

An investigation into the state of early literacy of preschool learners

A B S T R A C T As early literacy development is the foundation of reading proficiency, reading problems should cause concern for educators. Recent global reports about reading imply that large numbers of children are failing to learn to read. This phenomenon is also manifesting in South Africa. Support to learners who experience reading problems should start in the early childhood years and entails intervening in the development of early literacy. This article reflects a literature study on the development of early literacy as well as an empirical investigation which is conducted to determine the state of early literacy development of grade R learners in a number of schools. The results of the empirical investigation indicate that on average 35,9% of the participants meet the minimum criteria for early literacy development. When this average is analysed it reveals that only 16,8% of the learners possess basic early literacy competency, while 77,0% show potential for the development thereof.

Keywords: early literacy development, phonemic awareness, reading proficiency

1. Background

South African educators should be alarmed by the finding of the Department of Education (2002: viii) on systemic evaluation of grade 3 learners, namely that 54% of learners are not on par regarding reading competency. Lack of reading competency is not only a South African phenomenon but manifests across the world (Lane, Pullen, Eisle & Jordan, 2002: 101). Browne (1998: 5) also indicates that many recent reports about reading imply a reading crisis and that large numbers of children are failing to learn to read. To improve the reading competency outcome, it is of utmost importance to look into the possible causes of the reported poor achievement.

Although poor reading skills may be the result of various factors, we agree with McConnell and Rabe (1999: 2) who state that early literacy skills serve as a direct foundation for later reading proficiency. The importance of phonemic awareness – which is essential to early literacy – as a

predictor for reading achievement is also stressed by Abbott, Walton and Greenwood (2003: 20). Al Otaiba and Fuchs (2002: 301) report on a meta-analysis by Bus and Van Ijzendoorn (1999) which indicates relatively strong short-term effects for phonological training on phonological measures (ES = 0,73) and on reading measures (ES = 0,70). We also endorse Al Otaiba and Fuchs's (2002: 300) warning that "given the pivotal role reading plays in and out of school and the cumulative long-term cost of literacy, early literacy intervention is critical".

If early literacy is that important for reading, the following questions come to mind: What does early literacy development entail? How does early literacy develop? What is the state of early literacy development of grade R learners? Exactly what do those involved in the education of young learners need to attend to when taking up the challenge of early intervention to prevent reading failure?

2. Early literacy

2.1 The nature of early literacy

Early literacy is described as "the array of skills, competencies, and attitudes that precedes, but directly influences, a child's beginning to read" (McConnell & Rabe, 1999: 2). Knowledge of books, phonemes, syntax and lexicon, and knowledge regarding print-related vocabulary and writing skills, as well as the interest and motivation in literacy-related activities form an integral part of early and developing literacy knowledge. Learners need to have a wide variety of experiences in order to develop the concepts and related vocabulary that they will need to understand the material they are (or in a few years will be) decoding (Greenberg, 1999: 74). Literacy is not only a cognitive skill to be learned; it is a complex socio-psycholinguistic activity. It emerges before children are formally taught to read and manifests in "reading" from pictures and "writing" with scribblers (NCREL, 1999: 1) and involves ready knowledge gained from literacy experiences, verbal imitation and memory.

2.2 The development of early literacy

Learning about literacy begins very early in life and the development is a gradual process (NCREL, 1999: 2) on a continuum along which each child moves at an individual pace (Miller, 1996: 8). It is a process in which learners master a variety of skills necessary to master reading, spelling and writing in later years. The learning environment has an influence on the development of early literacy and differs within families, depending upon factors such as culture, economic status and time available to spend with children. The emergence of literacy, and the so-called "natural" reading should go hand in hand with many stimulating activities in the home (Best Practices, 2001: 1), for example informal interactions that use literacy concepts, involvement in reading and writing and the exploration of literacy material where the parent or educator acts as mediator (Bank Street sa: 2). Literacy efficient school beginners are the products of various literacy-related activities in the preschool years (Mason & Sinha, 1993: 141). Activities initiated and mediated by parents and caregivers provide opportunities to develop language, ready knowledge and memory skills.

