

# The school readiness performance of a group of Grade R learners in primary schools in the Gauteng Province of South Africa

## **Abstract**

*Grade R is the year before learners in South Africa start formal schooling and has been part of the General Education Training Band (GET) since 1998. New efforts are being made to enable all five- to six-year-olds to attend a Grade R class. The nine provinces of South Africa approach this problem in different ways. Some of them, like Gauteng, try to establish Grade R classes at primary schools, but in the process seem to appoint many teachers with only minimum qualifications. This article reports on research requested by the Gauteng Department of Education about the school readiness of Grade R learners. The school readiness performance of 114 Grade R learners was measured by means of a standardized school readiness test. The results confirmed the worst fears of department officials: most of the participants were not school ready after attending a year in a Grade R class. The article concludes with some recommendations, among others that attention should be given to the qualifications of teachers and that parents should become more involved.*

**Keywords:** school readiness, school readiness test, school readiness performance, Grade R, kindergarten

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## **Introduction**

After the 1994 first democratic elections in South Africa, the nine provinces in South Africa were each allowed to manage its departmental preschools in its own way. The Gauteng Department of Education (GDE) closed all preschools in 2001, and in recent years reopened Grade R classes at primary schools. Unfortunately, most of the teachers appointed in Grade R classes only possess the minimum qualifications required for this specialized work. Unsurprisingly, officials of the education

department of South Africa's most populous and economically most progressive province, Gauteng, became concerned about the fact that Grade R learners in preschool classes at primary schools in the province did not attain school readiness. In collaboration with a university, the GDE then launched an investigation into the situation in two areas of the province, one in the north and another in the south.

The Department of Basic Education grades schools into quintiles based on their equipment and other available resources, as well as the socio-economic area in which the school is situated, with quintile five being the highest and quintile one the lowest on the scale (RSA DBE 2011). Quintile one to three schools are usually no-fee schools, though school fees are not compulsory in public schools in South Africa.

The purpose of this article is to report on the findings of research about the school readiness levels of Grade R learners in Grade R classes attached to quintile one to five primary schools in the Gauteng province. The article is structured as follows: It commences with a brief background sketch of education in general in South Africa, and Early Childhood Development (ECD) and Early Childhood Education (ECE) in particular. This is followed by a discussion of the problem that was investigated, an outline of the conceptual and theoretical framework that served as the basis of the empirical investigation, a discussion of the empirical research design, the findings of the research, and a discussion thereof. The article concludes with a number of recommendations.

## **Background**

The importance of school and learning readiness at the time learners enter school is well established (Abott-Shim, Lambert & McCarthy 2003; National Forum on Early Childhood Policy and Programs 2010). Grade R (kindergarten) has formed part of the Foundation Phase (Grade R to Grade 3) education policy since 1998. Former national Minister of Education Kadar Asmal wished Grade R to be compulsory for every five- to six-year-old child from 2010, enjoining the departments of education of the provinces to commit to the implementation of the preschool year as a priority in 2010; this target was later extended to 2014 by President Jacob Zuma (Zuma 2009).

According to the current *National Curriculum and Assessment Policy Statement* (CAPS), there are certain assessment standards that should be achieved by the end of the Grade R year. A Grade 1 learner is expected to be physically, cognitively, affectively, normatively, socioculturally and linguistically ready for a solid start to his or her school career (Powell 2010). Linguistic and cognitive

readiness implies that a learner is able to understand the concepts used in the language of learning and teaching (LOLT) of the Foundation Phase.

Annually, approximately one million learners are admitted to Grade 1 in South Africa. Previously only about 50% of children had the privilege of attending a crèche, a nursery school or Grade R class before entering Grade 1 (Rademeyer 2001). Recent studies have shown that the percentage had increased to 71% in 2009 (RSA DBE 2011). If learners are not school ready (Ladd, Birch & Buhm 1999; Lally 2010), they may suffer from learning problems in formal education.

