AN EVALUATION OF SCHOOL READINESS IN

AN INFORMAL SETTLEMENT

By

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I declare that "An evaluation of school readiness in an

informal settlement" is my own work and that all the

sources that I have used or quoted have been indicated

and acknowledged by means of complete references.

(signature)   5 / 09 / 2000

SIGNATURE: B. NAIDOO   DATE

DEDICATED TO MY WIFE POOVANDRI AND

MY DAUGHTERS MELISSA AND NICOLENE

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SUMMARY

School readiness is a stage in a child's development when he learns easily and effectively. A child who is not yet ready for school on school entry is already at a disadvantage in the formal learning situation. This in itself can affect his school performance in the later years. The researcher, being a primary school teacher noticed that the children from the informal settlements that had no pre-school intervention arrived at school unready to learn.

This investigation set out to evaluate the school readiness of children from an informal settlement without a pre-school programme. The school readiness of these children were compared against children from an informal settlement with a pre-school programme. Tests and questionnaires were used to determine the five year olds' school readiness. The researcher used the idiographic method of research.

The findings of the research were based on the interpretations of the tests and questionnaires.

TITLE OF THESIS

AN EVALUATION OF SCHOOL READINESS

IN AN INFORMAL SETTLEMENT

KEY TERMS

Informal settlements; School readiness; Learning disabilities;
"At *risk*" children; Early identification; School maturity.
Criteria for school readiness; Early childhood development
policy; School readiness in third world countries;
Environmentally deprived children.

CONTENTS

CHAPTER 1

INTRODUCTION, STATEMENT OF THE PROBLEM, AIMS AND CLARIFICATION OF CONCEPTS

CHAPTER 2

THEORETICAL ISSUES: THE RATIONALE FOR AN EVALUATION OF SCHOOL READINESS IN AN INFORMAL SETTLEMENT

CHAPTER 3

AN OVERVIEW OF THE GOVERNMENT'S INTERIM POLICY FOR EARLY CHILDHOOD DEVELOPMENT AND A REVIEW OF SCHOOL READINESS IN INFORMAL SETTLEMENTS IN DEVELOPING COUNTRIES

CHAPTER 4

EMPIRICAL DESIGN

CHAPTER 5

THE EMPIRICAL INVESTIGATION

CHAPTER 6

FINDINGS AND RECOMMENDATIONS

CHAPTER 1

INTRODUCTION, STATEMENT OF THE PROBLEM, AIMS AND CLARIFICATION OF CONCEPTS

1.1 INTRODUCTION

The squatter/informal areas are growing even faster than the booming cities they surround. The flood of squatters bursts all barriers of planning and legislation. They ask for no one's consent to come, they just arrive. They do not ask for official permission to knock up a ramshackle home to live in or let out, they just get on with it. So the cities spread amoeba-like in places undreamed of in most planners' philosophies, over low - lying marshes and 60 percent slopes, between railway lines, around formal residential areas and borders of shopping complexes (Harrison, 1993:160).

The mushrooming of squatter (informal)settlements in South Africa is on the increase. According to Harrison (1993:156) this could be attributed to the following factors:

1. In the third world·urban incomes are on average two and a half times higher than rural incomes.

2. There is a grotesque gap between the urban and rural in the provision of all kinds of government services, health, sanitation, schools, electricity and clean water. All these factors represent a kind of invisible or social income and migrants are well aware that they improve their life chances and those of their children.

3. Rents are high in the cities.

4. The promised land that migrants hoped for turns out to be a mirage for many of them. Though their income will usually be better than back home, they will often end up earning a subsistence living as a hawker or casual labourer, that is if they can get any work at all.

Overcrowding imposes mental strains, family tensions increase, rivalries between brothers and sisters get more intense, and privacy is an unknown luxury. Together these factors push the children towards educational failure (Harrison, 1993:169).

The parents in the squatter settlements have enormous pressures put on them. They need to clothe and feed their children, they feel very unstable, not knowing when the authorities may force them out of the land, they need to find employment close to the settlement to prevent excessive travelling costs. Given the above scenario it is evident that parents are not going to address the issue of school readiness amidst the more pressing issues of employment, hunger, sanitation, overcrowding and survival.

1.2 AWARENESS OF THE PROBLEM

The researcher intends focussing on the effects of living in an informal settlement on the child's school readiness.

As a primary school teacher, the researcher has become aware that grade one learners from informal settlements, that have not attended a pre-school, lack adequate school readiness. The researcher has also seen many of these pre-school children frequenting stop streets, robots and shopping complexes begging for money and food.

Many of the children from informal settlements enter grade one without having attended a creche/playschool/pre-school. When these pupils enter the schools, they are placed in homogeneous classes and are required to learn with children that had attended pre-schools. Therefore, for many of these children Gr one and Gr two serves as an orientation phase to formal schooling. Those children that have difficulties adjusting to the pressures of formal schooling may be at risk to develop specific learning disabilities. Le Roux (1994:33) maintains that poverty-culture children are trapped in an environment that frustrates all their attempts to actualize the latent potential that is unique to each individual. Booyse (1989:145) also contends that the potential of children in a culture of poverty is inhibited by an unsupportive milieu. The danger of this situation is that pupils in a culture of poverty cannot adapt to a wider society (Banks, 1990:210).

The Specific Learning Disabilities Act of 1969 (Lerner, 1993:9) defined learning disabled children as exhibiting a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language.

These may be manifested in disorders of thinking, listening, reading, writing, spelling or arithmetic. It has been estimated that as many as 50 percent of black South African scholars are academically retarded, most of them suffering from the effects of environmental, socio-economic cultural and/or educational deprivation (Engelbrecht, Kriegler & Booysen, 1996:111).

Many of the parents that come from informal settlements are mainly illiterate and they don't often stimulate their children intellectually. Parents do not always have the knowledge and skills to guide their children towards school readiness and should entrust this task to the pre-primary school (De Witt & Booysen, 1995:125). Environmentally deprived parents, in particular, often lack the educational knowledge pertaining to school readiness of pre-schoolers (De Witt & Booysen, 1995:125). This may result in developmental lags or abnormal patterns of behaviour.

A child who is not yet ready for formal schooling on entering grade one is already at a disadvantage in the formal learning situation (De Witt & Booysen, 1995:155). This in itself can have far-reaching effects on his school performance in the later years as well as his total growing up into adulthood (Derbyshire, 1990:187).

1.3 ANALYSIS OF THE PROBLEM

Children presenting themselves at the kindergarten door carry with them baggage that isn't visible at first glance. You can see their bag of school supplies, but they also bring with them what most early childhood educators and some parents would call readiness for school - a level of maturity or skills that anticipates their success in the school setting (Graue, 1992 b:225). Liddell and McConville (1994:4) maintain that for the past 30 years a quarter of black South African children fail their first year of school, one of the highest rates of first grade school failure in Africa. Integrate Market Research (Liddell & McConville, 1994:4) report that in a recent survey 79% of these children enter school without the experience of day care, childminding or pre-school education.

Research supporting the belief that pre-school intervention can increase school success began in the early 1960's and has produced longitudinal evidence that children at risk of academic problems when provided with a pre-school experience, maintain better grades, score higher on achievement tests and are less likely to be retained in a grade or placed in specialised education (Frede & Barnett, 1992:484).

Each child lives in his own unique life-world. Van den Aardweg & Van den Aardweg (1988:140) write: *"Just as each child is unique so the life- world of each child is unique"*.

The child's life-world includes everything that has meaning for him, not only his geographical world but all his relationships with objects, ideas, people and even himself (Vrey, 1979:79).

The child from an informal settlement is also bound within his unique life-world. In this life-world the child initiates relationships which gives him increased control of his world and lets him actualise his potential. The needs of the child are a precondition for the successful growth to independence, a vital characteristic of school readiness. The following are a few of the important needs (Vrey, 1979:79).

1.3.1 **The need for achievement**

A child must experience being in control of at least a part of his external world and be able to achieve success in it. If his achievements are accepted by others, then he will learn to accept himself and go on to further development.

1.3.2 **The need for love and esteem**

A child needs to know that significant others love him and consider him important, that he and his affairs matter to them. He needs loving, caring adults who provide security and a feeling that he is valued.

1.3.3 **The need for understanding**

The child needs understanding from his parents. His educator must be patient and must try to understand him even when he makes mistakes.

1.3.4 **The need to belong**

The child needs support and security. Support gives the child a feeling of belonging. The child needs quality time with his parents.

Unfortunately these needs may not be seen as important as the needs of basic survival which encompasses nutrition, clothing, economic self-sufficiency and security.

In informal settlements, food is scarce, so parents might urge children to be economically self-sufficient at an early age (Mussen & Kessen, 1983:312). Therefore this might lead to an increase in pre-school children from informal settlements frequenting stop streets and shopping centres begging for food and money. If these children spend more time on the street, they might limit their holistic development in enabling them to become school ready.

It is widely held that the structure and content of early experiences shape the nature of later experiences (Mussen & Kessen, 1983:298).

Whiting and Child (1980:103) hypothesise that the habits of interpersonal behaviour that one learns and practices in the most frequented settings may be overlearned and may be generalised (transferred) to other settings and to other statuses of these individuals. These transferred patterns of behaviour may or may not be appropriate to these new settings and can conceivably lead to maladaptive social behaviour (Mussen & Kessen, 1983:332). This may be true of children from informal settlements who enter grade 1 without having attended a pre-school.

When the pupil from the informal settlement enters school, his perceptions of the responses of the people in the new setting may be blinded by expectations carried over from the old frequented setting, thus creating problems of social adaptability (Whiting & Child, 1980:104).

One of the informal settlements under investigation borders on the N2 freeway and the noise, as well as the fumes from the freeway, is bound to affect the development and later on the school readiness of the infants. In a study by Cohen, Glass and Singer (Mussen & Kessen, 1983:392) on the influence of traffic noise on children's auditory and verbal skills, they found that children living on the lower floors of a 32-storey building showed greater impairment of auditory discrimination and of reading achievement than those living in apartments on higher floors.

Thus the possibility remains that the impairment of the child's auditory discrimination and verbal skills come about not only as a function of personal difficulties in learning and sustaining attention in a noisy environment, but also because others in the home were similarly affected and engaged less frequently in conversations, reading aloud or corrections of the child's utterances.

For the disadvantaged child the ability to demonstrate social competence in the classroom is a protective factor to the extent that it enhances the child's self-esteem and sense of self-efficacy. This in turn strengthens the child's committment to schooling and motivation for further learning (Taylor, 1991:15). On the other hand children that bring behavioural characteristics and personal dispositions that are at odds with classroom social norms and expectations may set into motion patterns of school failure (Taylor, 1991:18).

The environmentally deprived pre-schooler often lives in a neighbourhood that has a detrimental effect on his development and the type of experience that he is exposed to here does not equip him for successful school entry at a later stage (Johnson & Borman, 1992:79). This neighbourhood is often typified by neglect, overcrowded and shabby living units, poverty, crime, noise, extra-marital sexuality, alcoholism, drug abuse and a low social, cultural and economic level
(De Witt & Booysen, 1995:126).

Parental stress and family dysfunction also contribute to the child's risk for school failure (Taylor, 1991:19).

Poverty-culture children are not cared for in terms of housing, clothing and personal hygiene (Le Roux, 1994:37). The father's parental image is often disparaged, and owing to an excessive workload, the mother is unable to care for, educate and provide the affection that her children need (Le Roux, 1994:37). These conditions disrupt the family's ability to provide emotional and instrumental support to the young child during the transition into schooling. These children are truly *"at risk"* because they lack the family protective mechanisms and academic challenges of early schooling (Taylor, 1991:18).

Socially competent children are more likely to be positively received by the peer group and the subsequent opportunities for peer interaction contribute to further developmentally appropriate social skills (Taylor 1991:22). The pupils from the informal settlement are prone to being teased by their peers from the higher socio-economic levels, which results in these children having a very low self-concept.

It is absolutely ludicrous to expect children to be *"ready to learn"* if they grow up in environments that are linguistically impoverished or if they fail to get thoughtful responses to their questions (Boyer, 1993:55).

Children coming to school for the first time face a task common to those who find themselves in any new situation: they must learn to define themselves in terms of a new role (Graue, 1992 a:92).

Literature on risk factors for psychological development acknowledges that growing up in poverty is the single most powerful and multifaceted negative influence on psychological development (Dawes & Donald, 1994:3). Poverty is inherent in the informal settlements under investigation. Therefore children from these settlements might be at risk for poor psychological development.

South Africa is faced with a rising population of young people, sometimes referred to as a lost generation, who are poorly educated, who are socialised in a violent environment and whose families are often too caught up in the stresses of poverty and survival to offer what western middle class society would call a normal childhood (Dawes & Donald,1994:8). Reschly (1986:425) and other (references) have argued that poor children, rather than being culturally deprived, are insufficiently exposed to structural learning situations which prepare them for later school achievement.

Richter and Griessel (Dawes & Donald, 1994:35) reported that from a large number of factors, including household density and family size, considered in their study only socio-economic status showed a significant relationship with children's performance on psychological tests and their school achievement.

Gulbrandsen (Dawes & Donald, 1994:37) has described a pattern of fluctuating pre-marital unions which often lead to single black women with one or two small children receiving no financial or social support from the children's fathers. In South Africa Cock and Emdon (Dawes & Donald, 1994:38) have recorded that the number of black working women increased by more than 50% between 1973 and 1981 and that the situation of working mothers makes alternative child care a major problem. They have estimated that nearly 20 000 Soweto pre-school children were in the care of childminders and that most of the women taking on this role were old, sick and with few household facilities. While the extended family is still the main form of child care for most black children about half are cared for outside of the family circle and many from a very early age (Dawes & Donald, 1994:38).

McLoyd (1990:332) reports features of low socio-economic status parenting as: A diminished expression of affection, a diminished responsiveness to socio-emotional needs explicitly expressed by the child, a tendency to issue commands without explanation, a greater use of physical punishment and a lowered likelihood of rewarding a child verbally.

Humphreys, Davey & Park (1985:1471) maintain that amongst young children poor growth has been associated with later levels of measured IQ. Ernhart & Marler (1987:103) also report that throughout the pre-school years generally positive correlations are found between measures of growth (height, weight and head circumference) and measures of cognitive development.

Thus poor growth is both an outcome of earlier influences on development and at the same time a determinant of future outcomes (Dawes & Donald, 1994:67).

An infant's birth weight is regarded as one of the most important prognostic indicators of later growth and development. Stein and Ellis (1974:156) report that in a study of low birth weight of Black babies in Soweto, they found that 73% were small for their gestational ages. They concluded that these children had suffered intra-uterine growth retardation and that the most significant causes were multiple pregnancies, poor socio-economic conditions and maternal under-nutrition. Pollit and Lewis (Dawes & Donald, 1994:79) found that protein energy malnutrition occurring as it does in the context of negative environmental factors is likely to result in psychological deficits, both intellectual and social which could be permanent if no comprehensive effort is made to provide the child with remedial intervention.

Malnourished infants and young children demonstrate what Levitsky and Barnes (1972:70) in their *animal work* called functional isolation: that is, the individual withdraws from interaction with the social and material environment, thus isolating himself from learning experiences. This theory could also be used to partly explain the underachievement of the grade one pupils from the informal settlements. Malnourished children from the informal settlements are going to find it extremely difficult to focus on the instruction in the classroom.

Their thoughts are going to be preoccupied with ways of replenishing their food resources.

Richter and Grieve (Dawes & Donald, 1994:79) found that the mental development of infants correlated with measures of the intentions and actions of caregivers to stimulate their children's development as well as the measures of the organisation of the physical environment. In the informal settlement many of the caregivers are old, sick or illiterate and they don't often stimulate the children intellectually. Therefore one could expect the mental development of infants from informal settlements to be slower than those children that are stimulated intellectually.

Smith, Brown and Stephenson and their co-workers (Dawes & Donald, 1994:92) maintain that infections may influence children's psychological development either directly or indirectly by causing nutritional deficits.

The frequent respiratory and digestive tract infections which are common among children living in poor communities, cause loss of appetite and malabsorption of nutrients and hence malnutrition.

Pre-school age children in such environments are particularly vulnerable to soil transmitted parasites. This is because the children rarely have shoes to wear and they play on ground that is polluted with animal and human excreta (Dawes & Donald, 1994:92).

Although it is not yet clearly established there is some evidence indicating that parasite infections may impair mental development. To probe the relationship between trichuriasis (parasite) and behavioural development, Callendar, Grantham-McGregor, Walker & Cooper (1992:181) examined 19 children aged between 3 and 6 years who presented with the trichuriasis dysentery syndrome. The children showed deficits initially on each of the 4 subscales of the Griffiths Test and following a series of treatments with antihelmintic drugs over the course of a year, they improved significantly on the loco-motor subscale relative to matched but uninfected controls.

Castle, Clarke and Hendrikz (Dawes & Donald, 1994:95) working with a small sample of children infected with schistosomes reported mental fatigue in those children which affected their accuracy and speed of performance on Thurstone's tests of primary mental abilities. Kvalsig, Coopan and Connolly (1991:551) in their study found that parasite infection also adversely affected information processing tasks of children.

Wilson (Caughy, 1996:516) maintains that the development of high socio-economic status infants born weighing less than 1,750 kg catches up with that of normal birth weight children by school age whereas low socio-economic status low birth weight infants do not show similar "catch up" development.

Based on the evidence from the preliminary literature study it may be inferred that the children from informal settlements have many obstacles to overcome. Their quest towards school readiness and school maturity is impeded by the inherent poverty, lack of a stimulating intellectual environment, protein malnutrition, parasitic infection and family dysfunction.

1.4 STATEMENT OF THE PROBLEM

1.4.1 General statement of the problem

Many learners from informal settlements that attend formal schools appear to experience difficulties in grade one. The question that comes to mind is: Why do learners from informal settlements experience difficulties when they start/enter formal schooling?

1.4.2 Specific statement of the problem

From the above stated problem, the following specific problems flow:

1. What are the effects of living in informal settlements on a child's school readiness?
2. What aspects of school readiness are lacking in children from informal settlements?
3. What criteria could be used to assess school readiness?
4. What recommendation can be given to parents and other child-minders regarding their child's school readiness?

1.5 Aims of the investigation

The general aim of the investigation is to study the phenomenon of school readiness of children growing up in informal settlements.

The specific aims of this study encompass:

1. To emphasise the critical importance of the pre-school years for later academic performance.

2. To identify the effects of living in informal settlements on children's school readiness.

3. To identify aspects of school readiness which are lacking in children who are living in informal settlements and who do not attend a preschool.

4. To present guidelines to parents, teachers and the government to enhance the school readiness of children growing up in informal settlements.

1.6 Research methodology

. A literature study of relevant literature will be undertaken to investigate the phenomenon of school readiness, with special reference to the children growing up in an informal settlement.

. An empirical investigation: A qualitative study in which the researcher will use the idiographic approach. Four children from an informal settlement that have had no exposure to any school readiness programme will be compared to four children from an informal settlement that followed a school readiness programme.

The empirical investigation will take the following course:

1. An anamnestic interview which will cover the following:

   a) Home circumstances

   b) History of birth

   c) Infancy and pre-school years

   d) Physical development

2. A school readiness questionnaire (TED Circular No.110 of 1971 as adopted by C.J. van der Linde, Pedagogic Auxiliary Service)

3. The NB Group Test for 5 and 6 year olds.

4. The Incomplete Man Test

Profiles of the four children who did not attend pre-school will be drawn up and compared to those of the children who did attend pre-school.

The profiles of the children that did not follow a school readiness programme will also be analysed to identify areas of weakness.

1.7 DEMARCATION OF THE FIELD OF STUDY

There are numerous factors that affect a child's school readiness. The focus of this study will be on how life in an informal settlement may affect a child's school readiness. The researcher has chosen children from an informal settlement south of Durban which borders the N2 highway. These children did not attend any pre-school. The researcher has also chosen children from another informal settlement, south of Durban who have attended a pre-school. These pre-schoolers were randomly selected.

1.8 MOTIVATION FOR THE STUDY

The researcher is aware of the National Department of Education's approach to the problem of school readiness. The Government of National Unity, through the National Department of Education puts the responsibility for children's school readiness on the shoulders of teachers in the foundation phase. In light of South Africa's many illiterate parents, this seems to be a workable policy and one with which the researcher agrees in principle. However, the responsibility and participation of the parents can not and should not be negated.

This research endeavours to investigate how unique problems related to informal settlements influence children's school readiness. Parents need to be aware of impediments to their children's school readiness and should try, as much as they possibly can, to counter barriers to school readiness.

Although the government has decided to address school readiness by phasing in a compulsory school readiness year, it is bound to have logistical difficulties in getting this programme off the ground. During this interim period parents need to become aware of the importance of school readiness for lifelong learning and also assist their children in becoming school ready. One also needs to take cognisance of the difficulties the educational authorities experience in getting textbooks and resources to schools so that the school programme can start as early as possible.

In the light of the above statement the researcher is aware that it is going to be a mammoth task ensuring that all schools in Kwa-Zulu Natal include a reception year as part of its compulsory schooling. The researcher is hopeful that since the ECD pilot project is in its teething phase, the present study could provide useful information with regards to the development of policy and provide some insight into the state of school readiness in our informal settlements.

A reception year will promote school readiness which will bridge the gap between informal and formal education.

The researcher has also studied literature on school readiness in developing countries like India and South America, therefore this study has relevance because South Africa which is a developing country has only begun its journey of introducing ECD programmes.

1.9 CLARIFICATION OF CONCEPTS

1.9.1 The Pre-Schooler

According to Vrey (1979:65) the pre-schooler is the child who is not old enough to attend primary school. Due to his helplessness, he is dependent on adults for his physical care, protection, safety, development and becoming. As a result of their involvement with him he does not only develop and grow physically, but his affective, social and moral-religious life is fully actualized (Du Toit & Kruger, 1991:67). Although the pre-school child can be referred to as the child from 0-6 years, note should be taken of the considerable difference which exists between the newly-born infant and a six year old child. In this study the pre-schooler is seen as a child who is five years old.

By the time he enters school, his eye-hand co-ordination is usually well developed, he enjoys movement and he uses his physical powers with confidence (Brierly, 1987:2). By means of sight, hearing, touch, smell and taste the child understands the world and he forms relationships, in other words, he gives meaning to the world (Du Toit & Kruger, 1991:67). However these developments are influenced by factors such as the quality of his nutrition, social influences and emotional factors. Pre-school children's acquisition of new skills is influenced by their physical readiness for certain activities, their motivation, the attention they give to particular activities and the feedback they get on their activities (De Witt & Booysen, 1995:11).

1.9.2 <u>School Readiness</u>

As might be expected the views on school readiness range considerably in sophistication, from the idea that school readiness is *"like Mama Robin knowing when to push a certain chick from the nest"*, to preparing children for the *"challenges ahead"* such as the *"job market or to be able to read when they go through the school system"* (McGill-Franzen, 1993:93).

Grove' (1981:3) makes the following statements on the concept of school readiness when she says: *"School readiness is a stage in a child's development when he learns easily and effectively and is without emotional or other disturbances. It is a condition which is brought about by many factors such as experience, intelligence, language development, emotional and social adaptation, attitude, interests, health and muscular co-ordination"*.

Derbyshire(1990:188) summarised school readiness as the preparation or a state of preparation for undertaking new activities which feature in the school situation. According to Okon & Wilgocka-Okon (1973:7) school readiness refers to, *"the child's attainment of a degree of physical, intellectual and social development sufficient to enable him to fulfil school requirements and to assimilate the curriculum content"*. School readiness is not linked with chronological age, but with the child's level of development (Vrey, 1979:80).

De Witt and Booysen (1995:156) maintain that school readiness refers to the child's total readiness to benefit from formal education in a group context. According to De Witt (1990:99) and Vrey (1984:88) school readiness is a more comprehensive term than school maturity since it includes aspects such as emotional, intellectual, social and physical readiness. De Witt (1995:156) also posits that school readiness as opposed to school maturity can be accelerated and for this reason the child's environment and educators play a significant role in his becoming ready. Carll and Richard (1985:xii) defined school readiness as follows: *"The ability to cope with the school environment physically, socially and emotionally as well as academically, without undue stress and to sustain in that environment".*

According to Masitsa (1988:18) it is important to know that school readiness cannot be acquired in just the few months before the child has to go to school, but only after a long developmental process.

