CHAPTER 5

EMPIRICAL RESEARCH, DISCUSSION OF THE RESULTS AND A CONCEPTUAL FRAMEWORK OF INTERVENTION

5.1 INTRODUCTION

Within the context of the National Commission on Special Needs in Education and Training's work (1997), it is now clear that 'special needs' in education refers to the needs or priorities which the individual person or the system may have, which must be addressed in order to enable the system to respond to differences in learner population, remove barriers to learning, and to promote effective learning for all learners.

In Chapter 2 of this research report the history and definition of the terms 'special educational needs' and 'barriers to learning' as well as their relevance in the South African context were discussed. This discussion forms a basis for acknowledging that the 'special educational need' situation in South Africa differs from that which was traditionally believed to be special educational needs, and is often extrinsically generated by aspects such as poverty, disadvantage and educational deprivation. In Chapter 3 the diverse culture in which the learner is situated, and which has an influence on the existence of special needs, is described. The chapter also emphasises the importance of literacy efficiency and mediated learning at early ages (refer par. 3.2 and 3.3). The NCSNET Public Discussion Document (1997) in this regard also confirmed that 'special needs' often arise as a result of barriers in the way the curriculum has been

presented, and it has therefore been agreed that, instead of referring to 'learners with special needs', we should refer to learners who experience barriers to learning. The lack of exposure to literacy and ineffective early educational practices have established themselves as important factors which cause barriers to learning, and it is the task of the educators and governing bodies to remove these barriers that continue to cause school failure for a majority of disadvantaged learners in the South African community.

In Chapter 4 of this research report it was mentioned that the focus should be on the development of literacy adequacy, with specific attention to the development of skills that will enhance reading acquisition for the young child. Early literacy practices were also documented that can aid the process of establishing effective early literacy programmes in the disadvantaged South African context.

In this chapter an attempt will be made to address the variables described in the preceding chapters, by means of an empirical investigation of a South African community that is characterised by factors related to disadvantage and educational deprivation, as described in chapters two and three. Insights gained from the study of different perspectives on literacy acquisition (refer par 4.3 and 4.4), as well as the study of different intervention programmes (refer par. 4.5), will serve as guidelines for the implementation of an early literacy programme for disadvantaged pre-schoolers in a South African community. The researcher will then attempt to describe the effect of an early literacy programme on the cognitive and literacy development of these disadvantaged pre-schoolers.

A conceptual framework will consequently serve as a means of combining the different aspects - disadvantaged learners, emergent literacy skills and teaching practices - in order to formulate guidelines for preventing the special educational needs resulting from disadvantage and educational deprivation.

5.2 THE RESEARCH IMPLEMENTATION

5.2.1 The research setting

The research was conducted in a community that meets the criteria for a disadvantaged and illiterate culture as described in chapter 3. Consequently a brief description of the actual setting:

Eersterust is situated in the east of Pretoria between Mamelodi and Silverton. It was declared a Coloured area in 1958, according to the Group Areas Act. The total size of the area is 590 hectares, and it has a population of approximately 55 000 people. There are, however, many people unaccounted for, as they occupy back rooms and informal dwellings on the plots of houses.

The houses mostly consist of four rooms that are shared by two families. There are many children living in Eersterust. Many adults are illiterate and there is an extremely high rate of unemployment and alcohol abuse that results in it being a poverty-stricken community. There are, however, areas where a higher standard of living is upheld.

In the low-income areas, such as Nantes, where this research was launched, the inhabitants receive food parcels from organisations like churches, child-welfare and other non-governmental organisations. Children also receive food from a feeding scheme at the school, and there are second-hand shops available at the Child and Family Care Society that sell clothes at a low cost.

There are six schools in Eersterust as well as many creches and day-care centres. Most pre-primary schools in Eersterust seem well-equipped. Children whose parents are, however, unable to pay for pre-schooling, spend their time roaming the streets during the day.

The mother-tongue language in Eersterust is Afrikaans. Although some parents prefer to send their children to English-medium creches and primary schools, the closest school to Nantes is an Afrikaans medium school. According to an informal survey done by the Education Aid Centre at this primary school in 1999, 45% of children aged between ten and thirteen cannot yet read or write. These findings are consistent with an article in Beeld, 8 October 1999, where it was mentioned that 60% of grade three learners are unable to count or read. This incidence is blamed on the fact that children come to school with no informal literacy experience, no parental involvement and no scholastic and homework support after school. It was therefore decided that this setting fits the criteria for contextual disadvantage and special educational needs as described in the previous chapters and could therefore be effectively used to determine whether any significant results could be obtained through intervention.

The research was launched in the beginning of the school year by means of visiting most of the pre-school institutions that were operational in Eersterust. According to the information gained

during these visits it was decided that the Nantes area was considered to be the most appropriate setting for the research, due to the low socio-economic status of the inhabitants. The area was also considered to be an appropriate location for the research as it contained **a child-welfare centre** called Mesada that could be used as a location for the research. At this centre a private **nursery school** is also run. The learners in the nursery school were used as the control group due to the fact that daily attendance would enable the researcher to conduct the pre- and post-testing with reasonable chance of finding the participants. Full co-operation was given by the principal and personnel of the school as well as by the personnel of the welfare centre, who welcomed any form of intervention or research in the community. The personnel of the welfare centre also allowed the researcher to make use of the facilities that were a convenient, although not perfect, setting in which the intervention could take place. The intervention therefore mostly took place in the large community hall that is equipped with two large tables and many chairs that could be used by the participants. Sometimes the hall was used for other purposes and another location was then made available.

5.2.2 Selection of participants

It was decided that the most appropriate participants will have to include those 5-6 year-old pre-schoolers who have so far had no formal pre-school experience, as these children will most likely be the ones belonging to unemployed parents who are unable to afford the cost of pre-school centres. All the learners in the nursery school that met the age criteria formed part of the control group.

The participants of the experimental group were obtained in an informal manner. Street canvassing in the Nantes area was used to invite children to take part in the programme. These children had to live near the welfare centre to make it possible for them to attend. A few adults were also asked to help locate and involve pre-schoolers who did not form part of any formal pre-school activities.

Because of the informal nature of obtaining participants, no specific number of participants could be anticipated beforehand. Some participants also terminated their involvement in the programme before it was completed and attendance was very irregular due to various individual reasons.

All in all a total number of 29 children formed part of the research, 14 of which were obtained in this informal street canvassing manner and who all formed part of the experimental group, and 15 children who formed part of the control group and were enlisted and attended the pre-school on a daily basis.

5.2.3 Aim of the research

The research was aimed at establishing whether emergent literacy skills could be accelerated in these pre-schoolers despite the obvious existence of barriers to learning – that is severe socio-economic disadvantage, and lack of early intervening services. These children's general exposure to sources of stimuli, such as literacy related materials, and mediated learning

experiences ranged below that of their peer group who had attended a formal pre-school since an early age.

The following aspects, that underlay the research, had important bearing on the results that were obtained, and also formed part of the qualitative and quantitative results, were addressed in the outcome of the research, as described in paragraphs 5.3 and 5.5:

- The availability, interest and consistency of the disadvantaged community to participate in an informal literacy development programme. Aspects such as the regularity of attendance, motivation and interest of parents, as well as that of the learners were also among the aspects that were observed.

- The socio-economic status of the community and the disadvantaged children's level of 'school readiness' or mental ages before and after the programme.

- The children's level of informal literacy knowledge before and after the programme.

- To investigate whether it was indeed possible to accelerate the disadvantaged learner's emergent literacy skills and 'reading ability' before entry into the formal school, even though the learner lagged behind in other aspects that related to school readiness.

- To establish whether mental age and socio-economic status are indications of the disadvantaged learner's ability to acquire emergent literacy skills at pre-school age.

- The effect of an informal literacy programme exclusively on the mental age of a disadvantaged child, compared to the effect of the normal pre-school curriculum of the control group on their mental ages.

The effects of the programme or non-involvement in the programme were based on the results that were obtained on the standardised and non-standardised media that were implemented. Although the individual circumstances of the participants, such as attendance regularity, home circumstances, attention span, influence from other learners, and parental motivation are acknowledged and were observed during the intervention, these factors were not considered during this research (refer par. 5.2.4.2).

The measuring instruments that were used for the research will be described shortly:

5.2.4 Measuring instruments

5.2.4.1 **Socio-Economic Deprivation (SED) Questionnaire, HSRC (1991)**

The aim of the SED Questionnaire is to determine a learner's index of socio-economic status, thus, the level of disadvantage, and this questionnaire is mainly used when the psychometric test results of a learner are interpreted. The questionnaire is completed by the test administrator who

consults the learner's teacher, or by means of indirect questioning of the learner and/or his parents, or by observation of the learner and his /her home environment.

