.	2006	6 Jul-2013	Pretend play and parents' view of social competence: The construct validity of the Child-Initiated Pretend Play Assessment	Ebscohost	DOI: 10.1111/j.1440-1630.2006.00592.x

### Appendix L: Systematic Review One - Articles included for critical appraisal

AUTHOR	TYPE OF DESIGN	STUDY POPULATION	INSTRUMENT USED	OUTCOMES	QUALITY/ RESULT OF STUDY ANALYSES
Bustin. C	Qualitative	5-6 years	Behaviours Underpinning Skills for Social-Emotional School Readiness (BUSSE-SR)	Uses a screening tool that has adequate psychometric properties	Looks at relationship to age, gender, school (single sex or co-educational), race
Epstein, M.H., Synhorst, L.L., Cress, C.J. & Allen, E.A.	Qualitative	3-5 years	Preschool Behavioral and Emotional Rating Scale (Prebers)	Uses a screening tool that has adequate psychometric properties	Looks at relationship to age, gender, geographical location (region based), race, disability
Janus, M. & Offord, D.R.	Current	4-5 years	Early Development Instrument (EDI)	Uses a screening tool that has adequate psychometric properties	Looks at relationship to age, gender, English as a second language
Stefan, C.A.Balaj, A., Porumb, M., Albu, M. & Miclea, M.	Current	Split into three categories: 2.5-4 years 4-5 years 5-7.5 years	Social Skills Rating System (SSRS).	Uses a screening tool that has adequate psychometric properties	Looks at relationship to age, gender, geographical location (urban and rural), level of parents education



## Appendix M: Systematic Review One - Quality Appraisal Tool (Version D)

### A. PURPOSE OF THE MEASURE (Maximum score = 18)

- |    |  |    |     |
|----|--|----|-----|
| 1) | Did they comment on the purpose of the measure?  | No | Yes |
|    |  | 1  | 2   |
| 2) | Did they specify what attribute/ characteristic, construct will be measured?   | No | Yes |
|    |  | 1  | 2   |
| 3) | Did they state whether the measure is to be used for screening purposes or in-depth diagnostic assessment?   | No | Yes |
|    |  | 1  | 2   |
| 4) | Did they explain what type of decisions could be made on the basis of the test scores?   | No | Yes |
|    |  | 1  | 2   |
| 5) | Did they specify for which population the measure is intended?   | No | Yes |
|    |  | 1  | 2   |
| 6) | Did they state whether it is a normative or criterion referenced measure?  | No | Yes |
|    |  | 1  | 2   |
| 7) | Was the construct(s) theoretically defined?<br>(did the researcher undertake a thorough literature study to define the construct)                  | No | Yes |
|    |  | 1  | 2   |
| 8) | Was the construct operationally defined?<br>(how construct will be measured, domains identified for measuring)                                     | No | Yes |
|    |  | 1  | 2   |
| 9) | Did they report on the methodology used to derive an operational definition?<br>(focus groups and individual interviews with various role players) | No | Yes |
|    |  | 1  | 2   |

### B: METHODOLOGICAL RIGOUR (Maximum score = 35)

- |    |  |    |     |
|----|--|----|-----|
| 1) | Is methodology clear and unambiguous?  | No | Yes |
|    |  | 1  | 2   |
| 2) | Did the researcher report on how they selected specific items?   | No | Yes |
|    |  | 1  | 2   |
| 3) | Did the researcher comment on assembling of the items?<br>(Arranging items, finalising length of test) | No | Yes |
|    |  | 1  | 2   |
| 4) | Did the researcher comment on development of administration instructions?                              | No | Yes |
|    |  | 1  | 2   |
| 5) | Did the researcher pilot the test?   | No | Yes |
|    |  | 1  | 2   |

- 6) Were results evaluated in terms of item (difficulty, discriminating power, bias?)  
 No Yes  
 1 2
- 7) Was there feedback on revision of test and item content?  
 No Yes  
 1 2
- 8) Was there feedback on standardisation of administration procedures?  
 No Yes  
 1 2
- 9) Did the reviewers comment on cultural, linguistic and gender appropriateness?  
 No Yes  
 2 (one aspect), 3 (2 aspects) 4 (more than three aspects)
- 10) Were the items reviewed by means of experts for content validation?  
 No Yes  
 1 2
- 11) Was the construct validity of the instrument tested statistically?  
 No Yes  
 1 2
- 12) Were the psychometric properties of the final version established?  
*Reliability:* (internal consistency or test-retest or inter-rater reliability)  
 No Yes  
 1 2
- Validity:*  
 No Yes  
 2 (face validity) 3 (construct validity) 4 (criterion validity)
- 13) Was a proper guide for interpretation developed?  
 No Yes  
 1 2
- 14) How is the sample defined? Is it a probability or non-probability sample?  
 Not mentioned Probability Non- probability  
 1 2 3
- Hint:** If it is non-probability sampling, did they test the sample to see if it fits the criteria. Did they report on it? (Then it qualifies for 2)
- 15) Is the sample size greater than 50? If not, is a formula computed to help with sample size?  
 No Yes  
 1 2
- Hint** (is a formula computed to help with sample size): If no and  $N < 50$ , allocate 0. If yes, allocate 2.



## C: GENERAL CONSIDERATIONS

### Quality of information (Maximum score = 9)

- 1) How long ago was the test developed?
- |                |                |              |
|----------------|----------------|--------------|
| > 20 years ago | < 10 years ago | <5 years ago |
| 1              | 2              | 3            |
- 2) Does it mention the unique multi-cultural context of South Africa (test bias)?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 3) Is it clear that there might be more relevant assessment measures?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |

**Hint:** Does the authors mention that other measures might exist?

- 4) Do the authors refer to the relevant legislation related to psychological assessment practises in South Africa?

No	Yes
1	2

**Hint:** Child care act (38 of 2005), Bill of Rights (108 of 1996), Health Professions Act (56 of 1974).

## D: OVERALL RATING OF THE PUBLICATION

Based on the answers to all of the above questions, rate the overall quality of the publications as a source of valid and reliable information about the research question (social-emotional competence and the measurement thereof).

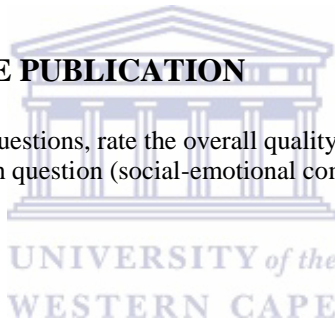
Overall: Minimum score of 33

- A: Score of at least 50% thus 9/18  
B: Score of at least 50% thus 19/37  
C: Score of at least 50% thus 5/9

### Threshold approach principles:

**Acceptable articles:** overall research/ analyses seem to be well conducted, samples seem to be well defined and representative, nature of the study well described, outcome variables clear, within the time period defined, and tools seems to meet psychometric criteria (external validity – can the results be generalised to the South African population and reliability – does it measure what it is supposed to measure?).

**Non-acceptable articles:** poorly conducted studies, small non-representative samples, incomplete and ambiguous methods and tools do not meet psychometric criteria.



### Appendix N: Systematic Review Two - Abstract summary sheet

AUTHOR	DATE PUBLISHED	DATE OBTAINED	TITLE/SOURCE	DATABAS E	LOCATION WHERE STORED
Stefan, C.A.; Balaj, A.; Porumb, M.; Albu, M.; Miclea, M.	2009	15 July 2014	Preschool Screening for Social and Emotional Competencies - Development and Psychometric Properties	EbscoHost	<a href="http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=19939c45-8469-494b-9d42-2da52ff81c4b%40sessionmgr4003&amp;vid=1&amp;hid=4101">http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=19939c45-8469-494b-9d42-2da52ff81c4b%40sessionmgr4003&amp;vid=1&amp;hid=4101</a>
Obradović J; Bush NR; Stamperdahl J; Adler NE; Boyce WT.	2010	26-Jul-2014	Biological sensitivity to context: the interactive effects of stress reactivity and family adversity on socioemotional behavior and school readiness.	Pubmed	Pubmed Child Dev. 2010 Jan-Feb;81(1):270-89. doi: 10.1111/j.1467-8624.2009.01394. <a href="http://www.ncbi.nlm.nih.gov.ezproxy.uwc.ac.za/pubmed/20331667">http://www.ncbi.nlm.nih.gov.ezproxy.uwc.ac.za/pubmed/20331667</a>
Hymel, S.; LeMare, L.; McKee, W.	2011	22 July 2014	The Early Development Instrument: An Examination of Convergent and Discriminant Validity	ERIC	<a href="http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=fd6e5a54-4713-4729-8912-32881a32190e%40sessionmgr4004&amp;vid=1&amp;hid=4101">http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=fd6e5a54-4713-4729-8912-32881a32190e%40sessionmgr4004&amp;vid=1&amp;hid=4101</a>
Janus, M.; Offord, D.R.	2007	08 July 2014	Development and Psychometric Properties of the Early Development Instrument (EDI): A measure of children's school readiness	PsycArticles	<a href="http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=7b536f8d-7150-4df0-855c-cd5394cc3ecc%40sessionmgr4001&amp;vid=1&amp;hid=4101">http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/pdfviewer/pdfviewer?sid=7b536f8d-7150-4df0-855c-cd5394cc3ecc%40sessionmgr4001&amp;vid=1&amp;hid=4101</a>
Morris, Pamela; Lloyd, Chrishana M.; Millenky, Megan	2013	22-July 2014	Using Classroom Management to Improve Preschoolers' Social and Emotional Skills: Final Impact and Implementation Findings from the Foundations of Learning Demonstration in Newark and Chicago (Report)	ERIC MDRC. 2013 182 pp. (ED540680)	<a href="http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/detail/detail?sid=6fd95ac9-a82b-4c2fa15392b02eff719d%40sessionmgr4001&amp;vid=0&amp;hid=4209&amp;bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=eric&amp;AN=ED540680">http://web.a.ebscohost.com.ezproxy.uwc.ac.za/ehost/detail/detail?sid=6fd95ac9-a82b-4c2fa15392b02eff719d%40sessionmgr4001&amp;vid=0&amp;hid=4209&amp;bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=eric&amp;AN=ED540680</a>
Deacon, E.; van Rensburg, E	2012	24 July 2014	Enhancing Emotional and Social Competence in a groups of South-African School Beginners: A Preliminary Study	Reference mining: Ebscohost	<a href="https://www.tandfonline.com/doi/abs/10.1080/14330237.2012.10820587">https://www.tandfonline.com/doi/abs/10.1080/14330237.2012.10820587</a>
Sheridan SM, Knoche LL, Edwards CP, Bovaird JA, Kupzyk KA.	2010	26 July 2014	Parent Engagement and School Readiness: Effects of the Getting Ready Intervention on Preschool Children's Social-Emotional Competencies	Pubmed	<a href="http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1012&amp;context=cyfsfacpub">http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1012&amp;context=cyfsfacpub</a>
Epstein, M.H.; Synhorst, L.L.;	2009	24 July 2014	Development and Standardization of a Test to Measure the Emotional and	Reference: Sage mining	<a href="http://journals.sagepub.com/doi/abs/10.1177/1063426608319223">http://journals.sagepub.com/doi/abs/10.1177/1063426608319223</a>

Cress, C.J.; Allen, E.A.			Behavioural Strengths of Preschool Children		
Bustin, C.	2007	24 July 2014	The Development and Validation of a Social Emotional School Readiness Scale	Google	<a href="http://scholar.ufs.ac.za:8080/xmlui/bitstream/handle/11660/1458/BustinC.pdf?sequence=1">http://scholar.ufs.ac.za:8080/xmlui/bitstream/handle/11660/1458/BustinC.pdf?sequence=1</a>
Mohamed, S.A.	2013	24 July 2014	The Development of a School Readiness Screening Instrument for Grade 00 (pre-Grade R) Learners	Google	<a href="http://scholar.ufs.ac.za:8080/xmlui/handle/11660/2084">http://scholar.ufs.ac.za:8080/xmlui/handle/11660/2084</a>