This idea of mediation is in line with Vygotsky's (1992) view of the important mediating role of adults when drawing attention to print and supporting learners to associate it with their

own words, ideas and experiences. Parents and preprimary school teachers should take notice of learners' zone of proximal development, which implies knowledge of the completed as well as of the expected level of development (the level where learners can solve problems with support). Learners have gained some basic skills in problem solving but are not yet able to apply and transfer their knowledge to new situations without support. Leong *et al.* (1999: 2) state that learning takes place within each learner's individual zone of proximal development and to support them, parents and educators must know what the learners' competencies are.

In supporting learners in acquiring early literacy concepts it is important that educators gradually move from natural involvement to independent activity by means of mediation and instruction. Initially they should provide opportunities for learners to explore literacy activities and events, and gradually guide them to participate in new activities by establishing learning environments where learners can practise and model activities necessary for independent reading and writing. As learners are mastering strategies and skills they can start to apply these skills in individual activities or in collaboration with their peers. It is important that mediation should go over into independent activity (Du Plessis, 2001: 2).

2.3 Early literacy competency

Knowledge of books, phonemes, syntax and lexicon as well as vocabulary and writing skills is an important component of early literacy. All these are linked to language which is interrelated with and plays a vital role in the development of early literacy. An oral language deficit in the preschool years may be a risk factor for successful reading and writing acquisition (Roth, Speece & Cooper, 2002: 259). Thus, attending to early literacy requires not only a thorough understanding of the above aspects, but also an understanding of the structure of oral as well as written language.

Oral language is the basic medium of communication and requires ready knowledge and proper vocabulary to be sufficient. Learners use language to express themselves and to understand messages from other people. In the education of young speakers, listening and speaking activities are very important and play an important role in the development of phonological awareness (Lane *et al.*, 2002: 102).

Regarding written language, Clay (Burchfield, 1996: 8) draws attention to the application of not only the decoding strategies of semantics and graphophonemics (Roth et al, 2002: 269), but also those of syntax and visual clues. This implies the ability of readers to analyse and synthesise written words and understand text while they are reading. Various research studies (Bradley & Bryant, 1985; Cunningham, 1990; Lundberg, Frost & Petersen 1988 cited in Al Otaiba & Fuchs, 2002: 301) indicate the value of phonological awareness training to promote early literacy, especially when such training is explicitly linked to reading and writing (Ball & Blachman, 1991; Bryne & Fielding-Barnsley, 1993; Fuchs et al, 2001; Turner, Harriman & Nesdale, 1988). Conscious sensitivity to the sound structure of language enables learners, according to Lane *et al.* (2002: 101), to apply their phonological skills to decode print.

3. Research design

3.1 Research question and aim

As early literacy forms an integral part of acquiring reading proficiency, the question that arises is whether preschool learners have sufficient early literacy competency. The research

aims at developing a framework for screening the state of early literacy and doing an empirical investigation to determine the state of early literacy in preschool learners. Thus, the research method entails a literature as well as an empirical study. The researchers conducted a literature study to determine the:

- nature and development of early literacy; and
- requirements for the development of early literacy.

Furthermore, a quantitative study was conducted to determine the state of early literacy of a number of preschool learners in schools supported by READ Educational Trust. READ Educational Trust is a nongovernmental organisation aiming *inter alia* at enhancing the reading skills of learners in disadvantaged schools. The empirical research thus aims at answering the question: *What is the state of the early literacy development of preschool learners in a number of schools supported by READ Educational Trust?*

3.2 Research instrument

A standardised test, the School Readiness Evaluation by Trained Testers (SETT), designed for testing young learners was used. It is an individual, structured test used to evaluate the learner's development with regard to formal learning. The test comprises three categories, namely:

- language and intellectual (general) development (LGD factor);
- physical and motor development (PMD factor); and
- emotional and social development (ESD factor).