1.9.3 School maturity

School maturity refers to a particular psychological and physical level of becoming reached through physiological and neurological development (De Witt, 1990:98). School maturity also refers to the physical and mental maturity of the child which is required for school success (Du Toit & Kruger, 1991:100). Physical and motor development, eye-hand co-ordination, hand dominance and normal brain functions are aspects of school maturity, but

maturity in these areas does not necessarily guarantee success
at school (Du Toit & Kruger, 1991:100). School maturity develops
spontaneously and naturally and cannot be forced or hastened.
Although a specific level of development is essential for school
entry and school success, it does not guarantee such success (De
Jongh 1987:6). In South Africa it is legally stipulated that the
child must enter school the year in which he turns seven (South
African Schools Act, No. 84 of 1996).

1.9.4 Learning disabilities

According to Du Preez & Steenkamp (1980:4) the specific learning
disabled child experiences a specific learning disability in
specific learning skills such as in reading, writing and
arithmetic. This specific learning disability develops from
specific basic shortcomings in the learning act that are not
primarily/directly the result of general mental handicaps,
educational and/or cultural neglect, emotional deviation or
sensory defects (Du Preez & Steenkamp, 1980:4). There is also
a significant discrepancy between these children's intellectual
abilities and their achievement in respect of certain learning
skills.

Gerber (1981:14 and 1985:21) in her view of learning disability
stresses important aspects, for example that the phenomenon is
permanent and is present from birth and that the learning
disabled child can be helped to lessen the effect of his
limitations, although he will always remain an underachiever with
respect to the particular skills or abilities which are affected.

The joint commission referred to as the National Commission on Special Needs in Education and Training (NSCNET) and the National Committee for Education Support Services (NCESS) preferred the term, learners who experience barriers to learning and development to learners with special educational needs. Those barriers to learning and development could be caused by barriers within the person himself, the curriculum, the learning centre (school), the education system and the broader social context. Therefore for the learner to progress optimally these barriers should then be minimized, removed or prevented (EDUFAC - N/301/1998:3).

The members of the joint commission completed their report in November 1997 and envisaged that some of their recommendations would be amended to the South African Schools Act No. 84 of 1996 and that the other recommendations would be included in a new Act on learners who experience barriers to learning and development.

The implications of this would be the promotion of equal opportunities for effective learning by all learners whereby the focus shall fall on the diverse needs of the learning population. The education system should be structured and should function in such a way that it can accommodate a diversity of learner needs and system needs. Those factors which lead to the inability of the system to accommodate diversity which lead to learning breakdown or which prevent learners from accessing educational provision have been conceptualized by the NCSNET/NCESS as barriers to learning and development (EDUFAC - N/301/1998:3).

These barriers manifest themselves in different ways such as inattentiveness, frequent absence from school, progress below potential, etcetera and only become obvious when:

. Learning breakdown occurs.

. Learners *"drop out"* of the system.

. Learners are excluded from the regular education system.

1.9.5 "At risk" children

To elucidate the concept of children at risk, the following analogy could be used:

The ready child is a puzzle with all the pieces in place. If skills are seen as the pieces of the puzzle, the key to fixing the readiness problem is to:

1. identify the missing pieces;

2. then provide instruction to generate placement.

Teachers and caregivers are viewed as having a pivotal role in developing readiness by assessing readiness problems, providing experiences that fill in deficits and matching abilities with those required by the school (Graue, 1993:7). This approach is often used to justify programs for children identified as not school ready due to what has been called at different times in our educational history culturally disadvantaged, environmentally deprived or at risk. The Early Intervention of School Failure Program is used in many communities for students thought to be *"at risk"* (Graue 1993:7).

1.9.6 **Early identification**

Adelman (1982:256) refers to the confusion in the literature regarding the concept of early identification. Identification is the process whereby a person is assessed to determine the presence of a current problem, whereas the term is more commonly used to refer to the process of prediction, *"particularly those predictive procedures assessing antecedent conditions which then can be subjected to 'early intervention'"*.

Ronald Gulliford (Wedell & Raybould, 1976:11) sees early identification as involving two stages, firstly, a broad screening process and secondly assessment and diagnosis. Zeitlen (1976:11) defines screening as a short procedure to identify those children who might have the characteristics of high risk learners.

Screening has typically targeted three very different populations: children with handicapping conditions, those with developmental lags related to socio-economic disadvantage and children viewed as socially immature (Shepard & Graue, 1993:259). With the first two groups active instructional intervention is the key while the third requires passive allocation of time for development.

All three base their premise on the readiness-as-child-characteristic model and rely on instruments and teacher judgement for identification (Shepard & Graue, 1993:259).

1.9.7 The gender issue

In this study all references to any gender include references to the other gender.

1.10 DEVELOPMENT OF THE STUDY

Chapter 1: Introduction, statement of problem, aims and clarification of concepts

In this chapter an awareness and brief analysis of the problem has been presented.

Chapter 2: Theoretical issues: the rationale for an evaluation of school readiness in an informal settlement

The various views of school readiness that have evolved over the years will be presented and discussed. The researcher will critically analyse the literature and look for relationships between school readiness, early identification, environmentally deprived, learning disabilities and "at risk" children. Under this chapter the researcher will also discuss problems experienced by children in not enabling them to be ready for formal schooling.

Chapter 3: An overview of the government's interim policy for early childhood development and a review of school readiness in informal settlements in developing countries

The implications of the government's "interim" policy for early childhood development will be presented.

There will also be a review of the evidence from developing
countries on school readiness.

Chapter 4:   Empirical design

Chapter 5:   The empiricial investigation

**Chapter 6: Interpretation of research findings, conclusion
and recommendations**

CHAPTER 2

THEORETICAL ISSUES: THE RATIONALE FOR AN EVALUATION OF SCHOOL READINESS IN AN INFORMAL SETTLEMENT

2.1 INTRODUCTION

Over the recent years there has been an increased interest in the topic of school readiness. School readiness is a concept that has long been used in educational circles. However, it is of particular interest today because many controversial beliefs and practices are associated with the topic.

The term readiness is described in Webster's Dictionary (1992:1049) as:

1) the quality or state of being ready;

2) the quality of being quick or prompt; facility; aptitude; and

3) a disposition for prompt compliance; willingness.

These somewhat differing descriptions are reflected in the several views of school readiness that have developed over the years. One view of school readiness is that of developmental growth or maturation. The advocates (for example Washburne, Gesell, Donofrio & Piaget) of this perspective believe that an internal timing mechanism determines the child's readiness for school and that it cannot be tampered with. If left alone the child will automatically exhibit signs of readiness for school at some point in time (Gredler, 1992:7).

Other views of school readiness look at the role of the child's experience in becoming able to learn particular tasks or subjects. Ausubel (1962:82) views readiness as a particular state in the child that depends on both growth and maturation and the social experiences of the child. Lev Vygotsky (Gredler, 1992:7) describes readiness as the level of tasks that can be learned in collaboration with a more knowledgeable peer or adult.

Finally the cumulative skills model developed by Robert M. Gagne' (Gredler, 1992:7) describes readiness as the availability of relevant skills or capabilities in the learner. Assessing readiness according to Gagne' is a matter of determining that the learner has acquired the pre-requisite skills essential for learning a particular subject (Gredler, 1992:7).

Acceptance of a particular theory often leads to the use of particular kinds of school experiences for children. For example, use of the Reading Recovery Program in Ohio indicates that school personnel have committed themselves to a major intervention effort while the child is in grade one. Such a practice indicates a belief in the role of the classroom environment in developing particular skills. Educators who accept the maturational model have opted instead for a higher entrance age. Acceptance of the maturational model results in the use of retention as the remediation approach with young children who show possible learning/behavioural problems.

2.2 . SCHOOL READINESS AS MATURATIONAL DEVELOPMENT

The maturationalists view the child as an organism whose readiness is reliant on biological development, which environmental opportunities can do little to change. Washburne (1936:127) one of the main advocates of this approach, states that there are many factors that *"must be taken into account if we are not to force open a bud not yet ready to bloom"*.

The concept of maturation as a model of readiness led to schools emphasising the postponement of the introduction of various subjects until the child exhibited adequate *"signs"* of being able to learn. The Maturational School of thought has been championed in the United States by educators such as Hymes (1958, 1963) and Washburne (1936), paediatricians such as Gesell (1954) and later by various psychologists such as Ilg and Ames (1965) and Donofrio (1977).

Gesell and his followers tried to form a time table that outlines the correct ages for learning the various tasks of the school curriculum.

However, according to Ausubel (Gredler, 1992:8) the Gesellian theory more adequately fits sensorimotor and neuromuscular development of the child that takes place during the prenatal and early infancy periods instead of explaining readiness for pre-school.

When there is evidence that children are ready to learn at earlier ages, there are objections by the Gesellians that educational personnel are tampering with the internal timing mechanism of the child and harm will result to the child. The maturationalists also hint that the harm resulting from beginning to read at too early an age might not become evident until the child is a young adult. The latest example of such beliefs is found in the statement by two Gesellian educators, Uphoff and Gillmore (Gredler, 1992:9) that children beginning school at an early age are more prone to suicide when they reach young adulthood. Halliwell (1968:55-56) maintains that the trend towards an earlier first grade entry age has become more pronounced as a result of parental pressure. Halliwell (1968:55-56) also assures that a belated entrance to school could only increase the child's probability of attaining a measure of academic success. Altman (Gredler, 1992:9) states that the immature child has no place in pre-school or first grade until he has reached certain maturational stages of development.

2.2.1 The influence of Piaget

Piaget's theory has been cited as supporting the maturationalist view of readiness. Piaget in his cognitive-development theory believes that children are not *"little adults"* in their thought processes. Observation of and research with children lead Piaget to identify four broad periods or stages of thinking that are qualitatively different.

STAGE	APPROX. AGES	MAJOR CHARACTERISTICS
a) Sensorimotor	0 to 1-2 years	1. Development of strategies to manipulate objects in the environment. 2. Separation of self from the environment (occurs at about 12 months) and the concept of objects (an object out of sight still exists).
b) Preoperational	1-3 years to 7-8 years	1. Language development and representation of events by symbols. 2. Ideas related to each other on a perceptual base; based on perceptions (soap floats because it is small and iron sinks because it is thin).
c) Concrete operational	7-8 years to 11 years or older	1. "True" logical thought begins - child separates concepts such as number and length, volume and shape, weight and shape and so on. 2. Child supports reasoning process by manipulating concrete objects.
d) Formal operational	Begins at age 11 or older	1. Hypothetical thought begins-reasoning is not limited to concrete objects; individual can build theories with several interacting ideas and systematically test hypotheses about them.

(Adapted from: Gredler, 1992:10)

Although the order of the four stages remains the same, the stages may develop at different ages in different cultures. Rural children for example were observed to be 1 to 2 years behind the children originally studied by Piaget.

The purpose of the theory according to Piaget (Gredler,
1992:11), is to describe the development of intelligence,
defined by him as logical thinking.

2.3 READINESS AS GROWTH AND SOCIAL EXPERIENCE

Gates (Gredler, 1992:11) undertook a 5 year study on the
relationship between mental age and success in reading. His
research challenged the findings of Morphett and Washburne
(1931) who stated that a mental age of 6½ to 7 years of age
was a necessary pre-requisite for success in beginning
reading. Gate's research emphasised the influence of
environmental conditions on the success of children in first-
grade reading. Gates was convinced that classroom activities,
that is, the use of appropriate instructional methods and
curriculum materials, play an important part in a child's
progress in reading. The concept of readiness as composed of
both growth and social experience was formally developed by
David Ausubel(Gredler, 1992:13). According to Ausubel
(1962:82) *"readiness signifies that the current development of
the organism is such that a reasonably economical increment in
capacity may be anticipated in response to adequate
stimulation"*.

Therefore a child who is categorized as *"not ready"* may be
deficient because of a lack of sufficient stimulation and
learning as well as a lack of sufficient maturational level.

Stott (1967:276) concurs that learning readiness is something more than a result of biological maturation alone. Equating the principles of readiness and maturation is a major error because lack of readiness in the child may reflect lack of cognitive maturity that may in turn be the result of an unstimulating or inadequate educational environment (Ausubel & Sullivan, 1970:92). Ausubel and Sullivan (1970:92) also point out that ascribing a lack of maturation to the child can *"become a conveniently available scapegoat whenever children manifest insufficient developmental readiness to learn"*. School personnel then believe that they can rid themselves of all responsibilities for the child's education and the school fails to evaluate its instructional practices necessary for continued educational progress.

Specifically Ausubel (Gredler, 1992:13) describes readiness as the state at which:

1. The child can learn easily and without emotional strain.

2. The child will show adequate motivation because efforts at teaching provide adequate results.

3. Instructional approaches that build on prior learning are carefully implemented. Ausubel and Sullivan (1970:93) specify that many educators view a child's readiness for school in absolute terms. They fail *"to appreciate that except for such traits as walking and grasping, the main age of readiness can never be specified apart from relevant environmental conditions"*.

2.4 VYGOTSKY'S SOCIO-CULTURAL THEORY OF LEARNING

Lev S. Vygotsky, a Russian psychologist, developed a socio-cultural theory of learning in the early 1930's. The theory posits that the development of complex mental functions such as categorical perception, conceptual thinking, and logical memory are a product of the child's social interactions with other members of his culture. Vygotsky's theory includes a view of readiness that assigns a primary role to the child's culture and the nature of the interaction between the child and knowledgeable members of the culture (Gredler, 1992:14).

Vygotsky (Gredler, 1992:14) assessed the child's developmental level as those tasks that the child can complete without assistance. However, such an assessment indicates only the developmental level that the child has attained up to the present time, it does not measure the child's potential for learning or for further development.

To apply Vygotsky's theory in the teaching situation would imply that adult guidance would lead the child first to solve problems collaboratively and then move these partial skills towards independent problem solving.

The teacher first models the appropriate behaviours and then structures the learning tasks so that the learner undertakes only those aspects that he or she is capable of completing.

Under the teacher's guidance, the child undertakes additional parts of the task. As the child gains proficiency, task demands are raised until the child is functioning independently and the teacher functions as a supportive observer (Gredler, 1992:15)

Of primary importance in Vygotsky's theory is the concept that readiness is not a static entity but rather the learner's ability to benefit from collaborative problem solving with a tutor or more knowledgeable peer. Thus the child's readiness depends to a great extent on the sensitivity, diagnostic skills and teaching skills of the adult.

2.5 THE CUMULATIVE-SKILLS MODEL

Robert Gagne' (Gredler, 1992:15) an educational psychologist, who has applied his theory to the design of classroom instruction for over 40 years, extends the view of the role of the environment and/or curriculum in human behavioural development even further. Gagne's early research on military training problems indicated that three principles contributed to successful learning. They are (Gredler, 1992:15):

1. Providing instruction on the set of component tasks that builds towards the final task.
2. Ensuring that each component task is mastered.
3. Sequencing the component tasks to ensure optimal transfer to the final task.

Gagne' stresses that a primary factor in human behavioural development is the child's prior learning. According to Gagne' (Gredler, 1992:16) human learning is cumulative. That is, many skills that are learnt contribute to the learning of more complex skills. For example if a child has already learnt to add, he or she does not need to learn this skill all over again when learning long division.

The importance of the cumulative learning model is that education should identify the sequences of skills that build on each other and proceed to teach those skills. Therefore developmental readiness, according to Gagne' (Gredler, 1992:16) is composed of the relevant skills identified as essential pre-requisites for the new learning.

Four different perspectives on the issue of school readiness were discussed above. They are the maturational view, the growth and social experience view, the socio-cultural theory of Lev Vygotsky and the cumulative-skills model of Robert Gagne'. Of these four, only the maturational view advocates a biological moment when the child can learn the curriculum. In contrast the other three perspectives emphasise the role of the environment in learning.

David Ausubel (Gredler, 1992:18) describes readiness as an interaction between growth and the child's social experiences.

Flexibility of curriculum is stressed by Jerome Bruner (Gredler, 1992:18), who believed that the essential concepts in any subject matter could be successfully taught to the child if presented in terms of the child's way of viewing the world. Reacting against the use of assessment tools to determine readiness, Lev Vygotsky (Gredler, 1992:18) maintained that such tests do not measure learning potential. Instead learning potential consists of tasks that the child can accomplish with the help of a more knowledgeable peer or an adult.

Planning instruction, therefore includes determining the lowest threshold at which instruction may begin. Finally the model proposed by Robert Gagne' (Gredler, 1992:18) describes readiness as the attainment of essential pre-requisite skills. In other words learned skills are the basis for future learning, rather than physical growth or mental age.

Implications of the maturational view are that the child must wait until deemed ready to be taught the curriculum. Implications of the other models, consist of planning and implementing instruction that adapts to individual differences.

To explain further, in one view the child adapts to the curriculum, while in the other perspectives the curriculum adapts to the child (Gredler, 1992:18).

The pre-school years which according to Chapey (1986:4) are *"the wonder years"* are the most important years in the child's life, when great changes occur regarding all aspects of becoming/development. Reilly and Hofmeyr (1983:3) state for example that *"... school readiness is a gradual process which begins at birth and which is dependent on both upbringing and development"*.

2.6 CHARACTERISTICS OF THE PRE-SCHOOLER

The general development of the pre-schooler is relatively uniform and he shows a greater level of maturity. Some specific characteristics of the pre-schooler will now be addressed (Kapp, 1991:188):

2.6.1 **Motor ability**

He possesses a variety of fine and gross motor skills. He becomes conscious that his body consists of two sides which he can use separately.

His body movements become graceful and at the same time his self- confidence and sense of self-worth increase. At this stage boys surpass girls with regard to muscular strength and gross motor co-ordination. The girls' fine motor co-ordination is better, however the pre-schooler obtains enjoyment from his many gross motor achievements such as

climbing and scrambling, but exact accurate movements cannot yet be expected of him.

2.6.2 Language acquisition

The pre-schooler shows a particular interest in new words which he memorises and uses arbitrarily and without understanding their full significance.

According to Ebstein, as quoted by Chall & Mirsky (1978:359) no drastic cognitive growth occurs in the five year old as for example in the child between the ages of two and four years. The five year old's cognitive life is characterised by horizontal rather than vertical expansion. His thoughts however are incomplete and conclusions are intuitive because they are based on direct observation or perception.

2.6.3 Affective-social life

The pre-schooler is very dependent on the security of the family environment and the approval of adults. Although he recognises emotions in others and is sensitive towards them, he shows little tact or diplomacy in his association with others (Cohen & Rudolph, 1977:72). Fear of the unexpected or unfamiliar is prominent and he is often anxious especially when left alone or when he is separated from his parents.

He is sensitive and feels embarrassed if he cannot get something right. Achievement like running faster and drawing better than others is important to the five year old. As has been quoted in 2.5 *"school readiness ... is dependent on both upbringing and development"*, the next section will focus on *"upbringing"* - who is responsible for assisting the child to become school ready?

2.7 THE FAMILY'S RESPONSIBILITY IN SCHOOL READINESS

The child who finds himself in the midst of a stimulating, educational situation where favourable circumstances are created for learning is being prepared for school readiness systematically and persistently (De Jongh, 1987:2). This is unlikely to happen to children from an informal settlement, therefore when they enter grade one without attending a school readiness programme, their grade one year is wrought with problems. Park (1986:128) rightly claims that school readiness does not just occur on its own and can never be left to chance. It is the task of educators, parents and teachers to prepare the child gradually and deliberately for school entry.

The joint commission (referred to as NCSNET/NCESS) mentions frequently in its report that the education system should be structured and should function in a way that accommodates the diversity of learner needs and system needs. There appears to be a shift in emphasis from the learner to the school.

In other words the learner is not seen as having any weaknesses, but the school is cited as being unready for the learner. Preparing the child to be school ready is seen as one of the most important educational functions of the parents at home (Chapey, 1986:4).

By supporting the child pedagogically and by providing a living space of safety and security, a willingness to unlock reality (in other words to learn) is created for the child (De Jongh, 1987:1). All that is required for school readiness in the family are daily activities of life such as playing, drawing, conversation, movement and music and it is thus merely an intensified application of everyday living (Van Niekerk, 1986:163).

Through parental support the child is gradually made ready for school: physically, linguistically, affective-socially and cognitively.

Physical readiness as a part of school readiness begins early in the child's life when he is encouraged to be clean and tidy, to dress and undress himself. With the loving support of parents the child learns to sit, crawl and later walk. This opens a new world to the child which he can explore to his heart's content; his experiences expand and he learns in the same process.

Language readiness as an aspect of school readiness also commences early in the child's life and the mother in particular plays an important role. Language acquisition opens up a whole new world for the child (Halliday, 1975:55-58):

1. Language is a mode of thinking and with language the child is no longer bound to concrete things - he can name and discuss things even in their absence.

2. The child has now reached the stage where he discovers that language can get things done for him.

3. Language is a means of communication for with it a child can converse with others and with himself and expand his personal world. He is now in a position to build up, maintain and evaluate social relationships.

4. Language opens up a fantasy world for the child.

5. Language makes a child aware of his individuality and uniqueness: *"the child is enabled to offer to someone else that which is unique to himself, to make public his own individuality"*.

6. Language enables a child to control his own behaviour. Adults' verbal instructions compel a child to subordinate his behaviour to words.

7. Language is therefore vital to the establishment of relationships with oneself, with other objects and with God. According to Luria and Yudovich (1971:23-24): *"The word handing on the experience of generations as this experience is incorporated in language, locks a complex system of connections in the child's cortex and becomes a tremendous tool, introducing forms of analysis and synthesis into the child's perception which he would be unable to do by himself"*.

The mother's role is seen as laying the foundation for the child's later intellectual development. She teaches him from early on to organise and exchange ideas, to form concepts, to generalise and to be creative.

According to Pilling and Pringle (1978:13) the father plays a role as an identification figure. He is also a source of stimulation for the child in his development of language and social relationships and enhances his intellectual growth. The family which should be characterised by a variety of healthy relationships (father-mother; father-child; mother-child; child-child) helps the child to develop gradually in affective-social areas. This makes it possible for the child to venture from a safe place and reach the stage where he is affectively and socially ready for formal teaching.

If the coherence between family members is broken, the family is incomplete or the parents do not fulfil their educational task regarding the pre-school child, it can delay the child's school readiness, which may have a detrimental influence not only on his school entry but on his whole disposition towards school and school work.

What then can be regarded as readiness for school?

2.8 CRITERIA FOR SCHOOL READINESS

The criteria for school readiness refer to the physical, perceptual, cognitive, linguistic, affective-social and normative requirements with which the child should comply in order to be successful in the school situation. The cause of a child's non school readiness is often traced back to one or more shortcomings regarding his physical, perceptual, cognitive, linguistic, affective-social and/or normative development (Kapp, 1991:192).

2.8.1 Physical criteria

To cope physically with the demands of formal school the child should: (Kapp, 1971:193)

1. Be physically healthy and strong enough to comply with the demands of a long school day.

2. Have adequate physical and sensory functioning.

3. Have adequate co-ordination to kick and catch a ball or to hop on one foot relatively easily.

4. Be toilet trained.

5. Have the fine motor skills required for cutting with a pair of scissors, handling a pencil and colouring in.

There are several factors which influence the physical growth of the child such as: (Du Toit & Kruger, 1991:70)

- Hygiene and the quality of nutrition.
- Emotional factors.
- Opportunities for exercise.
- Social influences.
- Genetic inheritance.
- Psychological stress and emotional deprivation.

2.8.2 Perceptual criteria

The child who is legally compelled to attend school but is not yet ready for it sometimes shows one or more of a variety of visual and auditory perceptual disorders. This can include problems with auditory and visual discrimination, foreground-background discrimination, analysis and synthesis, sequence and memory (Kapp, 1991:193).

2.8.3 <u>Cognitive criteria</u>

The child who cannot listen to a story with the necessary understanding and retell it, who cannot formulate his thoughts or memorise certain information is probably not ready for school Potgieter, 1961:77). The child who enters school should have a reasonable understanding of the association between cause and effect, be able to copy figures such as a circle and a square and begin to show an insight into the symbol systems (language and mathematics).

It is important to remember that it cannot be expected that on school admission the child will be able to think in the abstract to apply existing knowledge to a new situation, to reverse thought (for example a = b, thus b = a) and to distinguish between fantasy and reality.

2.8.4 <u>Language criteria</u>

The child who on school admission, does not yet have a reasonable vocabulary, cannot express himself clearly through language and is also limited in his understanding of the spoken language, is probably not ready for the formal teaching situation.

The child should be able to grasp verbal instructions, recite short rhymes and learn new words. He should gradually gain insight into the relationship between the spoken and written word (Potgieter, 1961:77).

