THE NEED OF PRESCHOOL EDUCATION IN THE ODI DISTRICT OF BOPHUTHATSWANA: A PSYCHO-PEDAGOGICAL APPROACH

by

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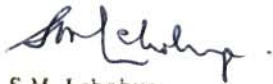
Leader: Professor J.C. Steenekamp

Date: 28 February 1978

DECLARATION

I declare that the dissertation for the degree Master of Education at the University of the North hereby submitted by me, had not previously been submitted by me for a degree at this or at another university, and that it is my own work in design and in execution and that all material contained herein is recognised.

S.M. Lehobye

S.M. Lehobye

DEDICATION

Dedicated to my wife, kids and all the Lehobyes.

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PREFACE

SUMMARY

By observing pupils in the first grade in certain schools in the Odi district, the writer realised that many of these children could not cope with the educational demands expected of them. This observation was confirmed by most teachers who were responsible for teaching these pupils.

From this observation, two major factors, which subsequently also became the research hypotheses, were singled out as responsible for the observed phenomenon of school unreadiness:

1. First and foremost preschools in the Odi district are not playing an effective role in preparing children for formal school; and

2. The home environments of the children do not provide them with the experiences that are necessary for success in formal learning.

Findings from literature and research studies revealed that the level of pre-school education in the White community in the R.S.A..was on a par with many in the technologically developed countries. There was, however, very little literature to tell about the situation of preschool education in Bophuthatswana and amongst the Black communities of the R.S.A. In addition official documents showed a conspicuous absence of any programme of preschool education for Blacks.

Since the writer is convinced about the need of this study, a theoretical model, which sought to establish an acceptable standard of preschool education and what constituted school readiness, was set up. Against the background, practical investigation involving the testing of a sample of fifty children who had been to a preschool and fifty children who had not been to a preschool in the Odi district was conducted. Furthermore, two kinds of questionnaires were administered; one to nine preschool principals and the other to a sample of 100 parents in the Odi district.

The findings of this research corroborated the hypotheses stated above:

1. The performance of the preschool group was found to be not significantly above that of the non-preschool group. This finding reflected the ineffectiveness of preschools in their present form in the Odi district. This situation was caused by lack of facilities, large classes and poor teaching.

2. More than 80 percent of the tested children were not ready for formal school education . Lack of effective preschool education was partly responsible for this. The impoverished home environments of the children typified by overcrowding, low income and low education of parents was another major contributory factor.

Finally, a number of suggestions are given with the hope that, if implemented, the community of the Odi district as indeed of Bophuthatswana as a whole, will benefit thereby.

SAMEVATTING

Deur die waarneming van graad-een-leerlinge aan sekere skole in die Odi gebied, het die skrywer tot die besef gekom dat baie van hierdie kinders nie aan die vereiste standaarde van opvoeding voldoen nie. Hierdie gevolgtrekking is bevestig deur die meerderheid van die onderwysers wat vir die opvoeding van hierdie leerlinge verantwoordelik was.

Uit hierdie waarneming het twee hoof-oorsake wat lei tot skool-onrypheid sterk na vore getree, en het dan ook die hipotesis gevorm vir die daaropvolgende navorsing:

1. Die ontoereikendheid van die voorskoolse inrigtings in die Odi-gebied in soverre dit die voorbereiding van kinders vir formele onderwys betref; en

2. Die gebrek aan ervarings, wat kan bydra tot suksesvolle onderwys, in die kinders se huislike omstandighede.

Literêre-en navorsingstudie het getoon dat die standaard van voorskoolse onderrig in die blanke gemeenskappe van die R.S.A. gunstig vergelyk met dié van die tegnologies-ontwikkelde lande. Weinig literatuur is egter beskikbaar betreffende die voorskoolse-onderrigsituasie in Bophuthatswana en onder die swart gemeenskappe in die R.S.A. Daarbenewens het amptelike dokumente 'n opvallende afwesigheid van enige beplanning vir voorskoolse onderrig vir swartmense getoon.

Aangesien die skrywer oortuig is van die behoefte aan so 'n ondersoek, is 'n teoretiese proef opgestel met die oog op daarstelling van 'n erkenbare standaard in voorskoolse onderrig en voorbereiding vir skoolrypheid. Teen hierdie agtergrond is 'n praktiese ondersoek geloods waartydens vyftig kinders met, en vyftig sonder voorskoolse onderrigondervinding in die Odi-gebied getoets is, een van nege hoofde van voorskoolse inrigtings en die ander aan 100 ouers in die Odi-gebied.

Die bevindinge van hierdie ondersoek het die bogenoemde hiposis bekragtig:

1. Die bevindige toon dat die prestasies van die groep met voorskoolse onderrig en dié daarsonder, nie betenisvolle verskille toon nie. Hierdie bevinding weerspieël die ontoereikendheid van die huidige vorm van voorskoolse onderrig in die Odi-gebied. Hierdie toestand kan toegeskryf word aan die gebrek aan fasiliteite, groot klasgroepe en swak onderrig.

2. Meer as 80 persent van die getoetsde kinders was nie gereed vir formele skoolopvoeding nie. 'n Gebrek aan doeltreffende voorskoolse opvoeding was gedeeltelik hiervoor verantwoordelik. Die armoedige huislike omstandighede van die kinders, as gevolg van oorbevolking en die lae verdienste en opvoeding van ouers, was nog 'n groot oorsaak.

Ten slotte word 'n aantal voorstelle gemaak in die vertroue dat die gemeenskap van die Odi-gebrek, en veral van Bophuthatswana as geheel, by die toepassing daarvan sal baat vind.

CHAPTER 1

1. **GENERAL ORIENTATION, ORIGIN AND DESCRIPTION OF THE PROBLEM,**
    SCOPE, AIM AND METHODS OF INVESTIGATION

1.1. GENERAL ORIENTATION

The significance of purposeful and well-organised programmes for preschool education has long been recognised. Pioneers in this field, who have contributed invaluable research, theories and methods, include Pestalozzi, Froöbel, Montessori and Piaget.

In recent times, however, researchers the world over have been working hard to find better ways of dealing with young children. They are doing this by integrating new strategies with those developed by their predecessors in the field. Their investigations have brought abundant evidence of the vital role which effective pre-school education plays in preparing the child for formal school education. This preparation is particularly crucial in helping the child during the first few days of entering upon lower-primary school education, during which period the child has to be initiated into a substantially different life-world from that of his home.

It is important for parents and the community to plan carefully for children so that they experience success and satisfaction in their first days at school and, as a result, adopt a positive attitude towards schooling and learning. It is further suggested that the need for this careful planning is more important in modern times. As a result of the surge forward in technology, parents have found it increasingly difficult to cope with the intricate educational needs of their young children. Thus, the currently persistent need for organised forms of pre-school education can be seen partly as a means of making up for the inability on the part of parents to meet the educational challenges of their children.

In our relatively young and multi-national country, which is also advancing technologically at a rapid pace the gap between the home and the school has become very significant. In turn, this has led to concerted efforts to bridge the disparity between home and formal school education. Consequently, considerable provision for nursery schools has had to be made and traditional theories and practices on pre-school education have had to be investigated and evaluated against present and future requirements.

It is a historical fact that the Republic of South Africa has been rather a late starter in the field of nursery school education. According to Van Vuuren, Dr. Ruth Arndt (who came to this country in 1926) can be regarded as one of the first pioneers of modern nursery schools (5,48). However, investigations thereafter at close intervals by, *inter alia*, Nel, Sonnekus, Beron, Grey, du Plessis, Blignaut, Garbers and van der Spuy have significantly highlighted the relevance of this field of education. In an introduction to a doctoral thesis, van der Spuy states that the problem of school maturity and school readiness is certainly one of the most actual in education and teaching (33,1).

Among Black[1] communities however, it would appear that the question of organised preschool education has not been accorded the attention it deserves. Beside the philosophical findings of Nel[2] the only notable investigation of a scientific empirical nature was conducted by Steenekamp and the late Motshega with the Northern Sotho school beginners (vide 34, 62 – 74).

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1) The term Black is used as a synonym for Bantu.

The Human Science Research Council has also just recently standardised a test for school beginners. Norms for this test are available only in Xhosa, Northern Sotho and Zulu (vide 13, 34).

There appears thus to be a place for a study of the need for preschool education in a particular area, from which some general observations about the need for it in other areas may be made.

1.2. ORIGIN AND DESCRIPTION OF THE PROBLEM

1.2.1. <u>Background to the origin of the problem</u>

The need to embark upon this research project should be viewed partly against the general orientation given above. Interest in this problem was further prompted by the study of the literature regarding preschool education; that is, problems related to it, its significance and the extent to which mounting interest is being shown in it in this country and abroad. This aspect will be attended to in more detail when the literature is reviewed in Chapter II.

It was, however, out of the practical experience of the researcher as a lecturer in a teacher-training college that the urgency of an investigation of this kind was felt.

Whilst evaluating student-teachers' practical teaching performance in the first grades (sub-standard A), one occasionally sensed a considerable lack of contact and communication between school-beginners and student-teachers. Subsequent discussions with the class teachers of these school-beginners confirmed the researcher's intuitive and cursory observation.

In addition to the apparent problem mentioned in the last paragraph, there was another disturbing fact which also decided the researcher to undertake this investigation. A systematic study of the syllabus for the Primary Teachers' Course which is also, as a matter of fact, the lowest teachers' course for Blacks, indicated a conspicuous absence of any special programme intended to train student-teachers in the fields of pre-school education (vide 35, 1–81). To the knowledge of the researcher there is thus far no single official (departmental) institution which has been established for this purpose.

Only a few private institutions are reported such as the Jabulani Kindergarten School (Soweto) and the one attached to Bafokeng High School (Bophuthatswana). The latter gives instruction in Child Welfare and Home Management. Still another problem is the high drop-out rate in the lower primary school which may partly suggest that pupils experience failure at the initial stages of their school career and that this situation can be accounted for by the fact that pupils are not ready for school.

These four factors — the general importance of pre-school education, the absence of training in pre-school education for primary school teachers, the small number of institutions available and the apparent phenomenon of school unreadiness amongst the Black school beginners — have convinced the writer of the need for this study.

1.2.2.   Description of the problem (pre-school education and related concepts)

In a scientific investigation, it is necessary to define the exact meanings of key concepts that will pervade most of the field of study. This need is particularly recognised in a relatively young science like Education, whose problems of designation and terminology have not been completely resolved.

In our case then it will be essential to describe explicitly, as far as possible, the key terms used in the title of this dissertation so that the reader gets a clear picture of the field the researcher hopes to cover. An attempt is hereby made to arrive at a systematic description of pre-school education — and nursery school education — and other related concepts such as school maturity, school readiness and school attendance age.

1.2.2.1.   Pre-school education

A description and definition of pre-school education seems to be more illuminating when an analytical approach is used.

a)   Education:

The word education is derived from the Latin word EDUCARE which means "to lead out" or "bring up". At present the word education is often used interchangeably with the word pedagogy which is derived from the Greek word PAEDAGOGIA (child rearing). This Greek word evolved from two separate words: PAIS which means "child" and AGEIN which means "to lead" (vide 3, 66; 17, 8). From the root meanings of the words, education and pedagogy — to lead out — one detects an underlying degree of awareness from the one who leads as to the goals to be achieved by the one who is led. Consequently, there arose the widely accepted definition of education as a deliberate act of leading a non-adult to become an adult. (The term pedagogics is preferred when reference is made to the scientific study of education.)

Authors such as Kneller and Chesler see education as society's mechanism for transmitting culture (vide 16, 12; 2, 3). According to these writers, education is regarded as synonymous to the general act of enculturation. But it can be argued that even during a period of cultural disruption education still goes on because it is a universal human phenomenon.

For the purposes of this research, education will be seen as a way of upbringing: that is, the support and assistance which is provided to help the child on his path to adulthood. Education involves directing as well as supporting and assisting.

b)   School:

The concept school is derived from the Greek word "schole" and the Latin "schola". These two words originally referred to the liberty that children were exposed to at home (vide 26, 5). With the passage of time this complete liberty could not be afforded.

As the needs of the society became increasingly heterogeneous, there also arose a need for special institutions with professionally trained adults to prepare the child more effectively for adult life. Seen in this light, "die taak der school is een aanvullende" (4, 4). This means that schools are established to make up for the inability of some parents to educate their children to assume the responsibilities of a full life in the changing society.

In recent times, as Richmond states, schooling can be defined as "a tangible process embodied in institutions and representing a systematic attempt to organise learning collectively," (27, 14). As a supplement to this definition it should be pointed out that such learning should be related meaningfully to the child's present and future roles in his society. Brown also stresses this point when he warns that schools should guard against becoming institutions which are very little related to the child's life or to society (vide 1, 348).

In this case, a school will be regarded as a formal institution whose primary function is to bring up or educate children by means of teaching.

c) Pre-school Education

From the description of the concept school, it can be realised that it is a special institution which deals with formal and systematic education. In it teachers take over some of the parental roles. This does not, however, eliminate or minimise other roles of parents as educators.

On the other hand, pre-school education (as deduced from the prefix pre = before) refers to the education that the child receives before he enters formal school institutions.

The nature of this education is that it is non-formal and non-systematic. By and large, this form of education is more pathic and less gnostic. Until very recently, this field of education was provided solely by the parent. But nowadays special institutions for pre-school education known as nursery schools have and are still being provided in great numbers. The main purpose for their establishment is to provide experiences that are necessary for facilitating the child's readiness for school which for lack of time, facilities and/or competence, parents cannot provide.

Subsequently there was a swift growth in nursery schools as group settings for pre-scholars with the deliberate intention of effecting developmental changes that are essential for entering the first grade of the lower primary school education (vide 18, 23). It should be emphasised that nursery schools — even more than formal schools — are in no way substitutes for parents. They serve, as Mother's Encyclopaedia asserts, as "a supplement and help" (21, 424). Their function is to enrich and add to the education and physical environment properly given by parents at home.

1.2.2.2. Description of related concepts: school maturity, school readiness and school attendance age

The question of school maturity, school readiness and school attendance age should be of focal interest in this research since they are intimately related to the function of nursery schools. For this reason, special attention is devoted to explain them. In order to have a clear picture of the meanings of these concepts, it is essential to describe them against the background of the concept development and its components, namely heredity and learning.

a) Development

Development can be regarded as a driving force in an individual which entails the physical as as well as the psychic.

According to van der Spuy, this force is positive, progressive and purposive: it also involves the whole personality of the individual (vide 33, 28). For Johnson development constitutes "a dynamic interaction between constitution and environment" (15, 27). This contention is also held by Harlock (14, 15) who further states that these two factors of development enable the individual "to master further and anew, environmental stimulation" (14, 20).

From the definitions above, it is clear that in each and every individual there is a constant flux between one's constitutional make-up and one's life-world. The definitions also imply that individuals are bound to differ since the interplay between factors of development is never the same in any two persons. Consequently, it is fundamental that each and every child be appraised and appreciated as a unique personality.

In this research, which subscribes to the phenomenological approach, development is identified with the total act of becoming whereby the child through his corporality is intentionally and volitionally directed towards his life-world which he constantly explores and discovers, and by so doing increasingly actualises his potentialities (vide 22, 28 – 37; 30, 4 – 58). Hence as the child develops there is , as Otto says, "a continuous change in function, complexity, organisation, integration, capacity or efficiency" (25, 239).

From the explanations of development, one may ask what is the nature of the interaction between factors of development? A satisfactory answer to this question will involve a clear understanding of what each of these factors entails.

(i)   Maturation   The first component of development is constitution, which is, by and large, identified with one's hereditary traits.

The unfolding of these traits, if this takes place in the absence of any observable and specific experience, is called maturation. Consequently, Lovell asserts that maturation is "a physical element of development which is attributed to the genetic and/or incidental experience" (19, 119). It can therefore be deduced that maturation provides the raw materials for the other (learning) component of development. As such maturation sets the limit beyond which development cannot take place even with the most favourable environmental influence (vide 14, 19). It is thus pedagogically important to know whether the child's inherited potentialities are fully exploited or not during his life-span.

(ii)   Learning   Learning is the other component of development. It entails the experiences which the child encounters in his life-world, and through which his behaviour is modified.

The first foundations of learning are laid in the family in an informal manner. The learning experiences that the child is subjected to at home should be linked with the more formal learning experiences at school which are planned and designed for the benefit of the child in accordance with his level of maturation and the needs of the society which he is expected to serve (31, 26).

b)   School Maturity

Before an explanation of school maturity is given, we shall do well to explain firstly what is meant by maturity.

At least two approaches of explaining maturity are distinguishable.

The biological approach sees maturity as a state of developmental completeness when an individual has reached optimal development of functions; that is, when he has reached the ceiling of his potential abilities and cannot improve any more.

The phenomenological approach, which is adopted by the writer, sees maturity as a stage of development in the child's journey of discoveries towards adulthood. During these stages, which are progressive, the child is expected to execute certain developmental tasks. School maturity, then, is that stage of the physical and psychical development of the child at which those possibilities become available which are indispensable for school success (vide 8, 49). Hence when we talk of the child having reached school maturity, we imply that he is fully equipped to follow stipulated school requirements with success.

c)   School Readiness

The question asked by most parents is usually: is my child ready for school? This shows how important readiness is in life and education. It is important because it presupposes a general motivational and social disposition that must be present if a child is to master any particular activity or skill effectively and efficiently (32, 112).

The concept readiness is, however, pervasive and ambiguous. Thus there is a need to explain it before we describe what is meant by school readiness.

Russell gives the different connotations that can be attached to the concept readiness (29, 167):

> "Some regard it only as an expression of intent and purpose.
> Others describe it with emphasis upon general maturation which
> occurs in rather regular physical, mental and other ways in most
> individuals. Some teachers and writers stress maturation of specific
> matters such as visual equipment or emotional security. Still others
> believe readiness depends upon information or abilities developed
> during educational experience."

For Mosers, readiness embraces the physical, intellectual and emotional factors (20, 322) which are in terms of van der Spuy "voorberei deur rypingsproses sowel as deur leerproses" (33, 38).

The writer agrees with Evans who says readiness includes both a child's repertoire of motivational responses, learned skills and his constitutional status (7, 343). This implies that readiness points towards a particular situation within a particular cultural milieu; and as such it should be viewed against the nature of the activity that is to be undertaken, the constitution and the previous experiences of the child who is expected to carry out that activity (vide, 9,5).

Against the background of the explanation of readiness above, the concept school readiness can be defined.

Garbers describes school readiness as "a learning and maturational background of the child on the basis of which we can expect that the child will progress satisfactorily in the school situation" (8, 49). From the definition two points are clear. The first is that since children differ in constitutions and grow up in widely differing homes, they are expected to reach the stage of school readiness at different times. The second point is that school readiness can only be gauged according to concrete school demands. Hence a search for the criteria of school readiness should take cognisance not only of developmental factors but also concrete school prerequisites.

d)   School Attendance Age

The question of school attendance age is almost unavoidable in any detailed discussion on school readiness and pre-school education. This aspect is also emotive and has been the subject of many heated debates between educators and parents. In many countries when the child's readiness for school is considered the insistence is that this big step be timed strictly by age (vide 1, 391 − 396; 10, 41 − 47). Yet research findings have convincingly established that children reveal widely different levels of development in such characteristics as may be expected to constitute general school readiness. A critical study of the official ages which most countries adopt for the initial admission of children to schools shows a general preference for the ages of between five and six (vide 6, 18; 33, 107). These initial ages for school attendance are established on the basis of the assumption that the majority of children between these ages should be matured for school and therefore pedagogically ready.

The hotly debated issue is: should the initial admission of children in the first grades be timed strictly on the criterion of birthdays? Insistence on inflexible age requirements as the only criterion for school readiness is pedagogically indefensible. As Hamolainen and Rowland say, chronological age alone is not a satisfactory indication of intellectual, emotional and social maturity in the determination of school readiness (vide 12, 407 − 409; 28, 19 − 20).

1.3. THE PSYCHO-PEDAGOGICAL APPROACH

In the previous section, the general nature of the field of investigation was outlined. In this section, a description will be given of how the investigation is to be conducted. Before the researcher explains what is entailed in a psycho-pedagogical approach, it seems logical to orientate the reader by explaining what is meant by "pedagogical" since it carries, as it were, the core meaning.

Much has already been written on the "pedagogical" as a phenomenon. Outstanding educationalists in this land such as Oberholzer (24, 23 − 57), Coetzee (3, 80 − 100), Landman (17, 3 − 26), Nel (23, 52 − 58), to mention just a few, have given deep thought to the subject. Although their approaches to the subject may differ, they all agree in principle on the pedagogical as an interpersonal phenomenon in which at least two people are involved: the educator−adult and the educand−child. The latter is seen as someone who is longing for, and in need of, help on his road to adulthood. The former renders assistance and support and thus directs the non-adult in his need.

In a psycho-pedagogical approach these two components, the educator and educand, are still in focus. The main purpose of the psycho-pedagogical approach is, however, to present factual (empirical) data about the educand as a becoming adult in his concrete pedagogical situations. Hence the psycho-pedagogical approach incorporates the sociological givenness of the child as well. To an extent that this study seeks to give empirical data about pre-school children in their pedagogical situations within the context of their cultural realities, the approach of this research is psycho-pedagogical.

1.4. THE NEED FOR THIS STUDY

A cursory observation of white education in this country shows a considerable increase of interest in research work in the field of pre-school education within the last two decades. Reports of a series of symposia offered by experts to preschool teachers as well as the number of articles which have been appearing in departmental educational journals indicate the extent to which this field of education has become a public as well as a national issue.

Among Black communities the number of investigations conducted in this field is limited indeed. At the time of writing this chapter the researcher is anxiously looking forward to the first ever standardised exploratory medium for Tswana school beginners.

In the knowledge of the researcher, this investigation is the first to be undertaken in the field of pre-school education in Bophuthatswana. Consequently, there seems to be a genuine need for a study of this kind.

1.5. SCOPE AND DELINEATION OF THE PROBLEM

1.5.1. Scope of Research

1.5.1.1. Geographical Description

The Odi district incorporates a number of villages, trust lands and townships which are scattered over an area of about 3 560 square kilometres. The area stretches as far as Bethanie in the west, in the north it is bordered by Hammanskraal and in the east and south by Pretoria.

For the purpose of an intensive study, this investigation will be limited to the eastern portion of the two school inspectorial circuits of Ga-Rankuwa and Mabopane. This area is compact and is also by far the biggest in terms of population. The attached map (fig. 1) will give the reader an indication of the physical layout of the area of investigation which incorporates Ga-Rankuwa, Mabopane, Makau and Hebron.