### Appendix O: Systematic Review One - Articles included for critical appraisal

AUTHOR & TITLE	TYPE OF DESIGN e.g. RCT, Survey	STUDY POPULATION	METHODOLOGY Mention e.g.data collection, method of data analyses etc.	OUTCOMES (Findings clear)	INCLUDE/ EXCLUDE (full article extraction for appraisal, yes/no)
Bustin, C.  The Development and Validation of a Social Emotional School Readiness Scale	Questionnaire Interviews	338 English-speaking Grade R learners (2006). Target population: South African pre-schoolers at pre-primary schools; in terms of legislation were already 6 years old or about to 6 years in the first 6 months of the next year and were eligible for Grade 1 in 2007. Because of the difficulty of ensuring an adequate sample of the population, a convenience group was used rather than a randomised sample.	The preliminary BUSSE-SR was administered on the sample at 11 foundation phase schools. Thereafter the psychometric properties of the instrument were investigated.	The purpose of the study was to develop a social emotional school readiness questionnaire and in this regard results showed that evaluations by the teachers were more liable in predicting school performance than if the questionnaire was administered by the parents. The results also indicated that pre-school teachers' ratings of social-emotional school readiness have important implications for adjustment and subsequent performance at school.	INCLUDE
Deacon & van Rensburg  Enhancing Emotional and Social Competence in a groups of South-African School Beginners: A Preliminary Study	A two-group pre- and post-design	48 pre-schoolers (aged between 5 and 6 years) attending a grade R class at a bilingual school in the Free State, South Africa (22 boys, 26 girls).	Programme effects were measured using SCBE. T-tests were used in the analysis of the co-variance between groups. Statistical significance was set at $p = 0.05$ and effect sizes were estimated following the recommendations by Cohen.	Learners in the experimental group showed improvement in social competence (including a decrease in internalising problems and improvement in general adjustment), as well as an improvement in all the developmental scales. Learners in this group were more inclined to communicate their emotions after the program than learners in the control group.	INCLUDE

<p>Hymel, S. LeMare, L. McKee, W.</p> <p>The Early Development Instrument: An Examination of Convergent and Discriminant Validity (Academic Journal)</p>	<p>Correlational quantitative study</p>	<p>Multicultural sample of kindergarteners: male and female, ages 4yrs 4months to 6yrs 3months. Teachers who completed the assessments were primarily female Caucasians.</p>	<p>Children were assessed on 4 different measures (ESI-K, Bracken SRC, CTOPP, and Relationship Questionnaire) which were compared to their scores on the standard EDI domains. These scores were compared to assess the validity of the EDI scores.</p>	<p>Overall EDI scores were significantly correlated with standardised measures of school readiness (ESI-K and Bracken SRC) and with direct child based indices (Relationship Questionnaire) and academic competence (CTOPP)</p>	<p>INCLUDE</p>
<p>Janus, M. Offord, D.R.</p> <p>Development and Psychometric Properties of the Early Development Instrument (EDI): A Measure of Children's School Readiness</p>	<p>Questionnaire Interviews</p>	<p>The EDI was implemented in six sites and completed for 16,583 students. Of those, 16,074 or 97% of questionnaires were complete (had no more than one domain and no more than 30 answers in total missing). The sites comprised three large urban (N = 15,319) and three smaller rural areas (N = 755). Thus, the rural sites contributed 5% of the sample, while the urban sites contributed 95%.</p>	<p>The EDI was administered to the children and the questions included 5 domains of focus - physical health and well-being, social competence, emotional maturity, language and cognitive development, communication skills and general knowledge. The data were analyzed using several techniques to confirm the a priori domain/factor structure. A confirmatory factor analysis was computed on the full sample using principal axis factoring extraction method with promax rotation, allowing factors extracted to be correlated. Because of the natural clustering of the data by classroom, the within and between-</p>	<p>The factor solution replicated the domains of school readiness found in literature, however two of the domains did not emerge as the a priori hypothesized categories (language with communication, and cognitive development separately). In addition, for each domain, the EDI factor structure between classrooms is similar to the factor structure within classrooms. The low consistency of teachers ratings indicate that the majority of the variance was due to the variability of children in the classroom. There was a high average for teacher reliability for each domain. The internal consistencies of the finalised scales were acceptable as was the convergent validity for EDI scores with age and gender. The magnitude of differences between boys and</p>	<p>INCLUDE</p>

			<p>classroom factor structure was explored. A multilevel confirmatory factor analyses, developed by Muthen (1994), which involves a simultaneous analysis of both the within- and between-group factor structure using the Mplus software (Muthen &amp; Muthen, 2004), was employed to assess the factor structure for each domain. In order to assess the need for further multilevel analyses, the proportion of variance between teachers or the intraclass correlation coefficients (ICC) obtained in the above procedure were examined. Finally, the average teacher reliability (indicating consistency levels) for each domain was assessed using the unconditional multilevel models with the hierarchical linear modelling (HLM) methodology. Software used included SPSS and Mplus, In addition, the internal consistency indicators (Cronbach's alpha) for</p>	<p>girls was especially large in the social and emotional domains, and the differences between each domain are also discussed.</p>	
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			the EDI domains were computed, and the convergent validity analyses on age and gender relationship with the EDI scores were carried out.		
Mohamed, S A.  The Development of a School Readiness Screening Instrument for Grade 00 (pre-Grade R) Learners	Unpublished Doctoral Thesis. A quantitative and qualitative research approach was used for the study. A survey was used to collect data.	Geographic's (schools central, south, north and west of Durban); socio-economic status (advantaged and disadvantaged schools); 512 Grade 00 learners (49.4% male, 50.6% female); participants: 38 schools (English medium, private, ex-model C, less affluent government schools); demographics (46.3% Indian, 29.2% white, 18.8% black, 3.3% coloured)	2 processes: 1) to establish construct validity (factor analysis) of the screening instrument; 2) to investigate the predictive validity of the final instrument. The 2 processes took place at different times. Data analysis: component analysis & factor analysis	The results indicated that the domains of Cognitive, Perceptual, Speech and Language displayed acceptable validity to predict academic achievement of grade 1 learners. The remaining domains, viewed as indirect variables, play an integral part in the child's future scholastic achievement. Results of a stepwise regression analyses showed that the combined value of four predictor variables (Cognitive Ability, Social Regulation, Sensory, and Speech) roughly contribute to 17% of the variance in academic achievement of Grade 1 learners. As MANOVA analyses showed small effect sizes between the mean domain and dimension scores for the two gender groups, norms were calculated for the entire sample in the form of percentiles and stanines. The present research supports previous studies that show that early cognitive, perceptual and speech and	INCLUDE

				language are strong predictors of grade 1 academic achievement.	
<p>Stefan, C. Balaj, A. Porumb, M. Albu, M. Miclea, M.</p> <p>Preschool Screening for Social and Emotional Competencies - Development and Psychometric Properties</p>	Questionnaire Interviews	<p>There were 824 children included in the study. The sample characteristics for each age group: number of children, sex distribution and parental level. The sample was recruited taking into consideration the geographical areas in Romania, as well as representative urban (57.2%) and rural (42.8%) population distribution according to the latest census data showing that urban population represents 56.3% of the total preschool population.</p>	<p>Data collection consisted of screening for emotional and social competence using the SCE-P/SCE-E and SCS-P/SCS-E forms which are screening tools. There were different forms administered to the different age groups and the forms were administered by both the teacher and the parents. The Screening norms for the screening were obtained using the sample described above. The parents and teachers completed the screening according to the child's age group. They were also asked to complete the SSRS teacher and parent form. Another group of 30 children were included in the predictive validation study. For them, screening-based evaluations were done in the year before going to school. Teachers also rated these children for their overall performance in school tasks (letter and digit recognition, drawing,</p>	<p>The SCE and SCS parent and teacher forms for each age group showed good psychometric properties. And thus norms were developed for the Romanian population of preschool children. This was the first attempt to develop a screening instrument in Romania that is able to predict mental health problems and possible school readiness problems based on a child's emotional and social skills development.</p>	INCLUDE



			<p>vocabulary, etc.). Teachers were asked to rate the children in three performance groups: “first 5”, “average”, and “last 5”. One year later, the school teachers were asked to make similar evaluations the same children.</p>		
<p>Epstein, M.H. Synhorst, L.L. Cress, C.J. Allen, E.A.</p> <p>Development and Standardization of a Test to Measure the Emotional and Behavioural Strengths of Preschool Children</p>	<p>Quantitative study to further develop and define PreBERS</p>	<p>Data from a nationally representative sample (N = 1,471) of preschool children with and without disabilities were collected.</p>	<p>First, a list of Preschool programs in each state was constructed. Then, depending on the size of the list for each state, 10% to 20% of the preschools per list were randomly selected to be contacted.</p>	<p>An exploratory factor analysis identified four factors: Emotional Regulation, School Readiness, Social Confidence, and Family Involvement. The subscales and total instrument appear remarkably stable and consistent (.838 to .983). Age differences across 3-, 4-, and 5-year olds were small in magnitude, although girls were rated as possessing significantly more strengths than boys.</p>	<p>INCLUDE</p>

## Appendix P: Systematic Review B - Quality appraisal tool (Version E)

**Author:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Source:** \_\_\_\_\_

### A.PURPOSE (Maximum score = 22)

- 1) Is a clear problem statement present?
 

No	Yes
1	2
  
- 2) Is a clear statement of the aims of the research made?  
(Goal, relevance, why it was thought to be important)
 

No	Yes
1	2
  
- 3) Was relevant *background* literature accessed and discussed?
 

No	Yes
1	2
  
- 4) Was recent literature accessed and discussed?
 

>10 years	6-10years	1-5 year period
1	2	3
  
- 5) Did the researcher explicitly locate the study within a specific theoretical framework?
 

No	Implied	Yes
1	2	3
  
- 6) Was a motivation given for use of this framework?
 

No	Yes
1	2
  
- 7) Did the article provide theoretical definitions of variables assessed?
 

No	partially/ selectively	Yes
1	2	3
  
- 8) Did the article provide working definitions of variables assessed?
 

No	partially/ selectively	Yes
1	2	3
  
- 9) Did the researcher report on a thorough literature study to define the constructs underlying the variables included in the study?
 

No	Yes
1	2

**B: METHODOLOGICAL RIGOUR (Maximum score = 52)**

- 1) Is the methodology clear and unambiguous?  
 No Yes  
 1 2
- 2) Is the design of the study identified and described in detail?  
 (How the study will be conducted)  
 No Yes  
 1 2
- 3) Is the research design appropriate to address the aims of the research? (Did the researchers discuss why they decided to use *quantitative*- RCT, Cohort, Single case, case study, cross sectional etc. OR *qualitative* - focus group, semi-structured interview etc. OR a *mixed method* research design?)  
 No Yes  
 1 2
- 4) Is the sample described in detail?  
 No Yes  
 1 2
- 5) How was the sample size calculated?  
 a) For *quantitative* research:  
 Not reported formula statistical analysis  
 0 1 2  
 \*\*\*\*\*OR\*\*\*\*\*  
 b) For *qualitative* research:  
 Not reported convention saturation  
 0 1 2
- 6) Was the recruitment strategy appropriate for the aims of the research?  
 No Yes  
 1 2
- 7) **Data collection**  
 a) Was the method(s) of data collection described?  
 No Yes  
 1 2  
 b) Was the method appropriate given the research question  
 No Yes  
 1 2
- 8) Theoretical or paradigmatic assumptions/ considerations mentioned  
 No Yes  
 1 2
- 9) Nature of the data required  
 (i) Will this data support the analysis?  
 No Yes  
 1 2  
*Quantitative:*  
 (ii) Were scales appropriate given the theoretical definition of the variables?  
 No Yes  
 1 2  
 (iii) Were psychometric properties of scales reported?  
 No Yes  
 1 2

\*\*\*\*\*OR\*\*\*\*\*

*Qualitative:*

(iv) Do the researchers provide adequate information about data collection procedures e.g. gaining access to the site, field notes, training data gatherers?

No	Yes
1	2

(v) Did the researcher comment on his own role, potential bias and influence during data collection?

No	Yes
1	2

8) **Data analysis**

a) Was the analysis described?

No	Yes
1	2

b) Was the analysis appropriate given the

i) research question

No	Yes
1	2

ii) nature of the data collected

(Did the data support the analysis?)

No	Yes
1	2

9) **Results**

*Quantitative:*

a) Was statistical significance reported accurately?

No	Yes	Yes, with alpha levels
1	2	4

\*\*\*\*\*OR\*\*\*\*\*

*Qualitative:*

b) Was any of the following addressed?