2.8.5 Affective-social criteria

The child who still evidences the following shortcomings regarding his affective-social life is probably not yet ready for school:

1. Inability to share the teacher's attention with a group of other children (Potgieter, 1961:77).

2. Is still so dependent on his mother that he does not want to be separated from her.

3. Still prefers to play alone instead of with others (lack of group identity).

4. Lacks self-confidence and self-esteem (a poor self-concept)

5. Is unable to make relatively simple decisions by himself.

6. Is not in a position to, within limits, exercise control over the expression of his emotions.

2.8.6 Normative criteria

The child who is still unable to accept discipline finds it rather difficult to differentiate between the proper and improper and has little knowledge of good manners, is not ready for school. For children in an informal settlement, barriers to learning and development can be caused by the following: (EDUFAC - N/301/1998:4)

1. *Socio-economic barriers:* Children from informal
   settlements live in poverty and they don't have access to
   homes, medical services, electricity and water. They
   also run the risk of being exposed to domestic and
   political violence as well as child abuse.

2. *Discriminatory attitudes:* At a socio-emotional level the
   learners from informal settlements have a very low self
   esteem due to the discriminatory attitudes of society at
   large.

3. *Inflexible curriculum:* The curriculum might not be
   adequate in dealing with the diverse needs of learners
   from informal settlements and this may lead to a breakdown
   in learning because the curriculum might be inappropriate
   to the learner's life situation.

4. *Language and communication:* Learners from informal settle-
   ments might be taught in a second or third language which
   could hamper their progress.

5. *Inappropriate and inadequate provision of support services:*
   Schools that service pupils from informal settlements should
   focus on improving their teaching methods instead of dwelling
   on the inadequacies of learners, or barriers within the
   system.

6. *Lack of enabling and protective legislation and policy:*
Legislation regarding age limits could prevent learners
entering the school or staying in the education system for
as long as possible. This in itself could create barriers
to learning and development of children from informal
settlements because many of them might require more time to
master their grade syllabus.

7. *Lack of parental involvement*

Due to the stresses of living in an impoverished environment,
the parents of children from informal settlements are not
going to prepare their children for school but would
concentrate on teaching their children to become self-
sufficient, at an early age.

Pupils that come from informal settlements into grade one could
also be described as environmentally deprived children. Kok
(1970:11) defines the environment as a concept which incorporates
the dynamic and meaningful relationship between human beings and
their particular geographical and physical worlds on which they
base their relationships with their fellow humans. Pretorius
(1987 b:21) furthermore claims that the environmentally deprived
child is characterised by:

- A geographical and physical inadequacy especially concerning
  his physical environment, his residential area, residence,
  material possessions, etcetera.

- Communication with his fellow men is of such a nature that it impedes the child in the optimal actualisation of his personal potential.

- The maintenance of an attenuated cultural level.

The environmentally deprived child is in an environment that provides obstacles for his latent, unique, personal potential to be fully developed so that he can progress accordingly.

A child who has less opportunities usually has a deficiency in his educational environment which prevents him from adequately actualizing his potential (Kapp, 1991:123). Factors that might appear to cause environmental deprivation are poverty, poor health conditions and unstable home circumstances (Kapp, 1991:123).

Kok (1970:12) maintains that the child's development, his learning achievement and his understanding of the school's purpose are determined to a large extent by his environment and experiences at home. A child that is in a non-supportive environment is losing out in experiencing healthy relationships with the family. Poverty and its accompanying problems are generally factors that contribute towards an inadequate environment. Gowan and Demos (1966:44) state that parents from the lower socio-economic classes do not provide an intellectually stimulating environment for their children, which prevents them

from having an improved view of life and a healthy, initial foundation. A child from a non-supportive environment usually experiences problems in the school situation. Because schools prepare their instruction primarily for the upper and middle socio-economic groups, the environmentally deprived child realizes that the expectations of the dominant culture is unattainable as his own educational environment does not equip him to achieve these cultural expectations (Kok, 1970:14). Children that are deprived of opportunity and come from a culture where experiences are inadequate, are not inferior, but require special help and consideration to equip them with skills so that they can benefit optimally from the educational system.

2.9 FACTORS THAT MAY LEAD TO ENVIRONMENTAL DEPRIVATION

Pretorius (1987a:7) maintains that it is mainly poverty and cultural differences that might lead to environmental deprivation.

A child from a broken home environment as a result of divorce or death of one or both parents might become pedagogically neglected which will often contribute to environmental deprivation.

Homes that have parents who work all day or have irregular working hours, will produce children that are pedagogical neglected because of the inadequate care they receive. Striking in these cases is the lack of communication between parent and child.

For example these parents seldom if ever play with their children and there is little purposeful interest shown in the child's education or active encouragement given for him to develop his potential, thus compounding environmental deprivation (Kok, 1970:17). The statements above might also appear to be true of parents from informal settlements.

Environmentally deprived children may exhibit language problems or language deficiencies which can be caused by a poor language example set by their parents which is poor in quality and inadequate for pedagogical communication. When a child grows up in an impoverished language environment his language acquisition will also be inadequate which would further hinder his growth towards adulthood. Language problems are often important contributory factors towards environmental deprivation. Children from a different culture and a different language group may experience language problems that are manifested as environmental deprivation if they do not receive mother tongue instruction (Kapp, 1991:125).

An inadequate physical environment can be a cause of environmental deprivation. Inadequate housing and overcrowding cause the child to have little privacy or room to study.

Children from different cultures who have experiential deficiencies when compared with children from a dominant culture, may sometimes be environmentally deprived if they are not equipped to meet the demands of the school in which they find themselves (Kapp, 1991:126).

The factors that have been outlined above does seem to qualify children from informal settlements as being environmentally deprived.

2.10 CHARACTERISTICS OF ENVIRONMENTALLY DEPRIVED CHILDREN

In this section the researcher hopes to characterise children from informal settlements as environmentally deprived children by means of reviewing relevant literature.   Environmentally deprived children usually find themselves in a life situation characterised by: (Kapp, 1991:126)

1. An improverished environment that is devoid of opportunity.

2. Unstable interpersonal relationships.

3. Inadequate cognitive development.

4. A culturally different educational level.

5. A poor residential area with conditions such as overcrowded housing, noise, crime and other socio-pathological phenomena.

According to Kok (1970:21-29) the following are some manifestations generally displayed by environmentally deprived children:

1. A poor self-concept. The environmentally deprived child has little self-confidence which is compounded by failure.

2. Low motivational levels resulting from inadequate pedagogical intervention.

3. Perceptual deficiencies caused by an incompetence in paying sufficient attention to looking at and listening to that which is relevant.

4. Poor creativity because the environment of these children offers limited channels for participation in creative activities.

5. Language deficits are evidenced particularly in the abstract dimension of verbal functioning.

Environmentally deprived children often manifest the following attitudes and behaviour patterns in the class and the school situation (Pretorius, 1979:221):

1. Troublesome in class.
2. Drop out academically and socially.
3. Often absent and play truant.

4. Personality problems.

5. Social problems. Do not integrate easily into a group and are inclined towards isolation.

6. Sensitive to any references to their deficiencies.

7. Poor concentration and underachievement.

8. Reveal a low level of expectation regarding school success, training and a future career and have little ambition.

9. Give evidence of behaviour problems.

10. Identify with *"undesirable"* friends.

11. Often uncared for, neglected and untidy in appearance.

12. Unpopular because of bad behaviour and underachievement.

13. Permanently experience anxiety in their contact with people and things and even school attendance poses a threat to them.

14. Having feelings of inferiority.

15. Show resentment: Offended by their failure, these children are embittered because they fail and are jealous of their more successful fellow pupils.

Against this background it would seem that environmentally deprived children lack *"school preparedness"* (Le Roux, 1994:55). In the mid-sixties the concept of compensatory education was implemented in the USA to describe educational and social service actions by means of which the problems and deficiencies of environmentally deprived children could be eliminated and remedied (Kapp, 1991:128).

Countries such as the USA, Britain, Netherlands and Israel, introduced comprehensive compensatory education practices (Le Roux, 1994:59).

The factors that gave rise to the need for compensatory education practices in the USA still apply to a large extent to South Africa. Pretorius (1990:214-215) defines "compensatory education" as follows: *"Compensatory education is the collective term for a variety of educational and social programmes, projects, procedures and practices for the children, young people and adults of a poverty culture. These programmes are designed to compensate for the environmental shortcomings and psycho-social handicaps that impede the individual's self-actualization and limit access to opportunities in life".*

Kelsall and Kelsall (1971:84) say that the limitations of environmentally deprived children should not be overemphasised. One should also take cognisance of the positive abilities that these children actually possess. The school programme should be changed to accomodate this. They comment further that:

1. More success can be attained by improving the housing and living conditions of these children.

2. School readiness can be improved if the results of material poverty are countered.

3. The long term objective should be to improve the living
   conditions of present and future generations to such an
   extent that environmental deprivation is prevented.

To counter environmental deprivation it is necessary to include
the following aspects in the pre-school programme: (Le Roux,
1994:60)

1. Physical care.

2. Social enrichment.

3. Experiential enrichment.

4. Cultural enrichment.

5. Emotional enrichment.

6. Cognitive enrichment.

7. Functional enrichment.

8. Language enrichment.

There is a relationship between environmental deprivation and
later learning disabilities in a culture of poverty (Le Roux,
1994:65) and therefore in order to give guidelines to parents and
other educators as to how to identify *at risk* children, the
researcher will present literature on learning disabilities. It
serves as a background for the understanding of how non-school
readiness may lead to specific learning disabilities.

Although the joint commission (referred to as NCSNET/NCESS) preferred the term *"learners who experience barriers to learning and development"* to *"learners with special educational needs"*, the researcher for the sake of theory will use the term learning disabilities, in this chapter. The new concept of *"learners who experience barriers to learning"* will be discussed in Chapter 3.

In 1981 the American National Joint Committee for Learning Disabilities (NJCLD) proposed the following definition of Specific Learning Disabilities: "Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities.

These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, social and emotional disturbances) or environmental influences (for example, cultural differences, insufficient inappropriate instruction, psychogenic factors) it is not the direct result of these conditions or influences (Hammill, Leigh & Larsen, 1981:339-340).

On arrival at school many pupils that lack school readiness would invariably at the end of their grade one year be categorised as learning disabled or children that have barriers to learning and development. It is therefore necessary in this study to include a write up on learning disabilities. Many researchers maintain that the causes of learning disability are intrinsic to the individual.

Extrinsic factors such as environmental deprivation as well as pedagogical and didactical neglect are not seen as casual factors for learning disability (Gearheart, 1981:13) but serve as a basis for the identification of a different category of children.

Authors such as Smith (1980:23-27) as well as Wallace and McLoughlin (1979:47-49) distinguish the following as causes of dysfunction in the learning disabled child:

1. Genetic factors.

2. Factors which can result in some injury to the central nervous system, before, during or after birth.

3. Certain biochemical and metabolic factors.

4. Environmental factors which may entail an inherent tendency towards slow development and functioning of the central nervous system.

2.11 MANIFESTATIONS OF LEARNING DISABILITY

Although many of the books the researcher has consulted on learning disabilities are outdated publications, the researcher is of the opinion that the content is still relevant as far as it provides a theoretical framework.

Researchers such as Goldstein in Werner and Strauss in 1939, and Strauss, Lethinin and Kephart (Wallace & McLoughlin, 1979:104) were among the first to show that deficiencies with regard to motor functioning are evident in learning disabled children. Cruickshank (1977:56) states in this regard that *"faulty motor ability is so much a part of the picture of the learning disabled child that teachers and clinicians have come to expect it as a typical part of the total syndrome"*.

The following motor manifestations are associated with learning disability in children:

1. Delayed milestones with regard to crawling, walking and talking (Johnson & Myklebust, 1967:15);

2. Deficiencies regarding gross and fine motor co-ordination (Faas, 1980:77-78; Gearheart, 1981:74-75; Dumont, 1973:21);

3. Deviant/abnormal reflexes (Du Preez & Steenkamp, 1980:59; Gerber, 1985:108);

4. Poor co-ordination (Cruickshank, 1980:509);

5. Deficiencies in spatial orientation (Gerber, 1985:109);

6. Disturbances in laterality (Mercer, 1983:389; Lerner, 1985:226);

7. Disturbed balance and rhythm (Wallace & McLoughlin, 1979:117);

8. Deficiency in body consciousness (Faas, 1980:78; Lerner, 1985:267);

9. Apraxia and dysarthria.

The role motor ability plays in the total development of the child is considered so important by authors such as Kephart, Getman, Doman and Delacato, Cratty and Ayres (Kapp, 1991:386) that each one of them have designed programmes to improve the motor ability of the child. Through these they attempt to enhance the child's learning and consequently his development (Kapp, 1991:386).

Gerber (1985:282-283) is of the opinion that the defective motor ability in learning disabled children harms their integration into social life. Johnson and Myklebust (1967:282-283) further maintain that the learning disabled with motor difficulties *"become embarrassed in many situations because they cannot perform as well as their friends. They are inferior on the playground, in creative activities, in getting from one place to another and in completing a task, all because they cannot learn the motor patterns required for tying shoe laces, opening a milk carton, using a hammer, climbing, or riding a bike"*.

2.11.1 **Perceptual**

Deficiencies in the following visual and auditory abilities were found to be common in learning disabled children:

1. Discrimination (Dumont, 1973:24).

2. Analysis and synthesis (Olivier, 1981:105 & 10).

3. Differentiation between foreground and background (Cruickshank, 1980:508).

4. Spatial relationships (Wallace & McLoughlin, 1979:86).

5. Memory (Smith, 1980:75-76).

6. Sequence (Johnson & Myklebust, 1967:182; Gearheart, 1981:15)

7. Perceptual constancy (Lerner, 1985:283-287).

Chalfant and King (1976:44) and Williams (1983:143-144) distinguish intrasensory integration as the integration of all the information from a specific sensory modality at a given moment and intersensory integration of information which originates simultaneously from various different sensory modalities.

According to Lerner (1985:288) some learning disabled children can handle intrasensory integration but show a lack in intersensory integration which affects information originating simultaneously from different sense organs such as is the case in reading, the imitation of motor activities and in writing.

Whyte (1984:22-23) and Houck (1984:28) found that perceptual deficiencies in spatial orientation and in sequencing are very common in learning disabled children.

The programmes to improve the perceptual abilities of the learning disabled all have as their point of departure the notion that *"training in perception improves academic functioning"* (Mercer, 1983:373).

Many authors, *inter alia,* Lessing (1986:58) and Van Niekerk (1986:215) agree that perception plays an important role in the learning and becoming of the child. Carrow-Woolfolk and Lynch (1981:44) show the importance of unimpaired perceptual abilities for the normal cognitive development of the child.

Johnson and Myklebust (1967:32-42) and Aram and Nation (1982:42) stress the important role of perception in the language development of the child, while Wiig and Semel (1976:8), Singer and Ruddell (1976) as well as Bryan and Bryan (1978:207-208) emphasise the important role of perception in reading.

Bley and Thornton (1981:4-14), as well as Brainerd (1982:152) show that unimpaired perception is necessary for the child to master mathematical concepts and principles. The above mentioned writers concur that the learning disabled child's motor ability, his recognition and his spoken and written language may be impeded by inadequate perception.

Practice shows that perceptual deficiencies may also impede the learning disabled child socially and emotionally.

It appears that children from the informal settlements do exhibit perceptual deficiencies. This lack of perceptual skills could impede the child in his construction of and interaction with his life-world. This will include his association with objects, ideas and people, that make up his life-world.

Gerber (1985:97) maintains that perceptual deficiencies detrimentally influence the learning disabled child's design of his own life-world and this includes his association with other people.

2.11.2 **Cognitive**

The following are characteristics of the learning disabled child's cognitive functioning. Children that enter school from informal settlements without prior attendance in a school readiness class may also exhibit some of these characteristics in their grade one year:

1. An inability to identify cause and effect, to interpret symbols and to use imitation successfully in the learning act (Kapp, 1991:389).

2. Some children may find it difficult to move from the concrete level of cognitive functioning to the abstract level (Van Niekerk, 1986:215). They remain concretely bound in their thinking according to Smith (1980:35).

3. Some learning disabled children also find it difficult to
   retrace a matter to its original departure point. They lack
   the internal organisation to classify and categorise
   information or put it into proper sequence, to understand
   time or to perceive and use the space around him accurately
   (Smith, 1980:87).

4. According to Moses (1981:13) and Smith (1980:85) the learning
   disabled child has problems both in integrating new
   information with existing information and in seeing
   relationships between aspects.

5. According to Torgeson (1977:28) some learning disabled
   children are usually dependent on more specific guidance in
   the teaching situation. They are mostly passive learners
   (Jacobs, 1984:215) who are unable to work independently and
   purposefully.

6. The learning disabled child also finds it more difficult to
   plan strategies and to work things out. This deficiency can
   have a far-reaching influence on their learning strategies
   and learning methods (Smith, 1980:67).

Smith (1980:85) shows that the learning disabled child expe-
riences problems in integrating information and in seeing
relationships. He *"does not see the effect of his own behaviour
on others or anticipate its impact.*

Often he does not understand why he is being castigated or punished, for he does not understand the connection between what he did and what happened".

In learning disabled children there appears to be a significant difference between the child's expected potential and his actual achievement (Lerner, 1985:69). The expected potential is usually based on the child's IQ figure as derived from individual intelligence tests and his actual achievement is based on the marks he obtained in standardised scholastic tests.

In practice the so-called discrepancy formulas are used to determine whether there is a significant difference between actual potential and expected achievement. If such a difference exists, the child is classified as learning disabled.

2.11.3 Language

Language deficiencies and semantic deficiencies, hamper a child's social development and his understanding of concepts.

Van der Stoep (1965:49) maintains that a child's socio-emotional contact with the world is determined by his language acquisition, because he communicates primarily through language. Language deficits impede the development of insight especially with regard to social norms and values, which could result in social problems. Most researchers who have examined language deficiencies in learning disabled children concur on two matters:

1. There is a relation between the learning disabled child's
    language deficiencies, his motor deficiencies (Gearheart,
    1981:75), his perceptual deficiencies (Olivier, 1981:113)
    and his cognitive functioning (Aram & Nation, 1982:51-52;
    Gerber, 1985:113-116).

2. The learning disabled child's language deficiencies concern
    one or more of the following aspects of language:

    a) Auditory - receptive language (language of listening).
    b) Auditory - expressive language (speech).
    c) Visual - receptive language (reading).
    d) Visual - expressive language (written).
        (Wiig & Semel, 1976:23; Smith, 1980:70-81).

It is evident that if children enter grade one without satisfying
the language criterion of school readiness they are bound to
become classified as learning disabled in the subsequent grades.

The learning disabled child's spoken language deficiencies
involve the following:

1. *Perceptual deficiencies*. These play an important role in the
    poor understanding and use of language (Rice, 1983:354).
    According to Ebenson and Ingram (Lahey, 1978:154) auditory-
    perceptual deficiencies are one of the main causes of
    developmental aphasia - an inability to use and understand
    the spoken word correctly.

2. *Memory deficiencies.* Johnson and Myklebust (1967:114-115),
   Wiig and Semel (1976:27) as well as Smith (1980:27) report
   that language disabled children evidence deficiency,
   especially in the retention and recall of language symbols
   and language information. According to Eisenson (1980:27)
   this can have a negative influence on the phonological as
   well as the syntactical and semantic levels of these
   children's language functioning.

3. *Deficiencies regarding language comprehension.* Children may
   exhibit receptive aphasia, a language disability on which a
   child shows a partial or total inability to understand
   language (Johnson & Myklebust, 1967:74-79).

4. *Deficiencies in the use of language.* Some children possess
   expressive aphasia which entails an inability to use language
   meaningfully (Johnson & Myklebust, 1967:118).

5. *Deficiencies regarding verbal communication.* The child's
   communication problems may be traced back to his inability to
   understand and use language properly (Gerber, 1985:114).
   Because language plays such an important role in
   communication, it is an essential requirement for the
   successful social development of the child.

2.11.4 **Affective-social**

The affective social life of the learning disabled child is characterised by the following:

2.11.4.1 *Hyperactivity*

a) Young children with hyperactivity exhibit excessive gross motor activity, such as running or climbing (Lerner, 1993:228).

b) Sensory hyperactivity which is also known as distractibility of attention. It is described as: *"the tendency to be easily drawn away from any task at hand and to focus on extraneous stimuli of the moment"* (Faas, 1980:403).

Both types of hyperactivity may have a detrimental effect on the child's academic progress (Gearheart, 1981:103). Their social implications have much more disturbing consequences (Bryan & Bryan, 1978:139-140). Hyperactivity may also be associated with emotional deficiencies such as a poor self-image, fickleness, emotional lability, a low frustration threshold and unpredict-ability (Smith, 1980:18).

2.11.4.2 *Perseveration*

According to Lerner (1985:524) perseveration may be described as: *"The tendency to continue an activity once it has been started and to be unable to modify or stop an activity even though it is acknowledged to have become inappropriate"*.

Such children find it difficult to move from one activity,
whether it is verbal or non-verbal, visual or auditory in nature
to another.

Gerber (1985:92) maintains that learning disabled children cannot
give attention with ease from one matter to another.
Perseveration influences the child's scholastic progress as well
as his interpersonal relationships.

2.11.4.3 *Disturbed behaviour*

Behaviour that is typical of the learning disabled and which may
infringe on his social life is disinhibition, aggression,
anxiety, negativity, temper tantrums, irritation, a poor venture-
some attitude, a fear of contact with his environment and with
other people, frustration and impulsivity (Johnson & Myklebust,
1967:229; Wallace & McLoughlin, 1979:229; Shaw 1981:20;
Lerner, 1985:470; Gerber 1985:91).

2.11.4.4 *Withdrawal*

Learning disabled children may withdraw themselves socially,
become isolated and consequently develop an inability to
communicate with their peer group and with adults (Mercer,
1983:397).

2.11.4.5 *Poor self-concept*

Nel (1985:433) posits that the learning disabled child often
feels inferior and in many instances more often than the normal
child has a poor self-image and a poor self-identify.

2.11.4.6 *Social imperception*

Social imperception impedes the academic progress and learning ability of the learning disabled child and may lead to affective problems such as over-dependence, withdrawal, guilt feelings and aggression (Reid & Hresko, 1981:103).

2.12 EARLY IDENTIFICATION OF LEARNING DISABILITY

2.12.1 Rationale

The practice of early screening of children by the education system was derived from the practice of early medical screening (Gredler, 1992:22). Medical screening is used to detect disorders that can be certified and a treatment programme instituted. Such a course of action can produce major benefits.

An example is the screening of newborns for PKU. Prior to legislation mandating such testing, this condition typically was not diagnosed until the child was 4 years of age. However when treatment for PKU is not begun in the early weeks of life, mental retardation will soon become evident. Thus early screening and treatment have effectively reduced the problem (Gredler, 1992:22). The rationale for early identification of children who may be at risk for developing learning/behavioural problems later in school is that outcomes similar to those due to a lack of early medical screening may result (Gredler, 1992:22).

Barnes (1982:97) states that the *"human ramifications of a child not having a serious reading disability detected until the second or third grade may be such that the child never does learn to read adequately"*. The assumptions of early educational screening, summarised by Reynolds (1979:277) are as follows:

1. *"Early identification can accurately pinpoint the child's difficulties and a program can then be tailored to help ameliorate these difficulties"*.

2. If early detection is not undertaken, the child is likely to remain behind during most of his or her school years.

3. Preschool screening will, in some cases lead *"to total or near remediation of ... problems prior to the beginning of first grade"*.

With a persistent concern about fixing readiness problems, policymakers have turned with increasing frequency to the adaptation of screening programmes to identify *"at risk"* children (Graue, 1993:11).

Broadening their focus beyond early intervention models that were developed for the handicapped or the disadvantaged, screening began to now focus on issues of readiness or developmental immaturity (Meisels, 1987:4).

Meisels (1987:4) makes an important distinction between developmental screening tests and readiness tests that focuses on their use: developmental screening tests *"provide a brief assessment of a child's developmental abilities"* while readiness tests *"are concerned with those curriculum related skills a child has already acquired"*. The developmental tests are useful for identification of children in need of some kind of intervention programme while readiness tests are helpful in curriculum planning. Unfortunately the two types of tests have been used interchangeably, which is not appropriate. Developmental screening tests are not valid for readiness testing and vice-versa (Graue, 1993:11). A recent predictive validity study of the Brigance Kindergarten and First Grade Screen, the Developmental Indicators for the assessment of Learning-Revised, The Daberon Screening for School Readiness and the Missouri Kindergarten Inventory of Developmental skills conducted in Virginia examined these test's predictive validity.

Ellwein, Walsh, Eads and Miller (Graue, 1993:11) found that males, children of colour, low socio-economic status and relatively younger examinees were much more likely to be identified as unready or *"at risk"*. None of these screening tests had impressive predictive validities, with classification errors a necessary danger.