1.5.1.2. Population Distribution

The population of the two inspectorial circuits alone constitutes about two-thirds of the whole population of the Odi district. More than three-quarters of this population stay in the eastern part, i.e. the Ga-Rankuwa – Mabopane complex. The population of this complex is estimated at 150 000 people, who are accommodated in 5 200 houses. This is partly the reason why the researcher decided to concentrate on this area.

1.5.1.3. Types of Settlements and Ethnic Grouping

Ga-Rankuwa and Mabopane are typical urban settlements under the administration of Superintendents. The rest of the area (except for Mothotlung which is urbanised and Winterveldt which is mainly slum) are under chiefs and can be classified as semi-urbanised.

Most of the residents of Ga-Rankuwa and Mabopane townships are Tswanas. Non-Tswanas in these two townships have systematically been removed to an area on the eastern border of Mabopane called Soshanguve. The areas under the control of chiefs are also predominantly Tswana.

KEY
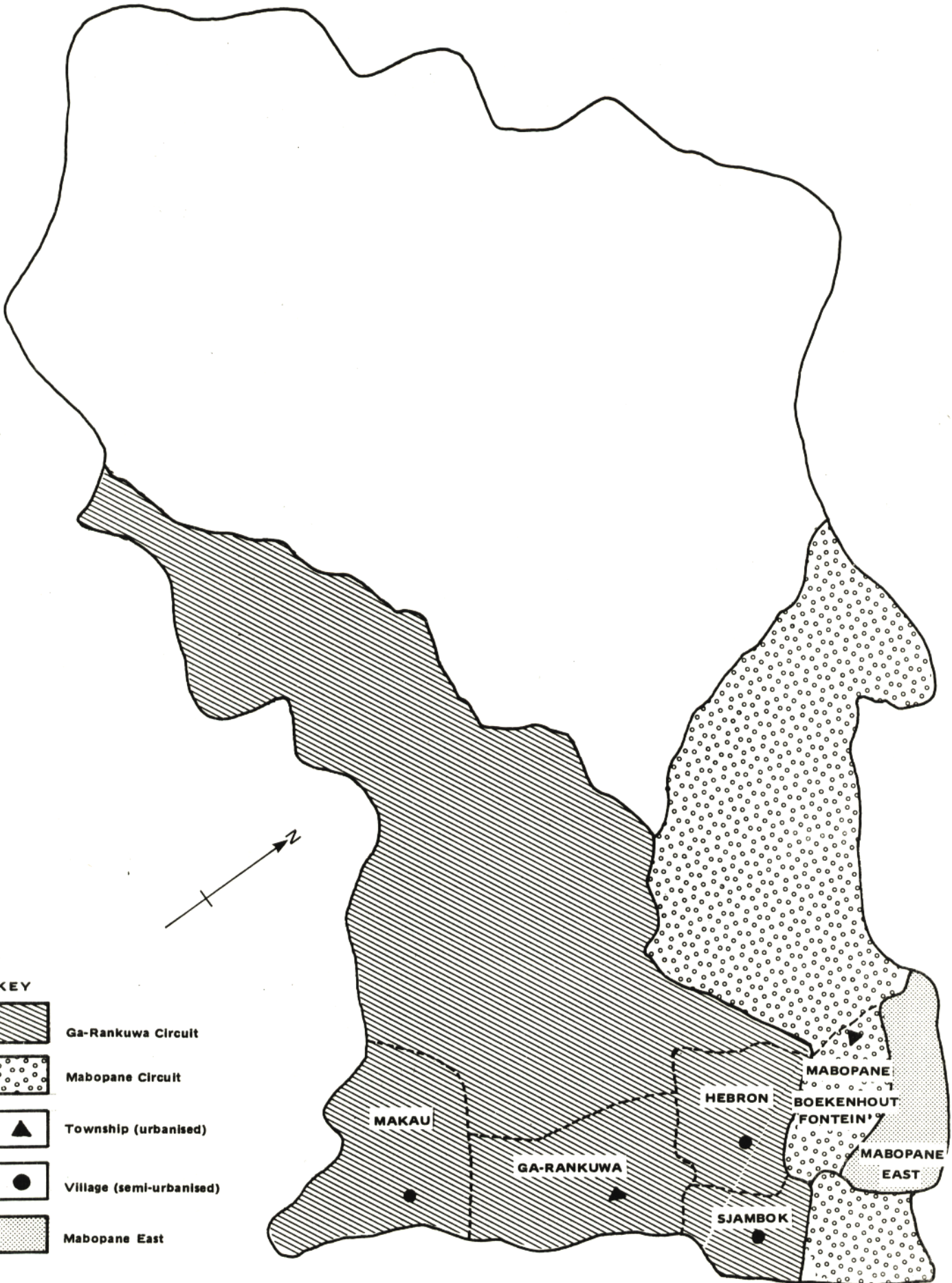
(hatched)	Ga-Rankuwa Circuit
(dotted)	Mabopane Circuit
▲	Township (urbanised)
●	Village (semi-urbanised)
(stippled)	Mabopane East

MAKAU

HEBRON

MABOPANE

BOEKENHOUT
FONTEIN

GA-RANKUWA

MABOPANE
EAST

SJAMBOK

N

5   10   15
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1.5.2.   Problem delineated more explicitly

It is clear that all facets of the field of pre-school education cannot be dealt with in an investigation of this nature. Hence the researcher will limit the area of investigation to the needs of preschools. Aspects which will be treated in this regard are explicitly stated under the heading "aim" below. It is also important to note that because of practical problems — such as time and cost — this study will not be subjected to the whole population of the area under investigation but to a fairly representative sample of it.

1.6. AIM OF RESEARCH

The main purpose of this research is to investigate the extent of the need for pre-school education. Such an investigation will involve studying the following aspects:

1.   the content of programmes for preschools; the methods and facilities used in educating nursery school children and the professional background of preschool teachers.

2.   the extent to which parents are providing experiences which may be considered as helpful to children in their subsequent adjustment and susceptibility to primary school education. (In this regard, the researcher is concerned specifically with the effects on children of material and cultural deprivation.)

3.   the extent of the need for preschools as expressed by parents and teachers

4.   the main factors that constitute the problem of school readiness. This will be evaluated against the theoretical basis of school readiness; and finally

5.   the relation between preschool experiences and assessed school readiness.

1.7. METHODS OF INVESTIGATION

The methods that are employed in this research are necessarily in line with the psycho-pedagogical approach that is adopted. They are:

1.7.1.   Phenomenological method

The fundamental methods employed entail a phenomenological analysis of preschool children through observing them and conducting a discussion with them in their concrete situations whilst taking into account their socio-cultural background.

1.7.2.   Auxiliary Exploratory Media

These exploratory media are employed as aids to supplement the fundamental methods mentioned above.

The main purpose of employing these media is to systematically confirm and delve deeper into our phenomenological analysis of the child (vide 22, 97 − 163). These exploratory media incorporate, *inter alia*:

1.   survey questionnaires administered to parents and preschool teachers;

2.   standardised exploratory media for school beginners;

3.   records and personal assessment of children by preschool teachers; and

4.   statistical techniques and their interpretation.

1.8. PLAN FOR RESEARCH

Chapter 1 serves as an orientation and seeks to place this dissertation in perspective by giving the reasons for undertaking this study, and making the reality of the problem clear to the reader. Key concepts that illuminate the problem are also explained. Literature and research which throw light upon the subject are discussed in Chapter 2. These are given in a critical—historical order.

In Chapter 3 the criteria for school readiness and the function of the preschool are surveyed. This provides the theoretical model for the practical investigation by the researcher.

Chapter 4 deals with research undertaken by means of tests, personal observations, interviews and questionnaires, whilst Chapter 5 interprets and evaluates the results.

Chapter 6 presents a summary of the investigation and findings and recommendations are given.

1.9. RECAPITULATION

In the above exposition, the reader is provided with the general nature of the problem and how it arose: the field of research is clearly pre-school education and more specifically nursery school education. Practical experience and educational background created the researcher's awareness of the problem.

Concepts which are regarded as important and pertinent to a research in pre-school education (such as development, school maturity, school readiness and school attendance age) have been explained.

The problem is also explicitly delineated so that the reader knows what the study intends to accomplish. The aim and methods of investigation are concisely stated and finally, the programme for the entire study is suggested.

1.10 REFERENCES

1. Brown F.J. Educational Sociology. Prentice Hall New York 1947.
2. Chesler, M.A. and Cover, W.M.: Sociology of Education: An Anthology of Issues and Problems. MacMillan Publishing Co. London 1974.
3. Coetzee, J.C.: Inleiding tot Algemene Empiriese Opvoedkunde. Tweede Druk. Universiteit - Uitgawers en Boekhandelaars (Edms) Beperk. Stellenbosch 1960.
4. Daulder, F. and Brinksma, J.: Leergang Voor Opvoedkunde en Psychologie Deel 1: Opvoedkunde Voor Openbare Kweekscholen. 1946.
5. EDUCARE: Journal of Faculty of Education. Unisa. Pretoria 4 - 1 - 1975.
6. Engelbrecht, S.W.B. and Snyman, B.A.: Skooltoetredingsouderdom. H.S.R.C. Pretoria 1973.
7. Evans, E.B.: Contemporary Influences in Early Childhood Education. Holt, Rinehast and Winston, Inc. New York. 1971.
8. Garbers, J.G. (ed): Aspects of the Education of the Four to Eight Years Old Child. Report of a series of symposia. NK Bpk Pers. 1969.
9. Garbers, J.G.: Psigiese Struktuur en Psigiese Ontwikkelingstand by die Beoordeling van Skoolrypheid. M.Sc dissertation. Unisa Pretoria. 1966.
10. Green, P.: 'Chronological Age and School Entrance'. Elementary School Journal Vol 63. 1962 - 63.
11. Hall, R.V.: 'Does Entrance Age Affect Achievement?' Elementary School Journal Vol 63. 1962 - 63.
12. Hamalainen, A.E.: 'Kindergarten-primary entrance age in relation to later school Adjustment.' Elementary School Journal Vol 52. 1951 - 1952.

14. Hurlock, E.B.: Developmental psychology, McGraw-Hill Book Co. 1968.

15. Johansson, B.A.: Criteria of School Readiness. Stockholm. Amguist and Wiksell. 1965.

16. Kneller, G.F.: Educational Anthology, John Willy and Sons. New York 1963.

17. Landman, W.A. et al: Die Praktykwording van die Fundamentele Pedagogiek met kenmerke, Persuitgawers. 1974.

18. Little, W.J. and Brigham, A.J.: Emerging Strategies in Early Childhood Education, MSS Information Corporation. New York 1973.

19. Lovell, K.: Educational Psychology and Children, University of London. Press. Ltd 10th Ed. 3rd Impression 1958.

20. Mosers, H.E.: 'Advancing Arithmetic Readiness' Child Education, Vol 24, March 1948.

21. Mother Encyclopedia for Care and Raising Children, Book Enterprise, Inc. New York 1958.

22. Nel, B.F. Fundamental Orientation in Psychological Pedagogies, University Publishers and Booksellers Stellenbosch 1974.

23. Nel, B.F. and Meyer, A.M.T.: Die Wetenskap as Onderwerp, Academica Pretoria. 1969.

24. Oberholzer, C.K.: Prolegomena van ń Prinsipiele Pedagogiek, H.A.U.M. Kaapstad. 1968.

25. Otto, J.H.: Principles of Elementary Education, Rinehast and Company. Inc. New York. 1955.

26. Rhenoster, J.C.: Skool-Gemeenskapverhouding, 'n Sosiologies-pedagogiese ondersoek met spesiale verwysing na Tswana Volkeenheid in Wes-Transvaal en Noord-Kaapland M.Ed. Unisa 1971.

27. Richmond, W.K.: Education and Schooling, Mathurn Co. Ltd. 1975.

28. Rowland M.C. and Nelson C.C.: 'Off to School At What Age', Elementary School Journal Vol 66. 1959 - 60.

29. Russell, D.H.: Children Learn to Read, 2nd Edition. Boston 1961.

30. Sonnekus, M.C.H.: The Learning Child. McGraw-Hill Johannesburg 1974.

31. Sonnekus, M.C.H.: Ouer en Kind, ń Handleiding oor Opvoeding en Opvoedings probleme. Perskor-uitgewery Johannesburg 1976.

32. Spodek, B.: Early Childhood Education, Prentice Hall. New York. 1973.

33. van der Spuy, D.S.: Die Vraagstuk van Skoolrypheid en Skoolgereedheid, D.Ed. Unisa Pretoria 1966.

34. Steenekamp, J.C. (ed): South African Pedagogical Society. Unicon. Pietersburg 1973.

35. Syllabus. Primary Teacher's Course. Dept. of Bantu Education. 1973.

CHAPTER 2

2. **A HISTORICAL – CRITICAL REVIEW OF LITERATURE AND RESEARCH FINDINGS**

2.1. INTRODUCTION

In the last few decades there has been a growing recognition of the importance of pre-school education. For this and other reasons, largely social, the demand for organised pre-school institutions has increased in all countries.

These considerations make it fitting to examine the evolution of pre-school education in order to find out how and why we have reached the present status in pre-school education. There are, however, some histories of pre-school education of some centuries ago, but the focus was more on the ideas of great educators and little attention was paid to the historical development of pre-school education as a special area of study.

Consequently, this chapter seeks to appraise the influence and contributions of notable theorists of some centuries ago as well as analyse a number of contemporary researches and literature that have brought pre-school education to the present status. The last aspect of research analysis will, it is hoped, help to put this research into a better perspective.

2.2. SOME NOTABLE EARLY THEORISTS

There are numerous educational theorists who contributed invaluable ideas on the education of the pre-school child. Since it is not possible within the scope of this research to discuss all of them, an attempt will be made to select those theorists whose ideas have had, in the writer's opinion, the most lasting impact.

2.2.1. Martin Luther (1483 – 1546)

Martin Luther was a theologian who lived during the Reformation. He showed great concern for the education of small children. For various reasons – such as the lack of understanding of young children, lack of time to bring up children because of employment – Luther stressed that it was the duty of the government to see to it that children attended public school (3, 26).

2.2.2. Comenius (1594 – 1670)

John Amos Comenius brought educational thoughts across the divide into modernity. He postulated a number of learning theories such as theories on perception, language and thought. As regards childhood education he maintained that the education of man was best done in his early youth. In driving his point home he stated (3, 31):

> "It is the property of all things becoming that they can be easily bent and formed
> as long as they are tender but that they refuse to obey when they are hardened."

2.2.3.   John Locke (1632 – 1704)

Locke formulated remarkably broad points of view about the nature and value of education in his series of letters written until about 1688.

Concerning young children he is intimately associated with the idea of a new-born child as a *tabula rasa*, an empty slate, to be written on by training and circumstances in any way that these dictate. Writing in 'Some thoughts on Education', he stated, "I imagine the minds of children to be as easily turned this or that way as water itself" (18, 356). To think, however, that Locke had no respect for the individual temperaments of children would be to overstate the case. He advised parents and tutors to study the child, to pay attention to his moods, his interests, his innate capabilities and to shape the plan of education in terms of their understanding of him (3, 37).

2.2.4.   Rousseau (1712 – 1778)

Jean Jacques Rousseau is one of the first to express explicitly and compassionately concern for pre-school children. As he states: "the child should neither be treated as an irrational animal or as a man, but simply as a child" (6, 95).

Of the five books which make up 'Emile', the first deals specifically with the first five years of life. He maintains that these years constitute a distinct stage in the child's development.

From the short discussion above, it is apparent that the idea of pre-school education was born out of the Reformation but it was Comenius and Locke who set the pace and suggested well defined guidelines about the education of the child.

2.3. SOME PIONEERS

A historical review of pre-school education cannot be complete without referring to some pioneers who are legitimately regarded as founders of pre-school education and kindergartens.

2.3.1.   Pestalozzi (1746 – 1827)

Johann Pestalozzi, a German-Swiss educationist, represents a beginning point for organised pre-school education. His ideas and work marked the beginning of the kindergarten movement, i.e. a more formalised thought directed to the education of young children. He emphasised sensory experience as the basis of learning (9, 149) and contended that if education was to have real value it must imitate the methods which are characteristic of domestic education. "Public education which does not take into consideration the circumstances of family life can only lead to an artifical and methodical dwarfing of humanity", he said (24, 57 – 58).

However, Pestalozzi's fame did not stem from his methods or theories, but from something emanating from his innermost self as a teacher.

2.3.2.   Froëbel (1782 – 1852)

Frederich Wilhelm Froëbel was an urbanised man, a man who saw and could understand what factories, life in crowded cities and the employment of both parents out of the home were doing to small children. His educational thoughts were an answer to these problems.

With Froëbel pre-school education as a planned and organised portion of the school system began and modern teaching of young children became an entity in its own right. When he opened his first kindergarten, something genuinely new was added to the very concept of schooling (35, 283).

It seems that Pestalozzi marked the new era in the field of formal pre-school education but the greatest impetus to pre-school education as a systematic, organised and purposeful programme came from the conviction and fervour of Froëbel.

2.4. THE TWO SCHOOLS OF THOUGHT

At the beginning of this century two diverse schools of thought, the one termed the "Schulreife" school of German origin and the other the "Readiness" school from America and England, put their views on pre-school education.

2.4.1. The Schulreife School

According to this trend, which was the most widespread, the child's readiness should be based on a totality of interrelated factors such as physical, psychical and social maturity. Consequently, the following were suggested as general school readiness requirements which the child should already possess (30, 49):

i) a realistic and objective attitude towards his surroundings;
ii) a willingness to work;
iii) a readiness for social contact;
iv) a certain mental age;
v) evidence of attention and perseverance;
vi) an advanced consciousness of symbol; and
vii) a certain amount of knowledge as an experiential background.

2.4.2. School Readiness

In America and England the question of school readiness was seen from a slightly different angle. The problem was approached in a more analytical manner. Instead of considering general school readiness the question of school readiness for certain separate skills such as reading, writing, figures was considered. School readiness is a readiness for learning — a readiness, willingness and capability for participating in certain activities (30, 72).

2.5. CONTEMPORARY RESEARCH FINDINGS AND LITERATURE

In the presentation of the initial analysis of contemporary research findings on pre-school education preference is given to dividing the discussion into two parts. In the first part attention is given to the situation of pre-school education in overseas countries and in the second part the situation here in the Republic of South Africa will be reviewed.

It is important to note that in this chapter the writer will deal with the general views of past researchers.

2.5.1. Findings in Overseas Countries

Since it is not possible (within the scope of this research) to write about all the countries abroad, the discussions will concentrate mainly on the findings of European countries and the USA — these countries also being among the most technologically advanced in the world. In this respect we shall first dwell upon aspects related to pre-school institutions, i.e. types, educational programmes, control and staffing of pre-school institutions. These will be followed by factors appertaining to school readiness.

2.5.1.1. Findings on Preschool Institutions

Organised pre-school education is to be found in almost all countries in the world. Such education usually takes place at institutions which are attended by children during the period prior to compulsory school age and preceding formal school education.

2.5.1.1.1. Types of Preschool Institutions

There is a wide diversity across the world as regards both terminology and types of preschool institutions. All of the countries which were involved in the UNESCO survey indicated that they made provision for pre-school education in one form or another (36, 12). These institutions are usually called nursery schools or kindergartens. However, no indications can be made about the nature or programme of a preschool institution, solely on the strength of its name. The fact that two institutions are called kindergartens in no way indicates that both make provision for children of a specific age group or have a specific educational programme. However, a fairly large number of countries differentiate between nursery school and kindergarten. According to this view, a nursery school is intended for children who are younger than those usually encountered in a kindergarten. A kindergarten makes provision for the slightly older child who is not of compulsory school age. It represents a transition from nursery school to primary school (14, 22).

2.5.1.1.2. Educational Programmes of the Pre-School Centre

The educational programme of the pre-school centre should provide for activities which are directed towards the moulding of the child through the development of his potentialities. Since the educational objectives of countries differ, it is expected that the daily activities incorporated in the programmes of preschool institutions should differ as well. Hence in England and Scotland, preschool activities are planned to achieve the general development of the child in order to supplement the upbringing which the child receives at home. In Belgium, the emphasis is on providing for the linguistic development of the child as well as to promoting his reading and calculating readiness. In West Germany the programmes are geared to contribute towards children's school readiness. In Sweden (for children between four and seven years) the programmes are intended to promote reading and learning readiness whilst in the USA the aim is to help bring about the full unfolding of each child's potential (34, 62 − 86).

2.5.1.1.3.   Control of Preschool Institutions

The control and financing of preschool institutions in most countries takes place in three distinguishable phases. In the first phase, individuals who have the interests of underprivileged children at heart volunteer to establish, finance and control such institutions. In the second phase, philanthropic associations establish preschool institutions as an integral part of their welfare work. The third phase is characterised by the control and financing of preschools gradually passing into the hands of official authorities. The first and the second phases give rise to private preschools and the third phase to public preschools. Sometimes there is a division of responsibility between official organs and private sectors in the control and financing of preschools (14, 23 − 26).

2.5.1.1.4.   The Physical Layout of the Pre-school Centre

A planned preschool programme can be truly effective if it is carried out in a thoroughly planned physical space. This space should include the building in which children are accommodated as well as the surrounding playground with its facilities.

In Sweden, for example, it is assumed that every child requires an outdoor playing ground of at least 54 square metres (4, 8). In the United Kingdom, the minimum requirement is 31 square metres, whilst in the USA it is 24 square metres. In West Germany as well as in Belgium, the minimum requirement is 20 square metres (33, 165).

The determination of the situation of a pre-school centre is also a matter of considerable importance. Since pre-school centres should serve the interests of children in a certain residential area, it is important that the sites chosen are situated as centrally as possible in the area which must be catered for. Other practical considerations such as the choosing of a fairly quiet street and safe roads with little traffic also play a determining role.

In most European countries and the USA the policy is that the pre-school centres be within easy walking distance of children's homes. As a result of the high population density in the urban areas of these countries, it is very seldom necessary for children to walk more than a few blocks to the pre-school centre (4, 8; 37, 16).

2.5.1.1.5.   Teaching Personnel and their Training

The number of teachers and nurses allocated to a pre-school centre determines the child-teacher ratio. It is understandable that especially in the case of the youngest and most helpless children there is a need to keep this ratio low because it is only then that the teacher can learn to know and understand each child intimately.

a)   Teaching Personnel

Although most countries support a very favourable staffing policy, on the basis of which small, intimate groups of children could be formed, this ideal situation is very seldom achieved in practice as a result of staff and/or financial shortages. In the USA, England and Scotland, the ratio, one adult to ten children, is the aim striven after, but in reality this is difficult to achieve. Thus most preschools in the USA have between 25 to 35 children to each teacher, whereas in England and Scotland the ratio is 20 to 25 children to a teacher. In West Germany the ideal is that there should be one trained teacher for every 20 children, and that there should be in addition one aide for every two trained teachers. In practice there is one trained teacher for every 30 to 45 children (34, 84).

b)   Training of Teachers

The successful implementation of any planned system of pre-school education depends largely on thoroughly trained, dedicated and competent teachers. In order to ensure that such teachers are produced, the responsible authorities should see to it that selection takes place on the strength of personality traits and that minimum entrance requirements as regards scholastic qualification and age are prescribed; and also that specialised training courses are offered.