## **The research problem**

Children entering Grade 1 should be able to understand the concepts used in the language of learning and teaching (LOLT) of the school that they will attend for the first time. Conceptual understanding is much more than only factual knowledge. The problem in South Africa is that many Grade 1 learners do not receive school instruction in their home language. This problem is exacerbated by the fact that (since 2004) many primary schools enrol Grade 1 learners if they turn six before the end of June of the year that they enter Grade 1, even if they have not attended a Grade R class. From a developmental point of view this complicates the task of Grade 1 teachers, as it means that some Grade 1 learners can be five and a half years old and others seven years old.

The problem is further compounded by the fact that there is an ever-widening gap in South African society between the achievement of previously advantaged learners and learners from disadvantaged backgrounds. Inequalities therefore exist even before children start formal schooling (Hoadley 2013; Lee & Burkam 2002). For instance, not all children from previously disadvantaged areas have access to Grade R classes yet, as the preschool year is not compulsory and may not be funded by government. This means that learners from disadvantaged groups may not have access to learning readiness programmes that might help to close the gap between the advantaged and the disadvantaged. The situation of children from disadvantaged areas is further worsened by the fact that their parents often have poor parenting skills, which results in poor involvement in their children's development and learning.

In order to address this problem, churches, charities and other non-governmental organizations (NGOs) started intervention programmes for preschool children in disadvantaged areas. The national Department of Education began to address this problem by making the implementation of the preschool year (Grade R) a priority as from 2010 (Beeld 2008; Pandor 2005; SAQA 2007; UNESCO 2006). According to the 2006 UNESCO International Bureau of Education (IBE) profile, around 500

000 learners were enrolled for Grade R classes in South Africa during 2005 (UNESCO 2006). The target for 2010 was to have all preschool learners (approximately one million) enrolled in accredited Grade R programmes (ibid) (as mentioned, this date was later extended to 2014).

South-Africa therefore developed a need for a vast number of additional qualified teachers for the Grade R year. In the meantime, the GDE has been appointing practitioners with level 1 and level 4 training in Grade R classes and encouraging under- or unqualified ECE practitioners and teachers, especially those responsible for Grade R education, to acquire the necessary specialized and accredited level 6 qualifications (Pandor 2005).

The research question addressed in this paper pertains to the school readiness of a sample of learners in an attempt to determine whether Grade R learners in Gauteng schools achieve the required levels of school readiness, and if not, what obstacles do they encounter?

## **Conceptual framework**

### **Early childhood development and education**

In many cultural groups, a child is defined as a young person who has not yet 'come of age' (irrespective of how that age is defined). This definition can be discerned in the South African Department of Basic Education's (RSA DBE 2001a) use of the term 'early childhood development' (ECD), namely as an umbrella term for the education of children from birth to at least nine years of age in order to allow them to grow and to thrive physically, mentally, emotionally, spiritually, morally and socially. In terms of school grades, the early childhood education (ECE) learning phase in South Africa covers the Foundation Phase or Grades R to 3.

In general, ECE refers to conscious attempts by a group of people to effect developmental changes in children up to the age of school entry (Gordon & Williams-Browne 2004). In South Africa, it also includes the first years of primary education, hence concluding at the end of Grade 3. In terms of children's chronological age, it entails education up to the age of eight to nine.

Educators of children in this age group build bridges between the two worlds in a child's life, namely home and school. According to Gordon and Williams-Browne (2004), the foundation for further learning is laid during this phase. During these years (birth to nine years of age), the child learns to walk and talk, acquires an identity, and learns to count and write. In later years, the child uses these concepts and skills, inter alia, to master a second language, to learn to communicate and to

negotiate, to write and to do mathematics. Although all countries have these elements in common, the age of entry into primary school differs, as does the prescribed curriculum.

### **Learning, education and school and learning readiness**

Several definitions of 'learning' are available, such as those of Hutchin (2007) and De Witt and Booyesen (2007), but the author found that of Jordaan and Jordaan (1998:458) to be useful in the context of this research:

*Learning is the name that we give to the process or processes that we assume to lay the foundation for perceivable behavioural changes in situations pertaining to exercise, teaching-learning and life experience.*

Education, which includes the stimulation of children, commences at birth and includes all aspects of childhood: physical, emotional, social, intellectual and spiritual. Education (including stimulation) is based upon self-discovery. Children learn through experience; it is therefore important that there be much stimulation and many challenges. Small children should be encouraged to explore the world and opportunities for stimulation should be provided from the baby years onwards (Davin & Van Staden 2005). Children develop and learn best in a physically and emotionally safe environment in which their basic physical and emotional needs have been met (Meier & Marais 2008).