No	Yes
Trustworthiness 0	1
Credibility, 0	1
Reflexivity, 0	1
Saturation 0	1

10) Is findings presented clearly and unambiguously?

No	Yes
1	2

11) Were findings discussed relevant to the research question and literature reviewed?

No	Yes
1	2
2	

12) Was a clear conclusion drawn?

No	Yes
1	2

13) Did the findings support the conclusion?

No	Yes
1	2

14) Were appropriate recommendations made?

No	Yes
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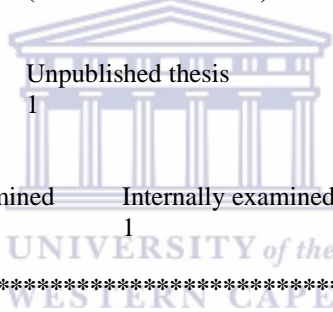
- |     |   |     |
|-----|---|-----|
|     | 1   | 2   |
| 15) | Did the authors identify and discuss limitations to the study?              |     |
|     | No  | Yes |
|     | 1   | 2   |
| 16) | Was ethical approval obtained from an identifiable committee/ body?         |     |
|     | No  | Yes |
|     | 1   | 2   |
| 17) | Were participants informed about their rights and responsibilities?         |     |
|     | No  | Yes |
|     | 1   | 2   |
| 18) | Were avenues for recourse identified in the event of questions or concerns? |     |
|     | No  | Yes |
|     | 1   | 2   |

**C: GENERAL CONSIDERATIONS**

**Quality of information**

**(Maximum score = 5).**

- |    |                      |                     |                          |
|----|----------------------|---------------------|--------------------------|
| 1) | Is this study a      |                     |                          |
|    | Published manuscript |                     | Unpublished thesis       |
|    | 2                    | 1                   |                          |
| 2) | Was it               |                     |                          |
|    | Peer reviewed        | Externally examined | Internally examined only |
|    | 3                    | 2                   | 1                        |



\*\*\*\*\*

## FIRST APPRAISAL

### OVERALL RATING OF THE PUBLICATION

#### Global rating/ overall appraisal (mark one)

Further investigation needed: \_\_\_\_

Exclude: \_\_\_\_ Include: \_\_\_\_

Based on the answers to all of the above questions, rate the overall quality of the publications as a source of valid and reliable information about the research question (social-emotional competence and the measurement thereof).

A: Score of at least 50% thus 11/22

B: Score of at least 50% thus 26/52

C: Score of at least 50% thus 3/5

Overall: Minimum score of 40

**Threshold approach principles: Acceptable articles:** overall research/ analyses seem to be well conducted, samples seem to be well defined and representative, nature of the study well described, outcome variables clear, within the time period defined. Findings useful clear conclusions.  
**Non-acceptable articles:** poorly conducted studies, small non-representative samples, incomplete and ambiguous methods. Findings unclear, no conclusive recommendations.

\*\*\*\*\*

#### Is there a discrepancy between the TWO reviewer ratings?

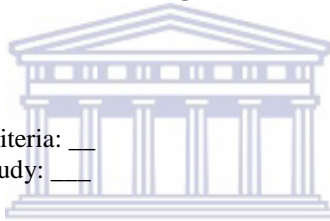
YES \_\_\_\_ NO \_\_\_\_

#### *If yes why:*

Oversight \_\_\_\_

Differences in interpretation of criteria: \_\_\_\_

Differences in interpretation of study: \_\_\_\_



#### FINAL DECISION OF BOTH INTERVIEWERS:

Include: \_\_\_\_\_ or Exclude: \_\_\_\_\_

UNIVERSITY of the  
WESTERN CAPE

Em/2014

## Appendix Q: Stimulus Document Round One

Please fill in your unique identity number. \*

### DELPHI STUDY ROUND 1

This round includes three sections in which your expert opinion is asked about information presented in stimulus prompts. The prompts are taken from the screening tool and draft manual.

The aim of the Delphi process is to incorporate your feedback in successive rounds until some form of consensus is reached. It is anticipated that successive rounds will be shorter and only relate to feedback items. Thus it becomes imperative that participants complete the respective rounds as soon as possible in order to facilitate the collation of feedback and revision before the next round.

#### SECTION A

##### AIM AND CORE CONSTRUCTS

This section includes questions about the aim/ purpose of the measure, and theoretical and operational definitions of core constructs.

##### *Aim*

Is the aim of the instrument clearly stated:

Yes/ No

If no provide comment on possible reasons:

##### *Purpose*

To screen for emotional-social readiness for entry into mainstream education.

To identify developmental strengths and weaknesses in the emotional-social domain.

To identify areas or competencies requiring further formal assessment and/ or intervention.

Is the purpose of the instrument clear?

Yes/ No

If no provide comment on possible revision you would recommend:

##### *Type of measure: Screening Instrument*

The proposed measure will be a screening instrument. It will have the following features of a screening instrument that was considered advantageous and appropriate for an initial evaluation of emotional-social competencies.

Screening instruments are easily administered, time and cost efficient.

Screening instruments often categorise children into groups (e.g. risk groups) with good accuracy e.g. emotionally-socially competent or not and will give a reasonably good indication of whether the child is likely to have mastered emotional-social competencies.

Reports from screening instruments can be available immediately and they should be simple, clear and uncomplicated.

Is the type of instrument appropriate to the aim and purpose of the instrument?

Yes/No

If no, provide comment on possible revisions you would recommend

##### *For use by*

Can be completed by anyone that have substantial (at least 3 months of day to day interaction with the child) i.e. parents, caregivers or teachers.

Is the user group clearly defined?

Yes/ No

If no, provide comment on possible revisions you would recommend

### ***Target population***

Children in the reception year (Gr. R) aged between 5-7 years.

Is the target population and age range of the children clearly stated?

Yes/ No

If no, provide comment on possible revisions you would recommend

### ***Language***

The initial version of the instrument will be in English. Subsequent versions will be translated into other official languages.

Please comment on the selection of English as primary language for the instrument. Recommend the two official languages that should be prioritized after construction and piloting has been completed.

## **CORE CONSTRUCTS**

This section will present theoretical definitions of core constructs and the conceptual organization of the domains included.

### School readiness

School readiness is the gestalt of all the developmental characteristics and skills necessary in pre-school children to ensure a smooth and easy transition into mainstream education.

For the purposes of this instrument the focus will be on emotional-social competence as a domain of school readiness.

Is the definition of school readiness appropriate?

Yes/No

If no, provide comment on possible revisions you would recommend

### Emotional-social competence

Emotional-social competence is an interrelated set of skills including intrapersonal (emotional) and interpersonal (social) competencies.

Emotional and social competencies will be defined below as domains of emotional-social competence.

Is the definition of emotional social competence appropriate?

Yes/ No

If no, provide comment on possible revisions you would recommend

### Emotional competence

Emotional competencies are directed by the child's internal sense of self and are mostly focused inward. Emotional competence entails confidence in well-being related to feeling states (emotions) and an accompanying skill set that enables coping with age appropriate challenges in formal and informal settings.

Is the definition of emotional competence appropriate?

Yes/No

If no, provide comment on possible revisions you would recommend

### Social competence:

Social competencies have a more interpersonal/ relational focus. The focus is centred on the relationship with the external world/ environment, and thus focuses on the interactional skills including relationships with people and cooperative endeavours such as play. These skills are integral to the ability to relate to and communicate with others in informal- and formal settings.

Is the definition of social competence appropriate?

Yes/No

If no, provide comment on possible revisions you would recommend



## SECTION B: EMOTIONAL-SOCIAL SCREENING INSTRUMENT FOR SCHOOL READINESS

This section includes three parts:

In Part 1 you will be presented with the demographic information required.

In Part 2 you will be presented with items formulated to assess each of the nine sub-domains presented above.

In Part 3 you will be presented with items formulated to assess the respondent's subjective perceptions of school readiness in relation to emotional social competence.

### SUB-DOMAINS

Emotional competence and Social competence respectively are comprised of sub-domains.

#### Emotional competence sub-domain 1: Emotional maturity

Emotional maturity refers to the ability to be self-reflective about your choices and actions and how it might impact self and others.

The personal attributes that demonstrates emotional maturity will include how well the child is able to:

- take responsibility for actions and emotions
- learn from experiences
- adjust to changes in a positive way
- deal with their emotions in an age appropriate way

Is the definition of emotional maturity clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in emotional maturity appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

#### Emotional competence sub-domain 2: Emotional management

Emotional management refers to the ability to become aware of own and others' emotions, to identify emotions, to understand these emotions in context and regulate these emotions appropriately.

The personal attributes that demonstrates emotional management will include how well the child is able to:

- become aware of their own and others' emotions
- to identify emotions
- to understand these emotions in context
- regulate these emotions appropriately

Is the definition of emotional management clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in emotional management appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

#### Emotional competence sub-domain 3: Independence

Independence refers to the ability to initiate your own behaviour and to take responsibility for your own actions in a developmentally appropriate way.

The personal attributes that demonstrates independence will include how well the child is able to

- self-direct behavior and thoughts
- take responsibility for his/ her thoughts, feelings and actions whether alone or in a group.

Is the definition of independence clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in independence appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

#### Emotional competence sub-domain 4: Positive sense of self

Positive sense of self refers to the ability to hold onto a coherent and constructive sense of self that is not subject to situational outcomes.

The personal attributes that demonstrates a positive sense of self will include how well the child is able to:

- show confidence in themselves
- can see benefits in required tasks or requests
- show willingness to engage with challenges
- show a willingness to persevere
- can accept negative feedback and see it as separate from the self

Is the definition of Positive sense of self clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Positive sense of self appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

#### Emotional competence sub-domain 5: Mental Wellbeing and Alertness

Mental wellbeing is characterized by the presence of a general sense of wellbeing and the absence of significant symptoms that are not age appropriate and does not fit the specific situation.

The personal attributes that demonstrates mental wellbeing will include how well the child is able to

- function in a societal context and meet the demands of everyday life.
- identify strengths and can build on them
- focus on assets and abilities rather than on problems or weaknesses.
- demonstrate an absence of physical, emotional or psychological symptoms

Is the definition of Mental wellbeing clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Mental wellbeing appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

Alertness refers to the ability to be attentive and to answer age appropriate questions.

The personal attributes that demonstrates alertness will include how well the child is able to

- demonstrate general knowledge
- awareness of surroundings
- general reasoning

Is the definition of Alertness clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Alertness appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

Social competence sub-domain 1: Social skills/ confidence

Social skills/ confidence refers to the ability to interact with others in a developmentally appropriate way. The personal attributes that demonstrates social skills/ confidence will include how well the child is able to:

- establish warm and empathic relationships
- maintain productive and constructive interpersonal relationships
- assert him or herself in social contexts in a socially acceptable manner
- successfully achieve social tasks by being aware of thoughts and feelings of others
- direct actions appropriately to achieve goals.

Is the definition of Social skills/ confidence clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Social skills/ confidence appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

Social competence sub-domain 2: Pro-social behaviour

Pro-social behaviour refers to behavior and actions which are to the benefit of others.

The personal attributes that demonstrates pro-social behavior will include how well the child is able to:

- cooperate with others
- act in the interest of self and others
- show respect towards others
- show thoughtfulness towards others

Is the definition of Pro-social behaviour clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Pro-social behaviour appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

Social competence sub-domain 3: Compliance to rules

Compliance to rules refers to the ability to comply to or follow rules in specific settings.

The personal attributes that demonstrate compliance to rules will include how well the child is able to:

- understand social rules
- adhere to ground rules stipulated in specific contexts
- follow instructions
- cope with discipline and reprimand
- be responsive to feedback about behavior in relation to compliance with rules

Is the definition of Compliance to rules clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Compliance to rules appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

Social competence sub-domain 4: Communication skills

Communication skills refers to the child's ability to use language and non-verbal expression clearly and effectively in the service of expressing thoughts, feelings and needs.

The personal attributes that demonstrate communication skills will include how well the child is able to:

- articulate his or her needs effectively, confidently and clearly

- be aware of the need to pay attention to the expressed thoughts, feelings and needs of others
- listen to and understand the expressed thoughts, feelings and needs of others.
- read and accurately interpret non-verbal cues

Is the definition of Communication clearly stated?