In all the countries mentioned above, long periods of practical teaching are prescribed during which students are selected by lecturers and serving preschool teachers on the bases of their aptitudes and suitability for nursery school teaching. In the USA and most European countries, the admission requirement is a secondary school Leaving Certificate (i.e. approximately the equivalent of a Matriculation Certificate in our country). The required minimum age varies from seventeen to nineteen years. Belgium is, however, an exception. Students are admitted to preschool training colleges after the completion of a Lower Normal School Course at the age of fifteen years (34, 122, 115, 172).

In the 1961 survey by UNESCO in which about 63 countries were involved, 84 per cent of the countries indicated that they made provision for special training of preschool teachers. Concerning the types of institutions in which training takes place, 43 per cent of the countries indicated that they had special training schools and 37 per cent indicated that training took place at ordinary colleges of education and universities (36, 53 − 55).

2.5.1.2.   Findings on Some Aspects of School Readiness

There are certain aspects of school maturity and school readiness that have attracted the attention of researchers during the past three decades or so. These aspects are discussed below.

2.5.1.2.1.   Tests, Measurement and Observation of School Maturity

In any organised pre-school education it is necessary to test and observe the developmental level of children in order to find out whether they are ready for formal schooling. It thus seems necessary to look at the exploratory techniques developed in the past to observe, test and measure the developmental status of pre-school children.

Various types of tests for pre-school children have already been developed. The following types are mentioned by De Graeve (5, 104):

a)   School performance tests which test primarily the success attained in the sphere of didactic knowledge.

b)   Maturity tests which measure the ability of the child to undertake certain predetermined tasks. Thus the maturity test is functional and prognostic whereas the performance test is mainly didactic and diagnostic.

There are also standardised Intelligence Quotient Tests which are used to determine intellectual ability. For young children the following are well-known group tests (40, 255):

a)   De Troit First Grade Scale Intelligence Test (Engel-Baker).

b)   Merill-Palmer Scale (R. Stutman).

c)   Pintner-Cunningham Primary Test (Pintner and Cunningham).

d)   Primary Mental Abilities for Ages Five and Six (L. Thurstone).

There are also non-verbal tests which have international application. These tests include the Bender Gestalt Test for children between the ages of 5 and 9½; the Mariane Frostig Developmental Test for children with learning problems; the Goodenough Draw-a-Man Test; G. Strebel's Sculreife and Morgen Test and N.B. Group for 5- and 6-year-olds.

In South Africa the following tests are obtainable:

1. The New South African Individual Scale for children between 6 and 17 years.
2. Snijder-Oomen Non-verbal Intelligence Scale which is standardised for South African hearing-defective children between the ages of 5 and 17.
3. Group Test for 5-/6- and 7-/8-year-olds.
4. Cattell "Culture Fair" Intelligence Test for children of 4 – 8 years.
5. Aptitude Test for School Beginners[1]; and
6. Nel-Sonnekus Developmental Scale for Pre-school Children, etc.

It is important to note that these tests have been revised constantly in order to ensure that they remain reasonably reliable and valid.

Although standardised tests are indispensable, it is necessary that they be supplemented by the informal class tests and other exploratory techniques devised by the teacher. Systematic observation of children's behaviour in concrete life situations by the teacher can also provide valuable information about children's levels of readiness for school. To this end Webb maintains that an observant teacher will learn much of the child's readiness by observing his spontaneous play and that this will assist him in making the correct interpretation of test results (38, 21). Research findings also support the significance of teacher's appraisal of school readiness. In 1947 Kollinger conducted a research to determine the validity of the teacher's assessment of school readiness of grade I pupils. His findings elicited the following information (17, 53):

1. The subjective assessments of teachers are just as reliable and valid as standardised test results.
2. Teachers with more than ten years' experience gave the best evaluation.

In a similar research study, Morgen also came to the conclusion that preschool teachers can give a reasonably reliable evaluation of school beginners. Morgen went on to say that the teacher's evaluation could save a lot of time, energy and money when compared to standardised tests (20, 300 – 303).

From the discussion on tests, measurement and observation of school maturity, three points came out quite clearly. The first is that school maturity is observable, testable and measurable. The second point, which is of more significance to us, is the fact that the teacher's informal observation and testing have been found to be not only valid but also convenient. The last point is that the ideal situation would be achieved if the teachers' subjective assessments were used to complement the formal test results.

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1   There are separate norms for the different Black nationalities, Coloureds and Indians.

2.5.1.2.2.   Aspects of School Maturity

Researchers have also probed into the various aspects of the child's development in an attempt to analyse the factors that constitute and determine school maturity. It would be cumbersome and laborious to represent the contributions made by each and every researcher and writer. Consequently, we shall only outline in brief the general tendencies of research findings.

a)   Physical Maturity

Simon indicated that school maturity is closely related to the changes in physical development. He maintained that with regard to physical changes the child reaches school-preparedness somewhere between the ages of five and seven (29, 49 – 51). Other researchers pursued this point to such an extent as to say that height and weight can be used as reliable guidelines for determining school maturity. Radler and Kephart, for example, maintain that between the ages of five and six, the child generally measured between 42 and 45 inches and that by this time he had outgrown babyhood features (25, 58).

The general contention of researchers seems to be that as the child advances in age and physical development, there is a corresponding improvement in the mastery of motor skills. A child of six is expected to have reached a physical developmental level that will enable him to make use of a pencil or a painting brush. He should also show considerable improvement in running, jumping, climbing and construction with blocks (30, 62).

It should, however, be observed that the mastery of motor skills does not solely depend on physical maturation but also on training, i.e. whether the child is exposed to activities that provide for the mastery of these motor skills.

b)   Social Maturity

It seems that social maturity can best be described if its function is shown. Sugden sees social maturity as being characterised by the child's friendliness, mannerliness, the ability to work alone or in a group, unselfishness and respect for others' property and rights (31, 31). For Weitzman social maturity does not only involve the child's ability to live harmoniously with others, it also entails the child's ability to enjoy these activities, it means meaningful and creative life; the ability to give and take love (40, 3).

Although there are numerous factors that have to be considered when determining social maturity, Weitzman listed the following social factors as being tremendously important in determining social maturity (39, 4):

i)   if the child shows independence;
ii)   if he shows interest in his fellow men;
iii)   if his conduct is socially acceptable; and
iv)   if he has a positive attitude towards himself and others and can take constructive criticism.

Social maturity can also be assessed in the play activities of the child. It can be shown, for instance, when the child can play co-operatively and harmoniously in communal play activities and can integrate his behaviour with those of others.

c)   <u>Emotional Maturity</u>

The child has to be emotionally stable if he has to learn most profitably. "Strong emotions", as Schindler says, "tend to confuse the mind". Schindler goes on to say that emotional maturity is dependent on social adjustment, school performance, health and home conditions (27, 303). This shows that emotional maturity is founded on the feeling of security which must be fostered by both the family and the school.

d)   <u>Mental Maturity</u>

From Hildreth's quotation, it is evident that mental maturity has to do with factors such as thought, reasoning and the ability to solve problems — all these factors being regarded as very important for academic success. "In academic learning of the school type, mental maturation, that is, the maturation of thinking, reasoning, problem-solving ability, is a prime prerequisite" (13, 302). Mental maturity can also presuppose functional maturity and for De Graeve this entails, amongst other things, the ability to see causal relations, differentiation of impressions, attention span, self-discipline and perseverance (5, 130).

Initially, mental maturity (i.e. the development of thought and learning functions) was regarded as the only and most important determinant of school maturity (cf 31, 58). The consensus of recent researchers is that intelligence is not the only determinant of school maturity, but that a totality of a large number of different but interrelated factors operate to constitute school maturity.

2.5.1.2.3.   <u>Criteria of School Maturity</u>

Researchers and writers have tried to find universally valid yardsticks that can be used to determine school readiness. Below follows research findings on some of the norms that have occupied researchers:

a)   <u>Reading Readiness and Chronological Age</u>

The oldest and the most popularly used criterion for determining school readiness was reading readiness. It was contended that if the child was capable of reading, he would, *ipso facto*, adjust himself successfully to school life and benefit from school instruction. It was further contended that on the whole after the age of 6½ years or so the average child was ready for reading instruction — and therefore school-ready (15, 95). However, it has already been stated (supra Chapter 1) that the developmental tempo of children differs. Some children develop mentally and physically faster, whilst others develop physically faster but mentally slower. On grounds such as these, Webb has found Chronological Age to be inadequate as a criterion of school maturity (38, 21). Equally true, reading readiness alone cannot serve as a satisfactory norm for determining school readiness.

b)   <u>Mental Age and Intelligence Quotient</u>

For a considerably long period in the past educators regarded intelligence as the sole determinant of school maturity. As a result a number of research investigations have been carried out in order to test this assumption. In a research study of the mental ages of children who were admitted to school for the first time, Bigelow found that (1, 186 — 192):

i)   a child with an I.Q. of 110 (average) and who was less than six years old did not have a chance of success in the first grade;

ii)   a child with an I.Q. of higher than 110 but who was less than six did have a reasonable chance of success. Thirty-three out of forty-four children from this category gave satisfactory work up to the fourth grade;

iii)   children with an I.Q. of 110 who were between six and 6½ years did have a good chance of success; and

iv)   pupils with an I.Q. of 120 plus but were less than six years of age showed good scholastic performance but their personalities needed to be considered.

The above findings seem to support the fact that it is necessary to consider both chronologial age and intellectual ability when determining school entrance age. Researchers have also established the relationship between mental age and reading readiness. A research study conducted by Robinson indicated that (26, 263 – 269):

i)   no single child with a mental age of five was ready for reading instruction;

ii)   less than 50 per cent of children with a M.A. of 6 were ready for school and reading instruction; and

iii)   more than 70 per cent of children with a M.A. of 6½ were ready for school and reading instruction.

The above investigation showed that 6½ years was the minimum required age for school readiness. Morphett and Washburne confirmed this when they stated that until the child reached the mental age of at least 6½, the teacher would probably create learning problems if the child was compelled to learn (21, 496 – 503).

c)   Sex Difference

A relationship between sex and school readiness has also been established. A research conducted by Pauley indicated that (23, 1 – 17):

i)   many children with the chronological age of less than six years were not ready for grade I. The majority of these children were boys.

ii)   The poor performance of boys as compared to girls was due to the fact that boys mature slower; and

iii)   68,5 per cent of children in special classes for slower learners were boys.

King also found that in general more boys than girls failed in the lower classes, and that this was due to differences in the levels of maturity (16, 331 – 335).

In another study on the cause of reading disabilities, Monroe found that (19, 99):

i)   74 per cent of cases of general reading problems were boys;

ii)   86 per cent of cases of special reading problems were boys; and

iii)   96 per cent of cases of life-time reading problems were boys.

There seems thus to be enough evidence that generally girls mature earlier than boys and that this can be a case in favour of an earlier school entrance age for girls.

2.5.1.2.4.   School Entrance Age

On the basis of research findings above, one would say that the age of 6½ years is considered appropriate for school entrance. Against this impression, we wish to present a table of school entrance ages in some countries abroad. Recommended ages for preschool entrance are also indicated (30, 84).

Country	School Entrance Age	Preschool Attendance Age
Canada	6 years	Kindergarten: 4—6 years
		Day nursery: 1—3 years
England & Wales	5 years	Nursery school: 2—5 years
Germany (West)	6 years	Kindergarten: 2—5 years
USA	5—7 years	Kindergarten/Grade I
Netherlands	6 years	Kindergarten: 4—6 years
Sweden	7 years	Under 7 years
Scotland	5 years	2—5 years
Israel	5 years	4—5 years
Australia	5½ years	Under 5½ years
New Zealand	5 years	Under 5 years
Ceylon	5—6 years	Under 5 years
France	6 years	2—6 years
Norway	6 years	3—6 years

2.5.1.2.5.   Concept of School Unreadiness

In the testing and diagnosis of school readiness one would expect to find children who even at the age of seven or more are not ready for school. Researchers have tried to find out the factors connected with this state of affairs. There seems to be quite a number of factors which cause school unreadiness. Van Dijk named some of the most crucial factors as (cf 30, 75): language disabilities, poor attention span and egocentricity; organic deficiencies; psychoneurological dysfunctions; and social deprivations. According to this research finding, it appears that a high percentage of school unreadiness is caused by psychoneurological dysfunctions (70%) which is followed by language disabilities, poor attention span and egocentricity (59%).

The main factors that bring about school unreadiness can be conveniently classified into three main groups of factors (7, 28):

   i)   school unreadiness caused by slow tempo of development;

   ii)   school unreadiness caused by congenital and other handicaps within the child itself; and

   iii) school unreadiness due to social conditions and faulty practices.

2.5.1.3.   Summary of Findings Abroad

From the exposition of the recent research findings abroad, there are certain ideas which stand out as prominent. We provide a summary of these below.

2.5.1.3.1.   Findings on Preschool Institutions

   a)   There seems to be little agreement on the question of designation of preschool institutions in the different countries.

   b)   The implementation of programmes for preschool institutions in the different countries

c) The control of preschool institutions in many countries is not under the strict supervision of governmental bodies.

d) Most countries cannot reach the target ratio they set between teachers and preschool children.

2.5.1.3.2. Findings on School Readiness

a) Psychometric tests are important as standardised exploratory media of school readiness. However, these tests should be supplemented by teachers' informal tests and observations which have been found to be reliable and convenient to use.

b) All aspects of school maturity should be investigated when school readiness is reviewed. Chronological age, reading ability or intellectual ability in isolation cannot serve as suitable criteria of school readiness.

c) On the whole the age of 6½ is considered as the most suitable for school entrance.

d) Generally boys reach school readiness later than girls.

2.5.2. Research Findings in the Republic of South Africa

At first the problems associated with pre-school education did not attract the attention of researchers and educationists in this country to the same extent as they did in overseas countries. In the past two decades or so, however, a substantial number of research investigations have been carried out in this area of education; and the prospects of pre-school education in white communities reaching the levels of highly developed countries overseas are being realised. In the case of black communities, as pointed out in Chapter 1 (supra,2), researches and literature in this field are still envisaged. Consequently in the survey that will follow we shall devote our discussion to pre-school education in the white community.

In this section we shall follow more or less the sequence used in the discussion of research findings abroad since this will make comparison easier for the reader.

2.5.2.1. Findings on Preschool Institutions

2.5.2.1.1. Introductory

It is a generally acknowledged fact that it would be in the best interests of the child to remain in the care of the mother within the family situation from birth until the age of at least three years. However, it appears to be practically impossible in this country as well as abroad to achieve this ideal situation, since the mother is increasingly playing a vital part in the national economy. As a result of this situation many white pre-scholars in this country are taken care of by non-white nannies or are placed in preschool institutions.

2.5.2.1.2.   Types of Preschool Institutions

At the present juncture room is made for the following types of preschool institutions:

a)   Infant Centres (or Creches)

These accommodate young children between the ages of six months and three years. Children are placed in these infant centres mainly for safe protection and loving care while their mothers are working.

b)   Nursery School Centres

These are intended for pre-scholars between the ages of three years plus and compulsory school age. Apart from the safe protection, provision is also made for a thoroughly planned educational programme for the purpose of promoting the child's readiness for formal schooling (14, 33).

2.5.2.1.3.   Educational Programme and Activities

Although there is no generally applicable prescribed programme in existence, subsidised nursery schools reveal great similarities in the programme they follow. This is due to the influence of the Nursery School Association, the Manual of the Nursery School Association and inspectors of education (14, 32).

The average programme provides for (14,52):

i)   indoor play and activities which include singing, stories, directed play as well as play with manipulative apparatus and imaginative play;

ii)   outdoor play which can be free or directed and which makes a particular contribution towards social and physical development; and

iii)   routine activities such as washing hands, enjoying refreshments, resting and sleeping, toilet routine, medical and dental examinations.

2.5.2.1.4.   Control of Preschool Institutions

Where the authorities do not themselves establish preschool institutions, it is obvious that, in most cases, they do not exert any direct control over the functions and educational programmes of such institutions. However, if such institutions are affiliated to the Nursery School Association, representatives from this body are sent to inspect the nursery school. All nursery schools registered with Education Departments and subsidised by them are inspected by the provincial inspectors of Education. These inspectors usually report on the facilities of the nursery school and the manner in which educational programmes are implemented. All nursery schools which are not registered with education departments and in which 6 or more children are kept away from their parents must be registered with the Department of Social Welfare in terms of the Children's Act (No.33 of 1960). These institutions are checked by inspectors from this department. However, there is no control over the educational aspects of such institutions (14, 33).

In April 1969, the Minister of National Education proclaimed that all nursery schools including non-subsidised ones, should be subject to the inspection and that such inspections be carried out by the inspectors of the Department with which the nursery school was registered (14, 33). This announcement can be seen as being intended to bring the running of preschool institutions under state control, in order to ensure that scientifically approved methods of teaching and caring for them are applied.

2.5.2.1.5.   Teaching Personnel and their Training

a)   Teaching Personnel

As a result of divided control, there is no uniformity regarding staffing since no prescribed staffing scale exists. In the case of subsidised nursery schools, however, the provinces have some authority with regard to staffing and can ensure that the ratio of the teacher to children does not become too unfavourable.

According to available statistics in 1968, there were 293 nursery schools in which 908 teachers were provided for 16 596 children (14, 42). This gave a teacher—children ratio of approximately 1:18.

b)   Training of Teachers

The minimum academic requirement for a nursery school teacher is School Leaving or Matriculation Certificate, depending on whether a purely diploma course or a combined degree-diploma is taken. Certain degrees or diplomas are required for admission to specialisation courses (14, 36). Training is provided at universities and some colleges of tertiary education. The types of courses which are offered at universities are the following (32, 23):

i)   a three-year diploma course in nursery school education;

ii)   a one-year specialisation course in nursery school education (certain degrees or diplomas are required for admission in this case); and

iii)   a four-year combined B.A. (S.S.) degree and diploma in nursery education.

The training colleges offer a three-year special course and a one-year course to which a degree or diploma gives admission (33, 128).

2.5.2.2.   Findings on School Readiness

2.5.2.2.1.   Introductory

In a research project, Grey mentions that investigation in connection with school readiness was still in its beginning stage (10, 2). This issue was also raised by Garbers in the opening paragraph of his dissertation: "Die probleem van skoolrypheid het in Suid Afrika by verre na nog nie die aandag gekry wat dit verdien en in sekere lande wel ontvang nie" (8, 1). This situation will become evident to the reader when we deal with some aspects of school readiness with particular reference to the 5-year-olds since most of the researches available have centred around these children.

2.5.2.2.2.   Research Findings on the School Maturity of the 5-year-olds

The age of five was once proclaimed as the minimum school entrance age in white schools. This situation prompted heated discussions from both parents, teachers and educationists. Consequently, for the first time, a considerable amount of literature and research appeared in the area of pre-school education. The main purpose of research was to find out whether indeed the 5-year-olds were ready for formal schooling.

Greyling found that the first school year was very difficult for the average 5-year-old, particularly when it was considered that Grade I was the most difficult standard to pass in the lower primary school. Greyling also arrived at certain conclusions about the 5-year-olds (12, 60; 61):

i)   For the 5-year-olds to progress as the 6-year-olds they must have a considerably higher I.Q.

ii)   It is better to allow the child to start schooling at the age of 6 than at the age of 5.

iii) The 6-year-old can cope with the demands of school; he does not suffer from tension and consequently he finds school life to be pleasant.

Beson undertook an investigation with 500 school beginners just after the school entrance age of five was introduced in 1951. His findings indicated that the majority of the 5-year-olds who were admitted in school showed the same intellectual and emotional reaction as the children who were admitted at six (cf 30, 92);

Blignaut maintained that the Department should increase the school entrance age to six until such time as it was established beyond doubt that earlier attendance age would not cause learning problems. He considered the age of 6½ as appropriate for the average child to begin with formal school education (cf 2, 14). Grey also conducted an educational-sociological research on the life-views of pupils who were admitted to school at the age of five. Some of her findings are as follows (11,170) :

i)   Hundreds of pupils who were admitted to school at the age of five were not ready for schooling.

ii)   Seeing that departmental regulations enforced formal school education at seven, there should be preparatory classes with trained personnel to promote and facilitate school readiness in these children admitted at the age of 5.

2.5.2.2.3.   Reading Readiness of the 5-year-olds

Reading readiness is to a large extent said to be a function of intellectual ability. However, other factors, such as emotional and social maturity, play an equally important role.

According to Garbers, a child can master reading demanded by the school if he has acquired suitable linguistic comprehension and expression; can concentrate on a task for a reasonable length of time and is interested in formal learning (7, 51).

Schmidt undertook a research to determine the mental age for commencing with formal reading instruction. He found that a large number of pupils (particularly boys) with the mental age of 5¼ years were not ready for reading instruction. He also found that large classes also contributed to inducing reading unreadiness (28, 119 – 128). The educational bureau established that most of the pupils admitted at 5½ years failed during their lower primary school education, and that the rate of failure was higher where classes were large (22, 88 – 100). As a result of this, Grey recommended that school beginners should not be more than 25–30 to a teacher (11, 184).

2.5.2.2.4.   Present School Entrance Age

The problem of determining school entrance age has now been resolved. The minimum age at which the child may attend school is 5½ and the maximum age at which he must go to school is 7 years. This enables the teachers and parents to judge a particular child's developmental status and to take appropriate measures.

2.5.2.3.   Summary of Findings in the Republic of South Africa

2.5.2.3.1.   Findings on Preschool Institutions

a)   Two types of preschool institutions can be distinguished. These are infant centres and nursery schools.

b)　　　The National Department of Education has taken a keen interest in nursery schools.

c)　　　There are specialised courses of comparatively high standards which are provided for the nursery school teachers.

2.5.2.3.2.　　Findings on School Readiness

a)　　　Although research investigations on school readiness are not as extensive as in most western countries, pre-school education in this country now compares favourably with most developed countries.

b)　　　The child of five is not sufficiently ready to benefit from formal school instruction.

2.6. CONCLUSION

On the basis of available literature, an attempt has been made to sketch the position of preschool institutions and certain aspects of school readiness both in this country and in certain countries abroad. In the light of these findings, the researcher is obviously keen to know about the position in black communities as far as these matters are concerned. To do so, however, one requires firstly a comprehensive theoretical model which will serve as a guide for practical investigation. The intention is to do this in the next chapter.