School and learning readiness gradually develops over a period of six to seven years. If children receive the appropriate stimulation and opportunities for discovery during free play and certain learning activities during these years, they may acquire the necessary cognitive and other skills to render them school ready (Davin & Van Staden 2005). The success and degree of effectiveness with which learners master content in a formal teaching and learning context is, to a great degree, determined by their level of school and/or learning readiness. Learners, teachers and practitioners, and parents all play key roles in this process.

The content of preschool programmes is also important. According to Lawrence Schweikhart, one of the designers of the High Scope curriculum in the United States,

*School readiness means learning some other things – things that are not self-evidently 'academic'; they're not reading, writing and arithmetic. They learn from toys, they learn from play, they learn from touching things and moving around, from their senses, from poking things to see how they react.*

(As quoted in Heckman, Moon, Pinto et al 2010:115)

The educational inputs of parents with regard to developing their children's school and learning readiness during the preschool phase differ considerably (Edwards, Sheridan & Knoche 2008; Wilkens 1986). There is little control over the activities of parents at home. Factors such as differences with respect to home circumstances – for example, the cultural-educational levels of parents and their parenting 'competence' are uncontrollable and divergent by nature. Approximately 40% of young children in South Africa grow up in conditions of poverty and neglect (Engelbrecht & Green 2005).

Educationists realise that external factors such as parents, preschool programmes, and the Grade R/Foundation Phase teacher each plays a significant role in school readiness (Grobler, Faber, Orr et al 1998; Lally 2010). Moreover, successful teaching and learning cannot occur in a classroom where learners are hungry, cold, unhappy and dissatisfied. There should be a balance between all aspects of a child's total development. Abraham Maslow (Gordon & Williams-Browne 2004) identified a hierarchy of universal needs. No individual can progress to the next level unless his needs in the preceding one have been satisfied. These needs are:

- Physiological needs; that is food, water, shelter and clothing;
- The need for security and freedom from fear;
- The need for self-esteem and the respect of others; and
- The need for self-actualization and achievement of one's full potential.

Brazilian educator Paulo Freire reported that poverty and hunger severely affected his ability to learn as a child (quoted in Stevens 2002:n.p.):

*I didn't understand anything, because of my hunger. I wasn't dumb. It wasn't a lack of interest. My social condition didn't allow me to have an education. Experience showed me once again the relationship between social class and knowledge.*

## **Core aspects that promote learning readiness**

### *Concept forming*

Concept forming is the process of discriminating between the essential characteristics of something (such as a triangle), which occurs only after repeated perceptions of the 'object' in question (Winkler, Modise & Dawber 2004). It develops by means of environmental input and certain innate concepts, known as 'core knowledge concepts' (Carey 2009). Development coheres with concept forming, as concepts form the building blocks of thinking (De Witt 2006). The age of birth to six years

can be seen as an important period in concept forming, although the process will continue after this early age as a consolidating phase (De Witt 1989; 2006). The cognitive system of the child is founded in concept forming (Lerner 2004). A child with conceptual disorders is unable to organize materials and thoughts in a normal manner. A disturbance in this cognitive ability affects comprehension skills in reading and listening (ibid).

### *Approach to learning*

Recent constructivist insights have brought to light that teaching and learning will most likely not be as effective if a teacher attempts to 'transfer' knowledge to learners. Learners should instead be assisted to develop unique, active and constructive ways of mastering the required knowledge or learning materials for themselves. Teaching should therefore, says Nieuwoudt (1998), not be aimed at creating and promoting learning, but rather at enabling learners to learn. Einstein practiced a constructivist approach and is said to have noted, "I never teach my pupils. I only attempt to change the conditions in which they can learn" (Lim 2012:n.p.). This, as Engelbrecht & Green (2005), Pantel (1997) and Bloom (1992) convincingly argue, is a complex process.