If it is necessary to gather information for the SED Questionnaire from the learner's parents, it is explained to them that the data are gathered to ensure that the influence of socio-economic factors is considered when interpreting the results. All questions are answered, even if a calculated guess has to be made, although this last-mentioned strategy is only used in exceptional cases.

The scores obtained by this instrument range from 0 to 10. A score of 0 would indicate that no socio-economic deprivation is apparent, while a score of 10 or more would indicate severe socio-economic deprivation.

The questionnaire was implemented in Afrikaans. An English and Afrikaans version of the questionnaire can be viewed in Appendix A and B.

5.2.4.2 **Group Test for Five- and Six-year olds, HSRC (1961)**

> "*At the request of the education departments, The National Bureau of Educational and Social Research started research some years ago with a view to providing the necessary tests for measuring ' school readiness'... The concept ' school readiness' is in itself a difficult one, but after a thorough study of the literature, the conclusion was reached that mental aptitude and the level of its development were the main determining factors of*

progress at school and for this reason research in connection with the preparation of a test for its measurement was given priority" (HSRC, 1989:1).

The aim of this test was to determine the mental aptitude of the child and the level of development that is described by the term **mental age.** This aspect is traditionally regarded as the main determining factor of progress at school.

The Group Tests for Five and Six-year-olds and for Seven and Eight-year-olds were standardised for Afrikaans and English speaking children. The Afrikaans and English tests are identical. Provision was made for two ranges, namely one test for five-and-six year olds and another for seven-and-eight year olds.

Regarding the use of the test: "*it is the popular conception that an intelligence test gives an indication of a person's 'cleverness' or 'stupidity'. It must however be pointed out that every test has its limitations and that no test can tell us everything about a person. A test gives only a rough indication of the general level of a person's intelligence, which is not the only factor that determines behaviour or success in any given sphere. The value of the test will be determined by the user who must interpret results in terms of other information concerning the testee such as his interests, personality tendencies, specific aptitudes, environmental influence etc. If used correctly, the test can be a useful instrument in rendering valuable information which cannot be obtained easily by other means with the same degree of objectivity, reliability and economy.*" (HSRC, 1989:35)

For the eventual calculation of norms a stratified random sample of approximately 4000 testees was drawn proportionately from the schools of the four provincial education departments. The object was to obtain a representative random sample of the total school population between the ages of 5 and 8 years in provincial lower and junior schools.

In 1991 the HSRC undertook a project with the aim of developing this group intelligence test for 7/8 year olds which would be more suitable for children of all the major language groups in South Africa. As a spin-off from the larger project norms could be determined for the Group Test for 7/8 year olds for all Afrikaans and English speaking learners, as well as for non-environmentally disadvantaged Afrikaans and English speaking learners. Due to the development of the Aptitude Test for School Beginners, the norms for the Five-to-Six year age group were not adapted. This was regarded as a limitation to the study due to the fact that no other group-test existed that could give an indication of the child's mental age or 'school-readiness'. The limitation lies in the fact that the test that was being used had already been developed in 1960 and did not provide different norms for disadvantaged and non-disadvantaged learners. On examination of the test by the researcher, together with the teacher responsible for the pre-school that the control group attended, it was noted that only one item could be regarded as "culturally" alien to the testees (namely: What do you use when you go camping ? - a tent) but it did not influence the test results as it only formed part of the practice examples.

The purpose of the pre-test was therefore to obtain a general level of the testee's cognitive functioning that could be compared to the level of cognitive functioning at the time of the post-

testing. The Group Test for Five and Six-year-olds was considered the most appropriate measuring instrument for this purpose.

The following principles were followed during the interpretation of the test results:

- The test results were used with extreme care and only in conjunction with all other available information. The behaviour of the testees, their inability to comprehend certain tasks, their receptability to be influenced by other testees, et cetera, were also taken into account during interpretation (refer par. 5.2.3). No decisions or interpretations of far-reaching consequence were therefore to be drawn from this test alone.
- None of the tests or test results was made available to any other person other than the researcher and psychometrist, due to the fact that uninformed persons could easily misinterpret the results.
- The practical value of the test was to derive a basic impression regarding the metal age and mental development of the test population and a general idea regarding their behaviour in a formal learning setting.

The following sub-tests are included in the instrument:

Subtest 1 : **Comparison.** A figure that is similar to the one given first, must be indicated. (13 items)

Subtest 2 : **Mazes.** (10 items)

Subtest 3 : **Verbal comprehension.** A drawing that corresponds with a verbal

description must be indicated. (6 items)

Subtest 4 : **Figure classification.** The figure that does not fit in with the others must be indicated. (5 items)

Subtest 5 : **Number comprehension.** Elementary number comprehension is tested on the basis of drawings. (6 items)

Subtest 6 : **Pattern completion.** A pattern must be copied by linking dots.

Each test consists of six sub-tests and the maximum raw score that can be attained is 50.

The standardised test makes provision for the conversion of raw scores to more significant scores. From the tables provided, raw scores can be converted to IQ's and mental ages. For the purpose of this research only the mental ages of the testees were documented due to the fact that the precise dates of birth of all the participants could not be obtained with accuracy. The mental age of the individual was determined and could then be compared with the average score of the particular group and results obtained by pre- and post-testing could also be compared. In this way it could be determined whether the child compared favourably, unfavourably or normally with his age group.

5.2.4.3 **Informal Reading and Writing Readiness Checklist**

The informal reading and writing readiness checklist is a non-standardised questionnaire that was set up for use at The University of Pretoria and gives an indication of a learner's level of emergent literacy skills in a qualitative manner. The researcher modified the checklist somewhat

by means of allocating points to the different categories, so that a quantitative score of emergent literacy could be deducted. The results of this test give an indication of the children's knowledge regarding print and print-related activities before and after the intervention.

The questionnaire consists of eight sections that relate to emergent literacy skills (refer par. 1.8.2), which are:

A. Recognition of **three-dimensional objects** in two-dimensional forms (5 marks)

B. Awareness of **books** and how they are used (4 marks)

C. Awareness of **print**-vocabulary (12 marks)

D. Awareness and application of **phonemes** (10 marks)

E. **Lexical** awareness (5 marks)

F. Awareness of **syntax** (3 marks)

G. Motivation, **interest** and attitude to literacy (4 marks)

H. **Writing** skills (7 marks)

The questionnaire was conducted by the researcher with each child individually to establish his or her informal literacy awareness before and after the programme was conducted. A raw score out of 50 could be obtained and was, for the purpose of the research, converted to percentages.

The general application of the above mentioned instruments involved the pre- and post-testing of the experimental and control groups and a comparison of the scores obtained, which enabled the researcher to draw conclusions.

5.2.5 Gathering of information

The research was launched at the beginning of the year. The initial involvement of the researcher consisted of the assessment-procedures. The Group Test for Five-and Six-year olds was conducted first. This test was administered by the researcher in groups of five learners per group. A nursery school classroom was used for this purpose. It took two days to complete this assessment, after which the Informal Literacy Questionnaire was conducted with each participant individually. Information that was needed for the SED Questionnaire was obtained by means of interviewing the parents of the learners who formed part of the experimental group, and by interviewing the teachers or principal of the learners who formed part of the control group.

The Group Test for Five-and Six-Year olds, as well as the Informal Literacy Questionnaire was again conducted after the intervention had taken place. The time frame between the pre- and the post-testing was seven months.

The implementation and scoring of the standardised instrument (Group Test for Five- and Six-Year Olds) were done by the researcher according to the guidelines in the manual and the results were verified by a registered psychometrist. The assessment procedure also served as a means for the researcher to get to know the participants, to establish the size of the group who would have to be managed during intervention and in order to prevent distractions and/or different instructions being given to the testees. The specific test that was used is not widely known by

many psychometrists and was intensively studied by the researcher. The results of the testing will be described shortly:

5.3 INFORMATION GAINED FROM THE ASSESSMENTS

5.3.1 Socio-economic status

Because chronological age is not the only criterion for school readiness, as mentioned by Osborne and Milbank (1987:93), it is important to establish the socio-economic status of the learner when intervention is to take place. This is because differences in home and family background can profoundly affect the rate of cognitive development, so that by a given age a child from a socially advantaged home is more able to benefit from education than his socially disadvantaged peers. For this reason it is important to gain insight into the socio-economic status of the participants in the research. A brief description regarding the socio-economic status of the participants in this research will therefore be given shortly:

Of the experimental group, consisting of 14 testees, 42,86% (6) of the testees obtained a SED score of 10 or more, indicating severe socio-economic deprivation. Two or 14,29 % of the testees obtained a score of 9; another two testees (14,29%) scored 8; one testee (7,14%) scored 7; another one testee (7,14%) scored 4, while another two testees (14,29%) obtained an SED score of 3 which still indicates the existence of socio-economic deprivation. The experimental group obtained a mean score of 8 on the SED Questionnaire.