Early identification and its necessary consequence, early intervention, rest on two basic assumptions, namely that signs of later problems can be detected at early stages and that these signs and symptoms can be treated successfully or at least ameliorated by intervention (Fraser, 1984:8). The second basic assumption involves the effectiveness of early intervention. Caldwell (Fraser, 1984:9) refers to the works of Bruner (1960) Hunt (1961) and Bloom (1964) all of whom emphasised the influence of environment on the cognitive development of the young child. Studies by Skeels and Dye and Skeels and Kirk in which mentally retarded infants and young children were given an enriched environment revealed initial gains that were maintained at follow-up (Fraser, 1984:9). Brown (1978:179) who surveyed 96 longitudinal studies provided positive results of Operation Head Start concluding that *"the adverse impact of a poverty environment on children can be overcome by appropriate treatment"*.

With specific reference to learning disabilities, Strag (Fraser, 1984:11) has shown that when dyslexia is diagnosed and treated in the first two grades of school nearly 82% of cases can be successfully remediated, in the third grade only 42% can be so helped and of these diagnosed between the fifth and seventh grade only 10 to 15% can be successfully helped. Similar findings have been reported by Muehl and Forell (Fraser, 1984:11).

2.13 PROBLEMS EXPERIENCED

One of the problems in testing young children is that of unstable behavioural patterns. Testing that is conducted too early in the school year for example, is likely to reflect behavioural problems that may not be present a few months later.

In one study of over 11,000 young children, teachers indicated that 76% had effectively *"settled down"* or adjusted to school at the end of one month. However 18% of the children required 3 months to adjust to the school environment and the demands placed on them. According to Pringle, Butler and Davie (Gredler, 1992:23), the remaining 6% of the children continued to exhibit maladaptive behaviour after 3 months. The implications for screening programs derived from that study are that an initial time period should be allowed for the child to adjust to the school and to permit the building of a positive teacher-student relationship (Gredler, 1992:23). A study by Silva and Ross (1980:224) of the gross motor development of 800 children at age 3 and again at age 5 indicates the ephemeral nature of some deficits.

Of the 800 children tested 31 demonstrated poor motor performance at age 3. However at age 5 only 10 of the 31 children continued to exhibit poor motor performance. The other 21 children did not differ from the total sample on motor ability, language or IQ. Therefore, had the results of the tests of the 3 year olds been used to identify potential learning problems, 2 out of 3 children would have been misclassified.

These results of the Silva and Ross study (1980:224) indicate that motor delays observed in many children at age three tend to be unstable and often may not be associated with other areas of the child's development.

The researchers conclude that *"these results do not suggest that delayed motor development, at least at the pre-school level deserves identification and intervention efforts"* (Silva & Ross, 1980:224). According to Lindsay (1984:175), *"children not only develop at different rates, they change position relative to each other on different dimensions and also their own profiles of abilities over time"*. In other words, for early identification to make sense, there must be sufficient consistency over time between a child's early functioning and what is educationally appropriate for the child in later years (Lichtenstein & Ireton, 1984:65).

Hindley and Owen (Gredler, 1992:24) in a comparison of the IQ scores of 84 children from 6 months to 17 years of age found several shifts in ability levels. Between the ages of five and eleven years 25% of the IQ's changed by more than 16 points and 3% changed by more than 30 points. The change was even greater in the younger children. Fifty percent of the children between six months and five years demonstrated IQ changes of more than 19 points and 25% by more than 30 points.

The difficulties in accurately identifying children at risk impinge directly on the efforts of educational and psychological personnel who are involved in designing an early screening and intervention programme for children up to age six.

Sparrow, Blackman and Chauncey (Gredler, 1992:25) note that a screening program implemented in the Spring before children enter kindergarten will result in an excessive number of children being categorised as at risk who subsequently will be found to have no learning problems. Leach (Gredler, 1992:25) states that attempting to identify the at-risk children early in the elementary school program involves an error rate of 33% (Gredler, 1992:25). In other words 330 out of 1000 children said to be at risk will be wrongly classified.

Potton (Gredler, 1992:25) has indicated that the educational concept of *"at risk"* is of an abstract nature, is composed of complicated concepts and is difficult to explain by a single score from a screening test. In order to rely on this score, the test must have adequate validity and reliability.

It is unfortunate that drastic intervention methods (that is, delay of entrance to school; denial of entrance to pre-school) currently are associated with brief screening batteries and that speculative screening is now found to be common place in many school systems. Often the definition of a potential learning problem is derived from the particular philosophy of the school.

For example, schools that expect a high level of reading readiness skills or knowledge of words and letters in those children entering first grade will define learning problems differently from schools that do not hold these expectations for the children.

In the study conducted by Gates (Gredler, 1992:27), a variety of environmental factors can influence success rates in schools. Keogh and Becker (1973:8) also warn of the possible dangers involved in the effects of early identification.

They point out that by identifying children as high risk, "*a set of expectancies, anxieties and differential treatment patterns may develop*". The concerns and anxieties of parents and teachers may in fact have an adverse effect on the child resulting in a "*self-fulfilling prophecy*" (Fraser, 1984:12). Merely labelling a child as "*at risk*" without providing remediation has been strongly rejected by many researchers in the field (Fraser, 1984:12).

Lindsay and Wedell (Fraser, 1984:12) have commented on the generally low predictive validity of most screening devices which do not take into account the compensatory resources of the child as well as of the environment from which he comes. There is a tendency among standardised tests to contain a heavy weighting of items which are directly school and culturally based, and

therefore children from deprived cultural backgrounds may be at a considerable disadvantage (Fraser, 1984:13).

In this chapter the various models of school readiness were presented and discussed. The researcher presented literature in an attempt to identify relationships between school readiness, early identification, environmentally deprived, learning disabilities and *at risk* children.

It is evident from the literature study that the above concepts are inextricably linked. The interim policy on early childhood development proposes to address the needs of children in the birth to nine year age group.

CHAPTER 3

AN OVERVIEW OF THE INTERIM POLICY ON EARLY CHILDHOOD DEVELOPMENT AND A REVIEW OF SCHOOL READINESS IN INFORMAL SETTLEMENTS IN THIRD WORLD COUNTRIES.

3.1 INTRODUCTION

South Africa is regarded as a developing country, therefore the road towards a quality education system has not been much travelled. However attempts are being made at all levels to uplift the current education system. In February 1996 the Department of Education and Culture proposed an interim policy for Early Childhood Development (ECD).

The importance of development in early childhood is recognised by the Government of National Unity (GNU). The GNU feels so strongly about early childhood development that they call it *"a fundamental pillar of the foundation for lifelong learning"* (Department of Education, 1996:1). To show its commitment to early childhood development, the Government developed a strategy to implement a reception year as part of the 10 years compulsory schooling. In order to commence with the ECD programme, the Government intends implementing a *"National ECD Pilot Project"* (Department of Education, 1996:1). This pilot project is proof of the Government's committment towards the implementation of a compulsory reception year throughout South Africa.

The pilot project will last three years during which the latest trends and developments in the field would be investigated in an effort to institute *"interim accreditation and standards for practitioners, build provincial government and non-governmental organizational capacity, develop an interim policy and establish sustainable subsidies for community-based ECD programmes"* (Department of Education, 1996:1). This concerted intervention will provide much information for the development of policy regarding ECD (birth to nine years).

The Government White Paper (1995) defines Early Childhood Development (ECD) as *"an umbrella term which applies to the processes by which children from birth to nine years grow and thrive, physically, mentally, emotionally, morally and socially"* (Department of Education, 1996:1).

The term *"educare"* which was previously used to describe programmes for children in the birth to six years age group, has now been replaced by the term Early Childhood Development that includes children from birth to nine years. (Department of Education, 1996:1).

The ECD programmes are aimed at helping families and communities meet the needs of children in the birth to nine year age group. In keeping with the Government's reconstruction and development policy, families within impoverished communities need assistance to meet the developmental needs of their children which is so crucial for their lifelong learning.

More so this would be true for the large number of informal settlements that have mushroomed within the provinces of South Africa. Many young children are at risk because their health, nurture and education cannot be provided for adequately from resources available within the community. Within South Africa the families of more than half of our infants and children live in extreme poverty which exacerbates malnutrition, diseases and premature death (Le Roux, 1994:244). On the basis of an extensive research project, Steyn, Van Wyk and Le Roux (1990:284) point out that practices such as migrant labour and influx control lead to an inbalance of men and women in rural and urban areas. This in turn lead to an increase in pre-marital and extra-marital sexual intercourse, and consequently to the destruction of families. The effects of migrant labour and other exploitative labour conditions divides families and places them under severe stress (Le Roux, 1994:245). More importantly the children suffer immensely as a result of this. To compound this situation the children also find themselves in the midst of domestic, social and political violence. Many of the parents from these poor communities have had no schooling and they lack the skills to prepare their children adequately for formal learning and reading (De Witt & Booysen, 1995:125).

Although there is a dire need for ECD services in our communities, it could take some time before a comprehensive plan is put in place to counteract the long historical neglect and the absence of a coherent government policy for ECD.

This requires medium and long term plans together with current
interventions which will provide a strong foundation for ECD
service delivery.

The White Paper on Education and Training (March 1995) accepts
that a child's development and growth is affected by a variety
of *"inter-related factors which constitute the overall
environment"* (Department of Education, 1996:8). In
constructing an environment that is conducive for the optimal
development and growth of a child, the basic needs of a child
need to be met. This includes ensuring adequate nutrition,
good health, early childhood cognitive stimulation and a
loving and secure environment. The Department of Education
(1996:8) states that ECD must be approached within a wider and
holistic context which will include multiple learning
environments, namely the school, family and the community that
influence the development of a child.

The Government White Paper (1995) also emphasises that
interventions should not only focus on the child but should
cater holistically taking into consideration the family,
community support systems and government policies (Department
of Education, 1996:8). The Department of Education (1996:8)
states that the role of the inter-departmental ECD committees
will be to develop and promote a comprehensive and multi-
disciplinary approach to the welfare and development of young
children from birth to nine years of age.

Based on this system/model it is hoped that a stronger foundation will be laid to cater to the needs for ECD for all of South Africa's children over the long term.

The White Paper (1995) further acknowledges that the child's developmental needs are continuous from birth onwards and requires timeous programmatic intervention that facilitates continuity between *"the home, the educare and pre-school phases and the early years of schooling"* (Department of Education, 1996:9). It also stresses that the ECD policy should in principle address the full early childhood phase from 0-9 and that this should be brought about by the involvement of the various ministries of Education, Health and Welfare and Population Development (Department of Education, 1996:9).

Furthermore the White Paper (1995) points out that the Department of Education, in collaboration with provincial departments in the Heads of Education Departments Committee and stakeholder organisations will be responsible for implementing a national education policy for ECD including the reception year (Department of Education, 1996:9-10). The Department of Education (1996:10) in its interim policy for ECD maintains that this policy will include the structure of provision, the determination of financial responsibilities and the establishment of national norms and standards for ECD curricula and training.

The White Paper places the phasing in of the policy on the
shoulders of the provincial departments in conjunction with
NGO providers and accredited training agencies. This plan
will put in place a suitable infrastructure for the Reception
Year Programme as well as the training of practitioners to
equip them with the relevant skills needed for reception year
education thereby including the reception year part as a
compulsory phase of schooling.

3.2 PRINCIPLES OF THE GOVERNMENT'S POLICY IN EARLY CHILDHOOD DEVELOPMENT

The Government's intervention in Early Childhood Development
is based on the following principles as it is outlined in the
Interim policy for early childhood development, issued by the
Department of Education in 1996.

1. The government views the rights of young children as well
   as their right to security, basic nutrition, basic health
   care and basic education as its responsibility.

2. The care and upbringing of the young child is the primary
   responsibility of the parents and families.

3. The government's ECD policy should strive for the
   empowerment of parents, families and communities to foster
   the care and development of their young children.

4. An effective, qualitative early childhood development programme requires an integrated approach to meet the children's need for care, stimulation, education, nutrition and health.

5. Children who are differently abled should be given adequate opportunities to actualize their potential.

6. Collaboration between the governmental departments of Health, Education, Welfare and Population Development and institutions such as training colleges, technikons and technical colleges, non-governmental organisations, especially at community level, unions, employers and donor agencies together with active parental involvement will ensure an effective delivery of ECD services.

7. The effectiveness of an ECD programme is reliant on parental involvement, communities and other stakeholders in democratic governance structures.

8. The expenditure on ECD programmes should be based on social and economic reconstruction geared towards redress.

9. The educational component of the ECD programme should incorporate a continuous progression in development, from birth to the end of the foundation phase (birth to nine years).

3.3 KEY CONSIDERATIONS IN PLANNING FOR THE ECD POLICY

In its plans for the future the Department of Education (1996:14-15), outlines a number of key issues. These are:

3.3.1 Correcting past inbalances

Presently in South Africa only 9 to 11% of children between birth and six years of age benefit from the ECD services. Black children appear to be the most severely disadvantaged due to the discriminatory legislation of previously appointed governments. In order to make ECD services accessible to black children more attention needs to be focused on them to bring about equity. Presently only 6% of black children between birth and six years of age benefit from ECD services (Department of Education, 1996:14).

3.3.2 The need to provide equal opportunities

Children that enter school from a priveleged background are at an advantage compared to children from impoverished communities. The majority of children that are in schools within impoverished communities are disavantaged due to the poor learning environment offered and the discrepancies between home and school (Department of Education, 1996:15).

3.3.3 Issues of scale

Multi-focussed strategies need to be put in place so that greater numbers of children are reached (Department of Education, 1996:15).

3.3.4 <u>Affordability</u>

The burden of providing ECD services should be shouldered by a funding partnership between the Government, private donors, parents and local communities. In this way the burden of ECD provisioning is removed from the communities making programmes more affordable to parents (Department of Education, 1996:15).

3.3.5 <u>Increasing public awareness and advocacy</u>

The public's knowledge and awareness regarding ECD needs to be increased so that parents and the community at large can see the link between a better ECD foundation and lifelong learning. The Department of Education (1996:15) stipulates that this campaign needs to promote a greater awareness of the benefits of ECD and highlight why financial investments in ECD promote greater social gains.

3.4 PILLARS OF THE GOVERNMENT ECD POLICY

As outlined in the Interim policy for ECD (1996:15) the government's long term policy for ECD rests on the following pillars:

1. Policy for ECD provision
2. Policy for ECD curriculum
3. Policy on accreditation
4. Policy and policy structures in the interim
5. Policy on ECD training
6. Policy on the employment of ECD practitioners
7. Policy on the funding of ECD services

8. Policy in respect of policy development structures.

An overview of the policy for ECD provision as outlined in the
Department of Education (1996:16-22) will be given:

3.4.1 Policy for ECD provision

3.4.1.1 Targeted provision

The programme will be designed to cater for the specific age
groups of children, that is:

0-5 years   Community based target group. In this group the ECD
            programmes will focus on equipping the community and
            parents with skills so that the ECD of children from
            the community can be enhanced.

5-6 years   Reception year target group. The most disadvantaged
            communities will be targeted and the phased-in
            provision will be directed at implementing the
            national policy on curriculum and accreditation.

6-9 years   Lower primary target groups

In the birth to 5 year old group, the development of the policy
will be the joint responsibility of various other government
departments,   including   health,   welfare   and   population
development, local governments and the RDP ministry. Although
the various age groups have been divided in terms of targeted
provision, it is of importance to have an integrative programme
for children from birth to nine years.

The Department of Education (1996:17) outlines that the ECD programmes should be geared for children from migrant, rural, squatter, peri-urban work based or any other disadvantaged communities. The most important goal of ECD is the inclusion of these impoverished communities into the education society taking into account the principles of equity, freedom of choice, co-operation and equal access. Children from impoverished communities should also be able to enjoy opportunities that were given to the more advantaged communities.

3.4.1.2 Programming Strategy

A blue print that takes care of the development of all children from birth to the end of the foundation phase needs to be put in place. The Department of Education (1996:18) emphasizes that this framework or blue print needs to include programmes that:

- Reaches out to children in homes, centres and schools.
- Would support and educate ECD practitioners.
- Would promote community development.
- Would promote change and development in the lower primary years at school.
- Would promote smooth transition between the earlier years and lower primary years.
- Strengthen resources and capacities present in institutions.
- Strengthen demand and awareness amongst communities.

3.4.1.3 Child care and development in the community

In the Department of Education (1996:18) it is proposed that early childhood development should work towards a national community development strategy so that communities can develop economically and socially in the form of better housing, health, welfare and education. This hinges on the following factors:

- Whether ECD is given priority in the national and provincial reconstruction and development programmes, including the deployment of state resources to maintain equity.

- There must be collaboration amongst the various government departments at all levels with the Department of Education co-ordinating the process.

- Policy development and implementation must be guided by representative consultative structures at national, provincial and local levels.

- The delivery of service will be prioritized by the government, non-governmental organizations and community based organisations. The planning of this delivery will take place at a local level in relation to local needs and circumstances. For example the needs of an informal settlement will vary greatly from the needs of a formal settlement. Therefore it is essential to plan with all concerned groups, service organisations and agencies.

3.4.1.4 The early years of schooling

The early years are crucial for later learning in and out of school. Therefore the lower primary years needs to adopt a more learner-centred approach, to counteract the high rates of repetition and dropout. In the Department of Education (1996:19) it is proposed that a new approach to the learning of children is required and it can be achieved by:

- Implementing a reception year which is based on an enriched play-and-activity curriculum which utilizes the children's own knowledge and experience, facilitating continuity amongst the home, community and school.

- Educators in the foundation years providing an education that encourages the childs curiosity and builds up his/her confidence in the use of linguistic and cognitive skills that leads to the achievement of fundamental literacy and numeracy.

3.4.1.5 The reception year

a) Location

All centres that provide a reception year programme irrespective of its location outside or within a school, would have to be registered with the Department of Education, and subscribe to the national curriculum and guidelines. Practitioners would need to satisfy standards as it is set out within the national accreditation framework provided by the Department of Education.

b) Subsidisation

Providers of the reception programme will qualify for government subsidy as long as they meet practitioner accreditation guidelines and programme requirements of the national ECD pilot project.   All communities that provide a reception year programme, irrespective of location will receive a government subsidy.

c) Practitioner: learner ratio

The recommended ratio as set out in the Department of Education (1996:21) stipulates a ratio of 1:30 in respect of pre-primary and reception classes but this matter is still under discussion.

d) Targeted Provision

The phasing in of ECD services will occur over a period of 5 years. Impoverished communities would be targeted first.

e) Admission age

According to the Department of Education (1996:22) priority will be given to children who have already reached their fifth birthday prior to the beginning of the first term of the school. Children who also turn five within the first three months of the school year may also be allowed to register for the reception programme, provided they don't keep out a child who has already turned five. Children over five years of age who may have missed a schooling opportunity will be granted admission into the reception programme provided that they are within the age range five to nine.

In such instances practitioners will be adequately trained to provide individualized programmes for their learners.

Children above the age of nine years will be catered for by providing special multigrade programmes targeting mixed age group learners.

This is an interim policy document and upon successful implementation of the national ECD pilot project a new policy framework is likely to be formed. This would be able to provide a more permanent framework for long term ECD service delivery.

3.5 THE ECD PROGRAMME

The researcher will present an abbreviated summary of the content of the ECD programme as it is outlined in the Interim policy for early childhood development, issued by the Department of Education (1996).

1. In a programme for early childhood education there should be opportunities for continuous progression in development.

2. The child's needs are to be taken into account. In order for each child to develop his/her full potential, the child has to be challenged to achieve realistic aims.

3. The programmes provided by practitioners should take into account responsibility to the child, parents, community, colleagues and government departments.

4. ECD programmes should develop critical thinking and problem solving skills in learners so that they are equipped with essential life skills, that would bring about a change in society.

5. The ECD programme should look at the child holistically contributing to his emotional, physical, spiritual, moral, intellectual, creative and social development.

6. The programmes should allow children to actualize their potential irrespective of class, cultural background, gender or special needs. The programmes should have high expectations of all these children.

7. The programme should be integrative where possible rather than being compartmentalized into subject areas.

8. The emphasis of the programmes should be on a *"hands on"* approach using manipulative materials, questioning and problem solving activities. This approach would produce more critical thinkers and equip children with life skills, which will not be achieved by the practice of rote learning, one answer and one method and teaching by telling methods.

9. The assessment of children should be done to help them actualize their full potential and not merely for promotion purposes.

10. The ECD programmes should make learning enjoyable for the children promoting a love for learning, in the experiences and activities offered. Examples of these experiences could be play and educational games.

11. Children should be encouraged to investigate and explore things together. This would encourage group interaction and help children formulate solutions by themselves.

12. The programme should be free of bias so that all children irrespective of culture, heritage, religion, language and socio-economic background, can actualize their full potential.

3.5.1 Areas of Learning

The ECD document (1996:45) proposes that the ECD curriculum should not be subject bound, but should rather follow an integrated approach making possible progressive opportunities for development leading to a gradual refinement of children's perceptions which respond to the needs of the whole child. The Department of Education (1996:45) list the following areas of learning to be incorporated within the context of life skills development:

- emotional development;

- intellectual and perceptual development;

- communication, literacy and language development;

- development of numeracy and mathematical concepts;

- development of cultural, artistic and artistic craft skills
  development;

- development of physical and natural sciences enquiry skills;

- development of an understanding of technology and technological
  processes;

- development of an understanding of economic principles;

- spiritual, moral and ethical development;

- development of human and social awareness; and

- physical development.

The researcher will now give a brief summary of each area of development as it is stated in the Department of Education (1996:46-53).

3.5.1.1 Development of life skills

Essential life skills that have to be developed from an early age are:

- a love for learning;

- resilience;

- self-reliance;

- assertiveness;

- respect for self, others and the environment;

- responsibility;

- critical thinking;

- questioning skills;

- informed decision making abilities;

- problem solving abilities;

- co-operation;

- conflict resolution and negotiating skills; and

- the creative use of leisure time.

3.5.1.2 Emotional development

Children's emotional well-being should be ensured through daily activities. There should be ample opportunity for emotional growth.

3.5.1.3 Intellectual and perceptual development

Children need to be provided with opportunities that would enhance their perceptual development utilizing and integrating all the senses in the formation of concepts. Intellectual skills that may be developed are:

- enquiry;
- exploration;
- questioning;
- problem solving; and
- decision making.

These intellectual skills can be developed through:

a)   Communication, literacy and language development.

b)   Development of numeracy and mathematical concepts.

c) Development of cultural, artistic and artistic crafts skill.

d) Development of physical and natural sciences inquiry skills.

e) . Development of an understanding of technology and
    technological processes.

d) Development of an understanding of economic principles.

3.5.1.4 *Spiritual, moral and ethical development*

Children should be afforded experiences and activities that
develop them spiritually, morally, and ethically. All children
should be given an educational experience in religious education.

3.5.1.5 *Development of human and social awareness*

To inculcate respect for human dignity children can be exposed
to the full range of South Africa cultures, traditions, religions
and languages.

3.5.1.6 *Physical development*

Activities that foster gross and fine motor development and co-
ordination need to be included in the programme. Experiences and
activities should be enjoyable so that a love for learning is
established in the ECD programme.

3.6 THE ROLE OF PRACTITIONERS IN THE DEVELOPMENT PROCESS

The Department of Education (1996:54-55) outlines the following
roles of practitioners in the development process: .

1. Practitioners need to respond to the individual needs of
    children by providing a balanced programme of experiences.

2. Practitioners should provide sufficient activities to assist children with their development as learners and human beings.

3. A wide range of materials and equipment can be used to provide children with *"hands on"* experiences.

4. Practitioners should provide activities that promote non-sexism, non-racism and non-violence.

5. Practitioners should ensure continuous assessment of each child so that the child's development on an emotional, physical, intellectual and personal level can be monitored to assess progress.

6. Assessments should be done in the interest of children's development and not primarily for promotion purposes.

7. Assessments should be functional in identifying learners at risk early so that areas of weaknesses could receive extra or specific attention.

8. An important aspect of assessment is to provide valuable information to parents and family concerning the development of their child.

9. The assessment procedure should incorporate the children, the curriculum, the learning environment and the practitioners

themselves so that optimal opportunities for children could be provided to enhance their development.

3.7 NATIONAL COMMISSION ON SPECIAL NEEDS IN EDUCATION AND TRAINING (NSCNET) AND NATIONAL COMMITTEE FOR EDUCATION SUPPORT SERVICES (NCESS)

In 1996 the Minister of Education appointed members to serve on the abovementioned commissions to investigate and make recommendations on all aspects of *"special needs and support services"* in education and training in South Africa.

The members of the joint commission completed their report in November 1997. They also envisaged that some of their recommendations would be amended to the South African Schools Act, Act No. 84 of 1996 and that the other recommendations would be included in a new act on learners who experience barriers to learning and development.