### *Perceptual abilities and skills*

Clear perception and the ability to form meaningful interpretations constitute the basis of successful learning (Winkler et al 2004). For example, in the Foundation Phase learners are required to have developed certain perceptual abilities, such as the development of laterality, body view, balance and spatial orientation. According to De Witt (1989), a learner is not ready for formal learning structures if he or she cannot make use of a baseline in graphic expression. A child should therefore have reached a certain level of maturity in perceptual motor abilities to be successful in school (Landsberg, Kruger & Nel 2005).

### *Contextual factors in South Africa*

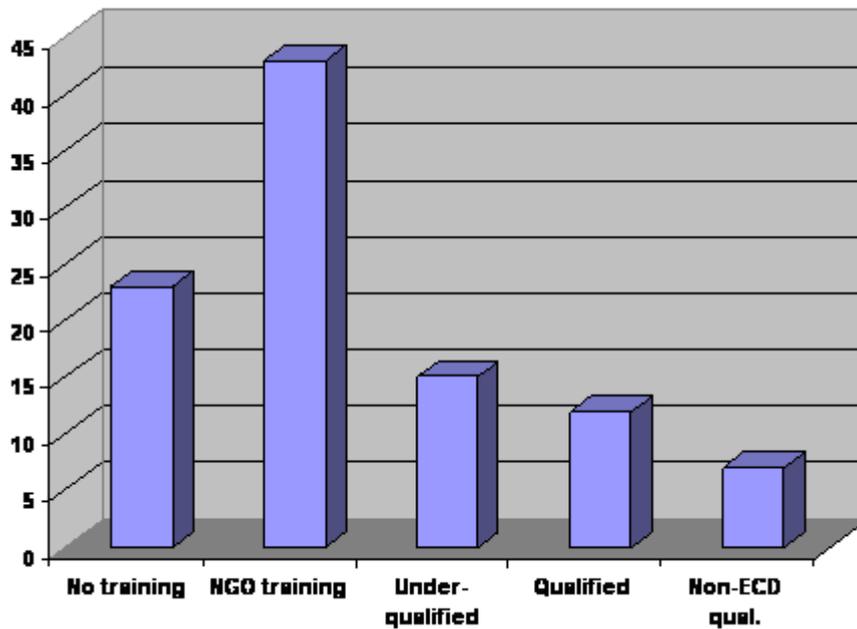
Education in South Africa is, for the most part, hamstrung by poverty, illiteracy, unemployment and HIV/Aids (SSA 2011). According to the most recent national population census survey (2011), up to 46% of all households live below the poverty line, and 75% of these are in (deep) rural areas. The unemployment rate is 36-40% (approximately six million potentially economically active people), and one-third of unemployed people are younger than thirty years of age. Moreover, a large percentage of jobless people are parents with children in the early childhood phase (birth to nine years of age). South Africa is furthermore a typical developing country, with an oversupply of unskilled workers. Only 6.2% of the age group twenty and above have tertiary qualifications, and

only 16.4% have a Grade 12 qualification, while approximately 34% are regarded as functionally illiterate. The country has a heterogeneous population and eleven official languages, a situation that puts high demands on education. The effect of HIV/Aids on learners' progress in school – not only because of the disease itself, but also because of the death of their parents and grandparents – is also devastating in pedagogical terms (ibid). It is not surprising that Grade R has not yet addressed the needs of the majority of learners in this age group (SAHRC & UNICEF 2014).

In addition to these challenges, South Africa is also in need of (more) qualified teachers for the preschool years (Pandor 2005). Well qualified teachers for five- to six-year-olds are expected to lay a firm foundation for future learning success and contribute to the bridging of the existing achievement gap. There is currently a huge demand for qualified ECD teachers and accredited ECD practitioners to ensure quality ECD teaching and learning. Table 1 shows a frequency table of ECD teacher qualifications according to a 2001 audit by the Department of Basic Education (RSA DBE 2001b). At the time, 23% of all ECD teachers did not have any form of ECD qualification; 43% had obtained ECD training through NGOs (Levels 1, 2, 3, 4 and 5; see Table 4); 15% were under-qualified educators who received training in technical or teacher training colleges (M+2); only 12% had obtained an accredited university ECD qualification (M+3 and more); and 7% had qualifications in other fields, for example, nursing and social work.