The status of Socio-Economic Deprivation of the experimental group is illustrated in Figure 1:

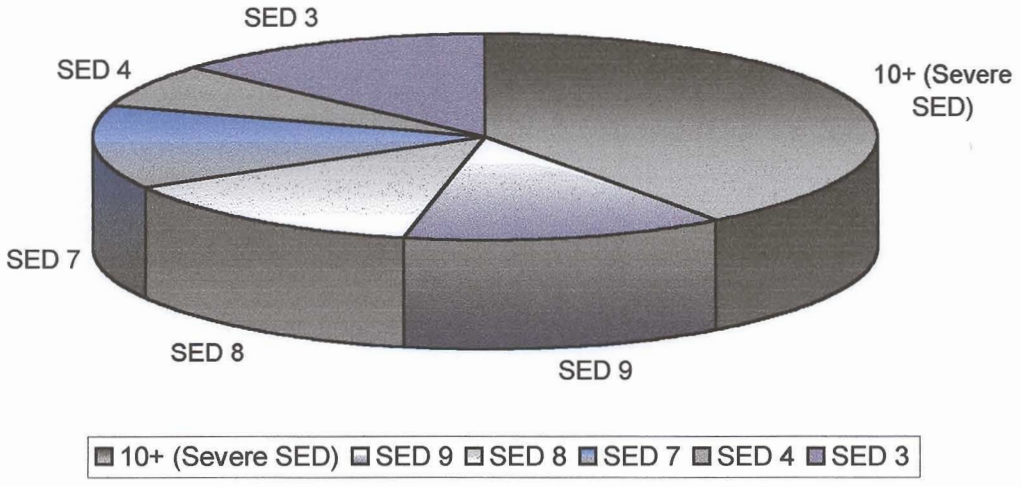


FIGURE 1: The status of socio-economic deprivation of the experimental group

What is relevant to the learners' exposure to literacy related activities, as was established in question three is the fact that only 50% (7) of the learners who formed part of the experimental group had a parent or parents that had completed standard six. Although 92,8% (13) of these participants' parents indicated a positive attitude towards scholastic education, none of the parents of the experimental group indicated that they owned any hardcover books and 85,7% (12) mentioned that no magazines or newspapers were ever read in the household. It is therefore clear that a majority of the adults in this community can be regarded as illiterate, and that early childhood development practices do not form part of their daily lives.

Of the control group only 6,67% or one of the testees obtained a SED score of 10, while another 6,67% (1) scored 5, another 6,67% (1) scored 4, another one (6,67%) scored 3, while 13,33 % or two testees scored 2, and 20% or three testees scored 1 while 40% or six of the testees obtained a SED score of 0, indicating that the majority of learners in the control group could not be regarded as socio-economically disadvantaged. The control group scored a mean of 2 on the Socio-Economic Deprivation Questionnaire.

A graphic representation of the Socio-Economic Status of the Control Group can be viewed in Figure 2:

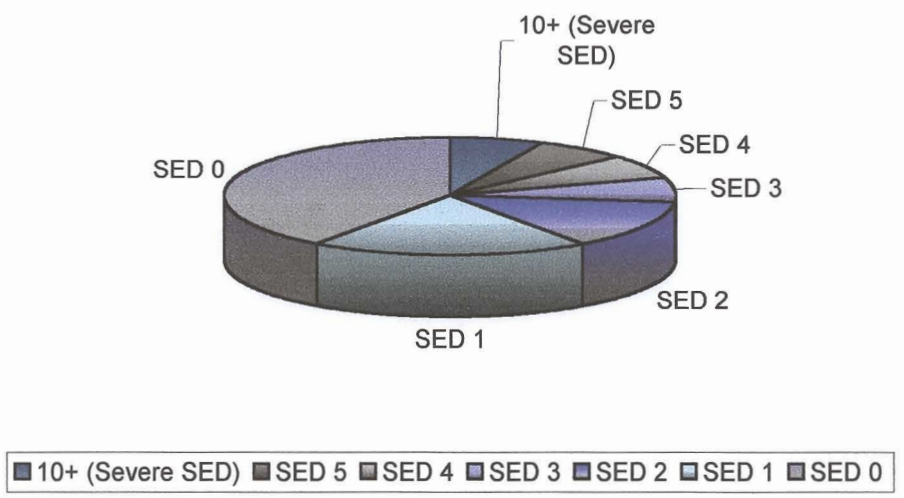


FIGURE 2: The status of socio-economic deprivation of the control group

Of the control group, only 1 (6,25%) of the parents did not have a standard six certificate. 43,8% (7) indicated that they did not have hardcover books in the household, but 87,5% (14) indicated that newspapers or magazines were being read in the household on a regular basis. All the

parents of learners in the control group indicated a positive attitude towards scholastic education, as was also confirmed by the fact that their children attended a pre-school on a regular basis.

Figure 3 gives a comparative illustration regarding literacy-related aspects of the Socio-Economic Deprivation Questionnaire as was mentioned in par. 5.3.1:

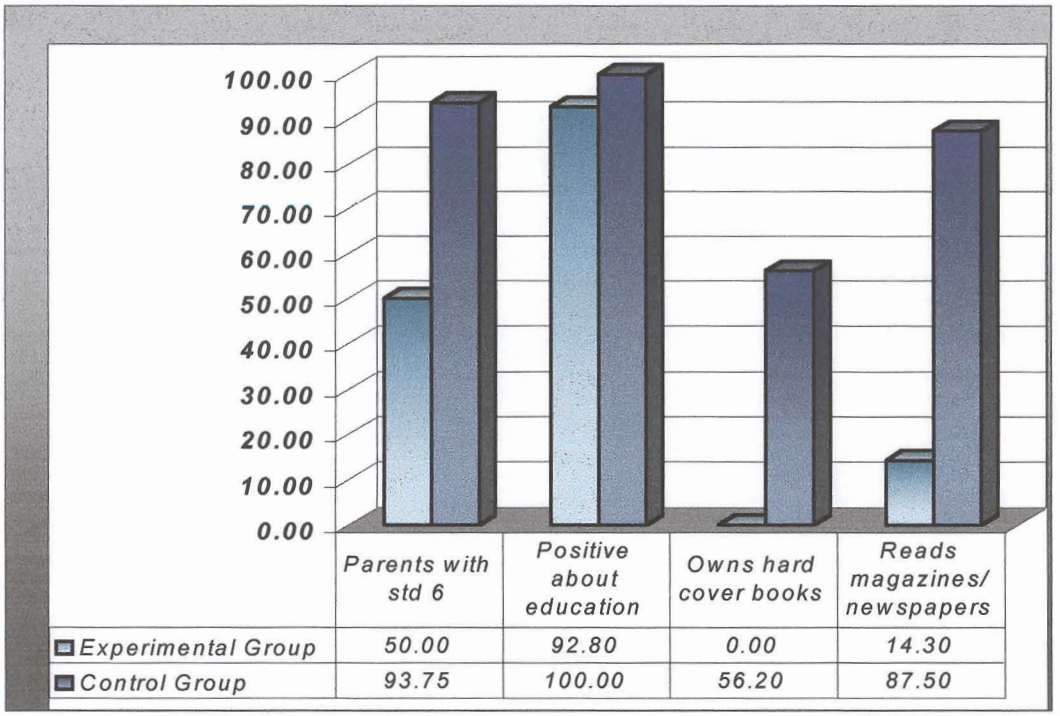


FIGURE 3: A comparative illustration regarding literacy-related aspects of the Socio-Economic Deprivation Questionnaire

5.3.2 Mental ages

The experimental group obtained a mean mental age of 5 years 0 months on the Group Test for 5-and 6-year olds, while the control group scored a mean mental age of 5 years 4 months. Although the test was administered in a controlled environment, certain normal child behaviour such as the shouting of answers, copying and guessing could not be prevented. It is therefore important to regard the results obtained on this instrument with caution. It is however also important to note that because of these factors the results obtained may only indicate higher scores, meaning that the real mental ages could be even lower.

During the administering of this instrument it was apparent that the learners in the experimental group lacked basic knowledge of more formal scholastic conventions such as listening skills, disciplined behaviour, et cetera.