Yes/No

If no, provide comment on possible revisions you would recommend

Are the personal attributes included in Communication appropriate to the definition?

Yes/No

If no, provide comment on possible revisions you would recommend

## **SECTION B, PART 1: THE DEMOGRAPHIC QUESTIONNAIRE**

The demographic questionnaire are divided in three sub-sections - personal particulars of the child, family composition and respondent information.

### ***Subsection 1: Personal particulars***

The aim of this sub-section is to gather information pertaining to the child.

*The following demographic information is requested about the child.*

Indicate whether you agree with the inclusion of the information by selecting the respective boxes next to the variable.

Name and surname

Birthdate

Age

Gender

Birth order (e.g. youngest, middle, eldest)

Ethnic group

Home language

Nature of early academic environment (e.g. home, day mother, crèche, preschool)

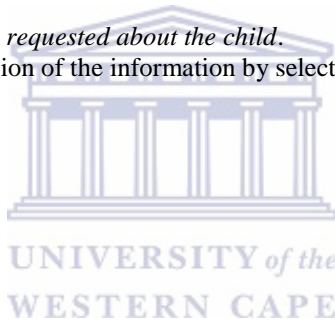
Time/ period spent in different early academic environment

Name of pre-school

Language of instruction at pre-school

Illness or disability (specify physical/ mental/ cognitive)

Trauma (present or past e.g. family disruption, divorce, death, relocation, bullying)



Is there any additional demographic information about the child that you think should be included?

### ***Subsection 2: Family particulars***

*The following demographic information is requested about the family.*

Indicate whether you agree with the inclusion of the information by selecting the respective boxes next to the variable.

How many children in the family? (ages and gender must be specified)

How many children living in the home? (ages, gender must be specified)

How many people living in the home? (ages, gender must be specified)

Parents/ caregivers (name(s) and age(s))

Marital status of parents (e.g. single/ divorced, widow etc.)

Occupation of caregiver(s). (Are they permanently employed: yes/no. If yes, specify)

Receipt of governmental assistance/ grant (yes/ no)

Is there any additional demographic information about the family that you think should be included?

### **Subsection 3: Respondent particulars**

*The following demographic information is requested about the respondent*

Indicate whether you agree with the inclusion of the information by selecting the respective boxes next to the variable.

Form completed by (print full name)

Gender

Relationship to the child (specify, teacher/ biological parent/ step parent/ grandparent/ adoptive parent/ foster parent/ other)

For how many months have you known this child? (specify months)

How well do you know him/ her (specify: not well, moderately well, very well)

Average day spent per week in contact with child

Has he/she ever been referred for special support? (specify: don't know, no, yes)

Date of completion of form

Is there any additional information that should be requested from the respondent?

### **SECTION B, PART 2: PROPOSED ITEMS PER SUB-DOMAIN**

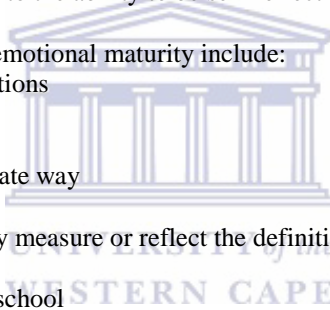
The items formulated for the respective sub-domains are presented below. To facilitate the completion of this section, the definitions for each sub-domain will be presented again as a prompt.

#### **DOMAIN: EMOTIONAL COMPETENCE**

Sub-domain 1: Emotional maturity: refers to the ability to be self-reflective about your choices and actions and how it might impact self and others.

The personal attributes that demonstrates emotional maturity include:

- taking responsibility for actions and emotions
- learning from experiences
- adjusting to changes in a positive way
- dealing with emotions in an age appropriate way



Which of the following items appropriately measure or reflect the definition and personal attributes of emotional maturity?

1. Accept discipline, authority at home/ school
2. Seeks reassurance when executing tasks
3. Apologize if acted wrong (hurt a sibling or friend broke a toy)
4. Comforts other children who are upset
5. Accept responsibility for actions
6. Takes turns without being asked
7. Able to distinguish right from wrong in context? (i.e. not able to take something belonging to someone else)
8. Able to take her/ his own initiative to solve simple problems (decides which colour crayons to use?) by herself/ himself
9. Accept correction
10. Able to hold her/ his own in a group
11. Able to observe and learn from peers, teachers
12. Able to deal with differences of opinion with friends, mediate effectively

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in emotional maturity?  
Yes/ No

Sub-domain 2: Emotional management: refers to the ability to become aware of own and others' emotions, to identify emotions, to understand these emotions in context and regulate these emotions appropriately.

The personal attributes that demonstrates emotional management will include:

- becoming aware of their own and others' emotions
- identifying emotions

- understanding these emotions in context
- regulating these emotions appropriately

Which of the following items appropriately measure or reflect the definition and personal attributes of emotional management?

1. Aware of own emotions (sadness, anger, fear)
2. Can say precisely what he/ she feels (i.e. I am happy, I am scared)
3. Has a positive attitude
4. Shows little affection towards people (absence of smiles, hugs, kind words towards others)
5. Uses words to express happiness or concern for others (i.e. “you won”, are you ok, do you need help?)
6. Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”)
7. Rapid shifts between sadness and excitement
8. Able to communicate with teacher or parents that he/ she did not have a good day?
9. Have less fun than other children (usually sitting quiet when other are playing)
10. Knows strategies to calm down, displays self-control
11. Has trouble adjusting to changes

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in emotional management? Yes/ No

Sub-domain 3: Independence refers to the ability to initiate your own behaviour and to take responsibility for your own actions in a developmentally appropriate way.

The personal attributes that demonstrates independence will include the ability to

- self-direct behavior and thoughts
- take responsibility for thoughts, feelings and actions whether alone or in a group.

Which of the following items appropriately measure or reflect the definition and personal attributes of independence?

1. Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)
2. Unable to make simple two-choice decisions (e.g. milk or tea, Yes or No)
3. Able to work alone, sit still in class/ home and do what is expected of her/ him (e.g. homework) without asking every few minutes if it is right
4. Needs constant direction, unable to find interesting things to do by her/ himself (e.g. play by himself for 5 minutes or more)
5. Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)
6. Shows confidence in working by himself/ herself
7. Can be alone and feel ok about it?
8. Able to stand his/ her ground in a group but still be able to belong to the group
9. Able to work by her/himself without becoming teary, angry or frustrated
10. Cleans up after work or play
11. Cares for belongings

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in independence? Yes/ No

Sub-domain 4: Positive sense of self refers to the ability to hold onto a coherent and constructive sense of self that is not subject to situational outcomes.

The personal attributes that demonstrates a positive sense of self will include the ability to:

- show confidence in themselves

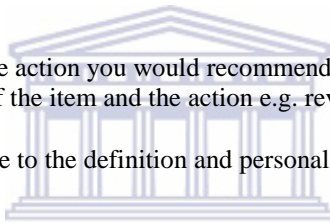
- see benefits in required tasks or requests
- show willingness to engage with challenges
- show a willingness to persevere
- accept negative feedback and see it as separate from the self.

Which of the following items appropriately measure or reflect the definition and personal attributes of positive sense of self?

1. Generally enthusiastic, positive about self and life (proud of accomplishments)
2. Acts with self-confidence when asked to do something
3. Cheerful, happy and content at school/ home
4. Sensitive to feedback from teachers/ caregivers?
5. Is willing to learn/ take a risk even if a task is new or seems difficult
6. Gives up easily, say I cannot do this, without even trying
7. Stands up for him/ herself
8. Take care of his/her own needs
9. \*Scared to speak in class/ at home
10. Positive orientation towards school/ pre-school
11. Scared/ anxious of being reprimanded or punished
12. Able to take the lead when expected at home or in school
13. Acts responsible (i.e. knows what homework needs to be done)
14. Able to stand his own ground if peers/ siblings have unrealistic demands?
15. Is a bad loser
16. Puts best effort forward

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in positive sense of self? Yes/ No



Sub-domain 5: Mental wellbeing is characterized by the presence of a general sense of wellbeing and the absence of significant symptoms that are not age appropriate and does not fit the specific situation. Alertness refers to the ability to be attentive and to answer age appropriate questions.

The personal attributes that demonstrates mental wellbeing will include the ability to

- function in a societal context and meet the demands of everyday life
- identify strengths and can build on them
- focus on assets and abilities rather than on problems or weaknesses
- demonstrate an absence of physical, emotional or psychological symptoms

The personal attributes that demonstrates alertness will include the ability to

- demonstrate general knowledge
- awareness of surroundings
- general reasoning

Which of the following items appropriately measure or reflect the definition and mental wellbeing and alertness?

1. Tell his/ her full address without help
2. Tell his/ her age without using his/ her fingers
3. Cries easily or resort to temper outbursts
4. Sit still while told to do so while busy with a task
5. Extremely active/ aggressive when playing with other children
6. Handles new situations comfortably despite being anxious
7. High incidence of stomach aches, nausea, bodily complaints at school/ home when facing challenges or new situations
8. Attentive in class and at home on a task at hand
9. Extremely quiet/ shy or withdrawn
10. Complete a task given to him/ her within reasonable time
11. Able to show remorse

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in mental wellbeing and alltnerness?

Yes/ No

### **DOMAIN: SOCIAL COMPETENCE**

Sub-domain 1: Social skills/ confidence refers to the ability to interact with others in a developmentally appropriate way.

The personal attributes that demonstrates social skills/ confidence will include the ability to:

- establish warm and empathic relationships
- maintain productive and constructive interpersonal relationships
- assert him or herself in social contexts in a socially acceptable manner
- successfully achieve social tasks by being aware of thoughts and feelings of others
- direct actions appropriately to achieve goals.

Which of the following items appropriately measure or reflect the definition and personal attributes of social skills/confidence?

1. Have a friend or friends that he/ she play with and give preference to? (other than family members)
2. Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)
3. Generally accepted and liked by other children
4. Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)
5. Prefers to play with children of the same age
6. Can play with other children without being bossy or needy
7. Able to make and maintain new friendships over time
8. Rather be alone than with others, avoids social interaction
9. Able to assert him/ herself in an appropriate way? Settle conflict by verbally communicating rather than fighting, hitting, screaming or grabbing.
10. Constantly fight with other children?
11. Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)
12. Prefers to play with younger children
13. Able to ask someone to back off if he/ she needs their space?

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in social skills/ confidence?

Yes/ No

Sub-domain 2: Pro-social behaviour refers to behaviour and actions which are to the benefit of others.

The personal attributes that demonstrates pro-social behavior will include the ability to:

- cooperate with others
- act in the interest of self and others
- show respect towards others
- show thoughtfulness towards others

Which of the following items appropriately measure or reflect the definition and personal attributes of pro-social behaviour?

1. Play cooperatively with one or more children for up to 5 minutes with minimal supervision
2. Refrains from harmfully teasing others
3. Developing good manners (Uses “please” when asking for something and “thank you” when something is given)
4. Willingly share his/ her possessions with others his/ her own age
5. Enjoys doing something for others



6. Able to give peers/ sibling a turn to start or play
7. Able to help another child in distress
8. Demonstrates respect for adults (refrain from coarse language or challenging behaviour)
9. Able to help peer feel better (e.g. play with us).
10. Tries to help/ intervene when someone is hurt, consideration towards others
11. Demonstrates respect for other children
12. Able to invite others to join the group that is not part of the group
13. Able to accept when not first in line to answer questions
14. Able to disagree with friend and still be friends

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in pro-social behaviour?  
Yes/ No

Sub-domain 3: Compliance to rules refers to the ability to comply to or follow rules in specific settings. The personal attributes that demonstrate compliance to rules will include the ability to:

- understand social rules
- adhere to ground rules stipulated in specific contexts
- follow instructions
- cope with discipline and reprimand
- be responsive to feedback about behavior in relation to compliance with rules

Which of the following items appropriately measure or reflect the definition and personal attributes of compliance to rules?

1. Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner)
2. Listen to and follow simple directions/ instructions from an adult after only being told once?
3. Adhere to rules when playing a game.
4. Able to follow rules in class or structured environments
5. Ask permission before using objects belonging to or being used by another
6. Refused to do what is asked constantly
7. Obeys when asked to stop misbehaving
8. Accepts changes without fighting against them or becoming upset
9. Able to wait for his/ her turn
10. Able to stand quietly until adult is able to attend to his/ her request?
11. Able to cope with discipline without becoming sad, anxious or acting out.
12. Able to sit still in group and listen to story

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in compliance to rules?  
Yes/ No

Sub-domain 4: Communication skills refers to the ability to use language and non-verbal expression clearly and effectively in the service of expressing thoughts, feelings and needs.

The personal attributes that demonstrate communication skills will include the ability to:

- articulate his or her needs effectively, confidently and clearly
- be aware of the need to pay attention to the expressed thoughts, feelings and needs of others
- listen to and understand the expressed thoughts, feelings and needs of others.
- read and accurately interpret non-verbal cues

Which of the following items appropriately measure or reflect the definition and personal attributes of communication?

1. Able to speak clearly and audibly without whispering or shouting.

2. When asked tells the name of his caregiver(s)/ sibling(s), teacher
3. Able to ask for what he/ she needs in understandable language
4. Able to say what he/ she is feeling, thinking
5. Able to communicate, say something in group
6. Able to put up hand to ask a question
7. Able to listen to a short story without interrupting
8. Able to answer direct question when asked
9. Follow directions well
10. Listens while others speaks
11. Able to speak in full sentences
12. Able to hold a conversation

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

In general are the items appropriate relative to the definition and personal attributes in communication?  
Yes/ No

Is the nature of the content covered relevant to the purpose of the measure?  
Yes/ No

The proposed number of items for the instrument is 54 with a minimum of six items per sub-domain. Is the target for the total items and items per sub-domain viable?  
Yes/ No

If no, please motivate and make a recommendation about the proposed number of items for the instrument and sub-domains.

### **PART 3**

The items in the last section of the instrument requires the respondent to provide an overall rating of the child's readiness for school on a social and emotional level. These items do not form part of the scores obtained on the screening instrument, but are used to determine the overall perception of the respondent.

How would you rate this child's overall emotional readiness for school?  
How would you rate this child's overall social readiness for school?

Are the items appropriate for obtaining an overall impression from the respondent?  
Yes/ No

If no, provide comment on possible revisions you would recommend

### **SECTION C: TECHNICAL INFORMATION**

This section includes questions on the administration, scoring and interpretation of the proposed instrument.

#### ***General information***

The Emotional Social screening test (ESSSR) is a paper and pencil test.

It has a Section A (Demographic questionnaire) and a Section B (Emotional Social Checklist).

The respondent needs to make sure that both sections are completed and that all items are rated.

Although it is recommended that both sections are completed at once, it is imperative to complete the questionnaire without any disruptions, with the respondents full and undivided attention.

Responses needs to be as honest as possible, over optimistic or pessimistic responses might bias results. The respondent's first natural response is usually the most reliable response.

The form will take approximately 15-20 minutes to complete.

Is the general information provided to users sufficient?  
Yes/ No

If no, please comment on possible revisions

### ***Timing of administration***

Taking into account that item selection is reflective of competencies or mastery in each domain relative to the developmental milestones for children aged 5-7 years in the reception year, (Gr. R), it is suggested that the instrument can be used in formative or summative assessments.

Formative assessments identify strengths and weaknesses in the specific domains and subdomains e.g. strengths in independence or weaknesses in communication skills. This will identify target areas that need work. These assessments could be done quarterly.

Summative assessments evaluate specific outcomes against some standard or benchmark e.g. the child's emotional social skills at the end of the reception year. The ideal timing of administration would be in the last quarter of the reception year.

Is the distinction between formative and summative use of the instrument clearly stated?

Yes/ No

If no, please motivate, and provide recommendations for revision.

Is the double-pronged approach to assessment useful

Yes/ No

If no, please motivate, and provide recommendations for revision.

Are the recommended timing of administration appropriate

Yes/ No

If no, please motivate, and provide recommendations for revision.

Type of scale

A 5 point Likert type scale is used to allow respondents to express how much they agree or disagree with a particular statement about the child's emotional social competencies.

Items are rated on a five point Likert-type scale from “never (1)” to “almost always (5)”.

(1) “Never” true for the child. The child is not displaying the mentioned competency or skill in any context.

(2) “Rarely” true for the child. The child is displaying this competency on rare and isolated occasions, mostly in only one context.

(3) “Not consistency true” for the child. Although sometimes present, consistence is not present and context might be varied.

(4) “Most of the time true” for the child. The child is showing that he has mastered the mentioned competency/skill most of the time.

(5) “Almost always true” for the child. The child has mastered this competency, across contexts.

Is the type of item (Likert type) an appropriate choice for the screening instrument?

Yes/ No

If no, please motivate, and provide recommendations for revision.

### **THANK YOU FOR YOUR PARTICIPATION IN THE FIRST ROUND OF THE DELPHI**

You would receive the amended version of the questionnaire as soon as comments have been integrated. It is foreseen that it would be a shorter document.

[Submit]

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## Appendix R: Stimulus Document Round Two

Please fill in your unique identity number. \*

### SECTION A: AIM

In this section one item did not reach the required consensus namely,

#### A) the "FOR USE BY" item.

##### For use by:

Feedback from the panel expressed concern that:

1) proposed users are non-clinicians with minimum expertise in diagnosis thus there is concern about ethical and appropriate use of the screening tool. 2) Time period of three months is not clear enough 3) the term, "substantial" should be revised to reflect what the respondent should know about the child

**Response:** 1) A distinction was made between users and respondents. Users would include professionals (e.g. teachers, psychologists) who would use the information in their screening Respondents complete the screening tool based on their interaction with and knowledge of the child. The respondents can include parents, caregivers etc. 2) the time period was qualified to indicate three months preceding the use of the screening instrument 3) "substantial" was qualified with a description. The revisions are presented below:

**For use by (amended description)** The screening tool can be used by professionals who in their respective scopes of practice would deal with early child development and emotional-social readiness for school. For example, teachers, psychologists, occupational therapists, paediatricians. Is the user group defined more clearly?

Yes/ No

If no, provide comment on possible revisions you would recommend

##### To be completed by (amended description)

The questionnaire can be completed by caregivers/ teachers that are familiar with the child's behavioral patterns, general traits and abilities across contexts. The user need to have had substantial day to day interaction with the child in the preceding 3 months before screening. Is the respondent group clearly defined ?

Yes/ No If no, provide comment on possible revisions you would recommend

### SECTION A: CORE CONSTRUCTS

The second item in this section where the consensus threshold was not reached was with the operational definition of EMOTIONAL COMPETENCE.

**First definition:** "Emotional competencies are directed by the child's internal sense of self and are mostly focused inward. Emotional competence entails confidence in well-being related to feeling states (emotions) and an accompanying skill set that enables coping with age appropriate challenges in formal and informal settings."

Feedback from the panel expressed concern about: 1) referral to "wellbeing related to feeling states" as too vague. 2) Emphasis needs to be placed on emotional awareness, recognition, emotional reciprocity and age appropriate expression.

**Emotional competence (amended description)** Emotional competencies are directed by the child's internal sense of self and are mostly focused inward. Emotional competence includes the sub-domains of emotional maturity, emotional management, positive sense of self, mental wellbeing and alertness which would enable the child to cope with age appropriate challenges in emotional eliciting situations across contexts. Is the revised definition of emotional competence more appropriate?

Yes/ No

If no, provide comment on possible revisions you would recommend

## **SECTION B: EMOTIONAL-SOCIAL SCREENING INSTRUMENT FOR SCHOOL READINESS**

### **Section B, Part 2: Proposed items per sub-domain**

In the first round you were presented with a pool of sample items for each sub-domain. Based on the feedback the pool was reduced. In this process items were retained as is, revised or omitted. In certain domains new items were formulated. A consistent pattern was noted where reversed items were not selected. In this round reverse items are indicated with an asterix to assist with your assessment. The reduced pool of items are presented below per sub-domain. Please note that 6-8 items per sub-domain will be included for the pilot study. Thus process helps to refine the pool of items based on your content validation.

#### **DOMAIN: EMOTIONAL COMPETENCE**

**Sub-domain 1:** Emotional maturity: refers to the ability to be self-reflective about choices and actions and how it might impact self and others. The personal attributes that demonstrates emotional maturity include: - taking responsibility for actions and emotions - learning from experiences - adjusting to changes in a positive way - dealing with emotions in an age appropriate way After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of emotional maturity?

1. Accepts authority at home
2. Show empathy, e.g. when someone is hurt
3. Apologizes when in the wrong (hurt a sibling or friend, broke a toy)
4. Accept responsibility for actions
5. Accepts things not going his/her way
6. Able to distinguish right from wrong in context? (i.e. not able to take something belonging to someone else)
7. Able to use own initiative to solve problems independently (e.g. can decide what colour crayons to use)
8. Accept correction
9. Able to learn from peer or teacher
10. Able to adjust to changes
11. Accepts authority at school Please provide comment on the appropriate action you would recommend for items that you did not select.

In the comment box provide the number of the item and the action e.g. revise/ omit

**Sub-domain 2:** Emotional management: refers to the ability to become aware of own and others' emotions, to identify emotions, to understand these emotions in context and regulate these emotions appropriately. The personal attributes that demonstrates emotional management will include: - becoming aware of their own and others' emotions - identifying emotions - understanding these emotions in context - regulating these emotions appropriately After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of emotional management?

1. Aware of own emotions (e.g. sadness, anger, fear)
2. Can say what he/ she feels (i.e. I am happy, I am scared)
3. Smiles often
4. Uses words to express happiness or concern for others (i.e. "you won", are you ok, do you need help?)
5. Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you")
6. \*Rapid shifts between sadness and excitement
7. Able to communicate with teacher or parents that he/ she did not have a good day?
8. Knows strategies to calm down, displays self-control
9. \*Does not hug others

## 10. Use kind words towards others

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

Sub-domain 3: Independence refers to the ability to

initiate your own behaviour and to take responsibility for your own actions in a developmentally appropriate way.

**Sub-domain 3:** The personal attributes that demonstrates independence will include the ability to - selfdirect behavior and thoughts - take responsibility for thoughts, feelings and actions whether alone or in a group After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of independence?

1. Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)
2. Able to make simple two-choice decisions (e.g. milk or tea, Yes or No)
3. Able to work alone (e.g. homework) without asking every few minutes if it is right
4. Able to pack/ unpack bag on his/ her own
5. Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)
6. Shows confidence in working by himself/ herself
7. Able to stand his/ her ground in a group but still be able to belong to the group
8. Able to work by her/himself without becoming teary, angry or frustrated
9. Able to sit still in class/ home and engage with homework

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

**Sub-domain 4:** Positive sense of self refers to the ability to hold onto a coherent and constructive sense of self that is not subject to situational outcomes. The personal attributes that demonstrates a positive sense of self will include the ability to: - show confidence in themselves - see benefits in required tasks or requests - show willingness to engage with challenges - show a willingness to persevere - accept negative feedback and see it as separate from the self. After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of positive sense of self?

1. Generally enthusiastic, positive about self and life (proud of accomplishments)
2. Acts with self-confidence when asked to do something
3. Cheerful, happy and content at school/ home
4. Is willing to learn even if tasks are new or seem difficult
5. \*Gives up easily, say I cannot do this, without even trying
6. Stands up for him/ herself
7. Positive orientation towards school/ pre-school
8. \*Scared/ anxious of being reprimanded or punished
9. Able to take the lead when expected at home or in school
10. Able to stand his own ground if peers/ siblings have unrealistic demands?

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

**Sub-domain 5:** Mental wellbeing is characterized by the presence of a general sense of wellbeing and the absence of significant symptoms that are not age appropriate and does not fit the specific situation. Alertness refers to the ability to be attentive and to answer age appropriate questions. The personal attributes that demonstrates mental wellbeing will include the ability to - function in a societal context and meet the demands of everyday life - identify own strengths and can build on them - focus on own assets and abilities rather than on problems or weaknesses - demonstrate an absence of physical, emotional or psychological symptoms The personal attributes that demonstrates alertness will include the ability to - demonstrate general knowledge - awareness of surroundings - general reasoning

After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of mental wellbeing and alertness?