The content of the test mainly concerns the acquisition of reading, writing and arithmetic skills with the screening of language and intellectual (general) development as the main focus. Joubert (1984: 11) states that hereditary as well as environmental factors have an important influence on the language and intellectual development of children. The physical-motor development (PMD factor) is seen as dependent on constitutional factors while the emotional-social development (ESD factor) is related to environmental factors.

According to the theory of Vygotsky (Joubert 1984: 11) "developmental leaps (or critical phases) on the LGD factor may be caused by restrictions of the ESD and/or PMD factors". Thus, there are two relevant levels of measurement on the LGD factor, namely a basic level and a potential level of intellectual (and linguistic) development. These levels refer to the zone of proximal development (Vygotsky), and imply that the learner will only be able to reach his/her potential through mediation by the educator. This emphasises the mediating role of the educator in the early literacy development of young learners.

The scale is divided into two brief categories with six items each according to the difficulty levels of the items. The total score for the six easiest items is intended to reflect the BASIC LEVEL (Level X) of the participants' development. The total score for the six more difficult items is intended to reflect the POTENTIAL LEVEL (Level Y) of the testee's development.

The test was administered to 287 preschool learners on an individual basis to determine their score in the LGD factor as an indication of early literacy competency and potential.

In this investigation of early literacy competency the researchers focus only on the LGD factor of the test. Although the SETT is developed as a screening test for school readiness, the LGD

factor is an important indicator of the development of early literacy, as well as an indicator of the potential for literacy which can be defined as the ability to listen, speak, read and write. The content of the six LGD factor items gives an indication of ready knowledge, memory, invariance, verbal imitation, analysis and synthesis which are interrelated with the requirements of the early literacy skills of listening, speaking, semantics, syntax and visual clues.

3.3 Sample selection

This research is done in cooperation with the READ Educational Trust which is interested in the state of early literacy in preschool learners before starting a programme of intervention in various schools. A number of schools from disadvantaged areas were identified to participate in the READ project. From these schools a convenience sampling was done for this specific research. Two schools from each of the following four provinces participated: Limpopo, Mpumalanga, Gauteng and North West. The participants from the different provinces are distributed as follows: Mpumalanga – 75 learners, Limpopo – 82 learners, Gauteng – 71 learners and North West – 59 learners. These add up to a total of 287 learners.

3.4 Processing the data

Different scores based on the performance of learners in this age group were calculated. The scores for each of the six test items of the LGD evaluation were divided into two categories, namely basic and potential competencies. The average LGD level of the learners was determined by implementing the test norms. According to this norm, a score below the cut-off point is an indication that the learner will need extra assistance with regard to the specific category of early literacy development. Learners who respond correctly to verbal items in the LGD category promise to demonstrate abilities which are prerequisites for early literacy.

Percentages were calculated for the different scores to get an idea of the state of the early literacy development of the preschool learners in the sample. A comparison was made between the various schools and provinces, the basic and potential competencies as well as between female and male learners.

4. Findings and discussion

The results are presented in terms of *early literacy development* and not as an indication of school readiness of young preschool learners. Table 1 is a summary of the early literacy competency of preschool learners per school as well as per province, who manifest sufficient early literacy development.

The score on language and general development (LGD) is determined by means of questions reflecting the learner's ready knowledge, memory, invariance and ability for verbal imitation, analysis and synthesis. The scores are indicated on a basic as well as a potential level. In this study the respective scores are used as an indication of early literacy development.

From the figures in table 1, a big difference is evident between the different schools regarding general early literacy development. The highest percentage is 56,7% (North West School 2) in comparison with the lowest of 19,4% (Gauteng School 2). An analysis of the two categories of competencies (basic and potential) reveals a large discrepancy between the competencies, namely only 16,8% of the learners met the criteria for basic competency although 77,0%

Table 1: Summary of learners who manifest sufficient early literacy development (ELD)