2.7　REFERENCES

1.　Bigelow, E.B.: 'School Progress and Underage Children.' Elementary School Journal Vol 35. 1934 - 1935.

2.　Blignant, C.M.: 'Wat van ons Vyfjariges?' Onderwysblad, Transvaalse Onderwysersvereniging. Oktober 1957.

3.　Braun, S.T. and Edward, E.P.: History and Theory of Early Childhood Education, Woodworth Publishing Co. Inc. Carlifonia 1972.

4.　Braun, U.: Nursery Schools in Sweden. Stockholm. Sweden 1966.

5.　De Graeve, C.: Schoolrypheid Serie Verdiept, Insicht XV. J.M. Menlenhoff. Amsterdam 1962.

6.　Frost, S.E.: Rousseau, Emile, Julie and Other Writings (translated by R.L. Archer) Woodbury. New York 1964.

7.　Garbers, J.G. (ed): Aspects of the Education of the Four-to-Eight-Year Old Child, Report of Series of Symposia. University of Port Elizabeth 1969.

8.　Garbers, J.G.: Psigiese Struktuur en Psigiese Ontwikkelingstand by die Beoordeling van Skoolrypheid. M.Sc Unisa 1966.

9.　Garbers, J.G. et al: Die Ontwerp van Opvoedingsprogramme vir Kleuters, Riglyne vir Skoolgereedmakende probleemvoorkomende individualiserende voorskool se onderwys. Universiteits-uitgewers en- Boekhandelaars (Edms) Bpk. Stellenbosch 1976.

10.　Grey, A.M.: Die Belangrikheid van Spel by die Aanvangsonderwys, MED UNISA 1957.

11.　Grey, M.T.: 'n Opvoedkundige-sosiologiese Ondersoek van die lewensomstandighede van leerlinge wat voor skoolpligtige Ouderdom tot Skool toegelaat is, M.A. Unisa 1957.

12.　Greyling, P.J.: 'n Vergelykende Ondersoek na die Skoolprestasies van vyf-en-sesjarige Skoolbeginners in Stds 3 en 4. Opvoedkundige Studies No 26.

13.　Hildreth, G.H.: 'Department of Sequences in Name Writing.' Child Development. No 7. 1936.

14.　H.S.R.C.: Report of the Committee for differentiated education and guidance with regard to a national pre-primary educational programme for the Republic of South Africa and South West Africa Part I 1971.

16. King, T.B.: 'Effect of Age of Entrance into Grade I upon Achievement in Elementary School.'
    Elementary School Journal Vol LX No 6 1965.

17. Kottmeyer, W.: 'Readiness for Reading' Elementary English Journal October 1947.

18. Locke, J.: Some Thoughts on Education. Boston 1930.

19. Monroe, M.: Children Who Cannot Read, University of Chicago Press. Chicago 1954.

20. Morgan, J and Elmer, F.: 'Efficiency of Two Tests in Differentiating Potentially low from average and
    high First Grade Achievers' Journal of Educational Research. Vol 53.

21. Morphett, M.V. and Washburne, C.: 'When Should Children begin to Read?' Elementary School Journal
    Vol 31 1930 - 1931.

22. Onderwysburo: 'Skoolrypheid van Vyfjarige Leerlinge' Transvaalse Onderwysdepartment. Werkstuk No 47.

23. Pauley, F.J.: 'Sex Differences and Legal School Entrance Age' Elementary School Journal
    Vol XLV September 1951.

24. Pestalozzi, J.H.: How Gertrude Teaches her Children (translated by L.E. Holland and F.C. Turner)
    Sonnencheim. London 1900.

25. Radler, D.H. and Kephart, N.C.: Success through Play. Harper. New York 1960.

26. Robinson, H.M.: 'Factors which affect success in Reading.' Elementary School Journal. 1955.

27. Schindler, A.W.: 'Reading for Learning'. Childhood Education, Vol 24. March 1948.

28. Schmidt, W.H.O.: An investigation to determine the Optimum Mental Age for Commencing reading
    instruction under conditions at present obtaining in certain schools
    in Pietersmaritzburg and Durban. Vol 5. 1954.

29. Simon, M.O.: 'Body configuration and School Readiness' Child Development Vol 30. 1959.

30. van der Spuy, S.D.: Die Vraagstuk van Skoolrypheid en Skoolgereeldheid. D.Ed Unisa 1966.

31. Sugden, W.E.: 'Continous Study is Necessary' Child Education Vol 24. No 6 1948.

32. Suid Afrika: Komitee van Onderwyshoofde. 'n Samevattende feitlike verslag ten aansien van Kleuter
    onderwys (pre-primêre onderwys) vir Blanke kinders in Suid Afrika en
    Suidwes-Africa. Bloemfontein 1968.

33. Transvaal: Onderwysdepartement. 'n Ondersoek na Kleuteronderwys in Transvaal met die oog op die
    moontlike oorname daarvan deur die provinsie. Nr. 130 Pretoria 1966.

34. Transvaal: Onderwysdepartement. 'n Verslag van 'n sending na oorses lande in verband met
    kleuteronderwys. Nov. 1968.

35. Ulick, R.: History of Educational Thought. rev. ed. New York 1968.

36. Unesco. Recommendations no 53 to Ministries of Education concerning the organization of Pre-primary
    Education. XXIVth International Conference on Public Education
    Geneva 1961.

37. United States of America: National Council of State Consultants in Elementary Education for Children below
    six. Planning for America's Children. 1959.

38. Webb, R.K.: 'The Five to Eight' A.C.E. Bulletin No 80.

39. Weitzman, E.: 'Guiding Children's Social Growth.' Science Research Associates. Chicago 1954.

40. Wrightstore, J.W.: 'Evaluating Achievement'. Child Education Vol 24. No 6 1948.

CHAPTER 3

3. A THEORETICAL REVIEW OF SCHOOL READINESS AND THE NATURE OF PRESCHOOL EDUCATION

3.1. INTRODUCTION

The purpose of this chapter is to provide the reader with further information on matters which we intend to investigate in this research. This information is needed to serve as a basis for evaluating our findings in the subsequent chapters.

3.2. THE PURPOSE OF PRESCHOOL EDUCATION

Describing the evolution of preschool education in the R.S.A., Potgieter mentions three factors — "sosio-ekonomiese nocd, koers en opvoedkundige beslag" — as contributory to the origin of preschool education (1, 16–17). These factors also explain the nature of the need for which preschools were established. From these three factors one can also say that preschools are established to create learning opportunities for children born and reared in an impoverished milieu as well as to provide a life-world that will enable the child to adjust to school life and face the future with confidence, trust and success.

Reilly puts the importance of the preschool in broad terms when she says "the preschool is primarily an educational institution concerned with education during that period of the child's life when the quality of education probably matters most" (1, 141). The significance of this statement is realised in the fact that the preschool child is most dependent, most responsive, most vulnerable and most eager to learn. Preschool is, therefore, the foundation of the whole educational system and has potential power for improving learning ability and motivation at higher levels. In more concrete terms, the aims of preschools are realised when school readiness in children is promoted (i.e. when preschool experiences have relevance to formal school experiences) and when the effects of factors retarding school readiness are minimised. Cultures and educational philosophies differ and it should be appreciated that the aims pursued by different preschools differ as well. The black communities in this country, characterised generally by an impoverished milieu and educational goals founded on a foreign western culture, constitute a unique situation where preschools should strive to minimise the learning problems that often arise from such a situation. How this can be achieved will be explained in the forthcoming sections (Infra; H3).

3.3. THE CRITERIA OF SCHOOL MATURITY

The concepts school maturity and school readiness have already been explained in Chapter 1. What needs to be discussed here are factors which contribute towards school maturity. Invariably these factors are also used as norms for assessing school readiness.

3.3.1.   School Maturity in Respect of Physical Development

Relationships between physical maturation and school maturity have long been established. Observations by van der Spuy assert that a physically weak child often lacks in school maturity (33, 164) whilst research investigation by Reynolds indicated that gifted children are physically mature enough to start schooling earlier than the normal child (30, 11).

However, to say that the length of 110 cm and an average weight of 18–20 kg (vide 33, 164) can be used as a screen to review school maturity is to oversimplify the complexity of physical development. Researchers have also established that length and weight are dependent on land, race and locality. The essential characteristics of physical school maturity have, however, been neatly summarised by Garbers (12, 15):

1.   The child must have the bodily structure of the school child.[1]
2.   The child must be able to execute fine bodily co-ordination movements such as writing and drawing.
3.   The level of bodily control must be such that the child is capable of dressing and undressing himself.
4.   Eye- and hand- and foot-dominance must be determined and sorted out.

3.3.2.   School Maturity in Respect of Social and Emotional Development

We are here concerned with the interplay of the child's social and emotional relations as he responds to his lived-in world. A child who is ready for school socially and emotionally should be in a position to respond positively to the following developmental tasks:

1.   He must be able to concentrate on a specific task for a considerable length of time; be ready to accept and complete a task independently as well as be willing to share the interest and attention of his teacher and the rest of the class (1, 14).
2.   The child must be able to face up to the objective demands made upon him and therefore be susceptible to the demands of formal learning. This implies that he can accept school discipline as well as abide by the class routine and regulations. This, according to Seefeldt, "depends on the child's ability to relate to a group of children, to wait his turn and to be responsive to others' needs" (31, 36).
3.   The child must also face reality without emotional conflicts. He must have established self-concept and self-respect because what he thinks of himself will contribute towards how he will learn and progress.

3.3.3.   School Maturity in Respect of Intellectual Development

Intellectual maturity is apparently the most important requirement for school maturity because for successful formal learning the child requires partly matured intellectual functions. These intellectual functions are grounded on at least four preconditions (vide 19, 43):

1.   The child must outgrow egocentricity thereby arriving at real contact and explicit communication with other people.
2.   For reading and writing in particular, the child requires the development of symbol functions. He should also be in a position to detect the relationship between things.

3.   The third precondition which is in respect of learning is meaningful memorisation. In contrast to rote memorisation, meaningful memorisation involves internalising learning contents on the basis of understanding with a view to utilising them when required to do so.

4.   The fourth requirement is good language usage through which the above-mentioned aspects of intellectual functions are reflected and served. Hence the school beginner is expected to speak correctly and meaningfully since language is also the medium of thought and expression in school. Bereiter and Engelmann expressed this idea when they said language development is a major prerequisite for academic achievement (2, 42). Consequently, preschool programmes should, amongst others, strive to develop the language ability of the child.

In concluding the discussion on school maturity, two points are emphasised. Firstly, the reader should not lose sight of the fact that the discussion above is about the same child observed from different angles and that the different and separate aspects of school maturity are intricately interwoven to form a unity. Secondly, the reader will observe that an attempt is made to present guidelines against which school maturity can be reviewed. There is no point in going further in this detail since the decision about a particular child having reached school readiness depends upon circumstances in each school and in every culture.

3.4. FACTORS RETARDING SCHOOL MATURITY

Those who deal with preschool children know from experience that not all children reach school maturity within a stipulated period. Some children have behavioural problems which slow down their progress towards school maturity and school readiness. The conditions of school immaturity can be identified by means of tests and through careful observation by an experienced teacher. What is important, however, is not merely the identification of school immaturity, but also its etiology and diagnosis with a view to applying the necessary remedial measures.

Although the approaches adopted by writers in diagnosing school immaturity differ, factors which can bring about school immaturity can be categorised into four groups.

3.4.1.   Sensory Defects

Sensory defects are of three kinds: visual, auditory and motor. The first two (visual and auditory senses) are indispensable for school success since they provide perceptual discrimination without which learning cannot be visualised (30, 151). It is, therefore, important that sensory defects be detected early in the life of the child so that they can receive the attention of specialists.

3.4.1.1.   Visual Defects

The following are the symptoms that can be used to identify visual defects in preschool children (vide 14, 52):

1.   The child cannot see well and knocks against objects when he turns around.
2.   He cannot recognise well-known colours and objects.
3.   He closes one eye in order to see well or comes closer to objects that can be seen from a distance.
4.   He brings his face closer to a book to read or write.
5.   He is oversensitive to light.
6.   He is squint-eyed or frowns occasionally.

3.4.1.2. Auditory Defects

Auditory defects can be suspected, for instance, when the child ignores (14, 52):

> "normal sounds; cannot hear sounds with normal intensity; does not pay attention when
> stories are told; comes closer to the speaker to hear well what is said; complains that he
> cannot hear or that he has pain in his ear; and has constant secretion from his ear".

3.4.1.3. Motor Defects

Motor handicaps which deserve the attention of those who deal with preschool children are the following (vide 14, 52): the child shows poor ability in balance and bodily relationship and in walking, running and jumping; the child has striking bodily and facial symmetry; he cannot turn his eyes in all directions; his movements are rigid and jerky; and he struggles to catch, kick or throw a ball.

3.4.2. Neurological Handicaps

These are caused by some defects in the central nervous system such as is the case with brain damage and brain dysfunction. The behavioural symptoms of neurological handicaps are extremely heterogeneous (20, 24) and require the eye of an experienced specialist to diagnose. Mention is made here of only the major symptom syndromes (vide 14, 52 – 53):

1. The child shows hyperactive reflexes with an exaggeration of strong reflex in the part of the body that is affected.
2. The child's movements are slow, wormlike, involuntary and aimless.
3. The child's muscles become extremely tense.
4. The child shows disturbances in balance as if he is intoxicated.
5. The child trembles voluntarily and involuntarily.
6. The child shows a combination of the above syndromes.

The symptoms mentioned above have in most cases an adverse effect on the whole personality of the child; his intellectual functions may be affected such as is indicated in poor language development and lack of thinking in the abstract; he may be emotionally immature and introversive; he finds socialising very difficult; his attention span is short whilst his frustration threshold is low (11, 3).

3.4.3. Mental Deficiency

During the pre-nursery school period (i.e. before two years) the diagnosis of mental deficiency is very subtle and difficult (14, 53). In the case of the 2- to 3-year-olds, the mentally deficient children are susceptible to impressions in the environment only to a limited extent and find it difficult to make contact with other children. The child takes a longer time to learn personal cleanliness; his speech is retarded and poor, and he cannot complete a task within a reasonable time. He is continuously occupied with his mouth. His relationship with other adults and his mother is the same (vide 12, 53).

In the case of 3- to 4-year-olds, the language offers important indications of mental deficiency. The child is unable to use words in the correct order; his vocabulary is poor and he has problems with articulation (cf 20, 52 – 56). Play is also an important factor in diagnosis. Mentally deficient children are unable to play constructively and usually occupy themselves with manipulative play. They also indulge in sensopathic play (14, 35).

Diagnosis becomes even easier at the age between 5 and 6. Here the mentally deficient child finds it difficult to learn rhymes and songs, and cannot comprehend the meaning or sense of rules in games (11, 2). Cases of serious mental deficiency may develop irritating habits such as compulsive winking, nodding and shrugging and rhythmical movements of the body. They may also show unpleasant mannerisms such as nail biting and unusual eating habits (14, 55).

On the whole, mentally deficient children cannot arrive at a gnostic relationship towards the world. As such they cannot cope with the demands of school and special provision is needed for them.

3.4.4.   Cultural Deprivation

A devastating effect on school maturity is that of cultural deprivation. As a functional problem in school, cultural deprivation can be defined as "a lack of those particular kinds of learning that are important for success in school" (2, 41). In its broad connotation, the concept cultural deprivation incorporates low socio-economic status, non-technological culture, uneducative home environment and overcrowding. These factors are also used to describe the situation of the culturally deprived child (14, 90).

The above-mentioned factors have two adverse implications for the future of the child. Firstly, due to low socio-economic status and overcrowding, the parents cannot provide satisfactory health conditions as well as the social and cognitive stimulation needed by the growing child. The second problem which is even more crucial from the pedagogical point of view is that the home milieu of the child (based on a non-technological culture) has little bearing on the western technological culture that the child is expected to master on entering school (vide 13, 70). This situation creates multiple learning problems for the child and emotional tension on the part of parents who cannot cope with the demands of the school.

The following are some specific shortcomings of the culturally deprived child (35, 67):

> "The child's imagination is below par; his motivation for learning is low; school activity arouses a feeling of tension in him; his ambition and educational aspirations are low; he has a low and negative self-concept and self-respect; his attention span is short; and his visual and auditory observations are not sharp and refined."

Consequently the culturally deprived child scores very low on intelligence and achievement tests.

As concluding remarks on this section, it is worthwhile to state even at this stage that the black school-going child in this country often finds himself in the centre of the two divergent cultures mentioned above. Unless there can be a system of effective preschool education intended to bridge this gap of acculturation and to give parents a better perspective of the education awaiting their children, most of the black children, as has been the case, are most likely doomed to experience learning problems at school which, if not resolved in good time, will lead eventually to school drop-out.

3.5. PLAY AS AN EDUCATIVE MEDIUM

In the preschool, the child plays in answer to a provocative and exciting world which is designed for him by the teacher. Through play he learns what none can teach him by "exploring and orientating himself to the actual world of space, time, structures and people" (9, 15). Hence Reilly correctly asserts, "play is an important avenue of learning" (28, 10). Garbers is more direct when he says (14, 153):

> "die waarde van spel word verhoog deurdat dit spanning verlig, selfdissiplene ontwikkel en sosiale en kreatiewe vaardighede bevorder".

It can thus be stated that the curriculum that limits the time the child spends on play is one that limits the child's opportunities to learn.

Notwithstanding the considerable material that has been written about the value of play, there are still certain cultures where play is often thought of as unproductive and unrelated to learning. Hence we find it necessary to highlight a variety of reasons why play is valuable. Only the salient points are stated.

3.5.1. Play Fosters Physical Development

On a very simple level play promotes the development of sensorimotor skills. We often see young children involved in repetitious physical activity as a central aspect of play. These physical activities perfect muscle co-ordination and the development of muscles. These enable the child to have control over his environment (vide 24, 49 – 182).

3.5.2. Play Fosters Intellectual Development

Imaginative play is one of the purest forms of symbolic thought available to the child (27, 28) and contributes strongly to his intellectual development. Play also offers opportunities for the child to acquire information that lays the foundation for additional learning. For example, through the manipulation of blocks, the child learns the concept of equivalence or through play with water he acquires knowledge about volume.

3.5.3. Play Promotes Social Development

Duminy speaks of dramatic and sociodramatic play (5, 51), of which the latter entails verbal communication and interaction with two or more people as well as imitative role playing with regard to objects, actions and situations. Thus sociodramatic play helps the child to learn to put himself in another's place thereby fostering the growth of empathy and consideration for others (21, 170). Sociodramatic play also helps the child to acquire social skills: how to enter a group and be accepted by its members and how to make out the social give and take that is the key to successful group interaction.

3.5.4. Play Promotes Emotional Development

The emotional value of play has been accepted and understood for a longer time than the intellectual and social value. Therapists have long been employing play as a medium for the expression of relief of feelings.

Play for children also offers relief from pressures to behave in unchildlike ways. Furthermore, play offers the child the opportunity to achieve mastery of his environment. When he plays, he is in command; and these attendant opportunities for pretended and actual mastery foster the growth of ego strength in young children (vide 21, 171).

It is quite clear then that whatever the theoretician or other people perceive in play, it will always remain as the lifeblood of childhood common to all cultures. Hence it must be exploited and promoted as a means of development and learning.

3.6. NATURE OF PRESCHOOL EDUCATION

Three things are needed to ensure that play in the preschool is invaluable. These are — a good programme, equipment and efficient teachers. Each of these are taken up in turn.

3.6.1. Preschool Programme

The programme incorporated in a preschool institution will depend upon considerations such as financial resources, the educational aims, the cultural background of the community and the age limits which the preschool accommodates. Consequently, there are variations in the preschool programmes followed throughout the world.

Although preschool programmes differ, there are, however, factors which must be considered in determining a generally sound programme. These factors are:

1. Preschool programmes should be implemented in such a way that the individual differences of children are respected. This fundamental principle implies that the point of departure in teaching prescholars is differentiation in respect of methods and curricula and that the content and form of learning experiences should coincide with the child's individual cognitive level and temperamental attributes (16, 265). For this reason one cannot speak of a programme that is best for all children at all times (7, 167). Consequently, programmes need to be evaluated constantly to make sure that they still satisfy the need of the growing child in his dynamic milieu.

2. The preschool programme should have a clearly formulated aim which is not only achievable but also in line with the fulfilment of the ultimate aims of education in terms of that community's life-view. Hence the educational materials of the preschool should first have a cultural bias and second meet the needs of formal learning which is required on entering school (vide 14, 194). For this reason there is a need for synchronisation between preschools and the family on one hand and between preschools and the lower primary schools on the other hand. In practice, this two directional synchronisation can imply:

   a) that the programmes and strategy of a preschool has as a starting point the extension of family experiences. Co-operation between parents and preschool teachers is necessary in this regard. Parent co-operation can be solicited by involving them actively in the affairs of their children in preschools and by instructing them on child-rearing methods so as to improve the quality of education the child receives at home; and

   b) that a meaningful integration of preschools and lower primary school education be achieved whereby the two parties take a keen interest in what each is doing. This integration can be started in the professional training of both preschool and primary school teachers and then extended into practice where meetings between parents, preschool teachers and primary school teachers are held to discuss the needs of children and to devise new strategies for them.

   It would appear that the co-operation between parents, preschool and lower primary teachers highlighted above is not fulfilled in most black communities. Consequently, this matter, which is one of the most crucial to the success of a preschool programme, will be empirically investigated in subsequent chapters.

3.   The third consideration is that a preschool programme should be based on scientifically acceptable educational theories. Such theories should be valid and practicable for the individual children and for the community's philosophy (vide 14, 197).

4.   For any preschool programme to be successful there is a need for thorough planning (23, 57). This can be achieved, for instance, by instituting small groups of children in order to achieve a high measure of individual teaching; the use of play equipment and teaching techniques that are meaningful to the child and help him to realise the envisaged educational aims; and proper training of personnel, particularly in the methods followed by different programmes.

5.   The educational ideal of every preschool is to help develop the potentialities of each child to the fullest. Hence a good programme is one that succeeds in developing a positive self-image in the child because with such an image the child is free to undertake projects without inhibitions thereby realising his potentialities.

6.   Lastly, testing forms an integral part of a good programme. Such testing is not only important to screen the progress made by individual children but also to assess the effectiveness of the programme as such. On the basis of the latter function, new innovations in the contents of the programme may be effected.

3.6.1.1.   Programmes for Culturally Deprived Children

Although preschool programmes differ in answer to the unique circumstances which called for them, the researcher is particularly interested in those programmes that can be suitable for the culturally disadvantaged children. This interest is prompted by Steenekamp's findings with the Pedi school beginners (34, 66 – 74) – a fact which partly motivated the researcher to undertake this research project (supra Chapter 1,2).