Since 2002, when teacher training colleges were either closed or merged with universities and/or technical universities, Grade R training has become part of the BEd (Foundation Phase) degree. Though this was expected to feed more pre-primary (Grade R) teachers into the system, this does not happen in practice. Once students qualify with a BEd (Foundation Phase) degree, they tend to apply for Grade 1, 2 or 3 posts, because of financial and promotional implications. Grade R teachers appointed by school governing bodies are paid less than half the salary of departmentally appointed teachers and have no medical or pension benefits.

Table 1: Teacher qualifications



(Source: RSA DBE 2001b)

### Potted overview of ECD in the United States

A brief description of the situation regarding ECD in the United States not only serves to explain the concept of 'early childhood education/development', but also casts light on what ECD planners hope to achieve in the South African context. Literature shows that educationists in the US follow an approach to education based on knowledge about how children learn and develop (Meier & Marais 2008). In countries like the US, the preschool years are referred to as 'kindergarten' (Gordon & Williams-Browne 2004), a form of schooling originally instituted in Strasbourg in the late 1700s out of concern for children from poor families. More recent early education initiatives in the US include Project Follow Through and the Head Start Program, which have provided educational opportunities and services to more than ten million American children and their families (Schweinhardt & Weikart 1999), and the HighScope approach (Hendrik & Weissman 2010). *Sesame Street*, a television programme consisting of one-hour broadcasts aimed at specific pedagogical outcomes, was first broadcast in America in 1969, and has since been widely broadcast in other countries as well, including South Africa (Schugurensky 2002).

## **Theoretical perspectives on ECD**

### *The Vygotskian and Lurian approaches*

Vygotsky and Luria distinguish between 'natural' and 'cultural' development (Hirst & Nutbrown 2005). Natural development refers to lower order, maturational, neurological or biological processes that humans share with other species to a greater or lesser extent. The cultural line refers to the development of higher order human psychological abilities that form as a result of a child's history of interacting and participating with others' cultural activities. During the preschool years, as children internalize language and other cultural tools from their collaborative experiences, the cultural line of development reorganizes and transforms biological developmental processes (Engelbrecht & Green 2005).

A Vygotskian perspective proposes that the social interactions and scaffolded learning experiences learners receive from the culture of early schooling are catalysts for their development (Brewer 2007:30). Early childhood education should focus on providing young learners with social opportunities and scaffolding school experiences, which they need in order to develop the abilities required for coping with Grade 1 and beyond. During scaffolding, the teacher should keep the various tasks at an appropriately challenging level for the learners and use verbal problem-solving strategies, such as leading questions, to assist them with their tasks.

School readiness is bidirectional (Brewer 2007). A child does not merely 'grow' into readiness, but must be exposed to learning situations and carefully assisted by others to develop the necessary skills and ways of functioning. Teacher training should enable teachers to create scaffolded learning experiences that will allow learners to proceed to subsequent levels. Each learner enters the classroom with a complex pattern of emotional, behavioural, linguistic, cognitive, motivational and physical developmental strengths and weaknesses.

### *Bronfenbrenner's ecological model*

The framework for the ecological systems theory is based on the work of Bronfenbrenner. In the 1970s, Bronfenbrenner developed a complex ecological model that explains the direct and indirect influences on a child's life by referring to the many levels of environmental or contextual influences on an individual's development. He suggested that it is helpful to conceive of the environment or social context as "a set of nested structures, each contained inside the next like a set of Russian dolls" (Landsberg et al 2005:10), and therefore interrelated. A key component of Bronfenbrenner's model is the understanding that children are also active participants in their own development, and

the environment therefore does not simply impact on the child (ibid). Children's perceptions of their context are central to understanding how they interact with their environments. The way they perceive their circumstances influences the way they respond to their human and physical contexts.