5.3.3 Informal literacy knowledge

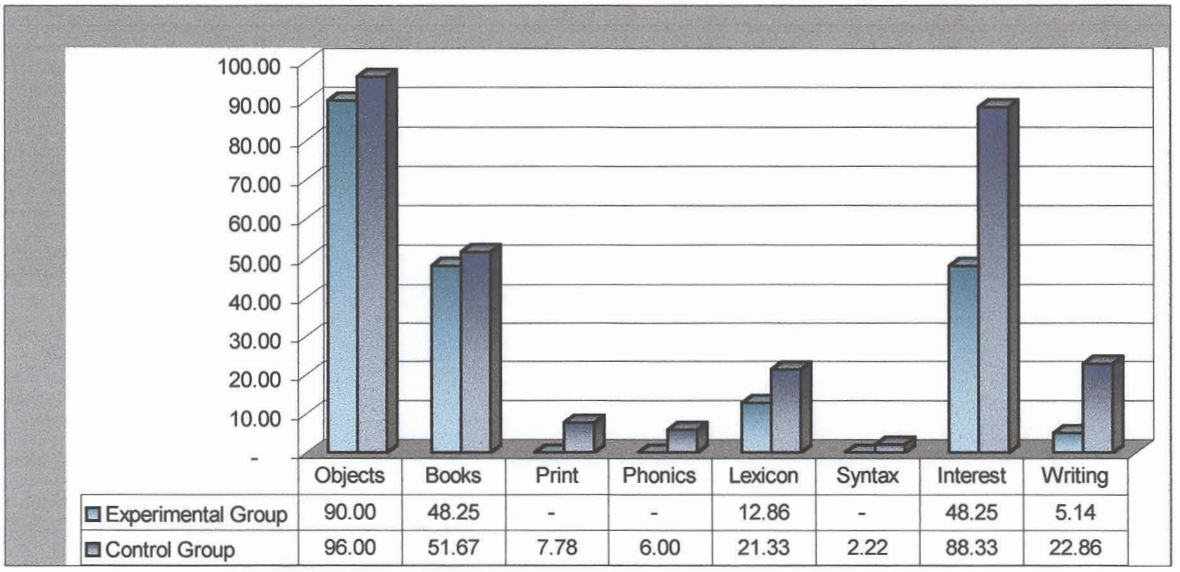
On the Informal Literacy Questionnaire the experimental group scored a mean of 9 points (18%) out of a maximum of 50. The control group achieved a mean of 14 points (28%) on the Informal Literacy Questionnaire.

An item-analysis revealed that the experimental group, consisting of 14 participants, were able to identify three-dimensional objects that were presented two-dimensionally with reasonable ease, but indicated a complete lack of knowledge regarding the other aspects of literacy, for example

only 7 participants (50% of the testees) indicated that they knew how to open a book; none of them knew that a story was told by the words; they had no knowledge of the print or phonemes; they did not know what the alphabet was; and 4 participants (28,6%) indicated that they did not like stories, while the other 10 participants (71,4%) indicated a positive concept of stories. 9 participants (64,2% of the experimental group) indicated that no one has ever read them a story. None of the participants of the experimental group were able to write their names or any part thereof.

The control group consisting of 15 participants were also able to identify pictures of three-dimensional objects, 7 of them (46,6% of the testees) indicated that they knew how to open a book, 3 participants (20% of them) knew that a story was told by the words; 4 of the testees (26,6%) also indicated knowledge of letter symbols; 1 participant (6,6%) could recite the whole alphabet, while 3 (20%) of them were able to recite a part thereof. Four of these participants (26,6%) indicated some knowledge of words, sounds and sentences, while 9 participants (60%) indicated that they liked stories and would like to learn to read. Twelve participants (80%) of this group also indicated that stories were read to them on a regular basis. The control group also indicated somewhat better writing skills such as writing letters, 4 participants (26,6%) could write between 1 and 4 letters, and another 4 participants (26,6%) were able to write more than 4 letters. Two participants (13,3%) could write their names completely while 6 participants (40%) could write their names to some extent. One participant (6,6 %) was able to indicate the capital letter in his name.

Figure 4 gives an illustration of the pre-test scores obtained by the experimental and control groups on the eight aspects measured by the Informal Literacy Questionnaire:



	Objects	Books	Print	Phonics	Lexicon	Syntax	Interest	Writing
Experimental Group	90.00	48.25	-	-	12.86	-	48.25	5.14
Control Group	96.00	51.67	7.78	6.00	21.33	2.22	88.33	22.86

FIGURE 4: Pre-test scores obtained by the experimental and control groups on the eight aspects measured by the Informal Literacy Questionnaire

When the two groups were compared, it was apparent that the experimental group who indicated severe socio-economic disadvantage, also lagged behind their peers regarding mental age as well as informal literacy knowledge, even though the emergent literacy knowledge of the control group also seemed to be lacking. This is due to the disadvantaged nature of the area in which the research was conducted. It is therefore likely for backlogs to appear, especially for the learners who formed part of the experimental group, when formal schooling starts.

The above mentioned data regarding the participants aided in the planning of the intervention that followed shortly after the assessments.

5.4 DESCRIPTION OF INTERVENTION

5.4.1 Materials used and types of text

A small selection of materials was used during this intervention programme. A graphical version of the **alphabet** was initially introduced and applied to the wall of the premises that were mostly used for the intervention. Every learner was issued with five ' **Letterland** ' **booklets** containing the different **phonics** and **letters** of the alphabet, accompanied by writing, reading, and colouring exercises.

Each learner was also supplied with a **scrapbook** for the means of written exercises, pasting of letters and pictures, writing of words or letter symbols, et cetera. **Plastic letter symbols** were also available.

Newspapers, magazines, and a large variety of **storybooks** formed part of the available materials as well as **scissors, pencils, crayons** and **glue**. The specific texts that were chosen were such that they enabled the learners to read successfully with practice. This meant that they were easy to understand and included many repetitive phrases. Examples of these texts included among others "The Gingerbreadman" and "Three little pigs". These stories were completely new to the participants in the programme.

5.4.2 Duration of intervention

Although it was initially anticipated that the programme would be completed within four months, many factors influenced the duration of the intervention, for example weather conditions, school holidays and personal circumstances of the participants and their families.

The intervention was, however, completed in forty sessions, which ranged between March and September, and excluded the assessment periods. The duration of each session was half an hour to one hour long, but never longer than an hour. These intervention sessions were conducted three times a week for the first month and twice weekly thereafter. Twelve sessions were conducted in the month of March, four sessions in April, eight sessions in May, eight sessions in June, and eight sessions in August.

It was apparent that more regular sessions were needed in the beginning of intervention since the concepts were still very new to the learners. The new concepts could be better reinforced with attendance three times a week. After the first 12 sessions it became apparent that the learners were well-aware of what was expected of them and only two sessions were necessary to master a new concept. One session per week was therefore used for the introduction of a new letter or concept, while the other session was used for reinforcement and skill practice.

Re-evaluation was again conducted in September and October, in order to establish whether any significant changes regarding the mental ages and the emergent literacy skills had occurred due to the intervention that had taken place.

5.4.3 Lesson content

The **alphabet** was read to and with the learners on a daily basis. Because much focus was placed on reading as an enjoyable activity a new **story** was read to the learners almost every week, although they often preferred to hear a story that had been read to them previously. Each week a new **phonic** or letter-name was introduced by means of an association with a suitable picture and story. **Word exercises,** where the learners were expected to identify the letter-names in words, were also implemented daily. The learners were sometimes expected to circle the appropriate letter in a word and sometimes to cut out the words in which the letters appeared from newspapers or magazines. **Writing skills** were practised in their scrap-books by means of pasting on an over-sized drawing of the relevant letter and copying the letter, and later on the words that contained the letter, on the opposite page. The learners were encouraged to join in the reading, where specific attention was given to letters and words, as well as to phonemic awareness, so the children could develop a conscious understanding of the fact that spoken words are composed of identifiable sounds. Instruction in blending sounds into words, and working with word patterns (for example bed, met, hen) was also provided.

5.4.4 Instructional activities

The instructional activities were based on Vygotsky's proposal of four developmental steps as described for to instructing literacy concepts. As described in par. 4.4.1. these four steps weave together language, literacy and play activities through mediation by the researcher /teacher. An

important aspect regarding instructional practice is to support and guide learners through the changing levels of competency toward new learning and literacy development.