According to Bereiter and Engelman, the problem of the culturally deprived child is primarily academic (2, 42), with language development as the most important prerequisite for academic achievement. In order to meet the need of such a child, an academically orientated programme, which stresses structural teaching which incorporates, amongst others, demonstration, drill and exercises, is needed (vide 14, 91).

The following are other areas covered by an academically-orientated programme (vide 2, 63):

1.   It compensates more directly for the gaps which usually predominate in the parent-child relationship.
2.   It lays stress on knowledge and skills that the child requires in formal learning.
3.   It promotes socialising particularly with regard to working together.
4.   It instructs parents on how to educate their children at home.

3.6.1.2.   Schedule for Culturally Deprived Children

For the implementation of the programme for the culturally deprived children, the daily schedule of about 2 hours for five days per week for the whole year is recommended. Six activity periods each with a study group of about five children can be composed as follows (vide 14, 95):

		Group I	Group II	Group III
Period 1:	10 min.	Unstructural Activities		
Period 2:	20 min.	Language	Calculation	Reading
Period 3:	30 min.	Toilet	Refreshment	Music
Period 4:	20 min.	Calculation	Reading	Language
Period 5:	20 min.	Semi-Structural Activities		
Period 6:	20 min.	Reading	Language	Calculation

The four main compartments of this programme are reading, language, calculation and music (vide 6, 110 – 113; 2, 210 – 298).

The above schedule can be adapted for the needs of black prescholars, particularly those in the age groups of 5 and 6. For them the schedule can be extended to cover 8 hours (2, 96) to suit the needs of employed parents. For children below the age of 5 the traditional preschool programme and schedule intended to extend and enrich the child's experiences of his surroundings can be provided for (vide 17, 63), but the finer details of such a programme and schedule will be influenced by the circumstances of children in that particular society.

3.6.2.   Equipment

The choice of play equipment depends on a variety of factors. However, the general principles are that (cf 4, 32):

1.   the equipment should stimulate curiosity, interest, manipulation, initiative, problem-solving, imagination and creativity;

2.   it should develop techniques in reading, writing, spelling and number;

3.   it should develop muscle co-ordination, freedom of movement and manual skills; and

4.   it should promote growth towards independence, exploration, group ability and social competence.

Two main types of equipment – indoor and outdoor – can be named. This equipment can be very varied depending on the available space and finance. Many books on preschool programmes (vide 3, 13; 31, 94 – 105) contain information on examples of indoor and outdoor equipment that can be purchased, as well as their educational value. A keen and resourceful teacher can improvise a lot of cheap equipment so that it is even more relevant to the needs of her children.

3.6.3.   The Preschool Teacher

The third indispensable factor in a preschool is the teacher. Her role is especially important at this stage of education because the young child is still dependent for his security and confidence upon adults and not so much upon his peer group as he will be later on. The teacher is, therefore, responsible not only for the task normally associated with teaching. She is also responsible for giving sensitive and wise assistance so that each child moves confidently and happily from dependent security in the family towards personal autonomy and satisfying membership of the community (vide 10, 42). Consequently, as Murphey states, "a preschool centre needs more than an ordinary teacher; it needs a mothering teacher" (33, 45).

The teacher's ability to meet the above demands effectively will be influenced chiefly by the adequacy of her own personal development. Her work requires not only professional knowledge and skills but also an understanding and acceptance of each child and respect for him as an individual and as a member of his family (vide 9, 211).

In order that she should carry out her work effectively the following qualities are considered as desirable (cf 18, 88):

1. a basic liking for children;
2. empathy for children and the ability to accept them at their present level of development;
3. flexibility;
4. lack of prejudice;
5. intellectual curiosity without being overly intellectual;
6. a good education with much practical experience;
7. understanding and liking for parents; and
8. capacity for further growth as a person.

For Fletcher an effective teacher "should be natural, have a good knowledge, command self-control and have confidence in herself" (8, 9). The above-stated qualities which are not in anyway definitive and conclusive, indicate that (14, 217):

"Goeie voorskoolse onderwys is 'n baie gespesialiseerde moeilike en veeleisende taak wat nooit onderskat mag word nie, maar een wat ook baie ryk diwidende afwerp."

As such preschool teaching requires high standards of training (25, 36); and positive actions from the teacher to ensure that she improves upon her qualities through intensive in-service training (vide 15, 401 − 405). She should also undertake a programme of wide and disciplined reading to keep abreast of new development and research findings. By such means a teacher's work will continue to prove interesting, stimulating and satisfying to herself and to the children she teaches.

3.6.3.1.   Duties of a Preschool Teacher

The preschool teacher is responsible for planning and carrying out the daily schedule, observing, assessing, and recording children's progress, as well as for fostering relationships between children, parents and the community.

1.   Executing the daily programme − Although the preschool directors and principals may be directly involved in formulating the educational programmes to be developed in the preschool centres, the teacher is the person who implements the programme, changing it to meet the needs of individual children and planning for the daily experiences and activities.

2.   Evaluation − Evaluation of the daily programme plus the progress made by individual children are also the responsibility of the teacher. There are four brief kinds of evaluation which are handy and can be used by the preschool teacher. These are parents' interview, commercial tests, brief anecdotal records and checklists (vide 21, 171 − 182; 22, 42).

3.   Fostering teacher-parent relationships. — "One of the first essentials in meeting the needs of children in the preschool centre is to be aware of the problems the child is trying to solve", says Hurtley (22, 42). The co-operation between teachers and parents is one of the first essentials in finding out what these problems are. Parents should be helped to understand what the school is trying to do for their child (vide 32, 203). This cannot be stressed too often that the child in the preschool is first and foremost the child in the family and that consequently the preschool should become an extension of the child's home rather than a substitute.

3.6.3.2.   Teachers' Aides

From the above discussion it is clear that the task of keeping a preschool running can be taxing on the part of a lone preschool teacher. Thus, she requires at least the services of trained aides to help her implement the programme. These teachers' aides, chosen from the community, bring with them knowledge of the cultural traditions of the community. They are therefore in a better position to interpret, as Seefeldt says, "the values and goals of the community to the centre staff who may not live nearby" (31, 32). Thus they help to promote community involvement in the centre, relaying the programme's goals and objectives to the neighbourhood and describing the activities and purposes of the preschool centre to their friends and neighbours.

3.7. SUMMARY

From the discussion the main points are summarised:

1.   Preschool centres are significant in preparing the child for formal learning and for a wholesome future as well as to alleviate, where necessary, learning and behavioural problems.

2.   There are norms — of a physical, intellectual, social and emotional nature — that are used to determine school maturity.

3.   There are children who do not reach school readiness within a stipulated period because of a variety of factors.

4.   Preschools have programmes which are centralised on play as the best medium of learning. Equipment is necessary for the actualisation of this play.

5.   The success of a programme depends to a large extent on how the teacher and her aides implement it for the children and on how the parents are incorporated in designing the programme.

3.8. CONCLUSION

The reader is now aware of the aims of preschool education, criteria of school readiness and how preschool programmes should be implemented for the benefit of the child. Against the background given in this chapter and the chapters that preceded it, an investigation of the real-life situation will be made.

3.9 REFERENCES

1. Behr, A.L. (ed): Pre-primary Education in the R.S.A. S.A.A.A.E. Publication Series Potchefstroom 1976.

2. Bereiter, C. and Engelmann, S.: Teaching Disadvantaged Children in Preschool. Prentice-Hall. Engelwood. New Jersey 1966.

3. Beettiger, E.: Children's Play Indoors and Out. E.P. Dalton and Co. Inc. New York 1938.

4. Christholm, J.D.: What Makes a Good Head Start. Henington Publication Co. Texas 1968.

5. Duminy, P.A. and Du Preez, J.P.A.: Basic Educational Psychology. Longman. Cape Town 1974.

6. Evans, J.W.: Contemporary Influences in Early Childhood Education. Holt. Rinehart and Wilson. New York 1971.

7. Featherstone, H.J.: Cognitive Effects of Preschool Programs on Different Types of Children. Huren Institute Cambridge. Massachusetts 1973.

8. Fletcher, M.J.: The Adult and the Nursery School Child. University of Toronto Press. Canada. 1958. reprinted 1970.

9. Fowler, W.: Concept Learning in Early Childhood. In: Frost, J.L. (ed) Early Childhood Learning. Genetic Psychology Monograph. 1968.

10. Frederick, W.N.: Teaching in the Preschool Kindergarten. Ian Novek Publishing Co. Sydney 1967.

11. Gallarpie, P.H. and Johnson, L.E.: Teaching Reading to the Mildly Retarded Child. Charles E. Merrill Publishing Co. Columbia 1972.

12. Garbers, J.G. (ed): Aspects of the Education of the Four-to-Eight-Years old Child. University of Port Elizabeth 1969.

13. Garbers, J.G.: Die Mens en die Opvoeding in die Moderne Wereld. S.A. Akademie vir Wetenskap en Kuns. Tafelberg Kaapstad 1972.

14. Garbers, J.G. et al: Die Ontwerp van Opvoedings-programme vir Kleuters. Universiteit uitgewers en-Boekhandelaars. Stellenbosch 1976.

15. Gordon, E.W.: Programs of Compensatory Education. In: Deutch, m. (ed) Social Class, Race and Psychological Development. Holt. New York 1973.

16. Gordon, E.W.: Reaching the Young Child through Parent Education. In: Spodek B (ed) Early Childhood Education. Prentice Hall. New York 1973.

17. Griffin, A.L.: How to Start and Operate a Day Care Home. Henry Regnary Co. 1973.

18. Grotberg, E. (ed): Resources for Discussion Office of Economic Opportunity. Washington D.C. 1971.

19. Haenen, A.W.: van Kleuter tot Schoolkind. Groningen 1967.

20. Hauk, B.B. and Frehile, P.: Physically and Mentally Handicapped by Celebral Palsy: the Mentally Retarded Case Studies. W.M.C. Brown Co. Iowa 1972.

21. Hendriek, J.: The Whole Child. New Trends in Early Education. The C.V. Moshy Co. Saint Louis 1975.

22. Hurtley, K. (ed): Understanding Children's Play. Columbia University Press. New York 1965.

23. McDill, E.L. et al: Strategies for Success in Compensatory Education - An Appraisal of Evaluation Research. The John Hepkins Press London 1969.

24. Montessori, M.: Dr Montessori's own Handbook. Schocken Books New York 1965.

25. Muller, L.K. and Schneider, R.: 'The Use of the Token System in Project Head Start.' Journal of Applied Behaviour Analysis 1970.

26. Murphey, L.B.: More than Teacher. Office of Child Development. Washington 1972.

27. Piaget, J.: Play, Drama and Imitation in Childhood. W.W. Norton Co. Inc. New York 1962.

28. Reilly, P.E.: Preschool Education for Development. Unpublished. University of Pretoria 1976.

29. Reynolds, M.C.: 'Early School Admission for Mentally Advanced Children.'
C.E.C. Special Publication 1962.

30. Robeck, M.C. and Wilson, J.N.R.: Psychology of Reading. Foundation of Instruction.
John Wiley New York. 1974.

31. Seefeldt, C.: A curriculum for Child Care Centres. Charles E. Merrill Publishing Co. Ohio 1974.

32. Spodek, P.: Early Childhood Education. Prentice Hall. New Jersey 1973.

33. van der Spuy. D.S.: Die Vraagstuk van Skoolrypheid en Skoolgereedheid. D. Ed. thesis. Unisa 1966.

34. Steenekamp, J.C. (ed): South African Pedagogical Society Union 1973.

35. White, S.H.: The National Impact Study of Head Start. In: Hellmuth, J. Disadvantaged Child Vol 3.
Brunner-Mazel New York 1973.

CHAPTER 4

4. PROCEDURES OF THE RESEARCH

4.1. INTRODUCTION

This research on the need for preschool education lies in establishing three main aspects (vide Chapter 1,11,12):

1. the role played by preschools in preparing children for formal school education;
2. the extent to which prescholars are ready for school as compared with non-prescholars; and
3. the extent to which the community wants preschool education for their children.

The major sections of this chapter include discussions of the tests and questionnaires which seek to provide answers for the above-mentioned aims; nature and selection of samples and statistical techniques that will be used to process data.

4.2. FIRST PHASE OF RESEARCH

4.2.1. Interviews with Certain Authorities

Talks were held with the following people:

4.2.1.1. Chief Magistrate of the Odi District

Since the researcher was going to interview some residents of the Odi District it was necessary first to get the permission of the highest official in this area. Permission was granted.

4.2.1.2. Child Welfare Authorities

The researcher also held interviews with four executive members of the Child Welfare with two objectives in mind. The first objective was to get permission to visit all preschools under the control of Child Welfare (only two out of nine preschools in the area of investigation are under church control). The chairman of Child Welfare granted permission on this matter. The second aim was to administer an open-ended questionnaire to Child Welfare authorities in order to have some guidelines on the type of items to include in my short-answer questionnaire for parents and preschool principals. The open-ended questionnaire consisted of the following propositions:

Proposition 1
Preschool education is not easy to undertake unless there are sufficient funds to finance it. These funds are necessary to buy food, provide equipment and buildings and to pay teachers' salaries. How far do preschools in your area meet the above-mentioned requirements and what recommendations can you make in this regard?

Proposition 2
Preschools need to have programmes/curricula that teachers can use as guidelines. Such programmes should, as much as possible, be based on children's cultural backgrounds on one hand and school requirements in the first grade on the other hand. From your knowledge have preschools any programme and if they have, what criteria are used to draw up these programmes?

Proposition 3

The success of preschool education depends, to a considerable extent, upon qualified and competent teachers who are sensitive to the needs of children and are committed to their work. All these require that the teachers' status be recognised and their remuneration be satisfactory. Could you describe the situation of preschool teachers in your area on these matters?

Proposition 4

Parent involvement in the organisation and the running of preschools is important. This involvement can be realised in many ways, for instance by putting parents on preschool committees, inviting their assistance during school functions or sharing ideas with them on methods of child upbringing. Is this involvement encouraged in preschool centres?

4.2.2.   Results of the Open-ended Questionnaires

The results that are contained below come from four executive members of the Child Welfare who responded to the above propositions.

1.   Preschools have very limited funds which come mainly from children's fees. Financial subsidy from the Department is negligible:

Agree	Disagree	Total
4	0	4

2.   Because of the lack of funds, preschools have limited facilities and lack proper buildings necessary for proper learning:

Agree	Disagree	Total
4	0	4

3.   There are no well-defined curricula. Some attempts are made to occupy the oldest children with structured play but lack of suitable facilities turns this into an unproductive endeavour.

Agree	Disagree	Total
4	0	4

4.   The quality of teachers for preschool is far below acceptable standards. Teachers are also not conversant with the needs of children:

Agree	Disagree	Total
4	0	4

5.   Teachers' salaries are low. This makes it difficult to recruit better qualified teachers:

Agree	Disagree	Total
4	0	4

6.   Parents play little active roles in the matters affecting preschools:

Agree	Disagree	Total
3	1	4

7.   Preschools are at best safe places to keep children whilst parents are at work:

Agree	Disagree	Total
4	0	4

All four people who responded to the propositions are university graduates. Consequently interpretation of the preschool situation was accepted with a considerable measure of validity.

4.2.3.   Preliminary Visits to Schools

After the inspectors of schools granted permission for visits to schools, the researcher made courtesy calls to the schools where the testing of pupils was to be carried out. This incorporated a total of ten lower primary schools selected at random in this manner:

Ga-Rankuwa	–	5 schools
Mabopane West	–	3 schools
Hebron	–	1 school
Hoekfontein	–	1 school

4.3.   SECOND PHASE OF RESEARCH : TESTING SCHOOL BEGINNERS

Two kinds of tests, the Bender Gestalt test and the Goodenough Draw-a-Man test were used as instruments to determine, for the purpose of this research, mental age, I.Q., school readiness and emotional status of the children tested (hereafter called testees). A description of the two tests follows:

4.3.1.   The Bender Gestalt Test

The Bender Gestalt test is a non-verbal test designed by Louretta Bender and simplified and standardised by Kappitz. This test has a world-wide application since it is based on visual-motor perception (and is, therefore, to a large extent 'culture free') as a function of maturation and a determining factor in school readiness.

The Bender Gestalt test consists of nine figures which the child is expected to reproduce on a sheet of paper (4, 2). For the purpose of this research nine figures were printed on nine cards and these cards were shown to the testees one at a time whilst the testees were required to copy these figures on sheets of paper.

4.3.1.1.   Uses of the Test

The Bender Gestalt test can be used with children to screen school readiness, intelligence, to predict school achievement and to diagnose reading, learning and emotional problems.

a)   Bender as a test of school readiness

There is the contention that readiness for school is a function of maturation in perception and the ability to analyse and integrate that which has been perceived (2, 3). Differences in perception related to different developmental levels must be expected (1, 113), and these differences will in turn be reflected in the time the child becomes ready for school.

b)   Bender Test as an indication of Emotional Disturbance

Research studies have established that children with immature visual-motor perception not only tend to reveal learning problems but also to have a higher incidence of emotional problems than do children with well-functioning visual-motor perception (4, 126). But it should be noted that not every child with poor visual-motor perception necessarily develops learning difficulties and not every child with perceptual problems inevitably develops emotional problems. However, relationships that are significant at ,01 level have been found between immature visual perception on the Bender test and emotional problems. This shows the importance of the Bender test in the diagnosis of emotional problems.

The Bender test has also been found to be useful as a projective test to reflect emotional attitudes and personality structures. In this case there are eleven emotional indicators (4, 126) which are not considered to be a function of visual-motor perception. The total incidence of emotional indicators on a single Bender record is related to the seriousness of the emotional disturbance. Children with five and more emotional indicators are said to have serious emotional maladjustments (4, 127).

4.3.1.2.   Scoring of the Test

The Bender Gestalt test score sheet consists of 30 mutually exclusive items which are scored as either present or absent. The 30 items on the scoring sheet reflect all the possible errors that the child can make in the drawing of nine figures. For every error that the child makes in terms of the 30 items, he gets a tally. The tallies are then added into a composite score. Since the Bender test is scored for errors a high score will indicate a poor performance whilst a lower score will reflect a good performance.

On the top section of the score sheet spaces are left for the child's name, date of testing, date of birth, age, total raw score and mental age score.

When scoring for emotional disturbance use can also be made of the eleven emotional indicators which are shown in the scoring manual (4, 132).

Time required to complete the test

It is not required of the child to complete the test within a specified time. However, it is valuable to take the time within which a child completes the test since children who take an exceedingly long time to copy the test may have some problems in visual-motor perception or show perfectionistic tendencies or both, whereas a child who takes an unusually short time to copy the test may be impulsive or lacking in adequate concentration.

The average time required to complete the Bender Gestalt test for children between the ages of 5 and 9½ years is 6 minutes 30 seconds. In our case where children between the ages of 6 and 7 were involved, the time limit to complete the test is between 4 and 9 minutes.

4.3.1.3.   Interpretation of Scores

The raw score that a child obtains can be converted into mental age scores and intelligence quotient scores. The child's performance can then be compared with those of the norm group at different age levels. For example, a child who gets a Bender raw score of 8 has a visual-motor perception on the level of a 6-year-old. Such a child has an average mental age of a school beginner. A child who gets a raw score of 5 has an equivalent mental age of 7 years. Such a child has a visual-motor perception equivalent to that of an average child starting in the second grade.

Emotional problems can also be interpreted from the raw score as there is a relationship between the visual-motor perception and emotional attitude. Again emotional problems can be diagnosed on the basis of the number of incidents of emotional indicators as already explained (supra, 54).

4.3.2.   Goodenough Draw-a-Man Test

The Goodenough Draw-a-Man test is used in this research to supplement the results of the Bender Gestalt test in the assessment of school readiness. The significance of this test is to give more substance to our findings on school readiness.

4.3.2.1.   Uses of the Test

As a non-verbal test this test is also useful in determining the visual-motor perception of the child. The drawing of a human figure in the Goodenough test portrays, as Steenekamp says, the child's ability to integrate his perception and experience of himself into a satisfactory body image (6, 60). The child's ability to have effective co-ordination between eye and hand and to have a proper perception of position depends upon the development of an adequate body image, body concept and body scheme. A disturbance of this ability or an inadequate development thereof leads to reading, writing and calculating problems (3, 42). Besides the fact that the drawing of the human figure is regarded as a projection of the child's image of himself in relation to his surroundings (5, 15 – 16), it also provides an idea of the child's intellectual development.

4.3.2.2.   Scoring of the Test

In this attempt to draw a human figure the child is given a tally for certain items he gives in the image of the human figure (7, 326 – 7). There are fifty items each of which express some detail about the image the child is supposed to draw. A child gets a score of one for every single item that he shows in his picture of a human figure. The scores are then added together to give a composite score.

4.3.2.3.   Interpretation

The raw scores are converted into Goodenough mental age norms as follows (7, 326, 7):

Raw Score	Equivalent M.A.
2	3 years
6	4 years
10	5 years
14	6 years
18	7 years
22	8 years
26	9 years
30	10 years
34	11 years
38	12 years
42	13 years

To obtain the I.Q. the chronological age should be calculated to the nearest month.

The table above is used to obtain the mental age and finally the formula $\frac{M.A.}{C.A.} \times 100$ is used to get the Intelligence Quotient. The results can also be interpreted to assess the child's ability to project and distantiate himself.

4.3.3.   Method

4.3.3.1.   Sample Selection

The sample was made up of 100 school beginners. Fifty of these school beginners had attended preschool the previous year, i.e. up to the end of 1976, whilst the other fifty school beginners had had no preschool experiences at all.

All the testees were selected at random although in the case of the testees with preschool experiences (henceforth called the preschool group) our random sampling was constituted systematically so as to have all the nine preschools visited for this study represented. Thus each of the nine preschools in the area of research was represented by at least five children.

As far as possible the preschool group was matched with the non-preschool group according to age and sex. Matching according to age was not always successful because there was a tendency to enrol children from the preschools before the specified age limit.

Only children between the ages of six and seven were enlisted for testing.

The issue of ethnic grouping was not considered in the selection of the sample. The overriding determinant was the fact that the children were attending a Tswana-medium school.

4.3.3.2.   Administration of the Test

Since there was a double-session system for the first grade pupils (the first session was from 8h00 to 11h00 and the second session from 11h00 to 14h00) the researcher devised two testing programmes each day.

In order to minimise the influence of maturation and learning, testing was conducted over twelve days, two weeks after the school reopening.