The Bronfenbrenner model is an example of a multidimensional model of human development (Landsberg et al 2005). It suggests that there are layers or levels of interacting systems resulting in physical, biological, psychological, social and cultural change, growth and development. What happens in one system affects, and is affected by, other systems. In other words, relationships among causes are reciprocal and multifaceted. Multidimensional models are useful in describing development, as well as the complex, causal processes involved in many other kinds of change. Teachers should have knowledge of and understand the complexity of the influences, interactions and interrelationships between individual learners and the multiple other systems that they are connected to from an ecological systems theory perspective (ibid).

### *The Reggio Emilia approach*

This approach is an educational theory founded in preschool and primary education (Brewer 2007; Hirst & Nutbrown 2005). It was developed after World War II by Loris Malaguzzi and the parents of the city Reggio Emilia in northern Italy. Malaguzzi believed that it is during the early years of development that children become who they are as individuals. This view led to the creation of a theory based on teaching children the principles of respect, responsibility and community through exploration and discovery in a supportive and enriching environment, and using a self-guided curriculum based on the interests of children (Barbieri 2014).

The Reggio Emilia approach has been adopted by many preschools around the world. Its philosophy is based upon the following principles (Hirst & Nutbrown 2005:170):

- Children should have some control over the direction of their learning;
- Children must be able to learn through experiences of touching, moving, listening, seeing, and hearing;
- Children have a relationship with other children;
- Children must be allowed to explore different materials in the world; and
- Children must have endless ways and opportunities to express themselves.

The Reggio Emilia approach to teaching young children puts the natural development of children and the close relationships that they share with their environment at the centre of its philosophy

(Brewer 2007). Parental involvement is also a vital component of the Reggio Emilia philosophy. Parents are viewed as partners, collaborators and advocates for their children, while the teacher is considered as a co-learner and collaborator with the child, and not just an instructor (Hirst & Nutbrown 2005). Teachers are encouraged to facilitate learning by planning activities and lessons based on children's interests; to ask questions to promote understanding; and to actively engage in activities alongside learners, instead of sitting back and watching them learn. The curriculum of the Reggio Emilia approach is characterized by many features advocated by contemporary research on young children, including real-life problem-solving among peers and numerous opportunities for creative thinking and exploration (Follari 2011). Teachers often work on projects with small groups of children while the rest of the class engage in a wide variety of self-selected activities typical of preschool classrooms. The Reggio Emilia approach to early education reflects a theoretical kinship with the thinking of John Dewey, Jean Piaget, Vygotsky and Jerome Bruner, among others. Much of what occurs in the classroom also reflects a constructivist approach to early education.

## **Empirical research**

Against the conceptual-theoretical background briefly sketched above, an empirical investigation was launched into the current situation in preschools in the Gauteng province of South Africa.

### **Research design**

A quantitative and qualitative ex post facto survey was conducted. For the quantitative part of the investigation, the school readiness of participants was assessed by means of the registered 'Susan le Roux Group Test for School Readiness' (Le Roux 1992; 2010), which gauges the level of development in different areas of development. The test consists of eight (8) sub-tests:

- Visual perception: visual discrimination, perception of shapes, foreground/background perception, sharp visual perception, incomplete drawing of a person, Gestalt perception, visual memory and visual sequencing;
- Spatial orientation: position in space, sense of direction and midline crossing;
- Number concept: counting of concrete objects, quantities and proportions;
- Language and experience: emotions, abstract thinking and memory;
- 'Draw a person' (a universal test to determine at which stage of mental development a learner is);

- Auditory perception: auditory discrimination, auditory memory and auditory sequencing; and
- Fine motor coordination: fine motor skills, dexterity, maze and writing patterns).

According to Le Roux's standards, an average mark of less than 49 out of a maximum of 75 (63%) indicates that a child is not yet school ready (Le Roux 2010).

For the qualitative part of the investigation, analyses were done of the school readiness profile of learners in the selected schools and profiles were drawn of the training of the teachers or practitioners involved.