The first step was natural involvement, in which the researcher provided opportunities for the learners to explore literacy activities and events. Learning tasks that are embedded in everyday activities were part of this step – this is situated learning. A realistic task that was meaningful to learners enabled the researcher to observe how the learners explored, what they were interested in and how proficient they were naturally. For the purpose of this research the children were involved in hearing the alphabet daily and connecting it with the beginning letters of their own names, as well as the names of their classmates or parents, and that of objects known to them, for example Coca-Cola, Simba, Kellogg's, Butterfield, etcetera. They were also introduced to story-reading as part of their exposure to the advantages of literacy efficiency.

The second step was mediated learning, in which there was support or assistance by the researcher. The researcher guided the learner's participation in new activities. A learning environment in which learners could try out their skills under tutelage was established. The learners were helped to become self-directed learners by using the instructional approaches of modelling and coaching. As new procedures were introduced, the researcher modelled the process to be learned and then coached the learners as they tried out the techniques. During this research the researcher for example read the story while the learners followed, sometimes stopping on a short word of which the letters were known, and sounding it out according to letter-name correspondence, and then blending the sounds into a word. Triangulation was

difficult to achieve, since most of the learners were living with relatives, many of whom were unable to assist them in the learning process.

The third step involved an external activity, or child-directed learning and practice with the aid of props and occasional coaching by the researcher. The learners were, for example, given the opportunity to build their own words with plastic letters and then attempted to read them. They were also given the opportunity to try sounding out words by themselves. As children practised and realised how to use varying strategies, they gained self-confidence and independent control of concepts, and the researcher could then arrange varied opportunities for working independently and in collaboration with peers. The learners were also encouraged to build words and could attempt to read each other's words and classify the words as sensible or non-sensible. They were also given the opportunity to explore with word-writing in the same manner.

The fourth step, internal or independent activity, occurred when the learners could link learned concepts to other related concepts, test out general principles, and operate without the help of the researcher, and so begin to have an internalised process of thinking, reasoning and solving problems. Eventually learners were enabled to carry out tasks unaided and to achieve a general understanding of procedures and underlying concepts to a varying degree. In this research the learners spontaneously started sounding out letters and blending them into words, or they were taking the initiative of reading stories by themselves. Once again triangulation was difficult to establish, since very little parental support could be given.

Although these steps are mentioned as separate activities, they were actually implemented on a continuous, daily basis, and occurred simultaneously, depending on the specific need and developmental level of each individual learner, as was apparent to the researcher during the intervention.

5.5 INFORMATION GAINED FROM POST-TESTING

5.5.1 Mental ages

On the Group Test for 5-and 6-year olds, both the experimental and the control groups showed improvement on all six items of this test. The experimental group obtained a mean mental age of 5 years 9 months, indicating improvement of 9 months between the pre- and post-testing, while the control group scored a mean mental age of 6 years 0 months, indicating improvement of 8 months between the pre- and post-testing.

The experimental group had received no formal schooling or exposure to the skills (mostly perceptual) tested by this test during the period of intervention. Improvement of mental ages can therefore be ascribed to normal maturation that took place during the intervention period as well as to improvement of general test behaviour regarding more disciplined behaviour and an increased ability to follow of instructions.

5.5.2 Informal literacy knowledge

On the Informal Literacy Questionnaire the experimental group scored a mean of 35 points (70%) out of a maximum of 50. The control group achieved a mean of 18 points (36%) on the Informal Literacy Questionnaire. Some of the participants dropped out during the period of intervention, while some were away for a long period of time. At the time of the post-testing 12 participants of the experimental group remained, while 11 of the control group had remained.

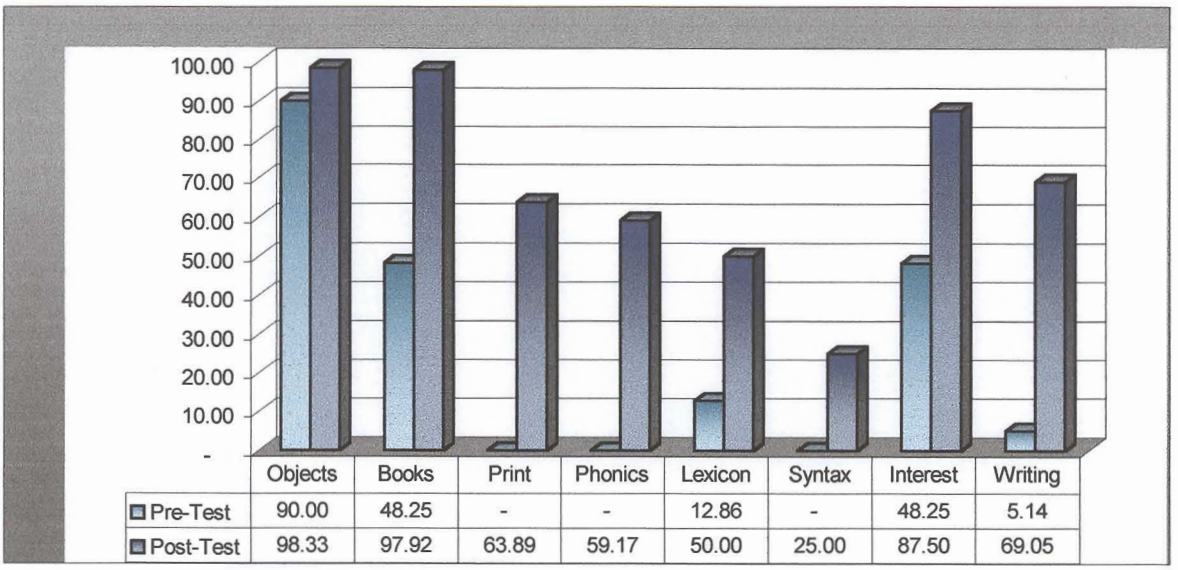
The experimental group indicated significant improvement on the Informal Literacy Questionnaire. Ninety one percent of the participants were able to indicate how a book should be read. Ten of the participants (83%) knew that the story was told by the words, while 16% (2) still indicated that the story was told by the pictures. Significant improvement was also observed on print-related activities. The participants of the experimental group indicated a clear knowledge of where a story starts, 16% (2) were able to indicate a word and read it, while 66% (8) of the testees were able to read a word indicated to them by the researcher. Although only
8 % (1) of the participants were able to identify and read a sentence, 41% (5) of the participants were able to read a sentence that was indicated to them by the researcher. Six of the participants (50%) were able to read more than 10 letters, while 41% (5) were able to read between one and ten letters. Only one participant of the experimental group was not able to identify any letters. Sixteen percent (2) of the participants were able to recite the full alphabet, while 25% (3) were able to recite more than 10 letters, and 50% (6) could recite between 1 and 10 letters of the alphabet. Only one participant (8%) did not demonstrate any knowledge of the alphabet.

There was also a significant improvement in the participants' abilities to apply their phonemic knowledge – for example 100% (12) of the participants were able to identify the first letter of a word, 58% (7) were able to replace phonemes, and 58% (7) could identify rhyming patterns. Only 33% (4) were, however, able to identify the middle sound of the word "cook". Although the participants (100%) were all able to distinguish between words- and non-words, 10 of the participants (83%) did not improve in their ability to use words, for example to form two words from the word "storybook", and they were also not able to identify whether the word "train" or "locomotive" was the longest. Eight of the participants (66%) were able to read words from a list, while 25% (3) were able to identify and read more than ten words from a book. Only 8% (1) of the participants were unable to read any words. Syntax awareness of the group improved by 50%, but the learners were not able to indicate when a capital letter should be used, and did not indicate knowledge regarding punctuation. All the participants indicated a strong preference for reading-activities, 83% (10) indicated that they wanted to learn to read, and 66% (8) indicated that stories are read to them at times. There was a significant improvement in the participants' ability to write: 83% (10) were able to write more than 10 letters; 50% (6) were able to write out their names in full; 75% (9) could identify the capital letter in their names, and 25% (3) were able to write more than 10 words, while 50% (6) were able to write between one and ten words correctly.

At the time of the post-test four of the participants of the control group had left and eleven of the participants had remained. Slight improvement regarding informal literacy knowledge was apparent at the time of the post-testing, but this could possibly be ascribed to some stimulation they had received at their homes. The control group performed somewhat better on most items of

the Informal Literacy Questionnaire. The best improvement was found on the items that indicated their knowledge of numbers and their abilities to write their names.

Figure 5 gives an indication of the results obtained in the different categories of the Informal Literacy Questionnaire when the pre- and post-testing scores of the experimental group were compared.