The tests were conducted by the researcher himself. He was assisted by the teachers who were responsible for the teaching of the testees. The rationale for using class-teachers of the testees was to put the testees at ease, to ensure that the testees were addressed in the language, and voice they were familiar with, and furthermore that the researcher be furnished, where necessary, with further details about the testees who behaved unusually.

4.3.3.3.   Limitations

The following possible limitations which could have affected the data should be kept in mind as the results of the research are read:

1.   In all but three schools the tests were administered in store rooms where there was congestion and poor ventilation.

2.   The testees had to kneel down whilst using small benches to write on. This manner of writing appeared to be rather strenuous for the testees.

3.   There was sometimes a distracting noise from the children who came in for the second session.

4.   The test was experienced as something novel by some testees who were using paper, pencil and eraser for the first time.

5.   Because the sample used in this study was small in terms of the total population of school beginners and also because the area of research constituted a unique sub-culture quite different from other areas of Bophuthatswana, care should be exercised in generalising about the results of this study to other children in other locations.

6.   The results would have been more conclusive if they had been supplemented by the standardised School Beginners' test with norms for this ethnic group. At the time of testing such a testing instrument had only just reached the final stage and was therefore not available for use.

4.3.3.4.   Statistical Treatment of Data

The raw score of the Bender and Goodenough tests are changed into Mental Age score by using relevant Normative Data tables for these tests. Such derived scores would then be comparable with the norm groups.

The mean scores and standard deviations for the preschool group and the non-preschool group are computed. The standard deviations are computed to determine the variability of the scores from the mean. To find the significance between the mean scores of the preschool group and the non-preschool group, use is made of the formula for computing the z-score: $\dfrac{\overline{X_1} - \overline{X_2}}{SD\overline{X}}$ in which $\overline{X}_1$ and $\overline{X}_2$ represent mean scores of the preschool and non-preschool groups respectively and $SD\overline{X}$ is the standard error of the difference between the two means.

The nature and strength of the tests data require scatter diagrams to compute Pearson correlation coefficients between the Bender test score and the Goodenough test scores for both the preschool and the non-preschool groups.

4.3.3.5.   Level of confidence

Throughout this study the ,05 level of confidence was considered as sufficiently significant. However, levels of confidence that were significant beyond the ,05 level (for example, the ,01 level) were also noted.

4.4.   THE THIRD PHASE : QUESTIONNAIRES

The open-ended questionnaires were important in that they helped to decide upon the type of items to include in the questionnaires for preschool principals and parents. The design and full contents of these two kinds of questionnaires are given in the appendix. Here we summarise the major objectives which these questionnaires were intended to fulfil.

4.4.1.   Questionnaires to Preschool Principals

The following major aims we investigated by means of the questionnaire:

4.4.1.1.   Teachers' Qualifications

Since one of the aims of this study was to find out whether preschool teachers possessed the qualifications which will enable them to execute their duties effectively, it was necessary to establish information on this matter. Consequently, the questionnaire to preschool principals had a table in which they had to specify the academic and professional background of themselves and their staff.

4.4.1.2.   Teacher-Children Ratio

The questionnaire provided a table wherein principals had to indicate the number and grouping of children. The number of children plus the total teaching staff helped to work out the teacher-children ratio. Knowledge of the teacher-children ratio was deemed important in evaluating the extent and nature of relationship and contact between the teachers and the children.

4.4.1.3.   Organisation of Preschool Centres

The effectiveness of preschool education can be deduced partly from the way the daily activities are preplanned. Such activities are supposed to be reflected in broad outlines, at least, in the schemes of work, the timetables and the curricula. As a result the questionnaire contained items which were intended to establish these aspects. It was also the duty of the researcher (Infra, 19) who administered the questionnaire to make careful observation of the practical situation in the various preschool centres in order to add whatever information could not be supplied or elicited by the questionnaires.

4.4.1.4.   Facilities in Preschools

Without a variety of play equipment and ample space for children to play in, it could become difficult for children to learn to make discoveries and express their emotions. In order to analyse these facets, provision was made in the questionnaire in the form of a table for preschool principals to note equipment that they had and also that which they would like to have.

4.4.1.5. Teachers' Remuneration

It was considered important to find out about teachers' salaries because it is generally accepted that satisfactory remuneration is a strong incentive to work, particularly the people from low-economic circles. In this study knowledge of teachers' salaries would shed some light on how they view their work.

4.4.1.6. Other details

A space of ten lines was left open for principals to provide whatever information they wished to give or to recast points which they thought were not properly put within the scope of the items.

4.4.2. Questionnaires to Parents

The main objectives of this questionnaire were:

4.4.2.1. Is there a need for preschool education?

Since this was a broad and basic aim there were a number of items which were intended to give information about the need for preschool education. The purpose of the items was to furnish information on the reasons behind the need for preschool education.

4.4.2.2. Availability of Preschools

This research also aimed to establish whether the number of preschool centres was sufficient to cater for the needs of parents who wished to take their children to preschools. Items on establishing the distance between preschool centres and the homes of the people interviewed and the fees stipulated by the preschools were significant in eliciting facts about how parents felt about the accessibility of preschools to their children, i.e. geographically and financially.

4.4.2.3. Parent-Teacher Relationship

Constant and cordial meetings between parents and teachers have far-reaching educational implications. Parents need to know and be actively involved in what the preschool centres are doing in order to keep abreast of their developing children.

Preschool centres should know and understand parents in order to grasp and appreciate the cultural backgrounds of the individual children. To these ends items were designed.

4.4.2.4. Other details

An open space of ten lines was left for the same reason as in the questionnaire for preschool principals.

4.4.3.   Sample

There were all in all 9 preschools centres in the Ga-Rankuwa—Mabopane District. All these preschool centres responded to the questionnaires; and in all but one preschool centre the questionnaire was filled in by the vice-principal instead of the principal.

Questionnaires for parents were administered to 100 testees, chosen in this manner:

Ga-Rankuwa	:	50 testees
Mabopane	:	30 testees
Hebron	:.	10 testees
Hoekfontein	:	10 testees

4.4.4.   Administration of the Questionnaires

Questionnaires for preschool principals were administered by the researcher over a period of 5 days. Besides the filling in of detail by the principals, systematic observation of the atmosphere prevailing at preschool centres was made. It was made part of the administration programme to observe children's play (both structured and unstructured), to check the equipment and to take photographs of the environment.

The questionnaires for parents were administered by the researcher together with two test-helpers. Tremendous care was exercised to look for test-helpers who commanded the respect and confidence of the community. Hence the two test-helpers were high school teachers of repute and high standing in the eyes of the community.

4.4.5.   Scoring and Analysis of Questionnaires

The questionnaires contain three columns (agree, neutral and disagree) for each item. The testees mark with a cross (X) in the column that corresponds to their answer. Some items require the filling in of information. Depending on the nature of the items, responses are either given in frequencies or in percentages.

4.4.6.   Use of the Phenomenological Approach

Mention was made in Chapter 1 that use would be made of the phenomenological method in this study. Consequently during the testing programmes the researcher was not only concerned with collecting data from tests and questionnaires but also interested in making a detailed and systematic observation of the real situation surrounding the locale of testing and questionnaire administration.

In the next chapter when the results are analysed and interpreted the researcher will also not only pay attention to the quantitative interpretation of data but will also give the qualitative interpretation of the results based on a global analysis of the results of tests and questionnaires and all the observed factors that impinged on the outcome of this research study.

4.5. CONCLUSION

The results of the above-mentioned tests and questionnaires are analysed and interpreted in the next chapter.

4.6 REFERENCES

1. Bender, L.: <u>Instructions for Use of the Visual-motor Gestalt Test.</u> New American Orthopsychiatric Association. New York 1946.

2. Boring, E.G.: <u>Sensation and Perception in the History of Experimental Psychology.</u> Appleton-Century Co. New York 1964.

3. Frosting, M. et al: <u>The Frosting Program for the Development of Visual Perception.</u> Teacher's Guide Follett Publishing Co. Chicago 1964.

4. Koppitz, E.M.: <u>The Bender Gestalt test For Young Children.</u> Grune-and-Stratton Inc. New York 1963.

5. Nel, B.F. et al: 'Die Tekening van Menselike Fuguur as 'n Projeksie-Tegniek.' <u>Opvoedkundige Studies</u> Nr 22. Fakulteit Opvoedkunde U.P. 1958.

6. Steenekamp, J.C. (ed): <u>South African Pedagogical Society.</u> Union 1973.

7. Tayler, E.M. et al: <u>Psychological Appraisal of Children with Celebral Defects.</u> Harvard University Press Cambridge. Massachusetts 1959.

CHAPTER 5

5. ANALYSIS AND INTERPRETATION OF DATA

5.1. INTRODUCTION

This chapter comprises the analysis and interpretation of the findings resulting from this study. The first part of the chapter deals with a quantitative analysis of the data. Thereafter there will be a qualitative interpretation of the results in which the factors that contributed towards the situation revealed by tests and questionnaire results will be discussed.

5.2. TEST DATA

5.2.1. Chronological Age Data

Below follows Table I and Table II showing the frequency of ages and mean ages respectively.

Table I : Frequency of Ages

Age Interval	Preschool Group[1]	Non-Preschool Group[2]
6–6,2 years	5	7
6,3–6,5 years	21	21
6,6–6,8 years	14	13
6,9–7,1 years	10	9
	N = 50	N = 50

Table II : Mean Age	Preschool Group	Non-Preschool Group
mean age	6,52	6,5

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1 Children who attended a pre-primary school

2 Children without a pre-primary school experience

5.2.2. Raw Scores on the Bender Test Expressed in Errors

Table III:

Preschool Group			Non-Preschool Group		
Class Interval	Frequency	%	Class Interval	Frequency	%
22—26	1	2	22—26	—	—
21—23	6	12	21—23	4	8
18—20	2	4	18—20	10	20
15—17	13	26	15—17	16	32
12—14	8	16	12—14	7	14
9—11	11	22	9—11	8	16
6— 8	8	16	6— 8	5	10
3— 5	1	2	3— 5	—	—
	N = 50	100		N = 50	100

5.2.3. Raw Scores on the Goodenough Test

Table IV:

Preschool Group			Non-Preschool Group		
Class Interval	Frequency	%	Class Interval	Frequency	%
30—32	—	—	30—32	2	4
27—29	1	2	27—29	—	—
24—26	—	—	24—26	—	—
21—23	3	6	21—23	1	2
18—20	1	2	18—20	2	4
14—17	5	10	14—17	2	4
11—13	4	8	11—13	7	14
8—10	10	20	8—10	11	22
5— 7	17	34	5— 7	19	38
2— 4	9	18	2— 4	6	12
	N = 50	100		N = 50	100

5.2.4.   <u>Mental Age Scores on the Bender Gestalt Test</u>

Table V:

| | Preschool Group | | | Non-Preschool Group | |
M.A. Interval	Frequency	%	M.A. Interval	Frequency	%
Below 5 years	23	46	Below 5 years	24	48
5–5,4 years	15	30	5–5,4 years	16	32
5,5–5,9 years	1	2	5,5–5,9 years	1	2
6,0–6,4 years	7	14	6,0–6,4 years	5	10
6,5–6,9 years	3	6	6,5–6,9 years	4	8
7,0–7,4 years	–	–	7,0–7,4 years	–	–
7,5–7,9 years	1	2	7,5–7,9 years	–	–
	N = 50	100		N = 50	100

According to the Normative Data of the Bender Gestalt test (9, 35) a child whose maturation on the visual-motor perception is on the level of the 6-year-old is fit to begin with the first school grade. From the data above this means that only 22% of the preschool group and 18% of the non-preschool group are ready for school.

5.2.5.   <u>Mental Ages Scores on the Goodenough Test</u>

Table VI:

| | Preschool Group | | | Non-Preschool Group | |
M.A. Interval	Frequency	%	M.A. Interval	Frequency	%
Below 5 years	34	68	Below 5 years	31	62
5,0–5,4 years	4	8	5,0–5,4 years	10	20
5,5–5,9 years	2	4	5,5–5,9 years	2	4
6,0–6,4 years	1	2	6,0–6,4 years	3	6
6,5–6,9 years	3	6	6,5–6,9 years	1	2
7,0–7,4 years	1	2	7,0–7,4 years	1	2
7,5–7,9 years	3	6	7,5–7,9 years	2	4
8,0–8,4 years	2	3	8,0–8,4 years	–	–
	N = 50	100		N = 50	100

The data above establish that 20% of the children from the preschool and 14% of the children from the non-preschool group have mental ages of 6 years and higher. These then are the only children who are ready for school.

The fact that these results are in close relation with the Bender Gestalt test results highlights the reliability of the findings.

5.2.6. I.Q. According to the Goodenough Test

Table VII:

	Preschool Group			Non-Preschool Group	
I.Q. Interval	Frequency	%	I.Q. Interval	Frequency	%
150–159	1	2	150–159	–	–
140–149	–	–	140–149	–	–
130–139	–	–	130–139	–	–
120–129	2	4	120–129	–	–
110–119	3	6	110–119	2	4
100–109	4	8	100–109	2	4
90– 99	1	2	90– 99	4	8
80– 89	2	4	80– 89	5	10
70– 79	6	12	70– 79	11	22
60– 69	17	34	60– 69	13	26
50– 59	11	22	50– 59	12	24
40– 49	4	8	40– 49	1	2
	N = 50	100		N = 50	100

An I.Q. of 100–109 is regarded as average. The data above then testify that 82% of the children from the preschool group and 92% of the children from the non-preschool group have intelligence below the average.

5.2.7. Emotional Disturbance

Table VIII: Frequency of Emotional Indicators

Subject		Number of Emotional Indicators								
	N	0	1	2	3	4	5	6	7	8
Preschool Group	50	–	6	11	8	16	5	3	1	–
Non-Preschool Group	50	–	3	12	13	17	3	2	–	–

The Normative Table for emotional disturbance states that children with 3 plus emotional indicators showed emotional disturbances whilst children with 6 plus emotional indicators showed serious emotional disturbances.

From the data obtained this means that 66% of the preschool children tested and 70% of the non-preschool children have some inclination to emotional disturbance. Of these children 8% of the preschool group and another 4% of the non-preschool group have serious emotional disturbance.

5.2.8.   Mean Scores and Standard Deviations

Table IX:

		Preschool Group	Non-Preschool Group
Age	mean (u)	6,52	6,5
Bender Test	mean	13,4	13,2
	SD(σ)	5,07	3,6
Goodenough Test	mean (u)	8,6	9,3
	SD(σ)	8,0	8,5

On the Bender Gestalt Normative Data the two means from the preschool group and the non-preschool group fall within the mental age of 5 years. This means that on the whole the 6½-year-old children tested in this research are not ready for school.

On the Goodenough Mental Age Norms the means of 8,6 and 9,5 for the preschool group and the non-preschool group will be equivalent to the mental ages of 4½ years and 5 years respectively. Again this indicates that on the average the tested children are not ready for school.

The standard deviations from the Bender Gestalt test show that the raw scores of the population from the non-preschool group can be expected to deviate not much from the obtained mean score as compared to the population of prescholars.

A high measure of variability of raw scores from the mean in the case of the preschool group is expected because education tends to make children more heterogeneous. The fact that the variability of the raw scores from the means is about the same for both the preschool group and the non-preschool group can be an indication of the low discriminatory power of the Goodenough Test.

5.2.9.   Significance of Difference between Means

Table X:

Test	obtained z score	z score at 5% level
Bender	0,18	1,64
Goodenough	0,50	1,64

Since it was expected that children who have had preschool experiences would perform better than children without these experiences on the two tests, a predictive hypothesis was anticipated, namely that the preschool group would have significantly higher means than the non-preschool group in both tests.

In a one-failed test one requires a Z score of 1,64 to reject the null-hypothesis (H O) of no difference between the means and accept the alternative hypothesis at the 5% level. With the obtained Z score of 0,18 and 0,50 on the Bender and Goodenough tests respectively, the obtained differences between the means is rejected as being significant. The null-hypothesis that there are no significant differences between the means of the preschool group and the non-preschool group, is therefore accepted.

The fact that there are no significant differences between the performances of the preschool group and the non-preschool group suggests that preschool education, in its present form, is not effective. Why this is so will become evident when a qualitative assessment of the findings is given.

5.2.10.   Correlation between the Bender and Goodenough Tests

Table XI:

	Pearson r.	Level of significance
Preschool group	−,44	1%
Non-preschool group	−,64	1%

The above correlations are negative because the Bender Gestalt test is scored for errors. The results show a moderate correlation with the preschool group and a substantially higher correlation for the non-preschool group. The moderate correlation for the preschool group may be accounted for in the fact that the preschool children have had previous practice in the drawing of a human figure, and as a result performed considerably better on the Goodenough test. The discrepancy between the low performance on the Bender test and the relatively higher scores on the Goodenough test resulted in the moderate correlation. In the case of the non-preschool group a high correlation is obtained because poor performance on the Bender test is matched with equally poor scores on the Goodenough test.

Both correlations are significant at 1% level because the correlation (r) must be 0,254 to be significant at the 1% level. The fact that the two tests show significant correlations increases the reliability of the results.

5.3. QUANTITATIVE INTERPRETATION OF TEST RESULTS

5.3.1.   The Phenomenon of School Unreadiness

According to Bender (1,56) the copying of Gestalt figures reflects maturation level of visual-motor perception ind visual-motor perception is closely related to language ability and other functions associated with intelligence in school-going children. This claim is confirmed by Wewetzers (11, 4 − 174) and Hanvick (7, 9 − 329).

Research results also established a high correlation between I.Q. and Bender score (which was found to be statistically significant at 1% level) at the age of about 5 years (9, 52). This suggests that the Bender Gestalt test is a useful screening instrument for school readiness although its results would be more authentic if they were supplemented by other tests.
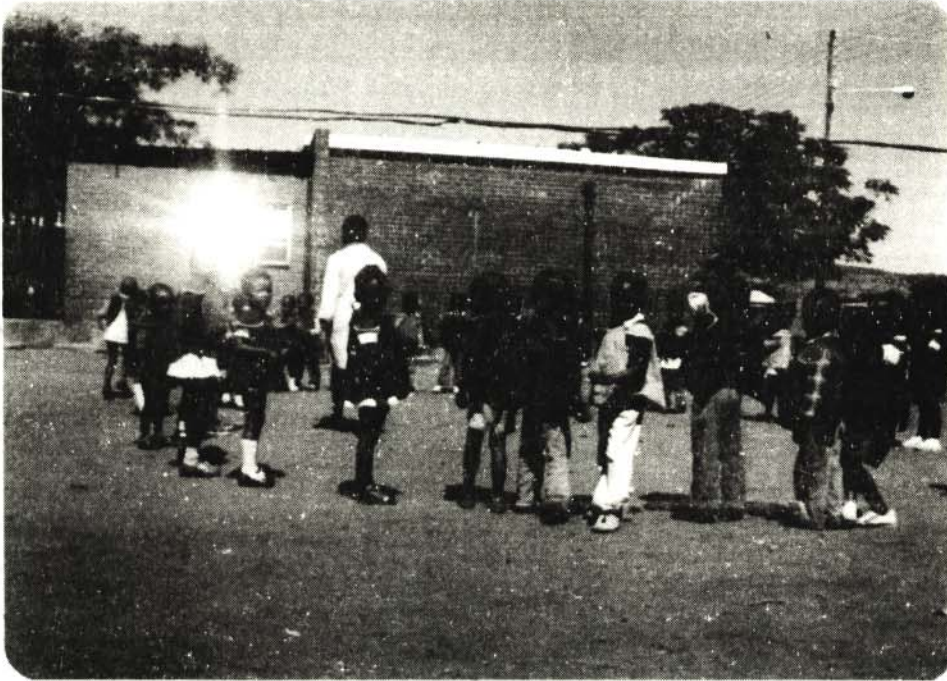
Children playing with the teacher in a nursery school: Ga-Rankuwa Zone 5.

A cook preparing lunch for the children in a nursery school: Ga-Rankuwa Zone 2.

The data derived from children with mean chronological ages of 6,52 (preschool group) and 6,5 (non-preschool group) indicate that more than 80% of all the tested children possess a low intelligence which would make formal education a difficult task for them. These results derived from the Bender test show a statistically significant correlation at 1% level with the Goodenough test results which also confirmed that more than 80% of all the tested children were not ready for school.

In the case of this study, an attempt will be made to explain later on that the high incidence of "low intelligence", which the teachers contend creates learning problems during the first few months of schooling, does not entirely imply basic low intellectual potential but rather a reduced intellectual potential due mainly to factors in the milieu of the child. This is to emphasise that the low intelligence scores are not necessarily native but can be experiential.

Nevertheless, with regard to the cause of school unreadiness the results are in themselves clearly illustrative of the dire need for more effective and more organised preschool education. The fact that the performances of the preschool group are not significantly better than those of the non-preschool group indicate to a large extent the ineffectiveness of preschools in their present form.

5.3.2.   Emotional Problems

A considerable number of research studies, amongst others, by Clausen, Byrd, Eber, etc. have established positive correlation between poor performance on the Bender test and emotional disturbances (3, 196 − 245; 2, 127 − 136; 5, 18 − 126). This is an assertion that children with emotional problems also more often tend to have significantly immature visual-motor perception.

There are times when visual-motor perception is the primary symptom while emotional problems are secondary symptoms which develop as a consequence of the first and vice versa. In the case of this research it is difficult to say which factor dominated the other. However, judging from the close relationships of the occurrences of emotional disturbances with poor performance on the Bender test as well as the researcher's practical knowledge of the situation of the black child, the two factors can be said to be equally interreactionary. Although the data have established that more than 68% of all the tested children have some emotional problems, of which about 6% can be said to have serious emotional maladjustment, the results cannot be used in the identification of emotional disturbance. What the results suggest, however, a matter which is outside the scope of this research, is that further investigation of the underlying factors contributing to the children's emotional maladjustment is required.