It would be important to look at the findings and recommendations of the joint commission as this would impact quite profoundly on the lives of learners from informal settlements.

The joint commission (referred to as NCSNET/NCESS) preferred the term, learners who experience barriers to learning and development to learners with special educational needs for the following reasons:

1. Special needs in education refers to the needs of an individual person or the system which should be addressed. The special needs however are caused by barriers within the person himself or herself, the curriculum, the centre of learning (for example school), the education system and the broader social context. For the learner to progress optimally these barriers should then be minimised, removed or prevented.

2. The term *"learners with special educational needs"* (LSEN) has become too much of a catch-all phrase to categorise all those learners who do not *"fit into"* the mainstream education system and to describe the complex array of needs which they may have.

3. *"Learners with special education needs"* (LSEN) provides no insight into what has caused the learning breakdown or why such learners have been excluded from the system.

4. To promote equal opportunities for effective learning by all learners, the focus should fall on the diverse needs of the learning population. The education system should be structured and should function in such a way that it can accommodate a diversity of learner needs and system needs.

Those factors which lead to the inability of the system to accommodate diversity, which lead to learning breakdown or which prevent learners from accessing educational provision, have been conceptualised by the NCSNET/NCESS as barriers to learning and development.

5. By focusing on the nature of these barriers, what causes them and how they manifest themselves, then only can we begin to address problems of learning breakdown and exclusion from regular centres of learning. This would make it possible to identify components of the education system which must be present and supported if quality education is to be provided, promoted and sustained equally for learners with different needs in the country (EDUFAC - N/301/1998:4).

Permanent barriers such as disabilities, can be identified early and can be addressed through enabling and effective devices and processes. Barriers could also surface during the learning process and could be seen as transitory in nature.

These may require different interventions or strategies to prevent them from causing learning breakdown or excluding learners from the system. Barriers can be caused by the following factors: (EDUFAC - N/301/1998:4)

a) *Socio-economic barriers.* These include lack of access to basic services (medical services, homes), poverty and under-development and other factors which place learners at risk of dangers such as child abuse, war and political violence.

b) *Discriminatory attitudes.* Labelling has a harmful effect on a learner's self-esteem. Very often those who use labels fail to consider what is needed from the system to meet the learner's needs whatever their capabilities are. For example a learner is classified as being intellectually disabled and therefore ineducable after only one formal assessment session without taking his practical capabilities into consideration. Inadequate knowledge of illnesses such as AIDS, may lead to negative assumptions associated with this disease leading to learners with a HIV - positive diagnosis being expelled from centres of learning.

c) An *inflexible curriculum* which may not meet the diverse needs of all learners in class may lead to learning breakdown; inadequately trained teachers may utilize teaching styles that limit the initiative and involvement of learners, what is taught through the curriculum may be inappropriate to the learner's life situation.

d) *Language and communication.* Teaching and learning for many learners may take place through their second or third language. This might inhibit communication in class.

e) *Inaccessible and unsafe built environment.* Physically and visually challenged learners for example might not have easy access to centres for learning (no ramps for wheelchairs, furniture in passages which could impede movement of blind learners)

f) *Inappropriate and inadequate provision of support services.* Labelling and categorising learners has caused educational services to focus on the inadequacies of learners rather than on barriers within the system, such as poor and stereotyped teaching. The nature of the intervention has lead to learners being placed in a special school rather than addressing the problems within that environment.

g) *Lack of enabling and protective legislation and policy.* In this case, legislation regarding age limits for example, which prevents learners from entering school or continuing in the education system as long as possible may cause barriers to learning.

h) *Lack of parental recognition and involvement.*

i) *Disability.* A disability and chronic illness may cause barriers to learning.

j) *Lack of human resource development strategies.* Lack of
    ongoing in-service training of educators may lead to low
    self-esteem, insecurity and lack of innovative practices in
    the classroom. All these may contribute to barriers to
    learning and development.

In light of the above barriers to learning and development, it
is evident that learners, more so the five year olds from
informal settlements are burdened with more barriers to learning
and development than learners from formal settlements.

3.8 SCHOOL READINESS IN THIRD WORLD (DEVELOPING)COUNTRIES

At this stage of the study it would be important to briefly
review school readiness in third world (developing) countries.
South Africa is also a developing country and it would be
beneficial to review early childhood education in third world
countries to gauge our development thus far.

Moock and Leslie, Popkin and Lim-Ybanex (UNICEF, 1991:8) report
that in developing countries the increased number of learners
suffering poor health negatively effects the level and quality
of their activity in school, and also their school attendance
patterns. Berg reports that in some Latin American countries
children miss as much as a third of scheduled school day a year
because of illness and poor health (UNICEF, 1991:8).

The result may be a need to repeat a school year and/or early drop out. Thus the child with a history of illness is not as ready for school as a healthy child is and subsequent progress and performance in school is at risk.

Recent research clearly identifies a causal relationship between iron deficiency and school performance and concludes that programmes to provide iron can have a positive effect. Soematri, Pollit and Kim (UNICEF, 1991:8), working with children in economically deprived rural areas of central Java, Indonesia, have shown that a three month iron supplementation intervention was associated with significant changes in performance on school achievement and concentration tests. Similar results are now available for programmes in India as reported by Seshadri and Gopaldas as well as Pollitt & Metallinos-Katsaras in Thailand (UNICEF, 1991:8).

3.8.1 The effect of ECD programmes

The most comprehensive data regarding the effects of early childhood programmes on primary school progress and performance comes from longitudinal evaluations of *"compensatory"* programmes for children aged 3 to 5 years from disadvantaged backgrounds in the United States, Europe and Australia.

As these children moved through primary school, their progress and performance were evaluated. Lazar, Halpern & Myers (UNICEF, 1991:12) report that data from these children in early or late adolescence indicate that participation in well-implemented early childhood education programmes can have significant long-term effects on school progress, as indicated by increased promotion, decreased need for special education and high school completion.

The severe nutritional and cognitive deficits characterising the status of many children in the third world raises the possibility that early intervention can exert an even more powerful effect than that found in the industrialised world. Thus the results from industralised countries do provide hope.

3.8.2 Evidence of early childhood development programmes from the third world

3.8.2.1 Nutrition

a) Gautemala

A team of researchers at the Nutrition Institute for Central America and Panama (INCAP) found that high supplemental intake had a significant effect on birth weight, physical growth up to age 7 and cognitive development up to age 3 (UNICEF, 1991:14). The cognitive effects appeared to decrease in magnitude and generality beyond age 3. Supplementation had no signifcant effect on the child's verbal performance at ages 5, 6 & 7 years or on early school progress and performance.

Klein and Balderton (UNICEF, 1991:14) have cited in three of the four participating villages in which parental education levels were moderately higher, the amount of supplemental intake predicted the likelihood of school enrollment. Parent's perceptions of the children's early intellectual ability led to earlier enrollment for both boys and girls.

Irwin (UNICEF, 1991:14) maintains that although nutritional supplementation seemed to have no effect on school performance, the quality of home stimulation during the early years was strongly associated with primary school performance, especially for boys. In these generally poor villages it was found that even slight differences in economic status affected family ability to cope with the costs of children's education.

For the same group, Barret and Radke-Yarrow (UNICEF, 1991:14) found effects of the nutritional supplementation on the social development of children as indicated by their adjustment and behaviour in school. The results suggest that a more comprehensive assessment of the effects, rather than assessment by traditional IQ or cognitive tests, is required to determine the impact of early intervention programmes.

b) *Cali, Colombia*

An investigation in Colombia by Mckay (UNICEF, 1991:14) found that children in all of the experimental groups when compared to a low-income comparison group, demonstrated significantly

increased physical growth and enhanced cognitive ability during and after the treatment periods. These cognitive gains were related to age of entry into the programme as well as to duration of treatment. Increases in IQ scores were maintained until at least 8 years of age when the last measurement was made.

The results indicate that the low-income children from the experimental group were slightly more likely to be promoted through the first three grades than low-income children in the control group. Thus at the beginning of the fourth year, the average grade level for each of the groups improved in accordance with the time spent in the pre-school.

c) *Bogota Colombia*

In this investigation, maternal and child supplementation and maternal tutoring in different combinations were associated with improved cognitive abilities at 18 months and 3 years. Maternal supplementation had a very modest (60g) effect on birth weight and was also associated with improved physical growth at 3 years (UNICEF, 1991:15).

A school readiness test including reading readiness, maths, and basic knowledge was administered to 174 children, 5-9 years of age. Results indicated that nutritional supplementation had a significant positive effect on readiness test scores, with or without maternal tutoring (UNICEF, 1991:15).

Maternal tutoring was found to have an important effect on age of initial primary school enrollment. Mean age of entry was 5 years for the maternal tutoring group; 5-6 years for the maternal tutoring/nutritional supplementation group; 5-9 years for the supplementation group; 6 years for the control group.

Reviewing the developmental pattern of results during the first 6 years, the investigators speculate that nutritional supplementation has long term effects on such factors as children's level of activity, alertness and social co-operation (UNICEF, 1991:15).

d) Puebla, Mexico

Chavez and Martinez (UNICEF, 1991:16) in a follow up study carried out over a 10-year period reported that supplemented children whose mothers received supplementation during pregnancy walked at an earlier age, exerted early sphincter control and demon-strated language superiority when compared to an unsupplemented control group.

Using direct observation, open field tests, and time sampling to quantify behaviours Chavez and Martinez found that after 6 months of age, the undernourished children showed lower activity levels when compared to supplemented children (UNICEF, 1991:16). In the second year, supplemented children smiled significantly more and

cried significantly less than did undernourished children in the control group. Moreover, supplemented children were not only better nourished they also received more attention as their mothers responded more readily to their demands (UNICEF, 1991:16). The investigators also indicate that these developmental lags are transitory in nature and that stimulation of malnourished children can have a positive impact on developmental outcomes.

3.8.2.2 Early childhood education programmes

The Consultative Group on Early Childhood Care & Development of the United Nations Children's Fund carried out 13 studies in Asia, Latin America and the Middle East (UNICEF, 1991:16).

The 13 studies differ along several dimensions, including rigor of experimental design setting and the intervention used. Important though, all have attempted to compare over time children who have received the programme with those who have not. Several of the studies followed pre-school aged-children with and without participation in specific pre-school programmes into primary school. In spite of the many limitations and in spite of some need for caution in interpreting the results, this group of studies throws light on factors that influence children's early school careers in developing countries. The studies overall demonstrate convincingly the positive effects of early intervention on children's progress through the educational system (UNICEF, 1991:16).

3.8.2.3 Early intervention programmes

Evidence from these studies illustrates the effects of both nutrition and education intervention programmes on enrollment, progress and performance in school. The nutritional studies showed a definite advantage in terms of children's readiness for school. Better nourished children had an advantage physically, mentally and socially (UNICEF, 1991:17).

a) School enrollment

In one of the Indian studies, enrollment was higher for children who had passed through the Integrated Child Development Service programme than for those who did not (UNICEF, 1991:17).

An interesting finding of this increased enrollment is that it was significant for girls, but not for boys, who already had a high percent enrollment rate. The Colombian study also showed a slightly higher enrollment level for children participating in the programme (UNICEF, 1991:18). In six of the studies reviewed, the average age of enrollment was younger for those who had been in an early childhood development programme (UNICEF, 1991:18).

b) School promotion, repetition and drop-out

Of the four nutrition studies, two showed an improvement in school progress for programme children; one failed to find a difference.

Of the 13 education studies six showed a difference in promotion rates, three showed no effect (one of these was carried out in a system with automatic promotion so no difference was noted) (UNICEF, 1991:18). Four studies did not contain information on repetition or drop out.

In Brazil children who received intervention had a first grade repetition rate of 9 percent as compared with a 33 percent rate for children who did not participate in the programme.

The study from Fortaleza, Brazil found a first grade repetition rate of 36 percent for children who had received the intervention (UNICEF, 1991:18). This figure was significantly lower than the 66 percent first grade repetition rate reported for children who did not receive the intervention.

In an extremely impoverished area of Choco, Colombia, 60 percent of the programme children reached the fourth grade of primary school compared with only 30 percent of the comparison group (UNICEF, 1991:18). In Argentina 36 percent of the rural children from low socio-economic backgrounds repeated if they had a pre-school experience, as compared with 77 percent for those without pre-school experience (UNICEF, 1991:18). These results consistently suggest that differences are more pronounced for children from the most disadvantaged environments.

c) Performance

Studies reveal that children from early intervention programmes performed better. In Morocco, positive effects were found in a rural but not in an urban context (UNICEF, 1991:19). The Gautemalan nutrition study found that programme children who received high caloric supplementation from birth to age 2 years had higher levels of social involvement than unsupplemented children (UNICEF, 1991:19). Both Indian studies revealed better behaviour among Integrated Child Development Services (ICDS) children than non-ICDS children (UNICEF, 1991:19). A Turkish study found that adjustment was better among children whose mothers had participated in a parental training programme, but there was no difference in adjustment in children that had not been to a pre-school (UNICEF, 1991:19).

3.9 INDIA

The Integrated Child Development Services was started by the Indian government in 1975 to improve the quality of life for poor children aged 0 to 6, and their mothers in urban, slum, rural and tribal areas. In 1989 approximately 40 percent of the targeted areas were reached, accounting for approximately 11.2 million children (UNICEF, 1991:20).

The service functions primarily through Anganwadi centres (courtyards) run by Anganwadi Workers who gather together 20 to 40 children for approximately 3 hours each weekday for supplementary feeding and preschool educational activities.

These Anganwadi workers are selected according to uniform criteria by the Central Government, based on education and experience and are given pre-service training by existing academic institutions and non-governmental organizations. In addition to providing the early education programme and supervising the supplementary feeding, the Anganwadi Workers are responsible for a wider variety of tasks including growth monitoring, vitamin distribution, record keeping and maternal education (UNICEF, 1991:20).

Chaturvedi and colleagues (UNICEF, 1991:20) randomly selected three villages from adjoining ICDS and non-ICDS areas, and studied all children aged 6 to 8 in those villages. These two groups of children were *well-matched according to the parental education and occupation, number of educated members in the household, socio-economic status, period of parental company and some other bio-social characteristics which have an association with the child's mental and social development*.

The researchers discovered that children who had participated in the ICDS pre-school programme scored significantly higher on the Ravens Progressive Colour Matrices than those who did not.

School attendance, academic performance, and general behaviour in school were all significantly superior for ICDS participants (UNICEF, 1991:20).

Lal and Wati (UNICEF, 1991:20) compared ICDS and non-ICDS children from 14 rural villages with respect to enrollment, drop-out, and school performance. When the drop out figures were reviewed, results indicated that drop-out was much higher by grade 3 for non-ICDS children than for ICDS children (UNICEF, 1991:20).

3.10 PERU

The Programas No-Formal de Educion Inicial is a centre-based program for 3 to 5 year olds. Children attend the centre for 3 hours, four or five mornings per week. Education and care is provided by a minimally trained community volunteer. A snack and/or noon time meal is also provided by mothers on a rotating basis.

An evaluation by Myers (UNICEF, 1991:21) examined the impact of the programme on school readiness in terms of a criterion-referenced test that was linked specifically to the behaviours in the non-formal pre-school curriculum guide defined as desirable. The test had intellectual, motor and social sub-scales. Results differed among the 3 geographic regions in which the programme was applied.

In Puno which had the most extensive programme, children performed significantly better than non-programme children on all three of the subscales.

All of the studies reviewed in this section indicate that early intervention programmes can have a positive effect on the probability of enrollment, progress and performance in the early years of primary school. The mechanisms that produce these improvements appear to reflect a combination of factors including earlier age of enrollment, improved school readiness related to enhanced health and nutritional condition, improved cognitive skills; and changes in parental expectations and perceptions of their child's potential. This review also suggests that structural conditions and the quality of primary schooling can moderate the potential effects of improved school-readiness on school progress or performance.

The data further reflect that poor children and children from socially discriminated groups may benefit more than their more privileged peers from multi-faceted early intervention programmes.

The conclusions drawn above are encouraging and provide a sense of hope that should stimulate additional programme design, development and evaluation.

When one looks at the potential cost savings of reduced repetition rates, these results provide an important argument in support of investing in early childhood care and development programmes (UNICEF, 1991:22)

It was the intention of the researcher to look at the interim policy on early childhood development in South Africa and at the same time review the programmes and interventions in third world countries throughout the world. This was done to show how much more effort is required at governmental level to address the early childhood developmental needs of the bulk of our children that came from impoverished communities.

CHAPTER 4

EMPIRICAL DESIGN

4.1 INTRODUCTION

This chapter focuses on an outline of the research design. Thereafter the aim of the empirical study will be presented. A motivation for the use of the idiographic research method will be included. A description of the research instruments utilized in this study will also be given in this chapter. They are:

1. A school readiness questionnaire (TED Circular No. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services).

2. The NB Group Test for 5 and 6 year olds.

3. An anamnestic interview.

4. The Incomplete Man Test.

The analysis and interpretation of results will be discussed in Chapter 5.

4.2 AIMS OF THE EMPIRICAL STUDY

The aim of researching both the home environment and school readiness of the research subjects is to establish how the educational, economic and social factors in these homes have influenced the pre-schooler's school readiness. The more specific aims of the study will incorporate:

1. To indentify the effects of growing up in informal settlements on children's school readiness.

2. To identify those aspects of school readiness which are lacking in children living in informal settlements who do not attend a preschool.

3. To offer guidelines and information to parents living in informal settlements to help their children become school ready.

4. To offer recommendations to teachers and the government regarding their role in enhancing the school readiness of children living in informal settlements.

4.3 RESEARCH METHODOLOGY

4.3.1 Description of the research sample

The research sample will consist of four learners from an informal settlement who have not attended a pre-school and four learners from an informal settlement who have attended a pre-school.

Their ages will be in the five year range. The researcher shall use the purposeful sampling method in an effort to choose particular subjects as they are believed to facilitate the expansion of the developing theory.

The purpose of having two groups of learners is to expose the effects of an early childhood development programme on school readiness. The following research method will be used in the collection of data:

4.3.2 Idiographic research

When educational investigations are concerned with variables such as the family and home environment and school readiness, it becomes difficult to probe arising questions, as these variables cannot be directly manipulated. The home and family environment of the five year old from the informal settlement belongs to a specific social class and has a unique culture.

Thus it is not possible to manipulate it as an independent variable in the research, since the five year old's school readiness is dynamic and ever changing and could have been initiated long before this research was begun.

A suitable method to be used is the idiographic research method because it is conducted after variations in the independent variable have occurred during the natural course of events.

Its function is to test hypotheses concerning the relationship between an independent variable and a dependent variable. The researcher will attempt to determine the influence of the uncontrolled independent variables for example the environment of an informal settlement without a pre-school that has already been operative, through the use of this method. This means that the researcher will observe if the research samples differ in school readiness. The researcher will then endeavour to establish plausible causal factors. In this regard Ary (1985:319) maintains that variables such as home background, genetic endowment, and brain damage are very important educational variables even though they are beyond the control of educators. These variables are not amenable to experimental research. It is not possible to assign research subjects to broken or intact homes, to highly educated or illiterate parents and so forth. If information is to be gleaned about relationships between such attribute variables and other variables, the idiographic method is the answer.

To realise this objective the investigator will use the following research tools:

4.3.2.1 The NB Group Test for 5 and 6 year olds

This test has not been included in the appendix because the Test Commission of South Africa prescribes its use only by psychologists, psychometrists or psychotechnicians under the guidance and supervision of a psychologist.

Although tests are useful research instruments and are used extensively, they are not without disadvantages. The ideal practice is to employ more than one test of a type for purposes of control.

The researcher opted to use the NB Group Test for 5 and 6 year olds. The NB Group Test for 5 and 6 year olds, like other scholastic aptitude tests, is designed to predict future performances in some activity and is widely used in pre-schools as an indicator of school readiness. It is a group test designed to yield verbal and non-verbal scores and contains separately timed sub-tests. It yields quantified information which can be statistically analysed.

This test can be obtained from the HSRC and can also be applied individually. It consists of 6 subtests:

Subtest 1: Each item consists of a small frame and a large frame next to it. The former contains one picture and the latter four pictures one or more of which looks like the one in the small frame. The child must tick the pictures in the large frame that look like the one in the small frame. Maximum marks: 13

Subtest 2: Here the child must complete a maze test. The instructions are that he must indicate the correct path with his pencil, without crossing the printed lines, and where he has

followed the wrong path, he must turn around and follow the right path again. He may not use a rubber. Maximum marks: 10

Subtest 3: Each item consists of four pictures. The child must tick the correct picture after the instructions are given to him. Maximum marks: 6

Subtest 4: Each item consists of four pictures. The child must tick the picture that does not fit in with the other pictures. Maximum marks: 5

Subtest 5: This test tests simple mathematical concepts. Each item has a number of pictures and the child must tick the picture or pictures that are the correct answer to the question. Maximum marks: 6

Subtest 6: Each item consists of a picture or figure obtained by joining correctly a number of points (dots) with lines. On the left hand of the page is the completed figure and on the right the one with the dots that must be joined correctly. Maximum marks: 10

Each of the subtests measure the following:

Subtest 1:

1. Perception at an analysis-synthesis level.

2. Spatial orientation.

3. Form consistency.

4. The child's ability to listen in a group context.

Subtest 2:

1. Fine motor co-ordination.

2. Logical thinking and the ability to plan in advance.

3. Venturesome attitude.

4. Motivation/orientation.

Subtest 3:

1. Linguistic ability; ability to listen; vocabulary;

   comprehension.

2. Place values.

Subtest 4:

1. Ability to move from concrete to abstract thinking.

2. Visualisation at an abstract level.

Subtest 5

1. Concepts in mathematics: equally big, longer, smaller, more,

   less, etcetera.

2. Combination concept.

3. Ability to move from concrete to abstract thinking.

Subtest 6

1. Analysis-synthesis perception.

2. Thinking at an abstract level (reasoning).

3. The child's ability to communicate with his subject matter.

From this test one would be able to identify a child that may have academic problems later in his school career (for example, spelling problems).

The NB Group Test gives the child's percentile rank, his mental age and his approximate IQ.

4.3.2.2 A school readiness questionnaire (TED Circular no. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Service)

The questionnaire will be used to elicit information on motor, emotional, linguistic and general development as well as general knowledge. The questions asked in the questionnaire is of the closed type and not open ended, the purpose being to facilitate easy and quick communication. The questionnaire must be completed by the parents or nursery/pre-school teacher. The questionnaire consists of a large number of questions based on the criteria of school readiness. The answers are converted into points in a prescribed way. The total number of points are obtained and referred to a table indicating the degree of school readiness. The child who is deemed not ready for school when he begins will be unable to progress favourably. Some children do not benefit from the programme preparing them for school which is offered at school and will have to repeat this programme.

4.3.2.3 An Anamnestic interview

An anamnestic interview involves a discussion with the child's parents. The interview covers the following:

a) Home circumstances

i)   The father and mother and their occupations.

ii)   Marital status – first marriage, divorced, step-father, step-mother, widow, widower.

iii) Number of children, position of the child concerned in the family, ages and sex of the other children.

iv)   Natural or adopted child.

v)   The pedagogic situation – question the fundamental pedagogic structures.

vi) Religious susceptibility and activities.

b) History of birth

i) Pregnancy: serious diseases, use of medication, including alcohol use during pregnancy, emotional stress, incompatible blood groups, anaemia, high blood pressure, etcetera.

ii) Birth: premature, later than anticipated, very difficult, very long, very brief, instruments used, blue baby, complications. .

iii) Whether the baby was welcome.

c) *Infancy and pre-school years*

i) Feeding problems, inadequate ability to suck, allergies, colic.

ii) Sleeping habits.

iii) Serious diseases; malaria, bilharzia, jaundice, others.

iv) Diseases accompanied by high fevers.

v) Serious head injuries.

vi) Any period of unconsciousness.

vii) Other accidents or traumatic experiences.

viii) Ear infections.

ix) Eye diseases.

d) Physical development

i)   Birth weight.

ii)   Breast or bottle feeding.

iii) At what age he began to sit.

iv)   When he began to crawl.

v)   When he started walking.

vi)   When he began to speak.

vii) His acquisition of language.

4.3.2.4 The Incomplete man test

The test consists of a drawing of an Incomplete man. The child is told to complete the drawing which is then evaluated according to certain criteria to determine the mental age.

4.4 CONCLUSION

The research design is outlined for the purposes of helping the reader understand the approach used in investigating the school readiness of the subjects in the informal settlements. The brief discussions on the different methods and research instruments employed is intended to provide a clearer understanding of the subsequent research findings and their interpretations.