1. Tell his/ her address without help (street name and number, suburb/ area)
2. Tell his/ her age without using his/ her fingers
3. \*Cries easily
4. Sit still when asked to do so while busy with a task
5. \*Extremely active when playing with other children
6. Handle new situations comfortably despite being anxious
7. \*High incidence of stomach aches, nausea, bodily complaints at school/home when facing challenges or new situations
8. Attentive in class and at home on a task at hand
9. Complete a task given to him/ her within reasonable time
10. \*Often resorts to temper outbursts

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

### **DOMAIN: SOCIAL COMPETENCE**

**Sub-domain 1:** Social skills/ confidence refers to the ability to interact with others in a developmentally appropriate way. The personal attributes that demonstrates social skills/ confidence will include the ability to: - establish warm and empathic relationships - maintain productive and constructive interpersonal relationships - assert him or herself in social contexts in a socially acceptable manner - successfully achieve social tasks by being aware of thoughts and feelings of others - direct actions appropriately to achieve goals. After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of social skills/ confidence?

1. Has a friend or friends that he/ she plays with and give preference to? (other than family members)
2. Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)
3. Generally accepted and liked by other children
4. Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)
5. Prefers to play with children of the same age
6. Can play with older children without being bossy or needy
7. Able to make and maintain new friendships over time
8. \*Fights with other children
9. Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)
10. Able to ask someone to back off if he/ she needs their space?

Please provide comment on the appropriate action you would recommend for items that you did not select. In the comment box provide the number of the item and the action e.g. revise/ omit

**Sub-domain 3:** Compliance with rules refers to the ability to comply to or follow rules in specific settings. The personal attributes that demonstrate compliance with rules will include the ability to: - understand social rules - adhere to ground rules stipulated in specific contexts - follow instructions - cope with discipline and reprimand - be responsive to feedback about behavior in relation to compliance with rules After careful consideration of the above the following items per sub-domain have been selected for the pilot study. Which of the following items appropriately measure or reflect the definition and personal attributes of compliance with rules?

1. Able to follow basic rules (i.e. stand in line when instructed or wash your hands before)
2. Listen to and follow simple directions/ instructions from an adult after only being told once environments.
3. Adhere to rules when playing a game
4. Able to follow rules in class or structured dinner)
5. Ask permission before using objects belonging to or being used by another
6. Obeys when asked to stop misbehaving

7. Able to wait for his/ her turn
8. Able to sit still in group and listen to a story
9. Take turns without being asked

**THANK YOU FOR YOUR PARTICIPATION IN THE SECOND ROUND OF THE DELPHI**

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### Appendix S: Retained and revised items (Round One to the Pilot study)

EMOTIONAL COMPETENCE		
SUB DOMAIN: EMOTIONAL MATURITY		Threshold score/ Action
Items Round 1	Items Round 2	Items retained for Pilot study
Accept discipline, authority at home/ school	Accept authority at home	54.5% - Omitted
Seeks reassurance when executing tasks	<i>OMMITTED</i>	
Apologize if acted wrong (hurt a sibling or friend broke a toy)	Apologizes when in the wrong (hurt a sibling or friend, broke a toy)	90.9% - Retained and revised for pilot Apologises if he/ she acted wrong (hurt a sibling or friend, broke a toy).
Comforts other children who are upset	<i>OMMITTED</i>	
Accept responsibility for actions	Accept responsibility for actions	90.9% - Retained for pilot
Takes turns without being asked	<i>OMMITTED</i>	
Able to distinguish right from wrong in context? (i.e. not able to take something belonging to someone else)	Able to distinguish right from wrong in context? (i.e. not able to take something belonging to someone else)	63.6% - Omitted
	Able to use own initiative to solve simple problems independently (e.g. can decide what color crayons to use?)	72.7% - Omitted
Accept correction	Accept correction	81.8% - Retained and revised for pilot “Accept correction/ discipline”
Able to hold her/ his own in a group	<i>OMMITTED</i>	
Able to observe and learn from peers, teachers	Able to learn from peer or teacher	54.5% - Omitted
Able to deal with differences of opinion with friends, mediate effectively	<i>OMMITTED</i>	
	Show empathy, e.g. when someone is hurt	81.8% - Retained and revised for pilot “Is able to place him/herself in the shoes of others (consoles when someone is hurt)
	Accept things not going his/ her way	90.9% - Retain for pilot
	Able to adjust to changes	72.7% - Retained and revised for pilot “Responds appropriately to reasonable changes in routine.”
	Accept authority at school	54.5% - Omitted

<b>EMOTIONAL COMPETENCE</b>		
<b>SUB-DOMAIN: EMOTIONAL MANAGEMENT</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Aware of own emotions (sadness, anger, fear)	Aware of own emotions (sadness, anger, fear)	81.8% - Retained and revised for pilot “Is aware of own emotions”
Can say precisely what he/ she feels (i.e. I am happy, I am scared)	Can say what he/ she feels (i.e. I am happy, I am scared)	90.9% - Retained and revised for pilot “Can say what he/she feels”
Has a positive attitude	<i>OMITTED</i>	
Shows little affection towards people (absence of smiles, hugs, kind words towards others)	<i>OMITTED</i>	
	Uses words to express happiness or concern for others (i.e. “you won”, are you ok, do you need help?)	100% - Retained and revised for pilot “Uses bodily references to express feelings (e.g. my heart is happy, my tummy hurts”)
Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”)	Able to identify emotions in others and make sense of it (i.e. happy because we are playing, sad because friend does not want to play with you”)	90.9% - Retained and revised for pilot “Able to identify emotions (e.g. happy, sad)”
Rapid shifts between sadness and excitement	*Rapid shifts between sadness and excitement	45.5% - Omitted
Able to communicate with teacher or parents that he/ she did not have a good day?	Able to communicate with teacher or parents that he/ she did not have a good day?	90.9% - Retained and revised for pilot “Able to communicate emotional experiences to teacher or caregiver (e.g. how was your day?)”
Have less fun than other children (usually sitting quiet when other are playing)	<i>OMITTED</i>	
Knows strategies to calm down, displays self-control	Knows strategies to calm down, displays self-control	100% - Retained and revised for pilot Knows strategies to manage emotions (e.g. calm down, displays self-control)
Has trouble adjusting to changes	<i>OMITTED</i>	
	Does not hug others	27.3%- Omitted
	Use kind words towards others	45.5%- Omitted
	Smiles often	27.3%- Omitted
		New item for pilot study “Physically demonstrates emotions (e.g. hugs to express affection)

<b>EMOTIONAL COMPETENCE</b>		
<b>SUBDOMAIN: INDEPENDENCE</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)	Able to separate from caregiver without signs of discomfort (e.g. walk to class alone)	100% - Retained and revised for pilot "Separates from caregiver without signs of discomfort (e.g. walk to class alone)
Unable to make simple two-choice decisions (e.g. milk or tea, Yes or No)	Able to make simple two-choice decisions (e.g. milk or tea, Yes or No)	100% - Retained and revised for pilot "Can make simple two-choice decisions (e.g. milk or tea, Yes or No)
Able to work alone, sit still in class/ home and do what is expected of her/ him (e.g. homework) without asking every few minutes if it is right	Able to work alone (e.g. homework) without asking every few minutes if it is right	81.8% - Omitted
Needs constant direction, unable to find interesting things to do by her/ himself (e.g. play by himself for 5 minutes or more)	<i>OMITTED</i>	
Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)	Able to work quietly and calmly without constant feedback (e.g. praise/ affirmation)	90.9% - Retained and revised for pilot Can work quietly and calmly without constant feedback (e.g. praise/ affirmation)
Shows confidence in working by himself/ herself	Shows confidence in working by himself/ herself	90.9% - Retained for pilot
Can be alone and feel ok about it?	<i>OMITTED</i>	
Able to stand his/ her ground in a group but still be able to belong to the group	Able to stand his/ her ground in a group but still be able to belong to the group	81.8% - Omitted
Able to work by her/himself without becoming teary, angry or frustrated	Able to work by her/himself without becoming teary, angry or frustrated	81.8% - Retained and revised for pilot Is able to work by her/himself without becoming emotional (e.g. teary, angry or excited)
Cleans up after work or play	<i>OMITTED</i>	
Cares for belongings	<i>OMITTED</i>	
	Able to sit still in class/ home and engage with homework	81.8% - Omitted
	Able to pack/ unpack bag on his/her own	81.8% Retained for pilot

<b>EMOTIONAL COMPETENCE</b>		
<b>SUBDOMAIN: POSITIVE SENSE OF SELF</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Generally enthusiastic, positive about self and life (proud of accomplishments)	Generally enthusiastic, positive about self and life (proud of accomplishments)	90.9% - Retained and revised for pilot "Shows pride in accomplishments"
Acts with self-confidence when asked to do something	Acts with self-confidence when asked to do something	90.9% - Retained for pilot
Cheerful, happy and content at school/ home	Cheerful, happy and content at school/ home	63.6% - Omitted
Sensitive to feedback from teachers/ caregivers?	<i>OMITTED</i>	
Is willing to learn/ take a risk even if a task is new of seems difficult	Is willing to learn even if tasks are new of seem difficult	100% - Retained and revised for pilot Is willing to learn/ take a risk even if a task is new or seems difficult
Gives up easily, say I cannot do this, without even trying	*Gives up easily, say I cannot do this, without even trying	81.8%
Stands up for him/ herself	Stands up for him/ herself	90.9% - Retained for pilot
Take care of his/her own needs	<i>OMITTED</i>	
*Scared to speak in class/ at home	<i>OMITTED</i>	
Positive orientation towards school/ pre-school	Positive orientation towards school/ pre-school	63.6% - Omitted
Scared/ anxious of being reprimanded or punished	*Scared/ anxious of being reprimanded or punished	72.2% - Omitted
Able to take the lead when expected at home or in school	Able to take the lead when expected at home or in school	81.8% - Retained for pilot Is able to take the lead when expected at home or in school
Acts responsible (i.e. knows what homework needs to be done)	<i>OMITTED</i>	
Able to stand his own ground if peers/ siblings have unrealistic demands?	Able to stand his own ground if peers/ siblings have unrealistic demands?	81.8% - Retained and revised for pilot Is able to stand his own ground if peers/ siblings have unrealistic demands

<b>EMOTIONAL COMPETENCE</b>		
<b>SUBDOMAIN: MENTAL WELLBEING AND ALERTNESS</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Tell his/ her full address without help	Tell his/ her full address without help (street name and number, suburb/area)	72.7% - Omitted
Tell his/ her age without using his/ her fingers	Tell his/ her age without using his/ her fingers	72.7% - Omitted
Cries easily or resort to temper outbursts	*Cries easily	72.7% - Omitted
Sit still while told to do so while busy with a task	Sit still when asked to do so while busy with a task	90.9% - Retained and revised for pilot Sits still when asked to do so or while busy with a task
Extremely active/ aggressive when playing with other children	Extremely active when playing with other children	45.5% - Omitted
Handles new situations comfortably despite being anxious	Handle new situations comfortably despite being anxious	90.9% - Retained and revised for pilot “Handles new situations comfortably”
High incidence of stomach aches, nausea, bodily complaints at school/ home when facing challenges or new situations	*High incidence of stomach aches, nausea, bodily complaints at school/ home when facing challenges or new situations	72.7% - Retained and revised for pilot Has bodily complaints when facing challenges or new situations (e.g. stomach aches and nausea)
Attentive in class and at home on a task at hand	Attentive in class and at home on a task at hand	90.9% - Retained and revised for pilot “Pays attention and can focus on a task”
Extremely quiet/ shy or withdrawn	<i>OMMITED</i>	
Complete a task given to him/ her within reasonable time	Complete a task given to him/ her within reasonable time	81.8% - Retained and revised for pilot “Completes a task given to him/ her within reasonable time
Able to show remorse	<i>OMMITED</i>	
	Often resorts to temper outbursts	81.8% - Retained ad revised for pilot “ Has temper outbursts”