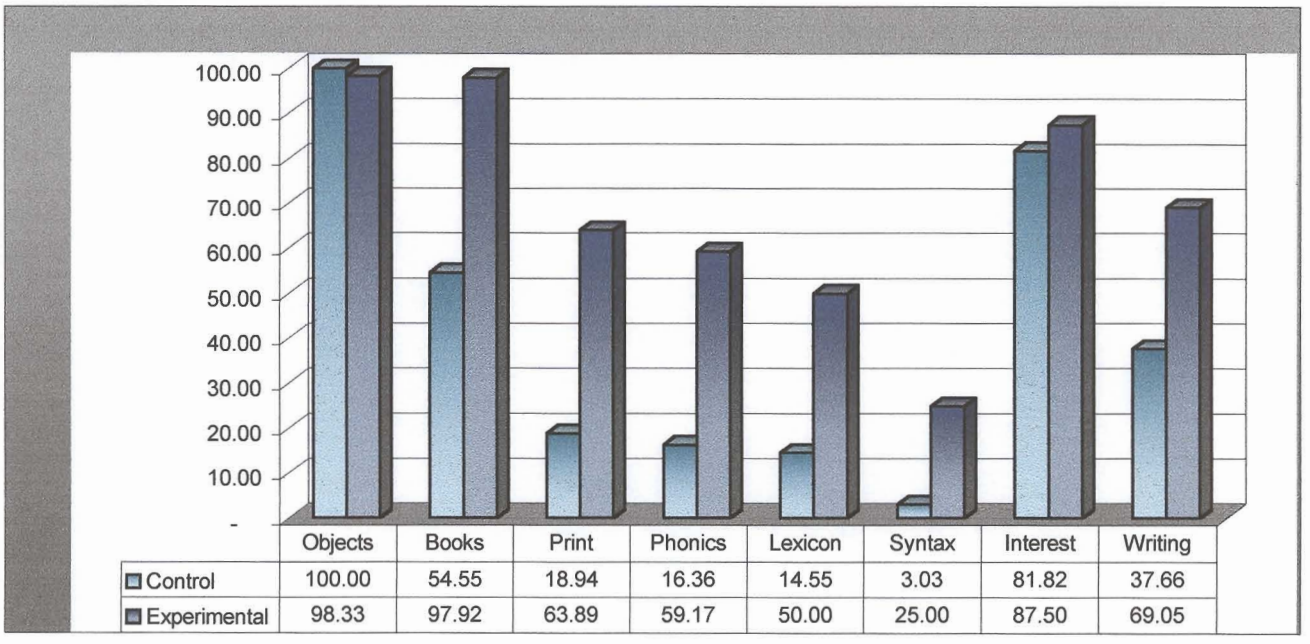
	Objects	Books	Print	Phonics	Lexicon	Syntax	Interest	Writing
Pre-Test	90.00	48.25	-	-	12.86	-	48.25	5.14
Post-Test	98.33	97.92	63.89	59.17	50.00	25.00	87.50	69.05

FIGURE 5: Illustration of the pre-and post-testing scores as obtained by the experimental group on the Informal Literacy Questionnaire

Regarding a comparison between the informal literacy knowledge of the experimental and the control groups, a considerable improvement on the part of the experimental group was significant. The control group only performed better than the experimental group with regards to their knowledge of numbers, their ability to identify which word was the longest of "train" and

"locomotive", their abilities to write their names, and in the regularity that stories were read to them. Six (54%) of the learners who formed part of the control group were able to indicate that a story was told by the words, 36% (4) could identify more than six letters, 27 % (3) were able to recite the whole alphabet and 36% (4) were able to identify the beginning sound of a word. Fifty four percent (6) of the participants were able to write their names correctly, and 63% (7) were able to indicate the capital letter in their names. Four (36%) were able to identify more than 6 letters, but none of the control group were able to arrange a sentence correctly.

A graphic representation of the differences between the experimental and control groups appears as in Figure 6 below:



	Objects	Books	Print	Phonics	Lexicon	Syntax	Interest	Writing
Control	100.00	54.55	18.94	16.36	14.55	3.03	81.82	37.66
Experimental	98.33	97.92	63.89	59.17	50.00	25.00	87.50	69.05

FIGURE 6: Comparison between the experimental and control groups on the post-testing of the Informal Literacy Questionnaire.

5.5.3 Correlative Information

According to the Spearman Correlation Coefficients no significant correlation (0.06330 / 0.8621) existed between the levels of informal literacy knowledge and the mental ages of the experimental group at the time of the pre-test. At the time of the post-testing, however, there was a significant correlation (0.80123 / 0.0053) between mental ages and performance on the informal literacy questionnaire. These findings can probably be ascribed to an increase in maturity and discipline that was achieved during the period of intervention. The lack of formal schooling experience that the experimental group was exposed to before the intervention could possibly have contributed to guessing and trial- and error-answering styles during the pre-testing.

The control group, however, indicated a higher correlation (0.75515 / 0.0072) between the mental ages and the level of informal literacy knowledge on the pre-test, while the correlation was less significant (0.37443 / 0.2566) at the time of the post-testing. This can be ascribed to the fact that the learners in the control group gained in mental maturation at the time that the intervention was conducted with the experimental group, but did not develop much regarding their level of informal literacy knowledge due to lack of exposure to the more formal literacy concepts.

According to the Pearson Partial Correlation Coefficient the socio-economic status of the experimental group indicated no significant correlation with their informal literacy knowledge, as indicated by the Informal Literacy Questionnaire at the time of the pre-test (-0.11248 / 0.7733)

and the post-testing (0.7006), indicating the value of informal literacy exposure despite the lack of informal literacy exposure and guidance at home-level.

The Spearman Partial Correlation Coefficient indicated a negative correlation (-0.56068 / 0.1163) between mental ages and level of socio-economic deprivation, of the experimental and the control groups, indicating that the lower the socio-economic status indication on the SED questionnaire, the higher the mental ages were. This fact also indicates the influence of early stimulation on the cognitive development of learners.

The Spearman Partial Correlation Coefficient also indicated significant correlation (0.61623 / 0.0772) between the regularity of attendance and the mental ages of the experimental group.

Due to the significant gain in emergent literacy skills of the experimental group, as was apparent during the post-testing, a conceptual framework might serve as a guideline for similar intervention practices. Such a framework will therefore be presented shortly.

5.6 A PROPOSED CONCEPTUAL FRAMEWORK FOR INTERVENTION

What is clear from a variety of studies, is the important role that parents play at home in enabling young children to develop as readers (Campbell, 1995:127). Children who learn to read before arriving at school have the advantage of an interested adult with time to devote to them at the stage when they were interested in reading - either to read to them, talk with them, or answer their questions. That view is extended because literacy is increasingly being recognised as a

socio-psycholinguistic activity in which that term emphasises the importance of the adult-child interaction as well as recognising the thought and language processes (Teale & Sulzby, 1989).

In this research it was confirmed that children from disadvantaged homes where parents are illiterate, lag behind their peers regarding cognitive skills and literacy knowledge (refer par.5.4.2). Most of them did, however, display the learning potential to benefit from literacy-related exposure and guidance (see par. 5.3.3), despite already existing backlogs in their cognitive development. It can therefore be assumed, according to the results obtained through the intervention, that disadvantaged learners will benefit from an early literacy programme before they make their entry into the formal school system.

Confirming the above finding, Clay (1991:56) mentions that, although many factors are important for successful achievement in reading and writing, for example oral language, visual perception and motor behaviour, children can be helped to expand their foundational learning in these areas at the same time as they begin to work with reading and writing. **Therefore, the absence of a prerequisite level of readiness such as the skills tested by traditional school readiness tests (refer par. 5.2.4.2) does not imply that opportunities for the presentation and acquisition of emergent literacy skills should be delayed.**

These research findings confirm the fact that a child's social background is a powerful determinant of the efficiency with which he acquires certain skills, but maintain that successful learning can be actualised despite a lack of early exposure, when children are guided correctly at a pre-school stage. The framework that is therefore presented in this research can thus greatly

contribute to eradicating delayed or inefficient literacy acquisition where it had not previously been likely for disadvantaged children who were experiencing barriers to learning.

5.6.1 Objective of the proposed framework

There is neglect in the provision for learners with special educational needs. (refer par. 1.6), and these children will progressively be moved into ordinary learning contexts. The difficulties experienced by these learners are, however, often the result of lacking educational opportunities and disadvantage in the early years (refer par. 3.6.2). The lacking opportunities and disadvantage constitute what is currently referred to as 'barriers to learning', and cause the children to experience the formal school system as alien and difficult, as confirmed in par. 1.2: The lack of educational opportunities in the early years has severe negative effects on the scholastic performance of a child. In the South African context many children are deprived of opportunities that would enhance successful performance on an academic level, and many children enter the school system with no emergent literacy skills.