CHAPTER 5

EMPIRICAL INVESTIGATION

5.1 INTRODUCTION

The purpose of this chapter is to present data obtained from the empirical investigation, that is the anamnestic discussions, questionnaires and tests. The four case studies from the informal settlement without a pre-school programme will be presented first followed by the four case studies from the informal settlement with a pre-school programme.

5.2 CASE STUDY 1 FROM THE INFORMAL SETTLEMENT WITHOUT A PRE-SCHOOL PROGRAMME

SEX	Male	DATE OF BIRTH	01-01-1994
AGE	5 YRS 2 MNTHS	HOME LANGUAGE	Zulu

5.2.1 *Anamnestic Interview*

5.2.1.1 *Home circumstances*

i) *Occupation*

The father is presently unemployed. The mother is a domestic worker.

ii) *Marital status*

The mother is awaiting a divorce from her first marriage. She is presently co-habiting with the child's father.

iii) This child is the only child from this relationship.

iv) The pedogogic situation

During the day the paternal grandmother cares for the child. She is illiterate and does not stimulate the child intellectually.

v) Religious affiliations

The child attends church every Sunday with his grandmother.

5.2.1.2 History of the birth

i) Pregnancy: The mother experienced high blood pressure during the third trimester.

ii) Birth: The birth was very long. The child was not planned for, but was welcomed by the parents.

5.2.1.3 Infancy and pre-school years

i) Feeding problems: The child did not experience any feeding problems. According to the mother the only problem that she experienced was, that the child use to feel hungry all the time.

ii) Sleeping habits: He use to sleep for long periods at a time.

iii) Serious diseases: The doctors at the hospital informed

the mother that the child might have diabetes and she
needed to monitor his diet closely. Medical tests have
to be conducted to establish whether the child has
diabetes or not.

iv)   *Diseases accompanied by high fevers:* Sometimes he does
       suffer with fever.

v)   *Serious head injuries:* None.

vi)   *Any period of unconsciousness:* None.

vii)   *Other accidents or traumatic experiences:* None.

viii) *Ear infections:* None.

ix)   *Eye diseases:* None.

5.2.1.4 Physical development

i)   *Birth Weight:* 4,25kg.

ii)   *Breast fed:* Yes.

iii)   *At what age he began to sit:* 4 months.

iv)   *When he began to crawl:* 6 months.

v)   *When he started walking:* 9 months.

vi)   *When he began to speak:* 1 year 2 months.
       According to his grandmother he talked late.

vii)   *His acquisition of language:* 1 year 4 months.
       He was also late in acquiring language, according to
       the mother and grandmother.

5.2.2 *The school readiness questionnaire*

(TED Circular No. 110 of 1971 as adapted by C.J. van

der Linde, Pedagogic Auxiliary Services)

5.2.2.1 *Results of the questionnaire*

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
21	School readiness doubted

Recommendation: Consult the clinic.

5.2.3 *The Incomplete man test*

On comparing the childs drawing with typical responses at
successive age levels, the drawing compared to a 2½ year old's
drawing. This might appear to indicate that the child concerned
has a mental age of 2½ years.

5.2.4 *The NB Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	2	Poor perception at an analysis synthesis level, form consistency, listening and understanding.
2	1	Poor fine motor co-ordination, logical thinking and motivation.
3	2	Poor linguistic ability, vocabulary and comprehension.
4	1	Poor visualisation at an abstract level.
5	1	Poor understanding of concepts in mathematics, concrete to abstract.

TEST	RAW SCORE	REMARKS		
6	0	Poor ability to communicate with his subject matter.		
		I.Q.	**PERCENTILE**	**MENTAL AGE**
TOTAL	7	88	24	4 YR 3 MNTHS

5.3   CASE STUDY 2 FROM THE INFORMAL SETTLEMENT WITHOUT A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	16-02-1994
AGE	5 YRS 1 MNTH	**HOME LANGUAGE**	Zulu

5.3.1   *Anamnestic Interview*

5.3.1.1   *Home circumstances*

i)   *Occupation:*   The father is presently unemployed and the mother is a domestic worker.

ii)   *Marital status:*   This is the father's second marriage and the mother's first marriage.

iii) There are four children in this family. The child concerned in this family is the last born. She has a nine year old brother, a seven year old brother and a sister who is six years old.

iv)   *The pedagogic situation:*   The child concerned stays alone at home with the father who is unemployed. The other siblings attend primary school.

v)   Religious affiliations: The family attends church on Sunday mornings.

5.3.1.2 History of the birth

i)   Pregnancy: The mother experienced no problems during the pregnancy.

ii)   Birth: The delivery was quick without any complications. Although the baby was unexpected, it was welcomed into the family.

5.3.1.3 Infancy and pre-school years

i)   Feeding problems: None.

ii)   Sleeping habits: No problems experienced.

iii)   Serious diseases: None.

iv)   Diseases accompanied by high fevers: None.

v)   Serious head injuries: None.

vi)   Any period of unconsciousness: None.

vii)   Other accidents or traumatic experiences: None.

viii)   Ear infections: None.

ix)   Eye diseases: None.

5.3.1.4 Physical development

i)   Birth Weight: 2,5 - 3kg.

ii)   Breast or bottle feeding: Breast.

iii)   At what age she began to sit: 4 months.

iv)   When she began to crawl: 8 months.

v)   When she started walking: after a year.

vi)   *When she began to speak:*   9 months.

vii)   *Her acquisition of language:*   1 year.

5.3.2   *The school readiness questionnaire*

(TED Circular No. 110 of 1971 as adapted by C.J. van der

Linde, Pedagogic Auxiliary Services)

5.3.2.1   Results of the questionnaire

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
27	School readiness questionable

Recommendation: Consult the clinic.

5.3.3   *The Incomplete man test*

On comparing the child's drawing with typical responses at

successive age levels, the drawing compared to a 3 year old's

drawing.   This appears to indicate that the child concerned has

a mental age of 3 years.

5.3.4   *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	2	Poor spatial orientation, form consistency and the ability to listen and understand.
2	0	Poor fine motor co-ordination, logical thinking and motivation.

TEST	RAW SCORE	REMARKS
3	2	Poor linguistic ability, ability to listen, vocab and comprehension.
4	0	Poor ability to move from concrete to abstract thinking.
5	0	Poor maths concepts: equal, big, long, more, less, etcetera.
6	0	Poor analysis - synthesis perception, thinking at an abstract level.

		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	4	78	10	Below 4 yrs

5.4 CASE STUDY 3 FROM THE INFORMAL SETTLEMENT WITHOUT A PRE-SCHOOL PROGRAMME

SEX	Male	DATE OF BIRTH	02-02-1994
AGE	5 YRS 1 MNTH	HOME LANGUAGE	Zulu

5.4.1 *Anamnestic Interview*

5.4.1.1 *Home circumstances*

i)   *Occupation:*   The father is presently employed as a stable-hand at a race-course and the mother is a domestic worker.

ii)   *Marital status:*   The child's parents are living together. They are not as yet married.

iii)   There are three children from this relationship.   The eldest is a boy (7 years), followed by a girl (6 years). The child concerned is 5 years old and is the youngest.

iv). *The pedagogic situation:* The paternal grandfather takes
care of the child during the day. The grandfather is
illiterate and he does not engage the child in stimulating
educational activities.

v) *Religious affiliations:* None.

5.4.1.2 History of the birth

i) *Pregnancy:* The mother experienced no problems during the
pregnancy.

ii) *Birth:* The delivery was normal without any complications.
Although the child was not planned for, it was welcomed
into the family.

5.4.1.3 Infancy and pre-school years

i) *Feeding problems:* None.

ii) *Sleeping habits:* No problems experienced.

iii) *Serious diseases:* None.

iv) *Diseases accompanied by high fevers:* None.

v) *Serious head injuries:* None.

vi) *Any period of unconsciousness:* None.

vii) *Other accidents or traumatic experiences:* None.

viii) *Ear infections:* None.

ix) *Eye diseases:* None.

5.4.1.4 Physical development

i)   *Birth Weight:* Normal.

ii)   *Breast or bottle feeding:* Breast.

iii)   *At what age he began to sit:* Normal-compared to other children.

iv)   *When he began to crawl:* Normal- compared to other children.

v)   *When he started walking:* 11 months.

vi)   *When he began to speak:* 1 year.

vii)   *His acquisition of language:* Over a year.

5.4.2 *The school readiness questionnaire*

(TED Circular No 110. of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.4.2.1 Results of the questionnaire

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
19	School readiness doubted

Recommendation: Consult the clinic.

5.4.3 *The Incomplete man test*

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 2½ year old's drawing. This appears to indicate that the child concerned has a mental age of 2½ years.

5.4.4 *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	0	Poor spatial orientation, form consistency and the ability to listen and understand.
2	0	Poor fine motor co-ordination, logical thinking and motivation.
3	1	Poor linguistic ability, ability to listen, vocab and comprehension.
4	1	Poor ability to move from concrete to abstract thinking.
5	0	Poor maths concepts: equal, big, long, more, less, etcetera.
6	0	Poor analysis – synthesis perception, thinking at an abstract level.

		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	2	70	4	Below 4 yrs

5.5 CASE STUDY 4 FROM THE INFORMAL SETTLEMENT WITHOUT A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	03-01-1994
AGE	5 YRS 2 MNTHS	HOME LANGUAGE	Zulu

5.5.1 *Anamnestic Interview*

5.5.1.1 *Home circumstances*

i)   *Occupation:*   The father is unemployed and the mother is a domestic worker.

ii) *Marital status:* The parents are living together. The father also has a polygamous relationship with another woman.

iii) There are three children from this relationship. The child concerned also has a half-brother who is five years old and an older brother who is seven years old.

iv) The pedagogic situation: The grandfather takes care of the child during the day. The grandfather is illiterate and the child is not offered stimulating educational activities.

v) Religious affiliations: The family is of the Christian faith but they do not attend church on Sundays.

5.5.1.2 History of the birth

i) Pregnancy: No serious problems were experienced during the pregnancy.

ii) Birth: The delivery was free of any complications. Although the child was not planned for, it was welcomed into the family.

5.5.1.3 Infancy and pre-school years

i) Feeding problems: None.

ii) Sleeping habits: No problems experienced.

iii) Serious diseases: None.

iv) Diseases accompanied by high fevers: None.

v) Serious head injuries: None.

vi) Any period of unconsciousness: None.

vii)   Other accidents or traumatic experiences: None.

viii) Ear infections: None.

ix).   Eye diseases: None.

5.5.1.4 *Physical development*

i)   Birth Weight: 3.45 kg.

ii)   Breast or bottle feeding: Breast.

iii)   At what age he began to sit: 5 months.

iv)   When he began to crawl: 8 months.

v)   When he started walking: 10 months.

vi)   When he began to speak: 1 year.

vii)   His acquisition of language: 1 year 3 months.

5.5.2   *The school readiness questionnaire*

(TED Circular No. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.5.2.1 *Results of the questionnaire*

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
20	School readiness doubted

Recommendation: Consult the clinic.

5.5.3   *The Incomplete man test*

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 3½ year old's drawing.

This appears to indicate that the child has a mental age of 3½ years.

5.5.4 *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	0	Poor spatial orientation, form consistency and the ability to listen and understand.
2	0	Poor fine motor co-ordination, logical thinking and motivation.
3	1	Poor linguistic ability, ability to listen, vocab and comprehension.
4	3	Poor ability to move from concrete to abstract thinking.
5	0	Poor maths concepts: equal, big, long, more, less, etc.
6	0	Poor analysis - synthesis perception, thinking at an abstract level.
		I.Q.	PERCENTAGE	MENTAL AGE
TOTAL	4	70	4	Below 4 yrs

5.6 CASE STUDY 1 FROM THE INFORMAL SETTLEMENT WITH A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	25-05-1993
AGE	5 YRS 11 MNTHS	HOME LANGUAGE	Zulu

5.6.1 *Anamnestic Interview*

5.6.1.1 *Home circumstances*

i) *Occupation:*   The father is employed as a labourer in a

window fitment company and the mother is a general
assistant in a school.

ii)   *Marital status:*   The parents are presently co-habiting.

iii)   The child concerned has on older brother who is 10 years
        old.

iv)   *The pedagogic situation:*   During the day the child attends
        pre-school and in the afternoon the child is kept in an
        after-care facility till the mother fetches her.

v)   *Religious affiliations:*   The child attends church on
        Sundays.

5.6.1.2 *History of the birth*

i)   *Pregnancy:*   No problems experienced.

ii)   *Birth:*   The birth was normal without any complications.

iii)   The baby was not planned for, but was welcomed by the
        parents.

5.6.1.3 *Infancy and pre-school years*

i)   *Feeding problems:*   The child did not experience any
        feeding problems.

ii)   *Sleeping habits: No problems experienced.*

iii)   *Serious diseases: None.*

iv)   *Diseases accompanied by high fevers: None.*

v)   *Serious head injuries: None.*

vi)   *Any period of unconsciousness: None.*

vii)   *Other accidents or traumatic experiences: None.*

viii)   *Ear infections: None.*

ix)   *Eye diseases: None.*

5.6.1.4 Physical development

i)   *Birth Weight: 3.2 kg.*

ii)   *Breast feeding: Yes.*

iii)   *At what age she began to sit: 5 months.*

iv)   *When she began to crawl: 8 months.*

v)   *When she started walking: 9 months.*

vi)   *When she began to speak: 1 year.*

vii)   *Her acquisition of language: 1 year 8 months.*

5.6.2   The school readiness questionnaire

(TED Circular No. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.6.2.1 Results of the questionnaire

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
38	Possibly ready for school

Recommendation: Go to school.

5.6.3 *The Incomplete man test*

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 5½ year old's drawing. This might appear to indicate that the child concerned has a mental age of 5½ years.

5.6.4 *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	9	Good perception at an analysis-synthesis level, spatial orientation.
2	0	Poor fine motor co-ordination and the ability to plan in advance.
3	3	Good linguistic ability, vocab and comprehension.
4	3	Good ability to move from concrete to abstract.
5	3	Good maths concepts: equal, big, longer, smaller, more, etcetera.
6	0	Poor ability to communicate with her subject matter.
		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	18	100	50	5 yrs 9 mnths

5.7 CASE STUDY 2 FROM THE INFORMAL SETTLEMENT WITH A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	15-05-1993
AGE	5 YRS 11 MNTHS	HOME LANGUAGE	Zulu

5.7.1 *Anamnestic Interview*

5.7.1.1 *Home circumstances*

i)   *Occupation:*   The father is employed in the Electricity
      Department and the mother is unemployed.

ii)   *Marital status:*   The parents are presently co-habiting.

iii) The child concerned is an only child.

iv)   *The pedagogic situation:*   The child concerned attends a
      pre-school during the day.   She is fetched from the pre-
      school at 12h30.

v)   *Religious affiliations:*   The child attends church on
      Sundays.

5.7.1.2 *History of the birth*

i)   *Pregnancy:*   No illnesses or problems experienced.

ii)   *Birth:*   Was normal without any complications.

iii) The baby was not planned for, but was welcomed by the
      parents.

5.7.1.3 Infancy and pre-school years

i)   *Feeding problems*: The child did not experience any feeding problems.

ii)   *Sleeping habits*: No problems experienced.

iii)   *Serious diseases*: None.

iv)   *Diseases accompanied by high fevers*: None.

v)   *Serious head injuries*: None.

vi)   *Any period of unconsciousness*: None.

vii)   *Other accidents or traumatic experiences*: None.

viii) *Ear infections*: None.

ix)   *Eye diseases*: None.

5.7.1.4 Physical development

i)   *Birth Weight*: 3.3 kg.

ii)   *Breast fed*: Yes.

iii)   *At what age she began to sit*: 5 months.

iv)   *When she began to crawl*: 7 months.

v)   *When she started walking*: 9 months.

vi)   *When she began to speak*: 13 months.

vii)   *When she acquired language*: 1 year 3 months.

5.7.2   *The school readiness questionnaire*

(TED Circular No. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.7.2.1 Results of the questionnaire

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
41	School readiness reasonably sure

Recommendation: Go to school.

5.7.3 The Incomplete man test

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 6 year old's drawing. This might appear to indicate that the child concerned has a mental age of 6 years.

5.7.4 The N.B. Group Test for 5 and 6 year olds

TEST	RAW SCORE	REMARKS
1	8	Good perception at an analysis-synthesis level, spatial orientation.
2	3	Poor fine motor co-ordination and the ability to plan in advance.
3	2	Fair linguistic ability, ability to listen, vocab and comprehension.
4	5	Excellent ability to move from concrete to abstract.
5	3	Good maths concepts: equal, big, small, more, less, etcetera.
6	2	Poor ability to communicate with her subject matter.

		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	23	108	68	6 yrs 5 mnths

5.8 CASE STUDY 3 FROM THE INFORMAL SETTLEMENT WITH A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	18-09-1993
AGE	5 YRS 7 MNTHS	HOME LANGUAGE	Zulu

5.8.1 *Anamnestic Interview*

5.8.1.1 *Home circumstances*

i)   *Occupation:*   The father deserted the mother before the child concerned was born.   The mother is employed as a domestic worker.

ii)   *Marital status:*   The mother is a single parent.

iii)   The child concerned is the youngest child of seven children.   All seven children are from different fathers. Their ages and sexes are as follows:

1.   25 years - girl

2.   21 years - boy

3.   18 years - boy

4.   15 years - girl

5.   14 years - boy

6.   8 years - girl

iv)   *The pedagogic situation:*   The child concerned attends pre-school.   Her eldest sister fetches her at 12h30.

v)   *Religious affiliations:* The child concerned follows the Muslim faith.

5.8.1.2 History of the birth

i)   *Pregnancy:* No problems experienced.

ii) *Birth:* Normal delivery without any complications.

iii) The baby was not planned for, but was welcomed by the mother.

5.8.1.3 Infancy and pre-school years

i)   *Feeding problems:* No.

ii) *Sleeping habits:* No problems experienced.

iii) *Serious diseases:* None.

iv) *Diseases accompanied by high fevers:* None.

v)   *Serious head injuries:* None.

vi) *Any period of unconsciousness:* None.

vii) *Other accidents or traumatic experiences:* None.

viii) *Ear infections:* She use to suffer with recurring infections, but it is now healed according to the mother.

ix) *Eye diseases:* None.

5.8.1.4 Physical development

i)   *Birth Weight:* 3.9 kg.

ii) *Breast fed:* Yes.

iii) *At what age she began to sit:* 8 months.

iv) *When she began to crawl:* 5 months.

v)   *When she started walking:* 8 months.

vi)   *When she began to speak:* 1 year.

vii)   *Her acquisition of language:* 1 year 6 months.

5.8.2 *The school readiness questionnaire*

(TED Circular No 110. of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.8.2.1 *Results of the questionnaire*

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
39	Possibly ready for school

Recommendation: Go to school.

5.8.3 *The Incomplete man test*

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 5½ year old's drawing. This might appear to indicate that the child concerned has a mental age of 5½ years.

5.8.4 *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	7	Very satisfactory perception at an analysis-synthesis level, spatial orientation.
2	2	Poor fine motor co-ordination and the ability to plan in advance.
3	3	Good linguistic ability, ability to listen, vocab and comprehension.
4	5	Excellent ability to move from concrete to abstract thinking.
5	3	Good maths concepts: equally big, longer, smaller, more, etcetera.
6	0	Poor ability to communicate with her subject matter.

		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	20	106	64	6 yrs

5.9 CASE STUDY 4 FROM THE INFORMAL SETTLEMENT WITH A PRE-SCHOOL PROGRAMME

SEX	Female	DATE OF BIRTH	22-06-1993
AGE	5 YRS 10 MNTHS	HOME LANGUAGE	Zulu

5.9.1 *Anamnestic Interview*

5.9.1.1 *Home circumstances*

i) *Occupation:* The father is employed but the mother is unemployed.

ii) *Marital status:* This is both parents first marriage.

iii) The child concerned is the youngest of six children.

Their ages and sexes are as follows:

1. 22 years - boy

2. 18 years - girl

3. Twins 15 years (boy and girl)

4. 10 years - girl

iv) *The pedagogic situation:* The child concerned attends pre-school during the day and her mother fetches her at 12h30.

v) *Religious affiliations:* The child concerned attends church on Sundays.

5.9.1.2 *History of the birth*

i) *Pregnancy:* No problems experienced.

ii) *Birth:* Normal delivery without any complications.

5.9.1.3 *Infancy and pre-school years*

i) *Feeding problems:* None.

ii) *Sleeping habits:* No problems experienced.

iii) *Serious diseases:* None.

iv) *Diseases accompanied by high fevers:* None.

v) *Serious head injuries:* None.

vi) *Any period of unconsciousness:* None.

vii) *Other accidents or traumatic experiences:* None.

viii) *Ear infections:* None.

ix)   Eye diseases: None.

5.9.1.4 Physical development

i)   Birth Weight: 3.45 kg.

ii)   Breast fed: Yes.

iii)   At what age she began to sit: 6 months.

iv)   When she began to crawl: 7 months.

v)   When she started walking: 9 months.

vi)   When she began to speak: 1 year 1 month.

vii)   Her acquisition of language: 1 year 6 months.

5.9.2 The school readiness questionnaire

(TED Circular No 110. of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Services)

5.9.2.1 Results of the questionnaire

NO OF POINTS	POSSIBLE DEGREE OF SCHOOL READINESS
35	Possibly ready for school

Recommendation: Go to school.

5.9.3 The Incomplete man test

On comparing the child's drawing with typical responses at successive age levels, the drawing compared well to a 5½ to 6 year old's drawing. This might appear to indicate that the child concerned has a mental age of 5½ to 6 years.

5.9.4 *The N.B. Group Test for 5 and 6 year olds*

TEST	RAW SCORE	REMARKS
1	8	Good perception at an analysis-synthesis level, spatial orientation.
2	1	Poor fine motor co-ordination, logical thinking and motivation.
3	3	Good linguistic ability, ability to listen, vocab and comprehension.
4	5	Excellent ability to move from concrete to abstract thinking.
5	3	Satisfactory maths concepts: equally big, longer, smaller, more, less etcetera.
6	0	Poor ability to communicate with her subject matter.
		I.Q.	PERCENTILE	MENTAL AGE
TOTAL	20	104	60	6 yrs

5.10 PRELIMINARY FINDINGS

In this section the researcher will present some preliminary findings related to the problems stated in Chapter 1 (See Chapter 1, 1.4).

As to the general question *"Why do pupils from informal settlements experience difficulties when they attend formal schooling?"* The following findings are relevant:

- The subjects that don't attend pre-schools are taken care of either by an illiterate mother or illiterate grandparent. Thus, apart from missing out on pre-school experiences, these children are not exposed to cognitively stimulating activities (Section IV of the anamnestic interviews).

- In a comparison of the children's mental ages, as obtained in the NB Group Test for 5 and 6 year olds, those children who do not attend a pre-school have mental ages below their chronological ages, while the mental ages of the children attending pre-school are higher than their chronological age. There is a definite difference between the groups regarding their mental age.

- A comparison of the estimated IQ scores on the NB Group Tests for 5 and 6 year olds show that children who did not attend a pre-school have IQ scores that range from a low average range of intelligence to cognitively handicapped, while the IQ scores of the children attending pre-school is within the average range of intelligence (Section IV of the anamnestic interviews).

- Those children from the informal settlement who did not attend pre-school, live right next to the N2 freeway. It appears that exposure to the noise generated by the traffic has resulted in an impairment of auditory discrimination and listening, whereas children from the informal settlement living away from the freeway showed better auditory discrimination and verbal skills.

- It is also apparent from the anamnestic interview that all the children from the sample were from unplanned pregnancies.

In addition to the stresses of living in an informal settlement
an unplanned pregnancy places additional financial and
emotional pressure on the family. Parents may not able to
spend quality time with their children.

- The NB Group Test for 5 and 6 year olds yielded low scores on
  subtest 2 and 6 for both the samples. These low scores
  indicate poor fine motor co-ordination, planning difficulties
  and an inability of the child to communicate with his/her
  subject matter. This could also be attributed to the child not
  being exposed to activities that develop the fine motor muscles
  and also not venturing out of his immediate environment.
  Therefore when the children enter grade 1 they experience
  planning difficulties and an inability to communicate with
  their subject matter (reading, writing, maths).

- A comparison of the children's performance as obtained in the
  NB Group Test for 5 and 6 year olds, shows that children who
  do attend a pre-school performed poorly only in subtests 2 and
  6 while the performance of the children who do not attend a
  pre-school was poor on all 6 subtests. These results indicate
  that the subjects from the informal settlement without a
  preschool programme exhibit serious auditory and visual
  perceptual difficulties.

- A comparison of the samples of children as per school readiness questionnaire indicated that children from the informal settlement that do not attend a pre-school were not school ready as opposed to those children from an informal settlement that attended a pre-school.