### **Sampling**

A survey was administered to investigate the profile of Grade R classes at primary schools representing all five quintiles in two districts, in the north and south of the Gauteng province respectively. Schools in the district in the north represent learners from a city, and those in the other represent learners from a large urban area. Participating learners were selected by their teachers and district officials (n = 114). The age and gender of learners were used as selection criteria, with the age range being five and a half to six years and six males and six females selected per school, except for cases where fewer learners were available for selection due to absenteeism on the day of the survey.

### **Research procedures**

The participants were prepared according to the age requirements indicated on the memorandum sent to schools and all managed to complete the test administered to them by the researcher on her first visit to the school, except for one school, where learners had not been selected as requested and, as a result, the assessment activities were not completed on the same day; the researcher returned to this school on a later date to complete the assessment activities. The participants enjoyed the activity very much, although most of them were tired towards the end of the day.

Participants at ex-model C schools (the historically more advantaged schools) did not experience problems with language, but township schools did. District officials assisted the researcher in conducting the school readiness test by sight translating the items into the LoLT of the school. The test items were thus not formally translated and validated, and this part of the administering of the test can therefore not be assumed to have been reliable.

## Ethical aspects

Permission to do the research was obtained from both the research and the ethics committees of the university under whose auspices the research was done, as well as from the Director of Research at the Gauteng Department of Education and the principals of the schools in the sample, who viewed the testing as part of curricular assessment work.

The previously mentioned Le Roux test is deemed to be trustworthy. It is a standardized test, registered at the former Human Sciences Research Council (HSRC) in 1992. The test is widely used in Grade R classes or as a baseline assessment in Grade 1 to assess the levels of school and learning readiness of learners. The assessments were done by a university researcher and ECD departmental officials from two districts in the Gauteng province. Each of the participating schools received a draft report on its learners' performance in the school readiness test after the investigation and was invited to respond to the findings.

## Data processing

The school readiness tests were scored according to the test guidelines. Quantitative data were captured and processed by the statistical consultation services at a South African university by means of SAS statistical software (StatSoft I 2006). Descriptive statistics (means and standard deviations) and percentage frequencies were calculated for all items.

## Findings

### *School readiness profile of learners*

Table 2 shows the all-over average results of all the learners in each of the sub-tests, starting from quintile 1 (lowest income) to quintile 5 (highest income) schools in both districts.

*Table 2: Achievement of learners in quintiles as percentages*

<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Total average</b>
49.18	41.63	53.32	49.94	51.70	49.00

The investigation confirmed the fears of Gauteng school officials. According to the data reflected in the table, not one of the five groups of Grade R learners from different quintiles included in the sample scored at the desired level of 63% or more. This means that not one of the five groups could be deemed school ready as a group. However, individual learners did indeed score 63% or more, indicating that they were school ready, even if their group was not.

Table 3 shows the number of learners in each quintile who achieved below and above the minimum score of 49 out of 75 for the school readiness test.

*Table 3: Below and above minimum achievement of learners according to quintile*

Quintile	Below min 49	Above min 49	Total (n)
Q1	13	11	24
Q2	18	3	21
Q3	5	16	21
Q4	10	14	24
Q5	9	15	24
Total	55	59	114
Total %	49%	51%	100%

#### *Training of teachers and practitioners*

Table 4 shows the profile of the training of the teachers at the schools in the sample.

*Table 4: Training of teachers*

<b>NORTH</b>		
Quintile	1:	N=3: Levels 1 (n=2) and 4
	2:	N=1: Level 4

	3:	N=2: Levels 4 and 5
	4:	N=3: Levels 1 and 4, and no training
	5:	N=2: Teacher's diploma, but not in pre-primary education.
Total	Q1-5	N= 11
<b>SOUTH</b>		
Quintile	1:	N=2: Both level 5
	2:	N=2: In training and level 1
	3:	N=1: Level 5
	4:	N=1: Level 4
	5:	N=1: Level 4
Total	Q1-5	N=7

In the southern district schools, five teachers out of seven have level 4 and 5 training; only one has level 1 training, and one is still busy with her level 1 training. In the northern district, three teachers have level 1 training; one does not have any training at all; two teachers have teaching diplomas, but not in pre-primary education; four teachers have level 4 training; and only one has level 5 training.