The socio-economic and educational disparities as well as structural inequalities that were generated by apartheid in South Africa had a devastating impact on the educational system and contributed to a large extent to the creation of special educational needs. The suggestion was also made in par. 3.3.2 that the disadvantaged populations' difficulty to acquire literacy adequacy limited their opportunities to find jobs or other positions where literacy efficiency is required.

In terms of the new Constitution of South Africa it is therefore the long-term objective of this framework to meet the educational and developmental needs of all children. Referring to the Government Gazette of the Republic of South Africa, Vol 377, Cape Town, 15 November 1996 which is quoted in par. 1.4 of this research report, the framework can aid in **consigning to history the past system of education** and provide education of progressively higher quality for all learners, and, in doing so **lay a strong foundation for the development of all children's talents and capabilities** which will contribute to the eradication of poverty and the economic well-being of the society. This framework can also aid in **protecting and advancing the diverse cultures.**

In order to meet the above mentioned objective, it is imperative that provision be made for intervention at a young age. As mentioned in par. 1.4, it is common knowledge that retarded cognitive performance persisting beyond childhood is an irreversible condition. It is also evident that insufficient exposure to literacy related activities contributes largely to poor cognitive and academic performance in the formal school system.

It is therefore the immediate goal of this framework to provide guidelines for intervention that could enhance the literacy experiences of disadvantaged learners in the pre-school in order to prevent the occurrence of academic failure in the formal school.

In order to achieve this, the aspects mentioned in par. 1.8.2 regarding emergent literacy skills will be addressed, namely: Knowledge of **books**, knowledge of **print**, **phonemic** awareness,

lexical knowledge, knowledge of **syntax**, knowledge of **writing,** as well as motivation, **interest** and attitude.

5.6.2 Components of the framework

Reed, Webster & Beveridge (1995:170) state that literacy should be understood in terms of mediation and the roles played by educator and pupil in creating what Vygotsky called the zone of proximal development (ZPD).

> *"The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the 'buds' or 'flowers' of development rather than the fruits of development. The actual developmental level characterises mental development retrospectively, while the zone of proximal development characterises mental development prospectively"* (Vygotsky, 1978:86).

In the framework presented in this research the zone of proximal development refers to the emergent literacy skills. These skills have to be conveyed by means of a mediator/teacher who guides, supports, motivates, instructs and facilitates the disadvantaged pre-schooler's literacy acquisition by means of incorporating instructional events with developmental trends in order to prevent the development of special educational needs caused by barriers to learning. A graphic representation of this framework is the following (Figure 7):

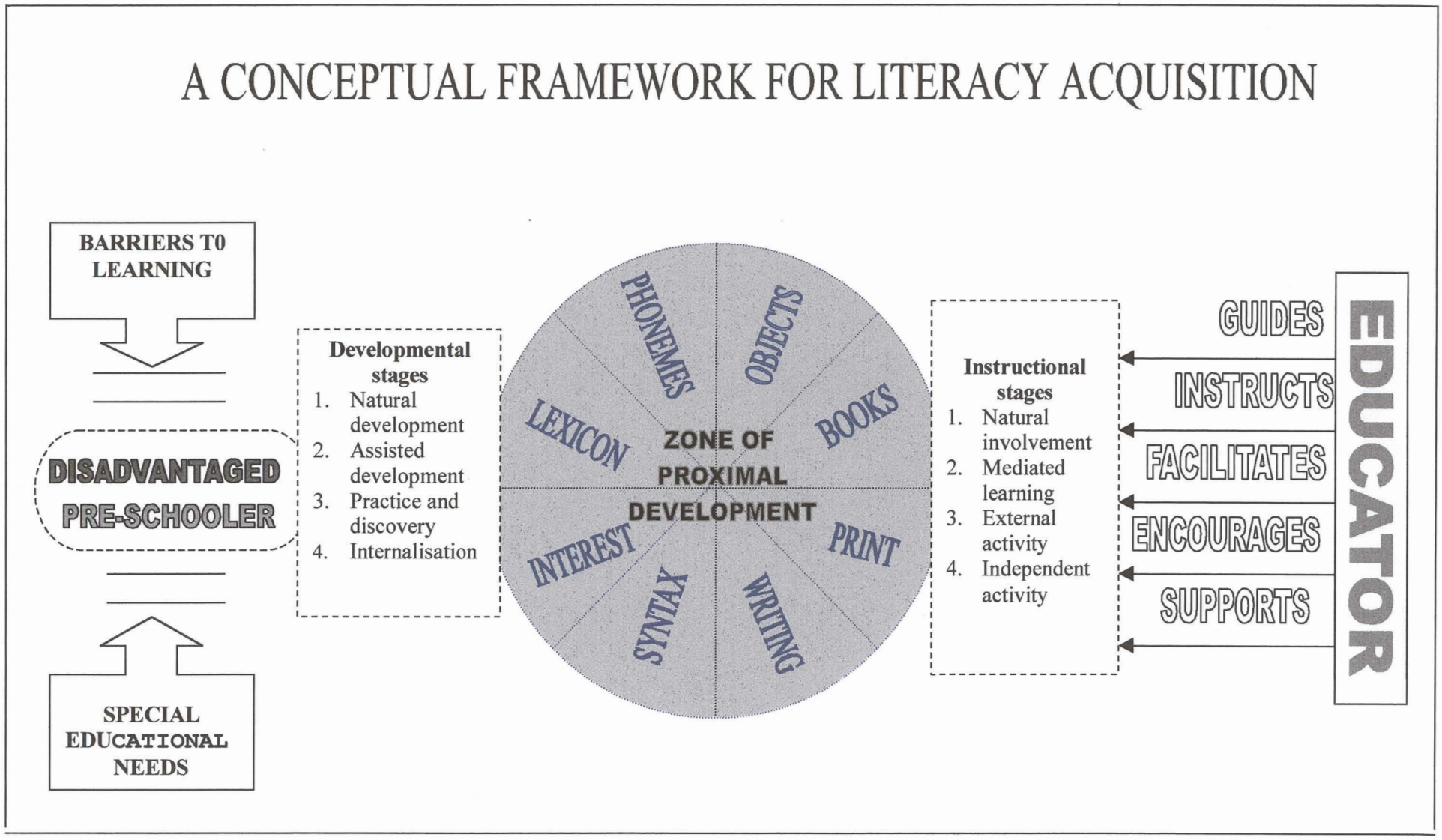


FIGURE 7: Conceptual framework for literacy acquisition

The importance of the type of interaction between adult and child, or between peers, in which mental development is actualised through mediation and proximation, or sharing and closeness, should be understood. The importance of examining achievement 'prospectively' in the learning encounter, rather than after it, is recognised. The role of the participating components will be discussed shortly:

5.6.2.1 **Role of the educator**

Reed, Webster and Beveridge (1995:172) devised a model regarding the practice of teaching with a view to systematically studying teachers' underlying conceptions of literacy. The model that is described by Reed, Webster and Beveridge (1995:171) gives a systematic representation of teachers' underlying conceptions of literacy that incorporates aspects of assessment, resource management, adult intervention and classroom organisation that could selectively be applied to a framework for teacher involvement.

Two ortho-diagonal dimensions provide the framework of the model. The vertical axis is concerned with the level of mediation, control, structure or management exercised by the teacher. The horizontal axis is concerned with the level of initiative, engagement, collaboration and active involvement enjoyed by the child in the learning process.

Tabel 1 as illustrated in Reed, Webster and Beveridge (1995:172) is consequently represented to illustrate **adult-child proximation through literacy learning**:

HIGH Adult Mediation

A. Abstracted Literacy

- Rote learning through prescribed steps: **Adult structured with frequent reinforcement**; de-contextualised learning with little negotiation; repetitious rule-based teaching
- Attention is centred on memorising the surface conventions and contents of textual systems to the exclusion of 'meaning-laden' contexts.
- Image of learner as passive , empty vessel
- Model of literacy as a set of skills to be handed over

Linear curriculum

Critical Literacy D.