In the case of blacks, such an investigation should, in the opinion of the writer, not only be cross-sectioned but also primarily longitudinal in probing into and highlighting such factors as security, conflicts, frustrations and all other related factors of a socio-cultural nature.
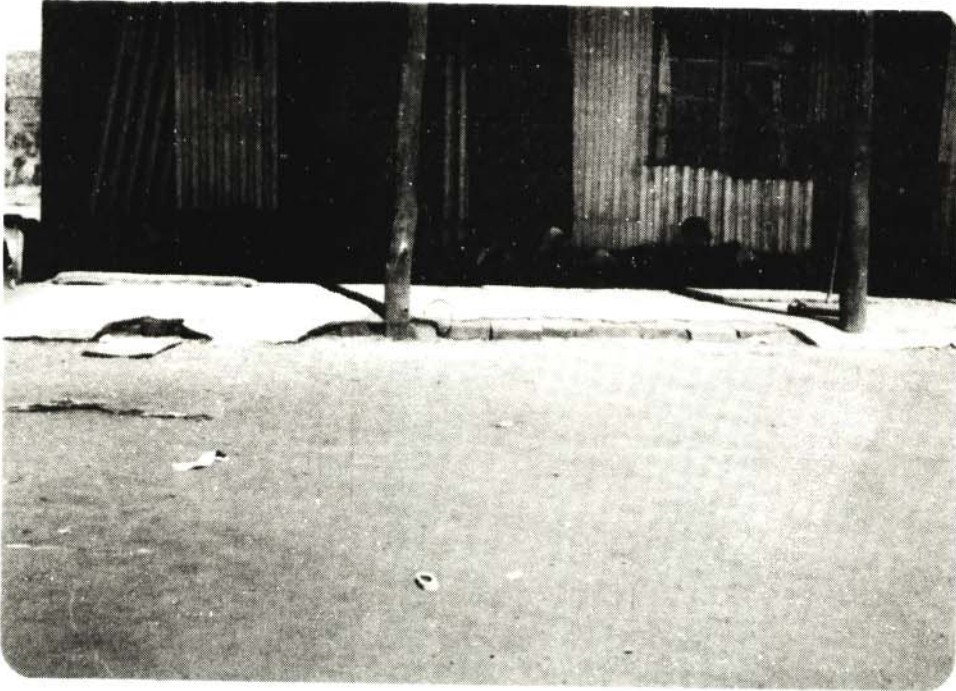
Children sleeping on the verandah of a nursery school: Hoekfontein.

Nursery school buildings: Ga-Rankuwa Zone 2.

5.4. QUANTITATIVE ANALYSIS OF THE QUESTIONNAIRES

5.4.1. Questionnaires to Preschool Principals

Here the writer provides major findings from the responses of nine preschool principals to the questionnaire that appears in the appendix.

5.4.1.1. Teachers' Qualifications[1]

Table XII: Academic Qualifications

Standard Passed	No. of Teachers	%
Form III	3	10
Forms I and II	7	23
Std. VI	12	40
Below Std. VI	8	27
Total	30	100

Table XIII: Professional Qualifications

	No. of Teachers	%
With professional qualifications[2]	9	30
Without professional qualifications	21	70
Total	30	100

5.4.1.2. Teacher-Children Ratio

Table XIV:

Preschool Centre	No. of Children	No. of Teachers	Ratio
1	120	4	1:30
2	120	3	1:40
3	109	3	1:34
4	80	2	1:40
5	140	4	1:35
6	60	1	1:60
7	80	3	1:27
8	120	5	1:24
9	120	5	1:24
Total	949	30	1:31,8

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1 Statistics incorporate principals' qualifications.

2 The professional certificates acquired by the teachers are not departmental.

5.4.1.3.   Teachers' Remuneration

Range of Salary: R30 — R75 monthly.

5.4.1.4.   Item Analysis

Nine preschool principals responded to the questionnaire items. The items given in the form of statements are intended to provide information which would give more meaning to the test results. The results are presented below:

Table XV: Items

	Agree		Neutral		Disagree	
	No.	%	No.	%	No.	%
1. The main function of the preschool is to prepare the child for formal education.	9	100	—	—	—	—
2. Preschool does not have a well-organised and clearly defined timetable.	7	78	2	22	—	—
3. Teachers are not conversant with their work and the needs of their children.	9	100	—	—	—	—
4. Children do not get regular medical check-ups.	9	100	—	—	—	—
5. There is no regular child counselling from a social worker or a child psychologist.	9	100	—	—	—	—
6. Preschools are ill-equipped with furniture.	9	100	—	—	—	—
7. Play equipment is very limited.	8	89	1	11	—	—
8. There is little communication between parents and preschool teachers.	9	100	—	—	—	—
9. Preschool teachers are overburdened with work.	9	100	—	—	—	—
10. Lack of funds hampers the proper running of preschools.	9	100	—	—	—	—

5.4.2.   Questionnaire to Parents

A hundred parents responded to the questionnaire and the following results are significant for this research:

Table XVI: Items

	Agree	Neutral	Disagree
1. Parents have low standard of education.[1]	78	—	22
2. Parents have taken one or more children to a preschool.	54	—	46
3. Parents wish to take their children to a preschool.	91	5	4
4. Parents feel there should be more preschool centres.	80	12	8
5. Parents want to take children to preschools in order to work.	78	6	16
6. Parents feel the atmosphere at home can be dangerous.	84	7	9
7. Parents feel the atmosphere at home is not conducive to learning.	84	7	9
8. Parents find it difficult to follow what their children are learning.	87	3	10

		Agree	Neutral	Disagree
9.	Parents assist their children with their schoolwork.	44	7	49
10.	Parents are interested in the education of their children.	100	–	–
11.	Parents find it difficult to send their children to preschools because of the high fees.	33	10	57

By and large, the findings above reveal that, although preschool centres fall far below the required standard, parents would like to send their children to these centres for one, two or all of the following reasons:

1.   to keep their children in safe custody when they have gone to work;

2.   to keep the children away from the restrictive and unstimulating home environment; and

3.   to ensure that children get a better educational background which they cannot provide because of their limited knowledge.

5.5. QUALITATIVE INTERPRETATION

The fact that children in this study showed poor performance as well as emotional maladjustment — the two factors which generate school unreadiness — has significant diagnostic values. Some major causative factors of the school unreadiness situation are detectable from the responses to the questionnaires for preschool principals and parents. Other causes are brought to the surface through our detailed observation and analysis of the area in which this research study is conducted.

5.5.1.   Failure of Preschools to cater for the needs of Children

Without diminishing the important role played by preschool centres in securing a protective environment for the children whilst their parents are away at places of employment, it appears from the findings that these centres are not rendering an effective service as socio-educational institutions. This situation is caused mainly by the following factors.

5.5.1.1.   Limited equipment and facilities

Data from Piaget and Hunt revealed that the full development of abstract intelligence depended on the abundance of experience with concrete operations, manipulation of objects, processing concrete data, experimenting with spatial and time relationships and with the transformations of sizes and shapes (vide 10, 8). If abstract thinking is ultimately rooted in concrete sensory phenomena, as many learning theorists rightly assert, it means that the child must be exposed to a greater variety of stimulations and more numerous situations which initiate modification of conceptualisation and thus contribute towards further mobility and differentiation of mental structures. Since these concrete stimulations are particularly crucial during the formative years, it is imperative that preschool centres be lavishly supplied with a variety of play materials and an unrestrictive space for the child to explore his innate potentialities to the full.

Lack of sufficient space and proper play materials in the preschools investigated, together with other factors such as low standard of teaching and high teacher-children ratios described below are sufficient ingredients for the development of low mental capacity in children.
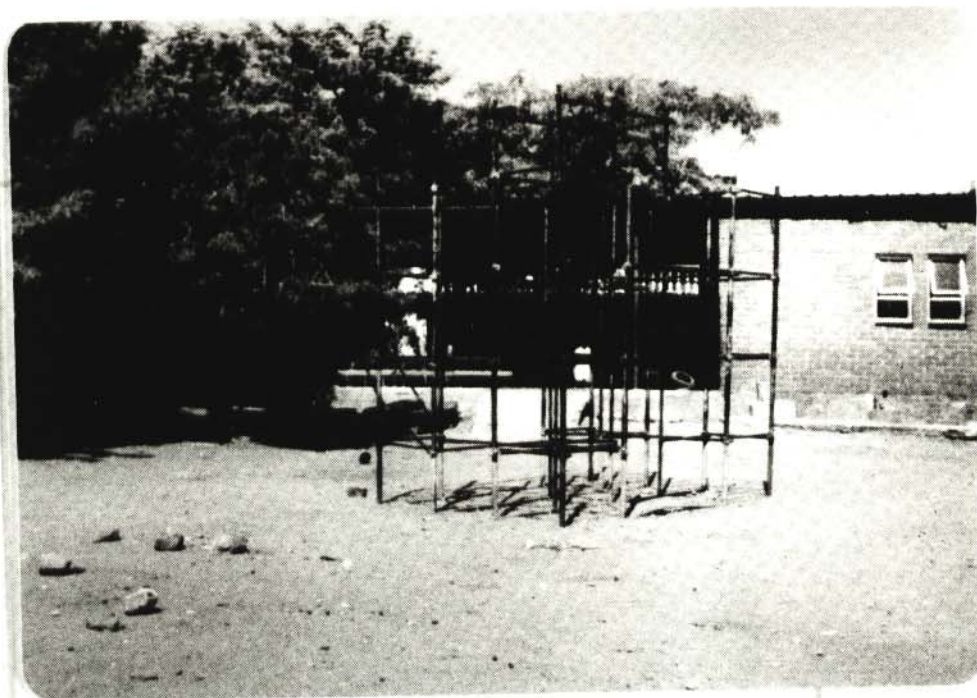
One of the best equipped nursery schools: Ga-Rankuwa Zone 1.

5.5.1.2.   Low Standard of Teaching

A preschool centre can have all the facilities required and still not satisfy the needs of children unless there are sufficiently qualified and experienced teachers to organise and interpret the equipment meaningfully for the benefit of the child.

The qualifications of preschool teachers in the Odi district as represented in this study are of such a low standard that they would find it difficult to fully grasp the complexities of the individual children's needs and personality structures. Because of their limited theoretical and practical knowledge most of the teachers fail to provide clear guidelines on how to organise and govern play activities; they are also wanting in their ability to observe, appraise and record children's growth and problems.

5.5.1.3.   High Teacher-Children Ratio

The absence of play supervision in young children results not only in conflict and aggression amongst the children but also in a certain degree of apathetic and aimless activities. An average ratio of one teacher to 32 children, which this research established, would make it extremely difficult for a teacher to cater for the needs of each individual child even if she had the energy, the knowledge and the initiative. Extremely low salaries have the negative effect of inducing teachers to accept their work grudgingly and with unconcerned laxity.

A situation like this where children are left on their own for most of the time is most likely to abound with emotional conflicts and frustrations. The younger children become constant targets of hostility from the older children. Eventually the younger ones withdraw into their shells. A configuration of these two — hostility and withdrawal — is, says Knapp, "a syndrome suggestive of marked insecurity" (6, 265). Insecurity, in turn, creates communication and learning problems.

The picture that is painted above clearly shows preschools in the Odi district as not being capable of providing for the social and emotional needs of children. This is another token of the need for more organised and more effective preschool education.

5.5.2.   The Socio-Cultural Milieu of the Child

In relating this topic attention will be paid to two aspects which are interdependent and which, if at variance with each other, can bring about emotional and educational problems in the child or accentuate the already existing problems such as those established by this study.

5.5.2.1.   The Home Milieu of the Child

Several research projects have recorded relationships between the child's home environment and achievement in school. Day, for instance, mentions three factors as being necessary for the child to be well-disposed towards school demands. These are (vide 4, 12):

1. a family conservation which answers the child's questions, encourages him to ask questions and to extend his vocabulary;

2. a family environment which sets an example of reading and provides a variety of toys and play materials, with colour, sizes and objects that challenge his ingenuity with his hands and his mind; and

3. two parents who read a good deal, read to him, show him they believe in the value of education and reward him for good school achievement.

Viewing the home backgrounds of the children in the Odi district against Day's contention of the criteria for an educationally stimulating home environment, one observes significant discrepancies. This study confirmed at least three factors that are likely to militate against the promotion of a healthy socio-educational experience for the child. These are:

1. a high majority of parents possess low educational standards. The consequence of this is that they are likely to fail to create, instil and promote an atmosphere of learning in their children from an early age.

2. The tradition, or perhaps the attitude of many parents, is that they discourage questioning or any form of inquisitiveness from young children. This state of affairs seems to be closely related to the feelings of ineptitude and inadequacy apparent in the parents.

3. Many parents earn a salary that can barely cater for basic needs. As a result many houses are devoid of play facilities and open spaces that can stimulate the inquiring minds of young children. Unlike his rural counterpart who is at liberty to respond to the call of nature around him, the urban child's environment is restricted to the sterile and unstimulating environment of his home.

The above situation coupled with the low educational achievements of parents as well as the continuous crisis conditions of finding work and making a living not only adversely affects the intellectual stimulation of children, it also creates behavioural side-effects adverse to learning such as reduced self-concept and low motivation.

1. Reduced Self-Concept

The family is one of the first principal institutions in the development of self-concept. One striking fact about parents interviewed in this research was their tendency to be apologetic, withdrawn and secretive. Throughout the interview a good majority of them showed a feeling of less than equality. These attitudes and gestures may be transferred to the children who come to the school seemingly lacking in self-confidence.

2. Low Motivation

Motivation seems to have its origin in learning experiences during early childhood. In particular achievement motives require for most children some structuring performance standard and some demands by parents (vide 4, 52). Whilst parents in this research showed commitment to the education of their children and take pains to explain the positive value of education to their offspring, their socio-economic and educational status is not a positive factor in inspiring achievement motives in their children.

5.5.2.2. The School Milieu

Besides the known limitations in black schools, such as those depicted in the area of preschools in this research, there is still another disturbing element in black schools. This is that to a large extent black schools are, in practice, western-orientated both in content and style although there is currently much talk about the Africanisation of the curriculum. In the preschool centres visited, for instance, one was struck by teachers who were all too eager to teach the children ditties and short poems which were taken directly from an English book without any attempt to translate these into the language of the child nor to adapt these materials to the lived-world of the child nor to try to make concrete what the child learns with appropriate audio-visual aids. In this way the child is deprived at an early stage of the opportunity to master concepts and express experiences in his mother-tongue — concepts and experiences which would become a frame of

5.6. THE SUB-CULTURE OF THE AREA OF RESEARCH

A short description of the origin of the people in the research area will enable the reader to appreciate the multifarious problems of the adaptation the children in this area have to make.

The two major areas of this research are Ga-Rankuwa and Mabopane West. Ga-Rankuwa is about 17 years old whilst Mabopane is about 10 years old. However, more than 60% of the population in these areas settled during the past five years. About 40% of the families at Ga-Rankuwa are from Lady Selborne and Eastwood, the two slum areas that were near Pretoria. The other 60% can be divided amongst Tswana people from Atteridgeville, Mamelodi and the neighbouring rural areas - the latter in search of employment at the border industries of Rosslyn, north of Pretoria. A reasonable percentage of the population at Ga-Rankuwa are not Tswanas. Hence, initially there were schools which catered for Zulus, Tsongas and Pedis. The population of Mabopane West consists mainly of Tswanas from Atteridgeville, Mamelodi, Walmanstal and the rural areas. From the description above, one realises that in this area of research there are two major sub-cultures: the rural sub-culture (which in tradition can also be further subdivided into various Tswana dialects) and the urban sub-culture with a distinctive lingua-franca typical of urban blacks in Pretoria.

When these two sub-cultures came together in one geographical entity there were initially cultural conflicts which are now being reconciled into a new cultural set-up. The cultural transition which is now in process poses problems of adaptation not only for the parents but also for the youth. Parents feel alienated because they are cut off from familiar contacts; they have few sources of advice and support for what they are and little reinforcement for values they have brought with them. In their effort to forge ahead and create their own cultural identity, the youths are also confronted with conflict situations not only with their parents but also amongst themselves.

5.6.1.   Implications for Preschools

From the descriptions of the peoples in the area of research it is evident that children in this area have highly heterogeneous norms and values, which are also different from their parents.

It is therefore important for preschools because of their vantage position to make indelible impressions on children, to understand, appreciate and accommodate the heterogeneity of the children's backgrounds and the effects these have on learning and personality development. This is a demanding task which requires conscientious, qualified and experienced teachers.

5.7. CONCLUSION

The research findings established in this chapter give an indication of the level of school readiness of the children in the Odi district. The findings also show the position of preschool education in the area of research. To a certain extent the same situation of preschool children and preschool education can be expected in the whole of Bophuthatswana. One can even go a second step further and say the results and findings are generally predictive of what can be expected among black children in the Republic of South Africa. If this is the case, what suggestions can be made? This becomes an important subject of discussion in the next and last chapter.

5.8   REFERENCES

1.   Bender, L.: Bender Motor Gestalt Test. Cards and Manual of Instruction. The Am. Orthopsychiatric Association Inc. 1946.

Journal of Projective Technique. 1956.

3. Clawson, A: 'The Bender Visnal Motor Gestalt Test as an index of emotional disturbance in children.'
    Journal of Projective Technique. No 23. 1959.

4. Day, S.: Home Factors Influencing Achievement of Disadvantaged Students. University Microfilm, A Xerox Co., Michigan 1973.

5. Eber, M: A Bender Gestalt Validity Study: The Performance of mentally retarded children.
    Dissertation Abstraction 1958.

6. Gowan, J.C. and Domos, G.D. (ed): The Disadvantaged and Potential Drop-out: Compensatory Educational Programs. Charles C. Thomas Publishers. U.S.A. 1966.

7. Hanvick, L.: 'A note of rotation in the Bender Gestalt Test as predictor of E.E.G. abnormalities in Children.' Journal of Clinical Psychology. No 9. 1953.

8. Hunt, J.M.K.: Intelligence and Experience. Ronald Press New York. 1963.

9. Koppitz, E.M.: The Bender Gestalt Test for Young Children. Grune and Stratton Inc. New York 1963.

10. Piaget, J.: The Psychology of Intelligence. Routledge and Kegan. London 1946.

11. Wewetzer, W.: Bender Gestalt Test bei kindern: Auswertungsmethode und differential diagnostische nöglichkeiten. Z. diagnost Psychologie 1956.

CHAPTER 6

6. SUMMARY, FINDINGS AND RECOMMENDATIONS

6.1. STATEMENT OF THE PROBLEM

The problem, which gave rise to the research project, started as a result of the researcher's concern that most school beginners in the area of Ga-Rankuwa and Mabopane were not mature enough socially, emotionally and intellectually to cope with the requirements of formal school education. Consequently, there was a need to disclose the apparent cause of the above-mentioned state of affairs as well as to furnish more information and suggestions that might help ease or solve this problem.

6.2. AIMS OF THE STUDY

To give structure and purpose to this research study specific aims were set as vital issues which necessitated investigation.

1. The first aim was to determine the role played by preschool education in preparing children for formal schooling. This matter required probing specifically into the following factors which determine the effectiveness of any project of preschool education:

a) the nature and quality of programmes incorporated in preschool centres such as timetables, curricula and equipment;

b) the quality of teaching in preschool centres as reflected in teachers' qualifications and their knowledge of the psychology of children; and

c) the co-operation between preschool teachers and parents in their involvement with preschool children.

2. The second aim, which is supplementary to the first, was to compare performances of children with preschool experiences with the children who have had no such experiences. The differences in performances and abilities of prescholars and non-prescholars achieved by means of the available measuring instruments would give a clear picture of the effectiveness of preschool education in the Odi district of Bophuthatswana.

3. The third major aim was to determine the need for preschool education as expressed by parents in a survey questionnaire. The purpose of these questionnaires would be to establish the extent to which parents were conscious of the role played by preschool education; the reasons they mention for wanting to send their children to preschool centres and the role they play in the running and organisation of preschool centres.

4. The fourth aim of the research to be established through survey questionnaires and partly through a systematic appraisal of the lived-world of the child was to probe into the factors in the environment of the child that would most probably bring about the phenomenon of school readiness or lack of it.

6.3. METHODS OF INVESTIGATION

6.3.1. Testing Procedures

Fifty children who had had preschool education prior to the year of testing and fifty children without any form of preschool experiences were included in the sample. The preschool group and the non-preschool group were matched according to age and sex in an attempt to derive results from the two groups that were comparable.

Two kinds of non-verbal tests — the Bender Gestalt test and the Goodenough Draw-a-Man test — were used as testing instruments to determine not only the level of school readiness of the testees but also their emotional state since the latter is also an important aspect of school readiness. The two tests were administered by the researcher himself.

Two kinds of survey questionnaires (one intended for parents and the other for preschool principals) were designed to assess the impressions of parents and preschool teachers on matters explained under the heading 'Aims' above. Nine preschool principals from nine registered preschool centres in the Odi district responded to questionnaires which were conducted by the researcher. A hundred parents selected at random participated in the questionnaires intended for them. These questionnaires were administered by the researcher together with two test-helpers.

6.3.2. Analysis of Data

The analysis of the results entailed firstly giving a quantitative appraisal of data by computing frequencies, means, standard deviations, correlation coefficient and percentages. These were followed by a qualitative interpretation of the results where we took the above quantitative results and screened them against the background of all impinging factors in the preschool and in the milieu of the child.

6.4. FINDINGS

The discussion of the findings will entail a comparison of the findings from literature and the findings of this research study. This is done to help the reader to see clearly how the findings of this research stand in relation to the findings already established in the field of preschool education.

Literature and research studies indicate that South Africa started late in the field of preschool education as compared to most western countries and the USA. This fact is not surprising since South Africa is rather a young country, technologically.

Despite the fact that South Africa has been a late starter, she has nevertheless caught up with most technologically developed countries and now compares most favourably with them.

6.4.1. Increased Interest in Preschool Education

The situation described immediately above can be attributed to the considerable attention that has been devoted to preschool education during the last three decades or so. This keenness is marked in particular by the following three factors:

1. Ever since the pioneer work of Sonnekus and Nel, educationists of outstanding merit, the amount of literature and the number of research projects coming from the field of preschool education have been enormous. Today there are no less than six standardised tests for South African white school beginners and prescholars.

2. The active interest shown by the public in these debates and in articles in educational periodicals was remarkable. These articles were contributed to encourage parental participation in these debates and to make parents aware of the significance of preschool education. The articles achieved the object.

3. The Government, through its Ministry of National Education, has also given active support to preschool education by making it its responsibility and commitment to finance and supervise preschool education. This commitment was spelt out clearly for the first time in April 1969.

Up to date the situation of preschool education among black communities leaves much to be desired. Except for the research project conducted with the Pedi school beginners, there is no literature on any other scientific investigation that is worth noting.

The Human Sciences Research Council has recently standardised the one and only test for school beginners of the different Black Nationality Groups. Norms for the Tswana school beginners were made available for the first time at the beginning of 1977 when the practical investigation of this research study had already been completed.

As established in this study, black preschools in the Odi district do not receive financial aid from the Government nor do they get advice on how to run and organise their preschools.

6.4.2. Preschool Programmes

Programmes for subsidised preschools for white children in South Africa reveal great similarities. This is due to the fact that subsidised preschools are affiliated to the same Nursery School Association. In general preschool programmes provide for indoor play activities, outdoor play activities as well as routine activities. All these activities are made possible by the provision of a variety of equipment which is at the disposal of teachers and children.

This study revealed the disturbing realities of scanty play equipment and facilities in all the preschools investigated in the Odi district. These conditions created an atmosphere which did not promote participation in constructive play. Furthermore, there is overcrowding since preschools are not built according to standard specification.