- On the Incomplete Man Test, the subjects that do not attend pre-school revealed mental ages between 2½ to 3½ years. The subjects that attend a pre-school revealed mental ages between 5½ to 6 years.

Findings and recommendations will be presented in the next chapter.

CHAPTER 6

FINDINGS AND RECOMMENDATIONS

6.1 INTRODUCTION

In this chapter the findings from the literature study as well as the findings from the empirical investigation will be presented. Recommendations and conclusions will be made on the strength of the interpretation of research findings.

6.2 FINDINGS FROM THE LITERATURE STUDY

6.2.1 *Findings from chapter one* - (The preliminary study)

- The Integrate Market Research (1990) reports that 79% of black children enter school without experience of preschool education, making home intervention a technique suitable for the majority of black South African children (cf. 1.3).

- Research supporting the belief that pre-school intervention can increase school success has produced longitudinal evidence that children at risk of academic problems when provided with a pre-school experience maintain better grades and are less likely to be retained in a grade or placed in specialized education (Frede & Barnett, 1992:484).

- It is widely held that the structure and content of early experiences shape the nature of later experiences(cf. 1.3).

- Research has shown that when the learner from the informal
  settlement enters school his or her perceptions of the
  responses of the people in the new setting may be blinded by
  expectations carried over from the old frequented setting,
  thus creating problems of social adaptability (Whiting &
  Child, 1980:104).

- The informal settlement under investigation borders on the N2
  freeway. Cohen, Glass and Singer's (Mussen & Kessen, 1983:392)
  study on the influence of traffic noise on childrens' auditory
  and verbal skills found that children on the lower floors of
  a 32 storey building showed greater impairment of auditory
  discrimination and of reading achievement than those living on
  higher floors (cf. 1.3).

- The impairment of the child's auditory discrimination
  and verbal skills come about not only as a function of
  personal difficulties in learning and sustaining attention in
  a noisy environment but also because others in the home were
  similarly affected and engaged less frequently in
  conversations, reading aloud or corrections of the child's
  utterances (Mussen & Kessen, 1993:392).

- Informal settlers experience severe parental stress caused by
  chronic economic hardship and family dysfunction caused by
  social isolation from extended family networks are stress
  factors that seriously undermine parenting and family

functioning. Such parental stress and family function in turn contribute to the child's risk for school failure (Taylor, 1991:18).

- Macloyd; Patterson; De Berrysche & Ramsey (Taylor, 1991:18) in their studies noted that family dysfunction is associated with higher rates of child-social emotional problems and anti social behaviour which contribute to poor school adjustment. These children are truly *"at risk"* because they lack the necessary protective mechanisms, supplied by a well-functioning family, to allow them to meet social and academic challenges of early schooling (Taylor, 1991:18).

- It is ludicrous to expect children to be *"ready to learn"* if they grow up in an environment that is linguistically impoverished or if they fail to get thoughtful responses to their questions (Boyer, 1993:55).

- Dawes and Donald (1994:3) found that growing up in poverty is the single most powerful and multifaceted negative influence on psychological development.

- Reschly (1986:425) and others have argued that poor children, rather than being culturally deprived, are insufficiently exposed to structural learning situations which prepare them for later school achievement.

- Richter and Griessel (Dawes & Donald, 1994:35) reported that of a large number of factors, including household density and family size, considered in their study only socio-economic status showed a significant relationship with childrens performance on psychological tests and with school achievement.

- Gulbrandsen (Dawes & Donald, 1994:35) has described a pattern of fluctuating pre-marital unions often leading to black women with one or two small children receiving no financial or social support from the children's fathers.

- The extended family remains the main form of child care for most black children. The childminders are often old, sick and illiterate and they don't stimulate the children intellectually.

- Richter and Grieve (Dawes & Donald, 1994:79) found that the mental development of infants correlated with measures of the intentions and actions of caregivers to stimulate their children's development as well as the measures of the organisation of the physical environment.

- Smith, Brown, Stephenson, and their co-workers (Dawes & Donald, 1994:92) maintain that infections may influence children's psychological development either directly or indirectly by causing nutritional deficits.

The frequent respiratory and digestive tract infections
which are common among children living in poor communities
cause loss of appetite and malabsorption of nutrients (Dawes
& Donald, 1994:92).

6.2.2 *Findings from chapter two*
- The use of the Reading Recovery Program in Ohio indicates
  that school personnel have committed themselves to a major
  intervention effort while the child is in grade one. Such
  a practice indicates a belief in the role of the classroom
  environment in developing particular skills. Educators who
  accept the maturational model have opted instead for a
  higher entrance age.   In this model retention is used as
  the remediation approach with young children who show
  learning/behavioural problems (cf. 2.1).

- Gates' research emphasized the influence of environmental
  conditions on the success of children in first grade
  reading. Gates was convinced that classroom activities
  such as the use of appropriate instructional methods and
  curriculum materials, play an important part in a child's
  progress in reading (cf. 2.3).

- According to Ausubel (1962:82) a child who is categorized
  as *"not ready"* may be deficient because of a lack of
  sufficient learning as well as a lack of sufficient
  maturational level.

Stott (1967:276) concurs that learning readiness is something
more than a result of biological maturation alone(cf.2.3).

- Equating the principles of readiness and maturation is a major
  error because lack of readiness in the child may reflect lack
  of cognitive maturity that may in turn be the result of
  an unstimulating or inadequate educational environment
  (cf. 2.3).

- Ausubel and Sullivan (1970:93) specify that many educators view
  a child's readiness for school in absolute terms. They fail
  to appreciate that except for such traits as walking and
  grasping, the mean age of readiness can never be specified
  apart from relevant environmental conditions (cf. 2.3).

- According to Chapey (1986:4) the pre-school years are the
  wonder years which are the most important years in the
  child's life, when great changes occur regarding all aspects
  of becoming / development.

- Reilly and Hofmeyr (1983:3) state for example that "...
  *school readiness is a gradual process which begins at birth
  and which is dependent on both upbringing and development"*.

- The child who is in the midst of a stimulating, educational
  situation where favourable circumstances are created for
  learning is being prepared for school readiness

systematically and persistently (cf. 2.7).

- Preparing the child to be school-ready is seen as one of the most important educational functions of the parents at home (cf. 2.4.1).

- According to Pilling and Pringle (1978:13) the father plays a role as an identification figure. He is also a source of stimulation for the child, in his development of language and social relationships and enhances his intellectual growth (cf. 2.4.1).

- A child who is legally compelled to attend school but is not yet ready for it sometimes shows one or more of a variety of visual and auditory perceptual disorders. This can include problems with auditory and visual discrimination, foreground-background discrimination analysis and synthesis, sequence and memory (cf. 2.7).

- Environmental deprivation may also contribute to school non-readiness (cf. 2.9 & 2.10).

- The following motor manifestations are associated with a learning disability in children:

1. Delayed milestones with regard to crawling, walking and talking (Johnson & Myklebust, 1967:15).

2. Deficiencies regarding gross and fine motor co-ordination
   (Faas, 1980:77-78; Gearheart, 1981:74-75; Dumont, 1973:21)
   (cf. 2.11).

3. Apraxia and dysarthria (cf. 2.11).

- Johnson and Myklebust (1967:122-129) state that motor
  deficiencies in the learning disabled child may harm his
  academic progress in the sense that it can give rise to
  dysgraphia (a partial or total inability to write) and
  expressive aphasia.

- Deficiencies in the following visual and auditory abilities are
  common in learning disabled children:

1. Discrimination (Dumont, 1973:24).
2. Analysis and synthesis (Olivier, 1981:105 & 10).
3. Foreground and background (Cruickshank,1980:508).
4. Spatial orientation (Wallace & Mcloughlin, 1979:86).
5. Memory (Smith, 1980:75-76).
6. Sequence (Johnson & Myklebust, 1967:182; Gearheart,
   1981:15).
7. Perceptual Constancy (Lerner, 1985:283-287).
   (cf. 2.11.1).

- Some children may find it difficult to move from the
  concrete level of cognitive functioning to the abstract level
  (Van Niekerk, 1986:215). They remain concretely bound in their
  thinking according to Smith (1980:35)(cf. 2.11.3).

- Barnes (1982:97) states that the *"human ramifications of a
  child not having a serious reading disability detected until
  the second or third grade may be such that the child never does
  learn to read adequately"* (cf. 2.12).

- Early identification and its necessary consequence, early
  intervention, rest on two basic assumptions, namely that signs
  of later problems can be detected at early stages and that
  these signs and symptoms can be treated successfully or at
  least ameliorated by intervention (Fraser, 1984:8). The
  second basic assumption involves the effectiveness of early
  intervention.

- Skeels and Dye, Skeels and Kirk (Fraser, 1984:9) undertook a
  study in which mentally retarded infants and young children
  were given an enriched environment and the initial gains
  were maintained at follow up. Brown (1978:179) who surveyed
  96 longitudinal studies provided positive results of
  Operation Head Start concluding that *"the adverse impact of
  a poverty environment on children can be overcome by
  appropriate treatment"*.

- Strag (Fraser, 1984:7)has shown that when dyslexia is diagnosed and treated in the first two grades of school nearly 82% of cases can be successfully remediated, in the third grade only 42% can be so helped and of these diagnosed between the fifth and seventh grade only 10 to 15% can be successfully helped.

- Merely labelling a child as *"at risk"* without providing remediation has been strongly rejected by many researchers in the field (Fraser, 1984:12).

- There is a tendency among standardized tests to contain a heavy weighting of items which are directly school and culturally based, and therefore children from deprived cultural backgrounds may be at a considerable disadvantage (Fraser, 1984:13).

6.2.3 *Findings from chapter three*

- The Government of National Unity (GNU) regards Early Child-hood Development as a *"fundamental pillar"* for lifelong learning. At governmental level a strategy has been developed to implement a National Reception Year Programme (cf. 3.1).

- The ECD programmes will attempt to provide support for families and communities to meet the needs of their children in the 0 - 9 year age group.

This is in keeping with the reconstruction and development programme which targets impoverished communities since they are not able to meet the developmental needs of their children without assistance (cf. 3.1).

- Many of the parents from impoverished communities have had little or no schooling, which compounds their difficulties in preparing their children for school and the acquisition of skills necessary for reading.

  The White Paper on Education and Training (March 1995) acknowledges that a child's development is dependent on a set of inter-related factors which form his overall environment. In order for children to thrive they need adequate nutrition, good health, early childhood stimulation and a nuturing environment.

- ECD services need to be provided in an equitable manner so that past injustices especially to Black children can be addressed. Presently only 6% of Black children from birth to 6 years of age benefit from ECD services.

- Communities do not have the infrastructure to provide for ECD services on their own. The government, private donors, parents and local communities need to work together so that affordable ECD programmes can be provided for parents.

- The public needs to become aware of the importance of ECD as a foundation for later learning, through public awareness campaigns. If the public becomes aware of the benefits of ECD, they would invest in ECD programmes to promote greater social gains.

- The ECD programmes should be innovative to target children from migrant, rural, informal, peri-urban, work-based or any other impoverished communities.

- The early years of a child's life is most important in determining whether a child becomes a successful learner, in and out of school. The current repetition and dropout rates in schools need to be counteracted with effective ECD programmes that are more learner-centred.

- The most impoverished communities woud be targeted first in ECD delivery, which would be phased in over a five year period.

- The ECD curriculum should follow an integrated approach and not be subject bound. Opportunities should be provided so that the child can progress gradually and holistically.

- The National Commission on Special Needs in Education and Training (NCSNET) and National Committee for Education Support Services (NCESS) prefers using the term, learners

who experience barriers to learning and development to
learners with special educational needs (cf. 3.7).

- In developing countries the learners that suffer poor health
  adversely affects the performance of learners in school and
  also their school attendance patterns (UNICEF, 1991:8).
  Therefore a child with a history of illness is absent more
  frequently than a healthy child which compromises his/her
  school readiness and subsequent progress in school, placing
  them at risk.

- Research clearly shows a causal relationship between iron
  deficiency and school performance. Iron supplements seems
  to improve school performance. Soemantri, Kim and Pollit
  (UNICEF, 1991:8) in their studies with children from
  economically deprived rural areas of Central Java,
  Indonesia, have yielded significant changes in performance
  on school achievement and concentration tests after
  receiving a three month iron supplementation. Similar
  results are also available for studies done in India by
  Seshadri and Gopaldas, and in Thailand by Pollit and
  Metallinos-Kastaras (UNICEF, 1991:8).

- Most of the research on the effects of early childhood
  programmes on performance and progress in the primary school
  comes from longitudinal studies done on children aged 3 to 5
  from impoverished backgrounds in the United States, Europe
  and Australia.

Lazar; Halpern and Myers in their data from the

longitudinal studies of these children in early or late

adolescence reveal the positive effects of early childhood

programmes on school performance. This is indicated by

increased promotion, the decrease need for special education

and high school completion (UNICEF, 1991:12).

- Mckay (UNICEF, 1991:14) in his study in Cali, Colombia

discovered that children who were treated with supplements

yielded significant increases in physical growth and

cognitive ability during and after the treatment. The

increases in IQ scores continued until 8 years of age when

the last measurement was made (UNICEF, 1991:14) [Also refer

to 3.9.1.1. (c) & (d).

- The Consultative Group on Early Childhood Care and Develop-

ment of the United Nations Children's Fund (UNICEF) carried

out 13 studies in Asia, Latin America and the Middle East.

These studies primarily compared children that received a

preschool programme from those who did not over a long

period of time to gauge its effects. These studies have

demonstrated the positive effects of early intervention on

children's progress in formal schooling.

- The Integrated Child Development Services (ICDS) was started

by the Indian Government in 1975 to target poor children

aged 0 to 6 as well as their mothers in urban, slum, rural

and tribal areas so that their lives could be improved. In
a spate of 14 years 11,2 million children were reached
accounting for 40 percent of the targeted areas, by
Anganwadi workers (UNICEF, 1991:20) [cf. 3.10].

6.3 *Findings from the Empirical Investigation*

- The children from the informal settlement without a pre-
  school programme are kept at home by childminders that
  are in most cases either old, sick and illiterate. It is
  evident that due to the lack of intellectual stimulation as
  indicated by the School Readiness Questionnaire, the
  Incomplete Man Test, and the NB Group Tests for five and
  six year olds, the children's IQ scores actually stagnate.
  This finding is also supported by evidence from the
  literature study. The children that attend preschool
  yielded increased levels of cognitive development as
  indicated by the higher IQ scores.

- (Mussen & Kessen, 1983:392) Impairment of auditory
  discrimination was also found to be true of children from
  the informal settlement without a pre-school that borders on
  the N2 freeway. In their results of the NB Group Tests for
  five and six year olds, they indicated an inability to
  listen and understand as displayed by their performance in
  the subtests of the NB Group Test for five and six year old.

The children from the informal settlement with a preschool that is located away from a freeway and close to a residential area performed better on the subtests of the NB Group Test for five and six year olds showing good auditory discrimination and verbal skills.

- In both the informal settlements under investigation, the parents experience stress caused by chronic economic hardship and family dysfunction. The mothers of the children concerned are either unemployed or employed as domestic workers and the fathers are usually employed as labourers where earnings are very meagre. As supported in the literature and the present empirical investigation, parental stress and family dysfunction can in turn contribute to the child's risk for school failure. These children are truly *at risk* because they also lack the family protective mechanisms necessary to allow them to meet social and academic challenges of early schooling more so those that did not receive a pre-school education. Gulbrandsen has described a pattern of fluctuating pre-marital unions that often lead to black women, with one or two little children, receiving no financial or social support from the children's fathers (Dawes & Donald, 1994:35). This was also found to be true in some of the cases under investigation.

- A comparison of the Incomplete Man Test by children from the informal settlement without pre-school and with pre-school experience reveals that the child who is in the midst of a stimulating, educational situation where favourable circumstances are created for learning, display increased levels of cognitive development. The children that did not attend pre-school completed drawings that displayed discrepancies of ± two years to two and a half years between chronological age and mental age.

- A closer analysis of the NB Group Tests for five and six year olds reveal that children from the informal settlement without a pre-school programme display deficiencies in visual and auditory abilities. These children could be *"at risk"* for specific learning disabilities. Children that are usually learning disabled show the following auditory and visual deficiencies: discrimination, analysis and synthesis, foreground and background, spatial orientation, memory, sequence and perceptual constancy. This has also been confirmed by the findings of the empirical investigation.

- Skeels and Dye, Skeels and Kirk undertook a study where mentally retarded infants and young children were exposed to an enriched environment. They concluded that *"the adverse impact of a poverty environment can be overcome by appropriate treatment"* (Fraser, 1984:9).

In this study the children from the informal settlement that
attended a pre-school have performed comprehensively better
on the School Readiness Questionnaire, the Incomplete Man
Test and the NB Group Tests for five and six year olds than
those children that have not been exposed to a pre-school
programme. Also supportive from the literature, early
childhood programmes can yield long term effects on school
progress and counteract repetition of grades, the need for
special education, and increased high school dropout rate.

6.4 CONCLUSIONS

- The children from the informal settlement who do not attend
  a pre-school have not attained adequate levels of school
  readiness. They exhibit severe developmental delays and
  when they do attend school, they could be categorized as
  severely learning disabled requiring specialize
  intervention.

- Although both groups of children come from environmentally
  disadvantaged communities the single most important factor
  that has contributed to the increased level of school
  readiness of one group of children is their exposure to
  early childhood programmes.

- The children from the informal settlement with a pre-school
  programme will enter grade one ready to learn.

These children will not have to use their grade one and two years as an orientation phase. Due to the positive effects of early intervention, they have minimized their risks for repetition of grades, and specific learning disabilities.

6.5 RECOMMENDATIONS

The findings of this research indicate that school readiness does not just crystallize by chance when a child reaches school going age. Contrary to maturationalists, it is a condition which is brought about by many factors such as experience, intelligence, language development, emotional and social adaptation, attitude, interests, health and muscular co-ordination.

6.5.1. *Recommendations for parents*

Parents need to be made aware of the importance of early childhood experiences and the positive impact it makes on the child's future educational development.

- If parents are migratory workers, or domestic workers that work away from home for more than a week, they must concentrate on increasing the frequency of visits to home. In this way an attempt is made to create a stable home environment for the children.

- Parents that leave their children in the care of old, sick and
  illiterate grandparents should look at alternative child care
  if it is not possible to enrol the child in a creche or pre-
  school. Even if a child does not attend a pre-school due to
  financial constraints he should be cared for by a literate
  adult who provides adequate intellectual stimulation for the
  child. In this way the child's readiness for school will be
  enhanced.

- Parents that have the means should ensure that their children
  are placed in pre-school programmes. The findings of this
  research has quite vehemently indicated that in spite of
  environmental disadvantages, exposure to an enriched pre-school
  programme does bear positive results in a child's readiness for
  school.

- Parents need to ensure that their children obtain formal
  education, especially the older ones to put to end a vicious
  cycle of family risk factors associated with children's
  learning problems: (Zill & Collins, 1996:15)

  1. Mother with less than a high school education.

  2. Family below the official poverty line.

  3. Mother unmarried at the time of the child's birth.

  4. Only one parent present in the home.

- In the informal settlements where access to books is limited the parent (or care giver) that is entrusted with caring for the child could utilize the pamphlets and advertisement booklets to teach their children.

- Parents are the primary educators of their children and it is time for them to take on this responsibility. The parents in informal settlements must encourage their children to explore and gather information about their environments. Children need to have their developmental accomplishments celebrated and reinforced by others, especially adults with whom they spend a lot of time. Parents must help their children rehearse newly acquired skills for example, a skill like holding a crayon or pencil. Parents in informal settlements must prevent inappropriate disapproval, teasing or punishment. Parents should also ensure a rich and responsive language environment. This could be done by reading to the child for at least 30 minutes daily.

- Parents that lack literacy should enrol in adult literacy classes.

- Parents must take their children regularly to the clinics so that their development is monitored and if any deviations from normal development occur, it can be detected early and acted upon.

6.5.2 *Recommendations for the school and teachers*

- The concept of *"school readiness"* must be redefined, with
  greater emphasis placed on the readiness of the school
  rather than that of the child.

- School governing bodies with the help of parents should
  enlist the services of psychologists, speech therapists
  and occupational therapists to form a transprofessional
  team at the school. Each child that enters school
  should be carefully assessed so that an individualized
  educational programme (IEP) could be followed by the
  child. This team could also be instrumental in detecting
  children *"at risk"* for specific learning disabilities so
  that remediation could begin immediately.

- Teachers must display attitudes and expectations that
  forge school success.

- Schools must identify prospective pupils and co-operatively
  engage parents through a meeting about the requirements of
  school, once their children are admitted. This could serve
  to alert parents to embark on a school readiness campaign with
  their children. Meetings of this nature will also give impetus
  to the interim policy document on early childhood development,
  where parents will now become aware of the nature of school
  readiness.

- Teachers must be prepared and willing to meet the educational needs of a broad diversity of children.

- Junior primary teachers should be encouraged to visit the home of every child in their class during the first term of the new year in an effort to obtain a more holistic view of the child.

- Teachers need to be given in-service training to cater to the specialized needs of the children.

6.5.3 *Recommendations for the government*

- The interim policy document on early childhood development, should be accorded the appropriate priority in the national and provincial government's reconstruction and development programmes including the deployment of state resources.

- It is clear in developing countries that early childhood programmes must place greater emphasis on the health and nutritional needs of children than is required in the industrialized world. This emphasis must go beyond simple *"food supplementation"* to incorporate solutions to the problems of micro-nutrient deficiencies. The government needs to embark on a programme to provide supplements to children from informal settlements.

- If early childhood programmes become the exclusive
  responsibility of Education Ministries, there is a danger
  that the formal primary school system may be extended
  downward to children between the ages of three to six. This
  would reinforce the apparent inflexibility of primary
  schools while also creating programmes for younger children
  that are inappropriate to their needs (UNICEF, 1991:23).

One organisational alternative would be to create a semi-
autonomous unit within the Ministry of Education with
responsibility for programming related to children from age
0-9 years. This multi-disciplinary unit might include
individuals with expertise in health, nutrition, education,
psychology, and community development. Under the auspices
of an inter-ministerial committee this unit could be staffed
with personnel *"loaned"* from other ministries, with the
understanding that each of these persons would serve as a
liaison with the loaning ministry. The activities of this
unit could include for example:

a) The development of *"Parental Education"* programmes.

b) The integration of childrearing content in ongoing adult
    literacy and post-literacy programmes.

c) The placement of pre-schools and primary schools near each
    other, enabling primary school children to bring siblings

to the pre-school and to return home with them at the end
of the day.

d) In communities that expect a pre-school environment to
   provide formal learning, arrangements could be made for
   the joint working of pre-school and primary school
   teachers. This could also assist the transition from pre-
   school to primary school making it less traumatic for pre-
   schoolers.

e) Radio, television and video programmes for both pre-
   school centres and early primary grades could be created.
   The content could include health and nutrition and play
   activities relevant for children between three and nine
   years of age. Booklets with suggested activities to
   reinforce the concepts could also be developed.

f) Radio, television and video programmes could also be
   used to target the parents that have children in the
   0 to nine year group.
   This would succeed in making parents aware of the
   importance of systematically and deliberately making
   their children ready for school.

6.5.4 *Recommendations for further research*

- Evaluation designs should be built into early childhood
   programmes, thereby providing opportunities for

longitudinal follow-up studies of these children into the early years of primary school, more so children from informal settlements.

In carrying out these studies, more attention must be give to the development of indicators and instruments for measuring the process of child development. Access to such a body of research would support the development, implementation and evaluation of early childhood development that cross bureacratic demarcations and consider in a holistic fashion the first nine years of a childs life (UNICEF, 1991:25).

- It is essential to study the variety of factors that predate school entry and this could be done in a variety of distinctive settings (for example urban impoverished neighbourhoods, suburban mainstream communities, rural communities) in order to determine whether processes of influence operate similarly or differently in contrasting settings.

- Research should be conducted that addresses the ability of a school system to maximize the contributions of parents and community resources in the mutual attainment of educational goals.

- Families and schools need more information regarding
  effective family adaptations which assist school competence
  and the resources that maximize a family's ability to provide
  experiences that ensure that children are school ready.

6.6 REALISATION OF THE AIMS OF THE STUDY

The literature study and empirical investigation have provided
evidence for the importance of school readiness during the
early years.

The negative effects of growing up in informal settlements,
coupled with no exposure to a pre-school programme, became
evident from the empirical investigation. It became apparent
that these children have lower IQ scores and mental ages when
compared with children living in informal settlement but who
attend a pre-school programme. They further showed a distinct
lack of crucial school readiness skills (cf. 5.10)

Recommendations were made to parents, teachers and the
government regarding their respective roles in respective
roles in enhancing the school readiness of children living in
informal settlements.