- Collaboration and dialogue within reading and writing events: **negotiation, discussion, review, weighing the evidence and drawing conclusions.**
- Attention is drawn to the 'acts of mind'; 'ways of telling'; and the forms, functions, and 'secrets' of textual understanding.
- Image of learner as an active partner
- Model of literacy as a dialogue in the making

Spiral curriculum

Low child Initiative ← → High child Initiative

Marginal Literacy

- Limited enjoyment of, and exposure to, textual forms and uses; lack of modelling in context; disparagement of literate purpose.
- Assumption that pupils do not have the capacity, motivation, or need, for literate understanding beyond the superficial
- **Image of learner as an observer** in need of containment and entertainment
- Model of literacy relates to the interested few

B. Hollow Curriculum

Immersed Literacy

- **Exposure to and experience of real books**; topic-led creative writing centred on personal or expressive modes of thought.
- Assumption that pupils 'read when ready' and are self-motivated in determining the objectives of literate enquiry.
- Image of learner as lone voyager.
- Model of literacy as a garden of delights

Seamless Curriculum **C.**

LOW Adult Mediation

TABLE 1: Adult-child proximation through literacy learning

The value of acknowledging this model in the search for effective teaching practices for disadvantaged pre-schoolers, lies therein that none of these quadrants as a whole can serve as a guideline when working with disadvantaged pre-schoolers, although valuable insights can be deducted from each quadrant. In this regard, therefore, the researcher advocates that intervention should be **high in teacher management with frequent reinforcement,** as described in quadrant A, due to the lack of mediated learning at early ages. Some aspects of literacy should, however, be **gradually absorbed** by means of natural involvement and observation as described in quadrant B. A wealth of resources and materials such as books to furnish a **rich and stimulating environment** should be provided and the learners need to be **immersed in a wide range of written forms and genres,** as described in quadrant C. Finally, as described in quadrant D, the adult should **review** with the child how and why a task was tackled, what has been learned and what can be carried forward to the next task. These aspects described in quadrant D are consistent with Vygotskian (1983) descriptions of developmental processes or effective teaching or learning (Reed, Webster & Beveridge, 1995:173). (Refer par.4.4.1 and 5.3.4.)

Therefore the educator's role is important in terms of providing a print-rich environment in which literacy can be learnt **(facilitate)**; being available to aid the child in what he or she is attempting to achieve **(support)**; moving the learning along in particular ways when needed **(guide)**; providing some direct teaching when the child requires information **(instruct)**; and letting the children know when aspects of his/her learning are successful **(encourage)**.

The Above mentioned interaction can be actualised when any content or curricula, such as the emergent literacy skills that were addressed in this research report, are involved that form the zone of proximal development. In this research report the zone of proximal development refers to the emergent literacy skills that are lacking for the disadvantaged pre-schooler due to educational deprivation, and this will be discussed shortly:

5.6.2.2 **Emergent literacy skills as a zone of proximal development**

It was stated in par. 2.5 that as a result of educational disadvantage a large proportion of the South African population have special educational needs. The special needs and disadvantage relate among other factors to lack of exposure to emergent literacy knowledge. In par. 1.7.1 it was stated that literacy involves knowledge regarding the letters of the alphabet and how to use them, but that it also involves attitudes, assumptions, and expectations about writing and reading. These concepts are included in the term 'interest' that forms part of the framework, and are enhanced by early exposure and knowledge of other aspects such as letter names, book-conventions, writing skills, et cetera, as well as by the value of these skills in one's life. These aspects form the 'zone of proximal development' that was referred to in this research.

An important aspect of this model of intervention will therefore be exposure to emergent literacy skills and the building of early intervention procedures that will aid in the prevention of special educational needs for learners who experience barriers to learning.

The following aspects are therefore included (refer figure 7): Concepts about **letters and letter sounds**, concepts about **words**, and concepts about **text**. Included in these concepts will be the aspects that were assessed by the Informal Literacy Questionnaire, namely recognition of three-dimensional **objects**; knowledge of **books**; knowledge of **print**; **phonemic** awareness; **lexical** awareness; awareness of **syntax**; motivation, **interest** and attitude, as well as **writing** skills.

The concepts that are named in the above paragraphs are of particular concern to a large population of the South African community who experience barriers to learning in terms of educational deprivation, as described in par. 2.3.3. The learners that need to be included in this model will therefore be discussed shortly.

5.6.2.3 **Learner participation**

It is argued in this research that, if the learner enters the formal school setting with adequate informal literacy skills, he will be less likely to develop special educational needs later on.

Chronological age is not the only criterion for school readiness - differences in home and family background profoundly affect the rate of cognitive development, so that by a given age a child from a socially advantaged home is more able to benefit by education than his socially disadvantaged peers (Osborne & Milbank, 1987:93; Feuerstein, 1980). **It was however established in this research that, despite lack of literacy-related experiences at an early stage and despite backlogs related to his performance on the test for "school readiness", it has been demonstrated that it is possible to accelerate the disadvantaged learner's**

emergent literacy skills in order to send him to school on an equal footing with his more advantaged peers who were likely to have attended a formal pre-school institution.

In par. 2.2 it is stated that "a special need exists when any disability affects the learning to the extent that any or all of special access to curriculum, special or modified curriculum, or specially adapted conditions of learning, are necessary if a pupil is to be effectively educated" (Donald, 1993:140). In South Africa, however, some learners cannot derive sufficient benefit from instruction because of handicapping conditions (barriers to learning) in their environment that precede instruction, such as poverty, lack of educational support and inadequate informal literacy experience. As reported in Donald (1993:140): "...the predictors of the child's ability to benefit from formal education are primarily dependent on the quality and quantity of informal education at home..."

A framework of learner intervention will therefore have to include those learners who lack in educational opportunity and informal literacy education at home. As stated in par. 3.4, by Kriegler (1993:69), the focus should be on preventative and developmental work. This implies that an effective model of intervention will have to include learners that match the following criteria:

- **Pre-school learners aged between five and six,** who will enter the formal school by the following year. Because literacy acquisition is a long and complex process that begins at a very early age for learners that are exposed to it (Refer par. 3.5.1), there is

no reason to postpone literacy learning until the child enters formal school at the age of six or seven.

The **most important argument in this research is therefore that intervention is most effective if it comes early in a child's school career – or even before** (Pikulski, 1994:35). Slavin (1996) argues that the focus on correction rather than prevention continues in spite of much research evidence that suggests early intervention is most effective. It is also argued in this research (refer par. 4.2) that if the learner enters the formal school setting with adequate informal literacy skills, he will be less likely to develop special educational needs later on. For this reason an effective, successful model will have to provide for five- and six-year olds that are likely to enter the formal school situation the following year.

- Learners from **disadvantaged homes** that lack informal literacy support and experience. In par. 4.5 it is stated that an overwhelming proportion of "at-risk" learners are from economically disadvantaged, single-parent homes from coloured communities. These learners have a high probability of academic failure and of eventually dropping out of school.

Special needs mostly develop in the midst of severe social and educational disadvantage have operated, and as stated in par. 2.2, these special educational needs manifest especially as the need for special educational support in the acquisition of basic educational skills that have

been delayed or denied to learners through lack of access to, or inadequacy of, the existing educational system.

> *"The Department of Education's intervention in the field of Early Childhood Development must be seen as an important and essential innovative thrust in establishing a proper foundation for children's later learning and at the same time constituting an essential bedrock on which the new education and training system will be built"* (Interim Policy of Early Childhood Development, 1996:14)

5.7 SUMMARY

> "*The few children who cannot read and write worry us, because they are exiles from the society of child learners in school and are threatened, by parents, teachers and other adults, with exclusion from the wider social world outside school if they fail to become literate*" (Margaret Meek in Deford, Lyons & Pinnel 1991:75)

In the disadvantaged community of Eersterust it was apparent that although the parents lacked the skills and means of exposing their children to literacy related activities, they indicated a strong need for their children to learn to read, and encouraged them to partake in the research-related schooling that was provided.

The learners, who formed part of the experimental group, and who were regarded as socio-economically disadvantaged according to the Socio-Economic-Deprivation Questionnaire,

performed poorer on the Group Test for Five- and Six-Year olds and on the Informal Literacy Questionnaire than their peers in the control group at the time of the pre-test. According to insights gained in chapters two and three of this research report with regards to the experience of barriers to learning and cultural deprivation, it can be predicted with a certain amount of validity that special needs could develop when these learners make their entry into the formal school system.

The purpose of this research was to establish whether these learners' acquisition of literacy knowledge could be accelerated by means of mediation, as was described in par. 5.2.3 and par. 5.3.

In par. 5.2.3 it was also mentioned that subsequent goals were set during the period of intervention. The experimental group indicated acceleration of their emergent literacy skill acquisition, that removes a clear barrier in the way of the learning that will take place in the formal school situation. The researcher therefore also advocates early literacy exposure for pre-schoolers at risk of developing special educational needs due to socio-economic disadvantage and educational deprivation. The framework that is presented in this research (Refer par. 5.6.2 and figure 8) can form the foundation of early intervention that can remove the barriers to learning.