		LGD: Basic level		LGD: Potential level		Average LGD – Sufficient ELD	
School	Number	Total	%	Total	%	Total	%
Gauteng (School 1)	40	5	12,5	32	80,0	13	32,5
Gauteng (School 2)	31	4	12,9	21	67,7	6	19,4
Limpopo (School 1)	42	8	19,0	29	69,0	11	26,2
Limpopo (School 2)	40	6	15,0	30	75,0	13	32,5
North West (School 1)	29	2	6,9	22	75,9	7	24,1
North West (School 2)	30	6	20,0	27	90,0	17	56,7
Mpumalanga (School 1)	41	9	22,0	34	82,9	20	48,8
Mpumalanga (School 2)	34	8	23,5	26	76,5	16	47,1
Total	287	48	16,8	221	77,0	103	35,9

reached their potential levels of competency. This finding might be an indication of the learners' underachievement in early literacy in spite of a high potential.

In the interpretation of the total of all 287 participants, only 35.9% met the criteria of sufficient ELD. The implication of this finding is that 64.1% of young learners in these schools did not meet the minimum criteria for sufficient early literacy development as measured and interpreted from SETT. The highest score of ELD in all the schools was only 56.7% (North West School 2).

Table 2 reflects an analysis of learners who manifest sufficient early literacy development in terms of gender. The interpretation is done in terms of the different schools.

Table 2: Analysis of learners who manifest sufficient LGD (basic and potential) as an indication of ELD: gender, schools and provinces

School	Female (N = 146)			Male (N = 141)		
	Total	LGD (basic and potential)	%	Total	LGD (basic and potential)	%
Gauteng (School 1)	19	7	36,8	21	6	28,6
Gauteng (School 2)	3	4	30,8	18	2	11,1
Limpopo (School 1)	24	7	29,2	18	4	22,2
Limpopo (School 2)	20	8	40,0	20	5	25,0
North West (School 1)	16	3	18,8	13	4	30,8
North West (School 2)	15	8	53,3	15	9	60,0
Mpumalanga (School 1)	21	8	38,1	20	12	60,0
Mpumalanga (School 2)	18	10	55,6	16	6	37,5
Total	146	55	37,7	141	48	34,0

The difference of 3 percentage points between female and male percentages in terms of the average of early literacy development is not significant. What is of importance is that only 37,7% of females and 34,0% of males manifest sufficient early literacy development. Comparing the different schools and provinces reveals a great discrepancy between females and males in some of the schools and provinces. In Mpumalanga (School 1), for example, 38,1% of females in comparison with 60,0% males demonstrate sufficient early literacy development, and 55,6% of females in Mpumalanga (School 2) demonstrate sufficient early literacy competency in comparison with only 37,5% of males. The reasons for this discrepancy need to be investigated in further detail.

Table 3: Analysis of learners who manifest sufficient LGD (basic) as an indication of ELD: gender

School	Female (N = 146)			Male (N = 141)		
	Total	LGD -basic level	%	Total	LGD – basic level	%
Gauteng (School 1)	19	3	15,8	21	2	9,5
Gauteng (School 2)	13	1	7,7	18	3	16,7
Limpopo (School 1)	24	4	16,7	18	4	22,2
Limpopo (School 2)	20	4	20,0	20	2	10,0
North West (School 1)	16	0	0,0	13	2	15,4
North West (School 2)	15	0	0,0	15	6	40,0
Mpumalanga (School 1)	21	3	14,3	20	6	30,0
Mpumalanga (School 2)	18	5	27,8	16	3	18,8
Total	146	20	13,7	141	28	19,8

Table 3 shows the achievement of preschool learners in the category of basic early literacy competencies. Only 13,7% of females and 19,8% of males demonstrate sufficient competency in this category. What should be noted is the fact that 86,3% of females and 80,2% of males still *need mediation in developing basic early literacy competency*. Furthermore, in North West Province the females demonstrate no basic competency in early literacy according to the figures in table 3. Unless a comprehensive study is done in this regard, no generalisations can be made.

Table 4 is a representation of the achievement of preschool learners in the category of potential early literacy competencies. What is encouraging is that, in spite of the low achievement in basic competency (see table 3), 80,1% of females and 73,8% of males manifest potential for the development of early literacy competency. The difference of 6,4 percentage points in the achievement between females and males might be of significance and should be of some concern for researchers. In general, the females show more potential than the males.