## Discussion

Bronfenbrenner's model refers to the many levels of environmental or contextual influences on an individual. Despite the fact that there are huge differences in the socio-economic status of quintile 1 and quintile 5 schools, there were no significant differences in the achievement scores of learners in the different quintiles, indicating that socio-economic status and surroundings did not make a difference to the school readiness performance of the participating learners. The common factor shared by all the schools is the low level of training possessed by their teachers. Training level may

therefore arguably be regarded as key to the attainment of school and learning readiness by Grade R learners. A study of related literature shows that well-trained educationists in the US follow an approach to education based on knowledge about how children learn and develop. Children develop and learn best in a physically and emotionally safe environment where their basic physical and emotional needs are met (Meier & Marais 2008). According to Vygotsky (social constructivism), teachers should be able to provide scaffolding learning experiences for young learners. This essential knowledge should also be part of teachers' training and in-service training in South Africa.

There clearly is a need for better qualified teachers for learners in the preschool years in South Africa. A well-grounded training programme for teachers of five- to six-year-olds will contribute to the bridging of the school readiness achievement gap and lay a firm foundation for ensuring the future learning success of these learners. Teachers with level 1, 4 and 5 training should only be allowed to be assistants to trained pre-primary school teachers.

Considering that the research shows that teachers lack suitable qualifications to teach Grade R learners, an intervention programme should be developed as a guideline for teachers to use in their classes. The following pedagogically justifiable principles were identified from literature to form part of intervention/stimulation programmes in Grade R classes: i) nutrition and health (De Witt 2005); ii) emotional factors (Gravett & Geyser 2004); iii) the role of the teacher (Davin & Van Staden 2005); iv) language (Davin & Van Staden 2005); v) culture (Mwamwenda 2004); vi) approach to learning (Ali & Kor 2007; Nieuwoudt 1998); vii) perceptual abilities and skills (Winkler et al 2004); viii) motor development (Pienaar 2006); ix) learning through movement (Winkler et al 2004); x) concept forming (De Witt 2006); xi) brain dominance (Ali & Kor 2007; Copeland 2002); xii) learning styles (Ali & Kor 2007; Copeland 2002); xiii) music (Ali & Kor 2007; Nevill 2003; also refer to Campbell 2000 and Guyton & Hall 2000 on brain stimulation); xiv) memory (Ali & Kor 2007; Calitz 2003); and xv) television (Calitz 2002).

Parents should receive guidance in being involved in the stimulation of their small children. They should be informed of the importance of the above-mentioned principles in the development and school and learning readiness of their children. Approaches like Head Start and Reggio Emilia prove the benefit of parent involvement in ECE. Parents should also be advised not to enrol their children in Grade 1 too early, but only in the year that the child turns seven years old.

The discussion and recommendations based on the literature study and empirical research reveal one factor that is a cause for grave concern. The poor levels of training of the Grade R teachers in the study mean that their learners are marginalised from effective Grade R education, which

appears to be the main reason why the learners fail to reach learning and school readiness outcomes.

Bronfenbrenner's theory emphasizes the importance of positive interaction between community, family and school. The teacher plays a key role in facilitating interaction between the school, the parents and the teaching and learning that occurs in class. The Reggio Emilia approach offers an excellent example of how this can be achieved and how the community can be included in learners' schooling experiences.

According to *Education White Paper 5 on Early Childhood Education* (RSA DBE 2001a), the purpose of Grade R policies and programmes is to endorse the child's democratic right to develop his or her cognitive, emotional, social and physical potential. Early childhood development (ECD) and ECE are not yet compulsory in South Africa for all five- to six-year-old learners, and children from (historically) disadvantaged communities are the most likely to suffer exclusion from ECD and ECE programmes. This is detrimental to their development, school readiness, and long-term schooling success.

In his 2005 State of the Nation address, former president Thabo Mbeki identified ECD as one of twenty-one "apex priorities" and said that the government would "massively" speed up implementation of ECD programmes, expand the number of trained staff, and double the number of sites and child beneficiaries by the end of 2009 (Beeld 2008).

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