<b>SOCIAL COMPETENCE</b>		
<b>Subdomain: Social skills/ confidence</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Have a friend or friends that he/ she play with and give preference to? (other than family members)	Has a friend or friends that he/ she plays with and give preference to? (other than family members)	90.9% - Retained for pilot
Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)	Considerate towards his/ her friends? (Give them a chance to “go first” or stand “in front” in the row)	90.9% - Retained and revised for pilot “Consider his/ her friends? (e.g. can take turns to play with a toy)”
Generally accepted and liked by other children	Generally accepted and liked by other children	81.8% - Retained and revised for pilot “Is generally accepted and liked by other children”
Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)	Able to share attention (i.e. in a group wait his/ her turn to ask question, make a comment)	100% - Retained and revised for pilot “ Can share attention in a group (e.g. wait his/her turn to ask question, make a comment)”
Prefers to play with children of the same age	Prefers to play with children of the same age	63.6% - Omitted
Can play with other children without being bossy or needy	Can play with other children without being bossy or needy	81.8% - Omitted
Able to make and maintain new friendships over time	Able to make and maintain new friendships over time	90.9% - Retained and revised for pilot “Can make and maintain new friendships over time”
Rather be alone than with others, avoids social interaction	<i>OMMITTED RN CAPE</i>	
Able to assert him/ herself in an appropriate way? Settle conflict by verbally communicating rather than fighting, hitting, screaming or grabbing.	<i>OMITTED</i>	
Constantly fight with other children?	*Fights with other children?	72.7% - Omitted
Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)	Sense of belonging in group/ family (talk about caregivers/ siblings/ teachers/ friends in positive way)	72.7% - Omitted
Prefers to play with younger children	<i>OMITTED</i>	
Able to ask someone to back off if he/ she needs their space?	Able to ask someone to back off if he/ she needs their space?	90.9% - Retained for pilot

<b>SOCIAL COMPETENCE</b>		
<b>SUBDOMAIN: PRO-SOCIAL BEHAVIOUR</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items Round 2</b>	<b>Items retained for Pilot study</b>
Play cooperatively with one or more children for up to 5 minutes with minimal supervision	No items reviewed in Round 2, minimum threshold obtained	100% - Retained for pilot
Refrains from harmfully teasing others		83.3% - Omitted
Developing good manners (Uses “please” when asking for something and “thank you” when something is given)		75.0% - Omitted
Willingly share his/ her possessions with others his/ her own age		91.7% - Retained for pilot
Enjoys doing something for others		83.3% -Omitted
Able to give peers/ sibling a turn to start or play		91.7% - Retained and revised for pilot “Is able to give peers/ sibling a turn to start or play
Able to help another child in distress		75.0% - Omitted
Demonstrates respect for adults (refrain from coarse language or challenging behaviour)		83.3% - Retained for pilot
Able to help peer feel better (e.g. play with us).		83.3% - Omitted
Tries to help/ intervene when someone is hurt, consideration towards others		91.7% - Retained for pilot
Demonstrates respect for other children		75.0% - Omitted
Able to invite others to join the group that is not part of the group		83.3% -Omitted
Able to accept when not first in line to answer questions		91.7% - Retained and revised for pilot “Accepts when not first in line or first to answer questions”
Able to disagree with friend and still be friends		83.3% - Omitted



<b>SOCIAL COMPETENCE</b>		
<b>SUBDOMAIN: COMPLIANCE WITH RULES</b>		<b>Threshold score/ Action</b>
<b>Items: Round 1</b>	<b>Items Round 2</b>	<b>Items retained for Pilot study</b>
Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner)	Able to follow basic rules (i.e. stand in line when instructed, wash your hands before dinner)	100% - Retained and revised for pilot "Follows basic rules (e.g. wash your hands before dinner)"
Listen to and follow simple directions/ instructions from an adult after only being told once?	Listen to and follow simple directions/ instructions from an adult after only being told once?	100% - Retained and revised for pilot "Listens to and follow simple directions/ instructions from an adult"
Adhere to rules when playing a game.	Adhere to rules when playing a game.	81.8% - Omitted
Able to follow rules in class or structured environments	Able to follow rules in class or structured environments	100% - Retained and revised for pilot "Is able to follow rules in class or structured environments"
Ask permission before using objects belonging to or being used by another	Ask permission before using objects belonging to or being used by another	90.9%
Refused to do what is ask constantly	<i>OMMITED</i>	
Obeys when asked to stop misbehaving	Obeys when asked to stop misbehaving	100% - Retained for pilot
Accepts changes without fighting against them or becoming upset	<i>OMMITED</i>	
Able to wait for his/ her turn	Able to wait for his/ her turn	90.9% - Omitted
Able to stand quietly until adult is able to attend to his/ her request?	<i>OMMITED</i>	
Able to cope with discipline without becoming sad, anxious or acting out.	<i>OMMITED</i>	
Able to sit still in group and listen to story	Able to sit still in group and listen to story	100%- Retained and revised for pilot "Can participate in group tasks (e.g. sit still and listen to a story)"
	Take turns without being asked	81.8% - Omitted
		New item for pilot Only respond to instructions after three or more repetitions



<b>SOCIAL COMPETENCE</b>		
<b>SUBDOMAIN: COMMUNICATION SKILLS</b>		<b>Threshold score/ Action</b>
<b>Items Round 1</b>	<b>Items: Round 2</b>	<b>Items retained for Pilot study</b>
Able to speak clearly and audibly without whispering or shouting.	No items reviewed in Round 2, minimum threshold obtained	100% - Retained and revised for pilot "Speaks clearly, audibly without whispering or shouting."
When asked tells the name of his caregiver(s)/ sibling(s), teacher		66.7% - Omitted
Able to ask for what he/ she needs in understandable language		100% - Retained and revised for pilot "Is able to ask for what he/ she needs in understandable language"
Able to say what he/ she is feeling, thinking		75.0% - Retained
Able to communicate, say something in group		91.7% - Retained and revised for pilot "Can communicate, say something in a group"
Able to put up hand to ask a question		83.3% - Retained
Able to listen to a short story without interrupting		83.3% - Retained
Able to answer direct question when asked		91.7% - Retained and revised for pilot "Is able to answer direct questions when asked"
Follow directions well		83.3% - Retained and revised for pilot "Can understand when spoken to and given instructions"
Listens while others speaks		83.3% - Retained
Able to speak in full sentences		91.7% - Retained and revised for pilot "Can speak in full sentences"
Able to hold a conversation		91.7% - Retained and revised for pilot "Can hold conversation"
Able to speak clearly and audibly without whispering or shouting.		66.7% - Omitted



## Appendix T: Pilot version of the E3SR after Delphi study

### SECTION A

#### DEMOGRAPHICS

#### PERSONAL PARTICULARS

Child's birth date: Month                      Day                      Year

Age of child: \_\_\_\_\_

Child's Gender:     Boy     Girl

Birth order:     Oldest     Youngest     Middle child

Child's ethnic group: \_\_\_\_\_

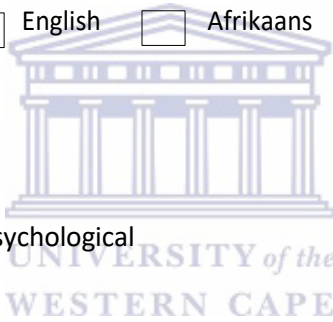
Home language/ mother tongue:     English     Afrikaans     Xhosa     Other

Language of instruction at pre-school:     English     Afrikaans     Xhosa     Other

Does the child have any illness or disability?

Yes        No   

If Yes,     Physical     Cognitive     Psychological



Is there trauma in the child's life at present or history of trauma?     Yes     No     Unsure

(e.g. disruption, divorce, move, death, bullying)

#### **RESPONDENT INFORMATION**

For how many months have you known this child? \_\_\_\_\_ months

How well do you know him/her?     Not well     Moderately well     Very well

Has he/ she ever been referred for special support?

Don't know     No     Yes

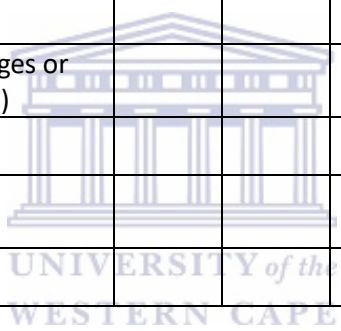
If yes, please specify: \_\_\_\_\_

HOW WOULD YOU RATE THIS CHILD'S?	EXCELENT	STILL NEED SOME	NEEDS LOTS OF	POOR
Overall <b>emotional</b> readiness for school				
Overall <b>social</b> readiness for school				

**SECTION B:** Below is a list of statements that describe the child's emotional and social competencies/ skills. For each item you need to choose the description that best fit the child's emotional and social competencies/ skills now or within the past 3 months.

<b>EMOTIONAL COMPETENCE</b>						
<b>EMOTIONAL MATURITY THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Is able to place him/herself in the shoes of others (e.g. consoles when someone is hurt)						
Accepts things not going his/her way						
Apologises if he/she acted wrong (hurt a sibling or friend, broke a toy)						
Accepts responsibility for actions						
Accepts correction/discipline						
Responds appropriately to reasonable changes in routine						
<b>EMOTIONAL MANAGEMENT THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Is aware of emotions						
Can say what he/ she feels						
Uses bodily references to express feelings (e.g. my heart is happy, my tummy hurts)						
Physically demonstrates emotions (e.g. hugs to express affection)						
Able to identify emotions (e.g. happy, sad)						
Able to communicate emotional experiences to teacher or caregiver (e.g. how was your day?)						
Knows strategies to manage emotions (e.g. calm down, displays self-control)						
<b>INDEPENDENCE THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Separates from caregiver without signs of discomfort (e.g. walk to class alone)						
Can make simple two-choice decisions (e.g. milk or tea, Yes or No)						
Can work quietly and calmly without constant feedback (e.g. praise and affirmation)						
Is able to pack/unpack bag on his/her own						
Shows confidence in working by himself/ herself						
Is able to work by her/himself without becoming emotional (e.g. teary, angry or excited)						

<b>POSITIVE SENSE OF SELF THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Shows pride in accomplishments						
Acts with self-confidence when asked to do something						
Is willing to learn/ take a risk even if a task is new or seems difficult						
Stands up for him/ herself						
Is able to take the lead when expected at home or in school						
Able to stand his/ her own ground if peers/ siblings have unrealistic demands						
<b>MENTAL WELLBEING/ ALERTNESS THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Sits still when asked to do so or while busy with a task						
Handles new situations comfortably						
Has bodily complaints when facing challenges or new situations (e.g. stomach aches, nausea)						
Pays attention and can focus on a task						
Completes a task given to him/ her within reasonable time						
Has temper outbursts						



<b>SOCIAL COMPETENCE</b>						
<b>SOCIAL SKILLS/ CONFIDENCE THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Has a friend or friends that he/ she plays with and give preference to? (other than family members)						
Considers his/ her friends? (e.g. can take turns to play with a toy)						
Is generally accepted and liked by other children						
Can share attention in a group (e.g. wait his/ her turn to ask question, make a comment)						
Can make and maintain new friendships over time.						
Able to ask someone to back off if he/ she need their space?						

<b>PRO-SOCIAL BEHAVIOUR THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Plays cooperatively with one or more children for up to 5 minutes with minimal supervision						
Willingly shares his/ her possessions with others his/ her own age						
Is able to give peers/ sibling a turn to start or play						
Demonstrates respect for authority (refrain from coarse language or challenging behaviour)						
Tries to help/ intervene when someone is hurt, consideration towards others						
Accepts when not first in line or first to answer questions						
<b>COMPLIANCE WITH RULES THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Follows basic rules (e.g. wash your hands before dinner)						
Listens to and follows simple directions/ instructions from an adult						
Is able to follow rules in class or structured environments						
Only responds to instructions after three or more repetitions						
Obeys when asked to stop misbehaving						
Can participate in group tasks (e.g. sit still and listen to a story)						
<b>COMMUNICATION THE CHILD:</b>	<b>Never</b>	<b>Rarely</b>	<b>Some of the time</b>	<b>Most of the time</b>	<b>Almost Always</b>	<b>Cannot assess</b>
Speaks clearly and audibly without whispering or shouting						
Is able to ask for what he/ she needs in understandable language						
Can speak in full sentences						
Can hold a conversation						

Can communicate, say something in a group						
Is able to answer direct questions when asked						
Can understand when spoken to or given instructions						



## Appendix U: Codebook for Data Capturing

### SECTION A

Missing data = .