5. Conclusion and recommendation

The results of the empirical investigation indicate that only 35,9% of the participants in this study meet the minimum criteria for early literacy development as measured by SETT. When this average is analysed, it reveals that only 16,8% of the learners possess basic early literacy

Table 4: Analysis of learners who manifest sufficient LGD (potential level) as an indication of ELD: gender

School	Female (N = 146)			Male (N = 141)		
	Total	LGD – potential level	%	Total	LGD – potential level	%
Gauteng (School 1)	19	15	78,9	21	17	81,0
Gauteng (School 2)	13	11	84,6	18	10	55,6
Limpopo (School 1)	24	17	70,8	18	12	66,7
Limpopo (School 2)	20	14	70,0	20	16	80,0
North West (School 1)	16	12	75,0	13	10	76,9
North West (School 2)	15	14	93,3	15	13	86,7
Mpumalanga (School 1)	21	19	90,5	20	15	75,0
Mpumalanga (School 2)	18	15	83,3	16	11	68,8
Total	146	117	80,1	141	104	73,8

competency, while 77,0% show potential for the development of early literacy competency (see tables 1 and 3).

Although the results cannot be generalised for all learners in the four provinces, it is interesting to note that the majority of learners demonstrate insufficient early literacy skills (see table 1). None of the schools exceed an average of 48,8% for early literacy competency. There is not a significant difference between the percentage of females and males in terms of the average of early literacy development. However, it is important to note that a very high percentage of females as well as males did not meet the criteria for average early literacy competency (see tables 2, 3 and 4). The convenient sampling of participant schools might have influenced the differences in the findings between gender, school and province as indicated in table 2. A more representative sampling is necessary for generalisations about gender, provinces and schools in this regard.

From these findings it is clear that, although the participants in this study attended grade R classes, they did not manifest basic early literacy competency. The implication of these findings is that educators cannot assume basic early literacy development to be in place when learners enter the formal school. However, in spite of the very low basic early literacy competency, the promising high percentage of *potential* early literacy competency provides an opportunity for early intervention programmes. These findings alert those involved in the education of young learners to take up the challenge of early intervention to prevent reading failure in future by attending to early literacy development. The question is: What should the way forward be?

Activities to enhance ELD can start at a very early age as early reading and writing development already begins in the first three years of life (McConnell & Rabe, 1999: 3). Parents and educators should bear in mind that literacy efficient school beginners are the products of various literacy-related activities in the preschool years (Mason & Sinha, 1993: 141) and that an oral language deficit in the preschool years may be a risk factor for successful reading and writing acquisition (Roth, Speece & Cooper, 2002: 259).

This implies that parents have a huge role to play in the development of early literacy and especially in the development of language and concepts. Parents from the disadvantaged areas should be empowered with the knowledge and skills required to support their children in the development of early literacy. Workshops could be presented to provide knowledge to parents on the nature and importance of early literacy, attending to the value of a sound vocabulary, and of listening and speaking skills for their children's development. Parents need to know that they have to provide opportunities for the children to acquire vocabulary and concepts (Greenberg, 1999: 74) and should explicitly aim to develop their children's language, ready knowledge and memory skills.

When learners enter grade R with basic language and general knowledge, teachers could concentrate to a greater extent on the learners' knowledge of books, phonemes, syntax and lexicon. Teachers should plan their lessons in such a way that they move from the known to the unknown, supporting learners to analyse and synthesise the knowledge presented. Teachers could meet learners at a concrete and experiential level and gradually support them to participate in new activities by establishing learning environments in which learners can practise and model activities necessary for independent reading and writing (Du Plessis, 2001: 2).

If educators want to intervene in the early literacy development of young learners, it is necessary to reconsider the programme for the Foundation Phase to rectify and enhance the development of early literacy.

In order to compile an intervention programme, it is recommended that a detailed analysis be made of the relevant aspects of early literacy competency to which parents, caretakers and teachers should attend.

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