This study has provided valuable information on the phenomenon
of school readiness of children growing up in informal
settlements. The findings of this investigation has revealed
a realisation of the aims of the study, as outlined in chapter
one (cf. 1.5).

6.7 LIMITATIONS OF THE STUDY

The findings of this research should be treated with caution due to the following aspects:

1. The media used are not standardized for Zulu speaking children and it might lead to bias as the scores may not be that valid. However the researcher used the media primarily for diagnostic purposes.

2. The fact that all the children who participated in this study were Zulu speaking, the researcher being English speaking had to utilize the services of a translator for the administration of all the media. This in itself could have influenced the results of the media used.

3. The small sample that was used may also prevent the generalization of this study.

6.8 CONCLUSION

In conclusion the literature study and the findings from the empirical investigation provide evidence that if children participate in a pre-school programme, in spite of environmental disadvantages, they can overcome adverse impacts and attain school readiness. Once children become school ready, the attention that they were given during their pre-school years should not be stopped.

On the contrary, when these children enter the junior primary phase parents should become more vigilant to detect if their children are at risk for specific learning disabilities. This also contests whether the concept of *"school readiness needs to be abandoned and replaced with the concept continued readiness to learn"* throughout the school years.

It is the hope of the researcher that this study will contribute to the awareness of the importance of a child's early years for success in primary school and his later schooling.

REFERENCES

Adelman H.S. 1982. Identifying learning problems at an early age: a critical appraisal. *Journal of Clinical Psychology,* 2(3):255-266.

Aram D.M. & Nation J.E. 1982. *Child language disorders.* St. Louis, Missouri: Mosby.

Ary D. 1985. *Introduction to research in education.* 3rd edition. New York: Holt Rhinehart and Winston.

Ausubel D.P. 1962. *Theory and problems of child development.* New York: Grune & Stratton.

Ausubel D.P. & Sullivan E.V. 1970. *Theory and problems of child development.* Second edition. New York: Grune & Stratton.

Banks J.A. 1990. Citizenship education fo a pluralistic democratic society. *Social studies,* 81(5): 210-212.

Barnes K.E. 1982. *Pre-school screening: the measurement and prediction of children at risk.* Chicago: Charles C. Thomas.

Bley N.S. & Thornton C.A. 1981. *Teaching mathematics to the learning disabled.* New York: Aspen.

Bloom B.S. 1964. *Stability and change in human characteristics.*
New York: John Wiley and Sons.

Booyse A.M. 1989.   Die milieu-gestremde gesin.   In: Kapp J.A.
(Red). *Kinders met probleme: n' ortopedagogiese perspektief.*
Pretoria: Serva.

Boyer E.L. 1993.   Ready to learn: a mandate for the nation.
Young Children, 48(3):54-57.

Brainerd C.J. 1982. *Children's logic and mathematical cognition.*
New York: Holt.

Brierly J. 1987.   Give me a child until he is seven.   *Brain
studies and early childhood education.* London: The Falmer Press.

Brown B. 1978. *Found: Long term gains from early intervention.*
Colorado: Westview Press.

Bruner J.S. 1960. *The process of education.* Cambridge: Harvard
University Press.

Bryan T.H. & Bryan J.H. 1978.   *Understanding learning
disabilities.* Second edition. Sherman Oaks, CA: Alfred.

Callender J.E.M., Grantham-McGregor S.M., Walker S & Cooper E.S. 1992. Trichurias infection and mental development in children. Lancet, 339:181.

Carll, B & Richard, N. 1985. *One piece of the puzzle: a school readiness manual*. Moravia, N.Y.: Athena Publications.

Carrow-Woolfolk E. & Lynch J.I. 1981. *An integrative approach to language disorders*. New York: Grune & Stratton.

Caughy M.O. 1996. Health and environmental effects on the academic readiness of school-age children. *Developmental Psychology*, 32(3):515-522.

Chalfant J.C. & King F.S. 1976. An approach to operationalizing the definition of learning disabilities. *Journal of learning disabilities*, 10:34-49.

Chall J.S. & Mirsky A.F. 1978. Education and brain. *Yearbook of the national society for the study of education*, 77(2). Chicago: University of Chicago Press.

Chapey G. 1986. *Ready for School: How parents can prepare children for school success*. New York: University Press of America.

Cohen D.H. & Rudolph M. 1977. *Kindergarten and early schooling.* Englewood Cliffs: Prentice-Hall.

Cruickshank W.M. 1977. *Learning disabilities in home, school and community.* New York: Syracuse.

Cruickshank W.M. 1980. *Psychology of exceptional children and youth.* 4th edition. Englewood Cliffs: Prentice Hall.

Dawes A. & Donald D. 1994. *Childhood and adversity: psychological perspectives from South African Research.* Cape Town: David Phillip.

De Jongh J.M. 1987. *Riglyne vir die ontwerp van n'skoolgereedheidsprogram vir swart skoolbeginners.* Pretoria: RGN

Derbyshire E.J. 1990. Skoolgereedheidsprobleme. In: Kapp J.A. (Red). *Kinders met probleme: n' ortopedagogiese perspektief.* Pretoria: van Schaik.

De Witt M.W. & Booysen M.I. 1995. *Socialization of the young child.* Selected themes. Pretoria: van Schaik.

De Witt M.W and Booysen M.I. 1995. *Focussing on the small child: Insights from Psychology of Education.* Pretoria: Acacia Books

De Witt M.W. 1990. *Skoolgereedheid. Is dit belangrik?* In: "Van klein kind tot skool kind III". Pretoria: UNISA.

Department of Education. 1996. *Interim Policy for Early Childhood Development.* Pretoria: Government Printers.

Donofrio A.F. 1977. Grade Repetition: therapy of choice. *Journal of Learning Disabilities*, 10:349-351.

Du Preez J.J. & Steenkamp W.L. 1980. *Spesifieke Leergestremd-hede: basiese beginsels.* Pretoria: Butterworth.

Du Toit S.J. & Kruger N. 1991. *The child.* An educational perspective. Durban: Butterworths.

Dumont J.J. 1973. *Leerstoornissen: oorzaken en behandelings-methoden.* Rotterdam: Lemmiscaat.

Eisenson I. 1980. *Aphasia in children.* New York: Harper and Row.

Edufac - N/301/1998. Summary of Report of the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee for Education Support Services (NCESS). Unisa: Pretoria.

Engelbrecht P., Kriegler S.M. & Booysen M.I. 1996. *Perspectives on learning difficulties.* International concerns and South African realities. Pretoria: van Schaik.

Ernhart C. & Marler M. 1987. *Size and cognitive development in early pre-school years.* Psychological Reports, 61: 103-106.

Faas L.A. 1980. *Children with learning problems: A handbook for teachers.* Boston: Houghton Mifflin.

Fraser A.L. 1984. *The early identification of learning disabilities: a study of the predictive validity of the aptitude tests for school beginners.* University of Natal: Pietermaritzburg (Unpublished M.Ed dissertation).

Frede E. & Barnett S. W. 1992. Developmentally appropriate public school preschool: A study of implementation of the High/Scope Curriculum and its effects on disadvantaged children's skills at first grade. *Early Childhood Research,* 7(4):483-499.

Gearheart B.R. 1981. *Learning disabilities: Educational strategies.* 3rd edition. Colorado: Mosby.

Gerber H.M. 1981. *Wêreldontwerp van die gestremde kind.* Unisa: Pretoria.(Ongepubliseerde D. Ed-proefskrif).

Gerber H.M. 1985. *Die wêreldontwerp van die leergestremde kind.* Pretoria: Unisa.

Gesell A. 1954. The ontogenesis of infant behaviour. In L. Carmicheal (ed.): *Manual of Child Psychology.* 1954. New York: John Wiley & Sons.

Gowan J.C. & Demos G.D. (eds) 1966. *The disadvantaged and potential dropout.* Illinois: Charles C. Thomas.

Graue E.M. 1992. Readiness, instruction, and learning to be a kindergartner. *Early Education and Development,* 3(2):92-114.

Graue E.M. 1992. Social interpretations of readiness for kindergarten. *Early Childhood Research,* 7(2):225-243.

Graue E.M. 1993. *Ready for what? Constructing meanings of readiness for kindergarten.* United States of America: State University of New York Press.

Gredler G.R. 1992. *School readiness: assessment and educational issues.* United States of America: State University of New York Press.

Grove M.C. 1981. *Off to School: A guide for parents.* Pretoria: Haum.

Halliday M.A.K. 1975. *Relevant models of language in children and language.* Edited by S. Rogers. London: Oxford University Press.

Halliwell J.W. & Stein B.W. 1964. A comparison of the achievement of early and late starters in reading related and non-reading related areas in fourth and fifth grades. *Elementary English,* 41:631-639.

Halliwell J.W. 1968. Reviewing the reviews on entrance age and school success. In N.H. Noll & R.P. Noll (eds). *Readings in educational psychology.* New York:Mac Millan.

Hammill D.F., Leigh G.M. & Larsen S. 1981. A new definition of learning disabilities. *Learning Disability Quarterly,* 4:336-342.

Harrison P. 1993. *Inside the Third World: the anatomy of poverty.* 2nd edition. London: Penguin.

Houck C.K. 1984. *Learning disabilities: understanding concepts, characteristics and issues.* Englewood Cliffs, NJ: Prentice Hall.

Humphreys L. Davey T & Park R. 1985. Longitudinal correlation analysis of standing heights and intelligence. *Child Development,* 56:1465-1478.

Hunt J. McV. 1961. *Intelligence and experience.* New York: Ronald Press.

Hymes J.L. 1958. *Before the child reads.* Evanston, Illinois: Row Peterson.

Hymes J.L. 1963. More pressure for early reading. *Childhood Education,* 30:34-35.

Ilg F.L. & Ames L.B. 1965. *Behavior tests used at the Gesell Institute.* New York: Harper and Row.

Jacobs L. 1984. Cognition and Learning Disabilities. *Teaching Exceptional Children,* 16: 213-218.

Johnson D.J. & Myklebust H.R. 1967. *Learning disabilities: educational principles and practices.* New York: Grune & Stratton.

Johnson J.H. & Borman K.M. 1992. *Effective schooling for economically disadvantaged student populations.* New Jersey:Albex

Kapp J.A. 1991. *Children with problems: orthopedagogical perspectives.* Pretoria: Van Schaik.

Kelsall R.K. & Kelsall H.M. 1971. *Social disadvantage and educational opportunity.* London: Holt, Rhinehart & Winston.

Kok J.C. 1970. *'n Pedagogiese beoordeling van die waarde - orientasie by milieugestremde kinders*. Universiteit van Port Elizabeth: Port Elizabeth. (Ongepubliseerde D. Ed-proefskrif)

Kvalsig J.D, Coopan R.M, & Connolly K.J. 1991. The effects of parasite infections on cognitive processes in children. *Annals of Tropical Medicine and Parasitology*, 85:551-568.

Lahey M. 1978. *Language and its structure*. New York: Harcourt, Brace & World.

Leach D.J. 1980. Considerations in screening for school learning difficulties. An overview of practice. *Educational Studies*, 6:181-197.

Le Roux J. 1994. *The Black child in crisis*. A socio-educational perspective. Volume 2. Pretoria:van Schaik.

Lerner J.W. 1985. *Learning disabilities: theories, diagnosis and teaching strategies*. 4th edition. Boston: Houghton Mifflin

Levitsky D. & Barnes R. 1972. Nutritional and environmental interactions in the behavioural development of the rat: long term effects. *Science* 176:68-71.

Lichtenstein R. & Ireton H. 1984. *Pre-school screening identifying young children with developmental and educational problems.* Orlando, FL. Grune & Stratton.

Liddell C. & McConville C. 1994. Starting at the bottom: towards the development of an indigenous school readiness program for South African children being reared at home. *Early Child Development and Care,* 97:1-15.

Lindsay G. 1984. *Screening for children with special needs.* Dover NH:Groom Helm.

Luria A.R. & Yudovich F. 1971. *Speech and the development of mental processes in the child.* London: Penguin

Marckwardt A.H., Cassidy F.G. & Mc Millan J.B. 1992. *Webster Comprehensive Dictionary.* J.G. Ferguson Publishing Company: Chicago.

Masitsa M.G. 1988. *The Milieu of the black pre-schooler and his subsequent performance in school.* Unpublished Thesis-University of South Africa. Unisa:Pretoria. (Unpublished D.Ed-thesis).

McGill-Franzen A. 1993. *Shaping the pre-school agenda: early literacy, public policy and professional beliefs.* United States of America: State University of New York Press.

McLoyd V. 1990. The impact of economic hardship on black families and children. Psychological distress, parenting and socio-emotional development. *Child Development*, 61:331-346.

Meisels S.J. 1987. Uses and abuses of developmental screening and school readiness testing. *Young Children*, 42(2):4-9.

Mercer C.D. 1983. *Students with learning disabilities*. 3rd edition. Columbus, Ohio: Merrill.

Morphett M.V. & Washburne C. 1931. When should children begin to read? *Elementary School Journal*, 31:496-503.

Moses N. 1981. Using Piagetian Principles to guide instructions of the learning disabled. *Topics in language and learning and learning disabilities*, 1:11-19.

Mussen H. & Kessen W. 1983. Handbook of Child Psychology. Vol 1: *History, Theory and Methods*. New York: John Wiley and Sons.

Nel M.C.P. 1985. Die effek van verskillende skoolsituasies op die persoonlikheid selfkonsep end houdings van die spesifiek leergestremde kind. Unisa:Pretoria. (D. Litt et Phil-proefskrif).

Okon M. & Wilgocka-Okon 1973. The school readiness project (Paris): United Nations Educational, Scientific and Cultural Organisation.

Olivier A.S. 1981. *Die verbesondering van kriteria vir die identifisering van die kind met 'n spesifieke leergeremdheid.* Unisa:Pretoria.(D. Ed - proefskrif).

Park H.J.R.B. 1986. *Die prognose vir suksesvolle leer by die vyfjarige skooltoetreder.* Unisa: Pretoria. (D. Ed - proefskrif).

Pilling D. & Pringle M.K. 1978. *Controversial issues in child development.* London: Elel.

Potgieter F.J. 1961. *Oorsig oor die vraagstuk na skoolrypheid.* Fakulteit Opvoedkunde: Universiteit van Pretoria.

Pretorius J.W.M. 1987a. *Die konsep mulieu gestremdheid en die implikasies daarvan vir die RSA.* (J. Chris Coetzee - paper delivered in the Senate Hall of the P.U. for C.H.E.)

Pretorius J.W.M. 1987 b. *Kompensatoriese onderwys: 'n struktuur - analise en beskrywing.* PhD - proefskrif. Universiteit van Pretoria: Pretoria. (PhD-proefskrif).

Pretorius J.W.M. 1990. *Opvoeding, samelewing, jeug. 'n sosiopedagogiek leerboek.* Pretoria: van Schaik.

Reid D.K. & Hresko W.P. 1981. *A cognitive approach to learning disabilities.* New York: McGraw-Hill.

Reilly P.E. & Hofmeyr E.J.M. 1983. *Pre-primary education in the RSA.* Pretoria: HSRC.

Reschly D. 1986. *Economic and cultural factors in childhood exceptionality.* In Brown R. & Reynolds C. (eds). *Psychological Perspectives on Childhood Exceptionality.* New York: John Wiley.

Reynolds C.R. 1979. Should we screen pre-schoolers? *Contemporary Educational Psychology,* 175-181.

Rice M.L. 1983. Contemporary accounts of the cognition/language relationship: Implications of speech - language clinicians. *Journal of Speech and Hearing Disorders,* 48:347-359.

Shaw C. 1981. *Persoonlike bevoegdheid en aanpassing by kinders met minimale breindisfunksie.* Randse Afrikaanse Universiteit: Johannesburg. (M.Ed-verhandeling)

Shepard L.A. & Graue M.E. 1993. The morass of school readiness screening: Research on test use and test validity. In Spodek B. (ed): *Handbook of research on the education of young children.* 2nd ed. New York: MacMillan.

Silva P.A. & Ross B. 1980. Gross motor development and delays in development in early childhood: assessment and significance. *Journal of Human Movement Studies,* 6:211-226.

Singer H. & Ruddell R.B. 1976. *Theoretical models and process of reading.* 2nd edition. Newmark, Delaware: International Reading Association.

Smith S.L. 1980. *No easy answers. The learning disabled child at home and at school.* Cambridge: Winthrop.

Stein H. & Ellis U. 1974. The low birthweight African baby. *Archives of Diseases of Childhood,* 49:156-158.

Stott L.H. 1967. *Child Development: an individual longitudinal approach.* New York: Holt, Rhinehart and Winston.

Taylor A.R. 1991. Social competence and the early school transition: risk and protective factors for African - American Children. *Education and Urban Society,* 24(1):15-26.

Torgeson J.K. 1977. The role of non-specific factors in task performance of learning disabled children: a theoretical assessment. *Journal of Learning Disabilities,* 10:27-34.

Van den Aardweg E.M. & Van den Aardweg E.D. 1988. *Dictionary of empirical education/educational psychology.* E. & E. Enterprises.

Van der Stoep F. 1965. *Taalanalise en taalevaluering as pedagogiesdidaktiese diagnosteringsmetode.* Pretoria: HAUM.

Van Niekerk P.A. (red.) 1986. *Die opvoedkundige-sielkundige. n handleiding in die opvoedkundige-sielkunde.* Stellenbosch: Universiteitsuitgewers.

Vrey J.D. 1979. *The self-actualizing educand.* Pretoria: UNISA.

Vrey J.D. 1984. *Die opvoedeling in sy selfaktualisering.* Pretoria: UNISA.

Wallace G. & Mclouglin J.A. 1979. *Learning disabilities: concepts and characteristics.* Columbus, Ohio: Bell and Howell.

Washburne C. 1936. Ripeness. *Progressive Educators,* 13:125-130.

Wedell K. & Raybould E.C. 1976. The Early Identification of Educationally "at risk" Children. *Educational Review,* 6:11.

Whiting J. & Child I. 1980. *Child training and personality: a cross cultural study.* New Haven, Connecticut: Yale University Press.

Whyte L.A. 1984. Characteristics of learning disabilities persisting into adolescence. *The Alberta Journal of Education Research,* 30:14-25.

Wiig E.H. & Semel E.M. 1976. *Language disabilities in children and adolescents.* Columbus, Ohio: Charles E. Merrill.

Williams H.G. 1983. *Perceptual and motor development.* Englewood Cliffs, NJ: Prentice Hall.

Zeitlin S. 1976. *Kindergarten screening: early identification of potential high risk learners.* Springfield Illinois: Charles C. Thomas.

Zill N. & Collins M. 1996. Approaching kindergarten: family risk factors. *Early Childhood Education,* 75(5): 14-15.

APPENDICES

APPENDIX

NUMBER

1.   School Readiness Questionnaire.

(TED Circular No. 110 of 1971 as adapted

by C.J. van der Linde, Pedagogic Auxiliary

Service).

2.   The Incomplete Man Test.

3.   Anamnestic Interview Questionnaire

APPENDIX 1. The School Readiness Questionnaire (TED Circular No. 110 of 1971 as adapted by C.J. van der Linde, Pedagogic Auxiliary Service).

EXAMPLE OF A SCHOOL READINESS QUESTIONNAIRE

NAME...

DATE OF BIRTH .... AGE..........

DATE.............

(TED Circular No. 110 of 1971 as adapted by C.J. van der

Linde, Pedagogic Auxiliary Service)

★★★

NO	MOTOR DEVELOPMENT	YES/NO
1.	Laterality problem. Is there confusion between right and left?	
2.	Is he slow and clumsy in dressing or undressing, e.g. shoes, jacket, coat?	
3.	Does he put his shoes on the wrong feet?	
4.	Does he have problems in fastening buttons?	
5.	Is he clumsy - does he frequently stumble over, walk into or bump objects?	
6.	Does he have difficulty in jumping - particularly when he has to change from one foot to another?	
7.	Does he lack a sense of rhythm when keeping time to music, running, jumping or clapping hands?	
8.	Does he hold a pencil clumsily and awkwardly - poor hand and finger control, too much pressure on the pencil, pencil smudges, etc.?	
9.	Does he have difficulty in using a pair of scissors?	
10.	Can he reach his right ear with his left hand?	
	EMOTIONAL DEVELOPMENT	
1.	Does he create the impression of being excessively shy?	
2.	Does he cry easily?	

NO	EMOTIONAL DEVELOPMENT	YES/NO
3.	Does he lack a feeling of security, in other words is he afraid to venture?	
4.	Is he afraid of performing in front of others?	
5.	Is he afraid of participating in any group activities?	
6.	Is he slow in carrying out instructions?	
7.	Does he create the impression of daydreaming?	
8.	Does he confuse fantasy and reality?	
9.	Would he like to go to school?	
	LINGUISTIC DEVELOPMENT	
1.	Does he still use baby language, for example "me" instead of "I"?	
2.	Does he struggle to say certain sounds?	
3.	Does he change sounds around?	
4.	Does he change sentences around?	
5.	Does he speak fluently? If he does not speak fluently does he use mainly nouns and phrases?	
6.	Does he become confused when identifying colours?	
7.	Can a stranger understand his speech easily?	

PHYSICAL CONDITION

Does the child have some physical defect regarding hearing, eyesight or is he an asthma sufferer, etc.

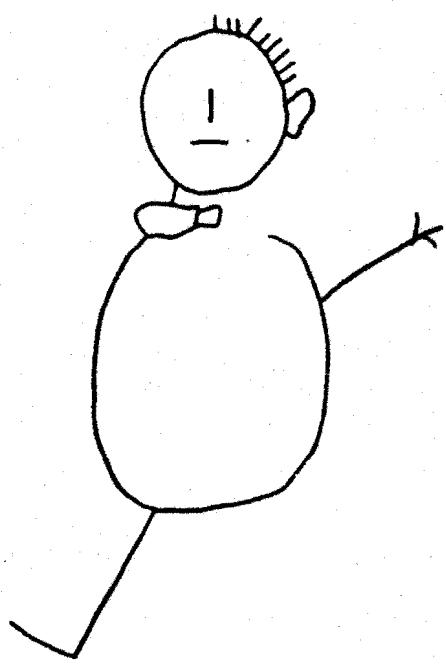..

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                Signed: ....

ALLOCATION OF MARKS:

Motor Development	Question 1-9	No	1 point each
		Yes	0 points each
	Question 10	Yes	1 point
		No	0 points
Emotional Development	Questions 1-8	No	1 point each
		Yes	0 points each
	Question 9	Yes	1 point
		No	0 points
Linguistic Development	Question 1-4	No	1 point each
		Yes	0 points
	Question 4	No	1 point
		Yes	0 points
	Question 5	Yes	1 point
		No	0 points

HOW TO USE THE RESULTS OF THIS FORM

Number of points	Possible degree of school readiness	Recommendation
40-45	School readiness reasonably sure	Go to school
35-39	Possibly ready for school	Go to school
26-34	School readiness questionable	Consult the principal
25 and lower	School readiness doubted	Consult the clinic

APPENDIX 2: The Incomplete Man Test

Incomplete Man

APPENDIX 3: Anamnestic Interview Questionnaire

a) **Home Circumstances** –

   i)   The father and mother and their occupations.

   ii)   Marital status - first marriage, divorced, step-father, step-mother, widow, widower.

   iii) Number of children, position of the child concerned in the family, ages and sex of the other children.

   iv)   Natural or adopted child.

   v)   The pedagogic situation - question the fundamental pedagogic structures.

   vi)   Religious susceptibility and activities.

b) **History of the birth** –

   i)   Pregnancy: serious diseases, use of medication including alcohol during pregnancy, emotional stress, incompatible blood groups, anemia, high blood pressure etc.

   ii)   Birth: too early, later than anticipated, very difficult, very long, very brief, instruments, blue baby, complications.

   iii) Whether the baby was welcome.

c) **Infancy and pre-school years** –

   i)   Feeding problems, inadequate ability to suck, allergies, colic.

   ii)   Sleeping habits.

   iii) Serious diseases; malaria, bilharzia, jaundice, others.

   iv)   Diseases accompanied by high fevers.

   v)   Serious head injuries.

   vi)   Any period of unconsciousness.

   vii) Other accidents or traumatic experiences.

   viii) Ear infections.

   ix)   Eye diseases.

d) Physical development –

    i)   Birth weight.

    ii)   Breast or bottle feeding.

    iii) At what age he began to sit.

    iv)   When he began to crawl.

    v)   When he started walking.

    vi)   When he began to speak.

    vii) His acquisition of language.