<b>DEMOGRAPHICS</b>
---------------------

#### PERSONAL PARTICULARS

(1) Participant code: e.g. 001

Child's birth date: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

(2) Year

(3) Month

Age of child: \_\_\_\_\_

(4) Age

Child's Gender: **1** Boy **2** Girl

(5)

Birth order: **1** Oldest **2** Youngest **3** Middle child

(6)

Child's ethnic group: **1**W, **2**C, **3**B, **4**I, **5** Other, **6** Not disclosed

(7)

Home language/ mother tongue: **1** English **2** Afrikaans **3** Xhosa **4** Other

(8)

Language of instruction at pre-school: **1** English **2** Afrikaans **3** Xhosa **4** Other

(9)

Does the child have any illness or disability? **1** Yes **2** No

(10)

If Yes, **1** Physical **2** Cognitive **3** Psychological **4** cognitive & psychological

**5** cognitive and physical

(11)

Is there trauma in the child's life at present or history of trauma? **2**Yes **0** No **1** Unsure, **3** not spesified

(e.g. disruption, divorce, move, death, bullying)

(12)

#### RESPONDENT INFORMATION

For how many months have you known this child? \_\_\_\_\_ months

(13)

How well do you know him/her? **1** Not well **2** Moderately well **3** Very well **4** not specified

(14)

Has he/ she ever been referred for special support? **0** Don't know **1** No **2** Yes

(15)

If yes, please specify: **OT, SP (speech therapist), OS (OT and SP), OP (OT and play therapy)**

**PSS (Psychologist, Social worker), PS (Psychologist), OSP (OT, PS, SP)**

(16)

Centre (give each centre a number from 1-10)

(17)

Centre category **1)** Alternative **2)** Private **3)** Governmental/ Public **4)** Community **(18)**

HOW WOULD YOU RATE THIS CHILD'S?	EXCELENT <b>1</b>	STILL NEED SOME ATTENTION <b>2</b>	NEEDS LOTS OF ATTENTION <b>3</b>	POOR <b>4</b>
Overall <b>emotional</b> readiness <b>(19)</b>				
Overall <b>social</b> readiness <b>(20)</b>				





**SECTION B:** Below is a list of statements that describe children’s emotional and social competencies/skills. For each item you need to choose one description that best fit the child’s emotional and social competencies/skills now or within the past 3 months.

EMOTIONAL COMPETENCE						
<b>EMOTIONAL MATURITY (EM)</b> <b>THE CHILD:</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>
Is able to place him/herself in the shoes of others (e.g. consoles when someone is hurt)(21)						
Accepts things not going his/her way(22)						
Apologises if he/she acted wrong (hurt a sibling or friend, broke a toy)(23)						
Accepts responsibility for actions(24)						
Accepts correction/discipline(25)						
Responds appropriately to reasonable changes in routine(26)						
<b>EMOTIONAL MANAGEMENT (EMX)</b> <b>THE CHILD:</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>
Is aware of emotions (27)						
Can say what he/ she feels (28)						
Uses bodily references to express feelings (e.g. my heart is happy, my tummy hurts) (29)						
Physically demonstrates emotions (e.g. hugs to express affection) (30)						
Able to identify emotions (e.g. happy, sad) (31)						
Able to communicate emotional experiences to teacher or caregiver (e.g. how was your day? (32)						
Knows strategies to manage emotions (e.g. calm down, displays self-control) (33)						
<b>INDEPENDENCE (IND)</b> <b>THE CHILD:</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>

Separates from caregiver without signs of discomfort (e.g. walk to class alone) (34)						
Can make simple two-choice decisions (e.g. milk or tea, Yes or No) (35)						
Can work quietly and calmly without constant feedback (e.g. praise and affirmation) (36)						
Is able to pack/unpack bag on his/her own (37)						
Shows confidence in working by him/herself (38)						
Is able to work by her/himself without becoming emotional (e.g. teary, angry or excited) (39)						
<b>POSITIVE SENSE OF SELF THE CHILD: (SOS)</b>	<b>Never 1</b>	<b>Rarely 2</b>	<b>Some of the time 3</b>	<b>Most of the time 4</b>	<b>Almost Always 5</b>	<b>Cannot assess 0</b>
Shows pride in accomplishments (40)						
Acts with self-confidence when asked to do something (41)						
Is willing to learn/ take a risk even if a task is new or seems difficult (42)						
Stands up for him/ herself (43)						
Is able to take the lead when expected at home or in school (44)						
Able to stand his/ her own ground if peers/ siblings have unrealistic demands (45)						
<b>MENTAL WELLBEING/ ALERTNESS THE CHILD: (MW)</b>	<b>Never 1</b>	<b>Rarely 2</b>	<b>Some of the time 3</b>	<b>Most of the time 4</b>	<b>Almost Always 5</b>	<b>Cannot assess 0</b>
Sits still when asked to do so or while busy with a task (46)						
Handles new situations comfortably (47)						
Has bodily complaints when facing challenges or new situations (e.g. stomach aches, nausea) (48)						
Pays attention and can focus on a task (49)						
Completes a task given to him/ her within reasonable time (50)						
Has temper outbursts (51)						

## SOCIAL COMPETENCE

SOCIAL SKILLS/ CONFIDENCE	Never	Rarely	Some of the time	Most of the time	Almost Always	Cannot assess
THE CHILD: <b>SS</b>	1	2	3	4	5	0
Has a friend or friends that he/ she plays with and give preference to? (other than family members) <b>(52)</b>						
Considers his/ her friends? (e.g. can take turns to play with a toy) <b>(53)</b>						
Is generally accepted and liked by other children <b>(54)</b>						
Can share attention in a group (e.g. wait his/ her turn to ask question, make a comment) <b>(55)</b>						
Can make and maintain new friendships over time. <b>(56)</b>						
Able to ask someone to back off if he/ she need their space? <b>(57)</b>						



<b>PRO-SOCIAL BEHAVIOUR</b> <b>THE CHILD: PB</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>
Plays cooperatively with one or more children for up to 5 minutes with minimal supervision (58)						
Willingly shares his/ her possessions with others his/ her own age (59)						
Is able to give peers/ sibling a turn to start or play (60)						
Demonstrates respect for authority (refrain from coarse language or challenging behaviour) (61)						
Tries to help/ intervene when someone is hurt, consideration towards others(62)						
Accepts when not first in line or first to answer questions (63)						
<b>COMPLIANCE WITH RULES</b> <b>THE CHILD: CR</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>
Follows basic rules (e.g. wash your hands before dinner) (64)						
Listens to and follows simple directions/ instructions from an adult (65)						
Is able to follow rules in class or structured environments (66)						
Only responds to instructions after three or more repetitions (67)						
Obeys when asked to stop misbehaving (68)						
Can participate in group tasks (e.g. sit still and listen to a story (69)						
<b>COMMUNICATION</b> <b>THE CHILD: COM</b>	<b>Never</b> <b>1</b>	<b>Rarely</b> <b>2</b>	<b>Some of the time</b> <b>3</b>	<b>Most of the time</b> <b>4</b>	<b>Almost Always</b> <b>5</b>	<b>Cannot assess</b> <b>0</b>
Speaks clearly and audibly without whispering or shouting (70)						
Is able to ask for what he/ she needs in understandable language (71)						
Can speak in full sentences (72)						
Can hold a conversation (73)						
Can communicate, say something in a group (74)						
Is able to answer direct questions when asked (75)						

Can understand when spoken to or given instructions (76)						
--	--	--	--	--	--	--

Sub domain and domain totals

<b>EMTOT</b>	<b>(77)</b>	<b>MWTOT</b>	<b>(81)</b>	<b>COMTOT</b>	<b>(85)</b>
<b>EMXTOT</b>	<b>(78)</b>	<b>SSTOT</b>	<b>(82)</b>	<b>EMOTOT</b>	<b>(86)</b>
<b>INDTOT</b>	<b>(79)</b>	<b>PBTOT</b>	<b>(83)</b>	<b>SOCTOT</b>	<b>(87)</b>
<b>SOSTOT</b>	<b>(80)</b>	<b>CRTOT</b>	<b>(84)</b>	<b>READYTOT</b>	<b>(88)</b>

e/m-pilot



### Appendix V: Pattern Matrices for Principal Components Analyses

Pattern Matrix- First run <sup>a</sup>									
	Component								
	1	2	3	4	5	6	7	8	9
EM1	.550								
EM2	.600								
EM3	.659								
EM4	.609								
EM5	.628								
EM6								-.316	
EMX1					.696				
EMX2					.625				
EMX3					.788				
EMX4					.810				
EMX5					.784				
EMX6		.332			.526				
EMX7									
IN1		.327						-.600	
IN2								-.420	
IN3				.517					
IN4	-.310			.491	.348				
IN5				.606					
IN6				.571					
SOS1		.322							
SOS2		.498		.352					
SOS3		.448		.362					
SOS4		.825							
SOS5		.682							
SOS6		.733							
MW1									.593
MW2									
MW4				.355					.528
MW5				.432					.377
SS1							.762		
SS2							.694		
SS3							.706		
SS4							.533		
SS5							.682		
SS6		.672					.310		
PB1							.572		
PB2							.616		
PB3							.530		.335

PB4									.483
PB5	.360								
PB6	.339						.343		
CR1									.804
CR2									.776
CR3									.783
CR5	.364								.584
CR6									.516
COM1			-.814						
COM2			-.911						
COM3			-.984						
COM4			-.946						
COM5			-.891						
COM6			-.839						
COM7			-.673						
MW3rev						.855			
MW6rev	.398					.409			
CR4rev						.623		.409	

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 22 iterations.



Pattern Matrix- Final run <sup>a</sup>									
	Component								
	1	2	3	4	5	6	7	8	9
EM1	.565								
EM2	.625								
EM3	.679								
EM4	.635								
EM5	.652								
EM6	.318								
EMX1					.701				
EMX2					.625				
EMX3					.789				
EMX4					.810				
EMX5					.781				
EMX6		.331			.522				
IN1		.338						-.607	
IN2								-.424	
IN3				.551					
IN4				.520	.343				
IN5				.602					
IN6				.570					
SOS1		.356							
SOS2		.531		.308					
SOS3		.468		.339					
SOS4		.823							
SOS5		.692							
SOS6		.732							
MW1				.333					.537
MW4				.399					.467
MW5				.456					.328
SS1							.748		
SS2							.676		
SS3							.691		
SS4							.521		
SS5							.665		
SS6		.667					.307		
PB1							.553		
PB2							.596		.316
PB3							.513		.367
PB4									.505
PB5	.354								
PB6	.353						.333		
CR1									.820



CR2									.763
CR3									.769
CR5	.371								.586
CR6									.474
COM1			-.818						
COM2			-.912						
COM3			-.985						
COM4			-.946						
COM5			-.888						
COM6			-.836						
COM7			-.670						
MW3rev						.868			
MW6rev	.420					.400			
CR4rev						.629		.390	

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 16 iterations.



## Appendix W: Communalities Table for Principal Components Analysis

Communalities table		
	Initial	Extraction
EM1	1.000	.764
EM2	1.000	.811
EM3	1.000	.816
EM4	1.000	.817
EM5	1.000	.812
EM6	1.000	.684
EMX1	1.000	.753
EMX2	1.000	.776
EMX3	1.000	.606
EMX4	1.000	.729
EMX5	1.000	.756
EMX6	1.000	.731
IN1	1.000	.711
IN2	1.000	.670
IN3	1.000	.717
IN4	1.000	.721
IN5	1.000	.780
IN6	1.000	.652
SOS1	1.000	.575
SOS2	1.000	.716
SOS3	1.000	.745
SOS4	1.000	.767
SOS5	1.000	.802
SOS6	1.000	.771
MW1	1.000	.765
MW4	1.000	.785
MW5	1.000	.713
SS1	1.000	.632
SS2	1.000	.808
SS3	1.000	.730
SS4	1.000	.743
SS5	1.000	.735
SS6	1.000	.649
PB1	1.000	.765
PB2	1.000	.757
PB3	1.000	.774
PB4	1.000	.699



PB5	1.000	.700
PB6	1.000	.716
CR1	1.000	.739
CR2	1.000	.837
CR3	1.000	.851
CR5	1.000	.768
CR6	1.000	.731
COM1	1.000	.748
COM2	1.000	.833
COM3	1.000	.825
COM4	1.000	.851
COM5	1.000	.829
COM6	1.000	.799
COM7	1.000	.722
MW3rev	1.000	.787
MW6rev	1.000	.655
CR4rev	1.000	.682

Extraction Method: Principal Component Analysis.