6.4.3. Teachers' Status

Literature indicates that the educational standard achieved by teachers in white preschools in this country is as high as in most developed western countries and the USA. Matriculation is the minimum academic qualification requirement for training as a preschool teacher. This ensures a high standard of teaching and a better understanding of the child.

Teachers' salaries are paid by the Department of National Education on a scale equivalent to one's qualifications and experience. Teachers are not discriminated against simply because they are teaching in a preschool.

On the other hand, this research has recorded generally very low academic qualifications of teachers in the Odi district. More than 50% of these teachers do not have professional qualifications and those who have professional training have acquired their education from private institutions. Teachers' salaries are far below the present minimum breadline mark. These salaries are paid from the children's fees.

Add to this picture the average ratio of one teacher to 34 children recorded in this study as compared to one teacher to 18 children recorded in white preschools in 1968, then one would understand why preschool teachers in the Odi district are likely to lack initiative, interest and impetus, and feel generally dejected.

6.4.4. The Milieu of the Child

The percentage of educated whites in South Africa is far more than that of blacks. Whites also earn a better living than blacks. As a result of these two factors whites can provide better educational facilities for their children in the home and also they are in a better position to instil high achievement motives in their children. On the other hand, this research study has established that black parents in the Odi district neither have the financial means to ensure educational facilities for their children nor can they cope with the educational challenges that their children make upon them. The child who has to move from his home to school finds himself immersed in two sets of values that are not always reconciliatory. This gives rise to conflict situations.

6.4.5. Level of School Readiness

Research studies and literature have indicated that 6½ years is an appropriate school entrance age for a child with an average I.Q. of $\pm$ 110. Children who are younger but have a mental age of higher than 6½ years could be accepted in school if this would not create emotional problems. The findings of this research which were based on children with a mean age of 6,52 years showed that more than 80% of the children (this incorporated the preschool group and the non-preschool group) in the Odi district were not ready for school. The reason for this high percentage of school unreadiness should by now be clear to the reader from the account given above.

6.5. RECOMMENDATIONS

This research study has clearly established two important issues which appear to be the crucial causative factors behind the phenomenon of cultural deprivation observed in children in the Odi district.

First, the home environment of the children is not educative enough to prepare children for formal schooling and secondly, preschools in their present form are not effective enough in preparing the culturally deprived children for formal learning by offsetting the environmental disadvantages that the child experiences at home.

Against these two important findings some suggestions are ventured.

6.5.1.   The Home Environment

The fact that parents cannot provide the kind of milieu that would promote learning should not be taken as negligence on the part of parents. In fact most parents wish to be of help to their children but there seems to be a gap between their desire to help and their ability to do so. Their inability to help as they would like to is due mainly to overcrowding in the family, their low income bracket and their low standard of education — all these factors in turn contribute to the low aspiration level in their children.

To cut down the negative effects of an environment lacking in stimulation two programmes, which seem to have both short-term and long-term values, can be launched.

1.   In the first place the education of adults should be improved. Admittedly, such an adult educational programme should, by and large, be work-orientated so as to make adults more productive workers who will in turn earn a better living. Such a programme, however, to be quickly rooted, should express the national tone by propagating the knowledge of civic duties and should uplift the up-and-coming generation. In this way two things will be achieved:

a)   Parents would be in a position to cater financially for the needs of their children.

b)   The society as a whole would understand, appreciate and accept as obligatory the provision for the educational needs of the children.

The Bophuthatswana Government has started an Adult Educational Programme which, in the Odi district, is still at an infant stage. It is hoped that when this programme becomes fully operative, it will prove beneficial in providing for a need.

2.   The second programme that can be embarked upon in areas such as Ga-Rankuwa and Mabopane is that of creating large community play centres at certain vantage points in the township. Such play centres, if well organised and well cared for, will be serviceable in that they will not only promote socialisation in play activities with peer groups, but will also compensate for the lack of space and play materials in the home environment of the children. For such projects to be completed and maintained, large sums of money are required; and in this regard the public, the business entrepreneurs and the state have to join hands in meeting the financial demands.

6.5.2.   Compensatory Preschool Education

To forestall the learning problems that await the child on entering formal schools — problems which engender repeated failure, a high drop-out rate and other social disasters — preschools in the Odi district seem to require re-organisation and a replanning of programmes as well as a re-evaluation of objectives. What they require is a more structured and more academically orientated programme in which the teachers have as a primary responsibility the provision of education (3, 86).

> "Wat vir latere onderrig betekenisvol is, asook in die vaardighede en gewoontes
> om hulle in die primêre skool in staat te kan stel om van hierdie materiaal
> gebruik te maak."

Consequently, preschool programmes should be designed to fulfil the following objectives which will benefit the culturally deprived child.

6.5.2.1.   Language Development Programme

The mastery of language is the major prerequisite for academic achievement. For this reason preschool programmes should deliberately strive to bridge language problems which were observed in children subjected to this investigation. Language development is important in that it promotes (vide 1, 127 – 136):

a)   the quick development of vocabulary and syntactic structure;

b)   technical control of language responses which allow symbolic manipulation of thought;

c)   the control of behaviour and the communication of thought in a clear and intelligible manner.

To promote language development in the preschools, two complementary steps can be followed. The first step is to teach the child how to identify things in his environment and how to ask questions about them. This helps the child to compare things in terms of size, texture, sounds, colour, etc. In this way the child learns the fundamental conceptual framework of logical thinking and how to interpret his experiences (vide 1,39–90). To form meaningful concepts, the child should learn concepts from direct experience.

6.5.2.2.   Music Programme

Bereiter considers mimicry as very effective in promoting language mastery (vide 1, 224). Ditties entail rhythm; there is also considerable repetition and rhyme in songs. This makes learning easier and enjoyable. Ditties, songs and stories should, however, be carefully selected or adapted to ensure that they are relevant to the child's experiences.

6.5.2.3.   Arithmetic Programme

The teaching of arithmetical concepts is an important aspect of the academically orientated programme for the culturally deprived children (vide 2, 108). Basic rules of classification (e.g. according to size, shape, colour, etc.) is vital in helping the child to remember and think. The DISTAR Arithmetic Parts I and II of the Scientific Research Associates which enjoys universal application can be adapted for use in preschools in the Odi district. What is important is that teaching aids should be drawn, as far as possible, from the children's immediate experiences.

6.5.2.4.   Proposal of Schedule

In all the preschools in the Odi district, children remain in the centre for a period of at least 6 hours (i.e. from 8.30 a.m. to 3.30 p.m.) each day. This means that the Bereiter and Engelmann timetable for the culturally deprived children can be conveniently adapted to suit the needs of individual preschools in the Odi district (vide 1, 67). For example, let us suppose a preschool has an enrolment of 90 children who are catered for by three qualified teachers and three teachers' aides. The timetable can be composed in such a manner that all the 90 children get lessons on arithmetic, language, reading and music with supervised play activities in between each day.

			Group I	Group II	Group III
		* →	15 children	15 children	15 children
		△ →	15 children	15 children	15 children
Period 1	:	10 min.	Unstructured play/Arrival		
Period 2	:	20 min.	* Language	Arithmetic	Reading
			△ Semi-structured play activities		
Period 3	:	30 min.	Toilet	Refreshments	Music
Period 4	:	20 min.	* Arithmetic	Reading	Language
			△ Semi-structured play activities		
Period 5	:	20 min.	* Reading	Language	Arithmetic
			△ Semi-structured play activities		
Period 6	:	20 min.	* Language	Arithmetic	Reading
			△ Semi-structured play activities		
Period 7	:	60 min.	Toilet, Lunch and Rest		
Period 8	:	20 min.	* Arithmetic	Reading	Language
			△ Semi-structured play activities		
Period 9	:	30 min.	Toilet	Refreshments	Music
Period 10	:	20 min.	* Reading	Language	Arithmetic
			△ Semi-structured play activities		
Period 11	:		Departure/Unstructured play activities		

> * children instructed by qualified teachers
> △ children instructed by teachers' aides

If need be the timetable can be extended for a duration of 8 hours per day, i.e. from 8.30 a.m. to 4.30 p.m. to suit certain preschools in the Odi district.

6.5.2.5.   Training of Teachers

The implementation of the above programme requires intensive training and specialisation on the part of the teacher. This point is acknowledged by Garbers when he says (3 , 94):

> "Die Onderwys in akademiese-georiënteerde preprimêre program is 'n hoogs
> spesialiseerde veeleisende taak wat hoë professionale standarde vereis."

On a short-term basis there is a need for a vigorous in-service training programme for the ill-equipped teachers in the Odi district. A long-term plan to improve the quality of teachers would be for the Bophuthatswana Government to devise a curriculum for full-time training of preschool teachers.

Without incurring much expense special courses for the professional training of preschool teachers can best be integrated with the present Primary Teachers' Course. Such courses would be taken mainly by female teachers. However, to induce student-teachers to take this course they should be assured of departmental remuneration on a par with their P.T.C. counterparts.

6.5.3. Parent-Teacher Relationships

It has already been pointed out that parents require further education if only to make them skilled labourers and more answerable to the needs of their children. As far as making parents more answerable to the needs of their children, this is primarily the duty of preschool teachers -- a duty they should perform as an important and integral part of their preschool programme.

Preschool programmes seldom succeed in solving the problem of the culturally deprived children "omdat daar te laat pogings aangewend word om die kind se omgewing te beïnvloed" (3, 134). It is thus clear that the success of preschool programmes depends upon preschool teachers also fulfilling the following objectives in relation to parents:

1. They should improve the child's performance by giving children tasks to complete at home and by encouraging parents to take keen interest in whatever tasks the children are doing.

2. They should encourage and instruct parents to take an active role in the teaching of their children.

3. They should motivate parents to create a home environment that is conducive to better performance in school and in life. This involves instructing parents on methods of child-rearing.

4. They should encourage parents to be involved in all the major activities of the preschool.

In order to achieve all these objectives preschool teachers should understand and support the cultural heritage of parents.

6.6. CONCLUSION

Whatever the limitations of the tests and of the survey questionnaires employed or of the research project as a whole, the findings of this investigation indicate sufficiently that Tswana school beginners in the Odi district as represented in the sample of this research are on the whole not ready enough to begin with formal education. Secondly the research project has indicated that preschools in this present state do not succeed in preparing children for formal school education. However, as pointed out under 'Recommendations' -- there is vast scope for improvement.

6.7   REFERENCES

1. Bereiter, C. and Engelmann: Teaching disadvantaged Children in Preschool. Prentice-Hall, Englewood Cliffs New Jersey 1966.

2. Evans, E.D.: Contemporary Influences in Early Childhood Education. Holt, Rinehart and Winston New York 1971.

3. Garbers, J.G et al: Die Ontwerp van Opvoedingsprogramme Vir Kleuters: Riglyne vir Skoolgereedmakende Probleemvoorkomende Individualiserende voorskoolse onderwys. Universiteits-Uitgewers en-Boekhandelaars (EDMS) BPK. Stellenbosch/Grahamstad 1976.

BIBLIOGRAPHY

I. GENERAL LITERATURE

1. Behr, A.L. (ed) <u>Preprimary Education in the R.S.A.</u> S.A.A.A.E. Publication Series. Potchefstroom. 1976.

2. Bender, L. <u>Instructions for Use of Visual-Motor Gestalt Test.</u> New American Orthopsychiatric
    Association. New York. 1946.

3. Bereiter, C and Engelmann. <u>Teaching disadvantaged Children in Preschool.</u> Prentice-Hall.
    Englewood Cliffs. New Jersey. 1966.

4. Boettiger, E. <u>Children Play Indoors and Out.</u> E.P. Dalton and Co. Inc. New York. 1938.

5. Boring, E.G. <u>Sensation and Perception in the History of Experimental Psychology.</u>
    Appleton-Century Co. New York. 1964.

6. Bra n, S.T. and Edward, E.P. <u>History and Theory of Early Childhood Education</u> - Woodworth Publishing Co.
    Inc. California. 1972.

7. Brown, F.J. <u>Educational Sociology.</u> Prentice-Hall. New York. 1947.

8. Chesler, M.A. and Cover, W.M. <u>Sociology of Education:</u> An Anthology of Issues and Problems.
    MacMillan Publishing Co. London. 1974.

9. Christholm, J.D. <u>What Makes a Good Head Start.</u> Henington Publication Co. Texas. 1968.

10. Coetzee, J.C. <u>Inleiding tot Algemene Empiriese Opvoedkunde.</u> Tweede Druk. Universiteit-Uitgawers en
    Boekhandelaars (Edms) Beperk. Stellenbosch. 1960.

11. Daulder, F. and Brinksma, J. <u>Leergang Voor Opvoedkunde en Psychologie Deel I:</u> Opvoedkunde Voor
    Openbare Kweekscholen. 1946.

12. Day, S. <u>Home Factors Influencing Achievement of Disadvantaged Students.</u> University Microfilm.
    A Xerox Co. Michigan. 1973.

13. De Graeve, C. <u>Schoolrypheid Serie Verdiept.</u> Insicht XV. J.M. Menlenhoff. Amsterdam. 1962.

14. Duminy, P.A. and Du Preez, J.P.A. <u>Basic Educational Psychology.</u> Longman. Cape Town. 1968.

15. Eber, M. <u>A Bender Gestalt Validity Study.</u> The Performance of Mentally retarded children.
    Dissertation Abstraction. 1958.

16. Engelbrecht, S.W.B. and Snyman, B.A. <u>Skooltoeredings ouderdom.</u> H.S.R.C. Pretoria. 1973.

17. Evans, J.W. <u>Contemporary Influences in Early Childhood Education.</u> Holt. Rinehart and Wilson.
    New York. 1971.

18. Featherstone, H.J. <u>Cognitive Effects of Preschool Programs on Different types of Children.</u> Huren
    Institute. Cambridge. Massachusetts. 1973.

19. Fletcher, <u>M.T. The Adult and the Nursery School Child.</u> University of Toronto Press. Canada. 1958.
    reprinted 1970.

20. Fowler, W. <u>Concept Learning in Early Childhood.</u> In: Frost, J.L. (ed) Early Childhood Learning.
    Genetic Psychology Monograph. 1968.

21. Frederick, <u>W.N. Teaching in the Preschool Kindergarten.</u> Ian Novak Publishing Co. Sydney. 1967.

22. Frost, S.E. (ed) <u>Rousseau, Emile, Julie and Other Writings</u> (translated by R.L. Archer)
    Woodbury. New York. 1964.

23. Frosting, M. et al. <u>The Frosting Program for Development of Visual Perception.</u> Teacher's Guide.
    Follett Publishing Co. Chicago. 1964.

24. Gallarpie, P.H. and Johnson, L.E. <u>Teaching Reading to the Mildly Retarded Child.</u>
    Charles E. Merrill Publishing Co. Columbia. 1972.

25. Garbers, J.G. <u>Psigiese Struktuur en Psigiese Ontwikkelingsstand by die Beoordeling van Skoolrypheid.</u> M.Sc. Unisa. 1966.

26. Garbers, J.G. (ed) <u>Aspects of the Education of the Four to Eight Year Old Child.</u> Report of Series of Symposia. University of Port Elizabeth. 1969.

27. Garbers, J.G. <u>Die Mens en die Opvoeding in die Moderne Wereld.</u> S.A. Akademie vir Wetenskap en Kuns. Tafelberg. Kaapstad. 1972.

28. Garbers, J.G. et al. <u>Die Ontwerp van Opvoedingsprogramme vir Kleuters.</u> Universiteit-Uitgewers en-Boekhandelaars. Stellenbosch. 1976.

29. Grey, A.M. <u>Die Belangrikheid van Spel by die Aanvangsonderwys.</u> M. Ed. Unisa. 1957.

30. Grey, M.T. <u>'n Opvoedkundige Sosiologiese Ondersoek van die Lewensomstandighede van leerlinge wat oor Skoolpligtige Ouderdom tot Skooltoegelaat is.</u> M.A. Unisa. 1957.

31. Gordon, E.W. <u>Programs of Compensatory Education.</u> In: Deutch, M (ed) Social Class, Race and Psychological Development. Holt. New York. 1973.

32. Gordon, E.W. <u>Reaching the Young Child through Parent Education.</u> In: Spodek B (ed) Early Childhood Education. Prentice-Hall. New York. 1973.

33. Gowan, J.C. and Domos, G.D. (ed) <u>The Disadvantaged and Potential Drop-out.</u> Compensatory Educational Programs. Charles C. Thomas Publishers. U.S.A. 1966.

34. Griffin, A.L. <u>How to Start and Operate a Day Care Home.</u> Henry Regnary Co. 1973.

35. Grotberg, E. (ed) <u>Resources for Discussion Office of Economic Opportunity.</u> Washington, D.C. 1971.

36. Haenen, A.W. van <u>Kleuter tot Schoolkind.</u> Groningen 1967.

37. Hauk, B.B. and Frelide, P. <u>Physically and Mentally Handicapped by Cerebral Palsy:</u> the Mentally Retarded Case Studies. W.M.C. Brown Co. Iowa. 1972.

38. Hendrick, J. <u>The Whole Child.</u> New Trends in Early Education. The C.V. Mosley Co. Saint Louis. 1975.

39. Hunt, J.M.V.C. <u>Intelligence and Experience.</u> Ronald Press. New York. 1963.

40. Hurlock, E.B. <u>Developmental Psychology.</u> McGraw-Hill Book Co. 1968.

41. Hurtley, K. (ed) <u>Understanding Children's Play.</u> Columbia University Press. New York. 1965.

42. Johnsson, B.A. <u>Criteria of School Readiness.</u> Stockholm. Amguist and Wiksele. 1965.

43. Kneller, G.F. <u>Educational Anthropology.</u> John Willy and Sons. New York. 1963.

44. Koppitz, E.M. <u>The Bender Gestalt Test for Young Children.</u> Grune-and-Stratton. Inc. New York. 1963.

45. Landman, W.A. et al. <u>Die Praktykwording van die Fundamentele Pedagogiek met Kenmerke.</u> Persuitgawers. 1974.

46. Little, W.J. and Brigham, A.J. <u>Emerging Strategies in Early Childhood Education.</u> MSS. Information. Corporation. New York. 1973.

47. Locke, J. <u>Some Thoughts on Education.</u> Boston 1430.

48. Lovell, K. <u>Educational Psychology and Children.</u> University of London Press Ltd. 10th Edition 3rd Impression 1958.

49. McDill, E.L. et al. <u>Strategies for Success in Compensatory Education.</u> An Appraisal of Evaluation Research. The John Hepkins Press. London. 1969.

50. Monroe, M. <u>Children Who Cannot Read.</u> University of Chicago. Press. Chicago 1954.

51. Montessori, M. <u>Dr Montessori's own Handbook.</u> Schocken Books. New York. 1965.

52. Murphey, L.B. <u>More than Teacher.</u> Office of Child Development. Washington. 1972.

53. Nel, B.F. <u>Fundamental Orientation in Psychological Pedagogics.</u> University Publishers and Booksellers. Stellenbosch. 1974.

54. Nel, B.F. and Meyer, A.M.T. <u>Die Wetenskap as Onderwerp.</u> Academica. Pretoria. 1969.

55. Oberholzers, C.K. <u>Prolegomena van Prinsipiële Pedagogiek.</u> H.A.U.M. Kaapstad. 1968.

56. Otto, J.H. Principles of Elementary Education. Rinehast and Company. Inc. New York. 1955.

57. Pestalozzi, J.H. How Gertrude Teaches her Children, (translated by L.E. Holland and F.C. Turner) Sonnencheim. London. 1900.

58. Piaget, J. Play, Dreams and Imitation in Childhood, W.W. Norton Co. Inc. New York. 1962.

59. Piaget, J. The Psychology of Intelligence. Routledge and Kegan. London. 1946.

60. Radler, D.H. and Kephart, N.C. Success through Play. Harper. New York. 1960.

61. Reilly, P.E. Preschool Education for Development, Unpublished. University of Pretoria. 1976.

62. Rhenoster, J.C. Skool-Gemeenskapverhouding. 'n Sosiologies-pedagogiese Ondersoek met spesiale verwysing na Tswana Volkeenheid in Wes Transvaal en Noord-Kaapland, M.Ed. Unisa. 1971.

63. Richmond, W.K. Education and Schooling. Mathurn Co. Ltd. 1975.

64. Robeck, M.C. and Wilson, J.N.R. Psychology of Reading. Foundation of Instruction. John Wiley. New York. 1974.

65. Russell, D.H. Children Learn to Read. 2nd Edition. Boston 1961.

66. Schmidt, W.H.O. An Investigation to Determine the Optimum Mental Age for Commencing Reading. Instruction under the Conditions at Present Obtaining in Certain Schools in Pietermaritzburg and Durban, Vol 5. 1954.

67. Seefeldt, C. A curriculum for Child Care Centres, Charles E. Merrill Publishing Co. Ohio. 1974.

68. Sonnekus, M.C.H. The Learning Child. McGraw-Hill. Johannesburg. 1974.

69. Sonnekus, M.C.H. Ouer en Kind, 'n Handleiding oor opvoeding en Opvoedingsprobleme. Perskor Uitgewery. Johannesburg. 1976.

70. Spodek, B. Early Childhood Education, Prentice-Hall. New York. 1973.

71. van der Spuy, D.S. Die Vraagstuk van Skoolrypheid en Skoolgereedheid, D.Ed. Unisa. Pretoria. 1966.

72. Steenekamp, J.C. (ed) South African Pedagogical Society Union. Pietersburg. 1973.

73. Taylor, E.M. et al. Psychological Appraisal of Children With Celebral Defects, Harvard University Press Cambridge. Massachusetts. 1959.

74. Ulick, R. History of Educational Thought, rev. ed. New York. 1968.

75. Wewetzer, W. Bender Gestalt Test bei Kindern: Auswertungsmethode and differential diagnostische mölglickeiten. Z. diagnost Psychologie 1956.

76. White, J.H. The National Impact Study of Head Start. In: Hellmuth, J. Disadvantaged Child Vol 3. Brunner - Mazel. New York. 1973.

II.   JOURNALS, MAGAZINES, REPORTS AND PUBLICATIONS.

A.   A.C.E. Bulletin
1.   Webb, R.K. 'The Five to Eight' A.C.E. Bulletin No. 80

B.   C.E.C. Special Publications
2.   Reynolds, M.C. 'Early School Admission for Mentally Advanced Children' C.E.C. Special Publication. 1962.

C.   Journal of Child Development
3.   Hildreth, G.H. 'Development of Sequences in Name Writing' Child Development No 7. 1936.

4.   Simon, M.D. 'Body Configuration and School Readiness' Child Development. Vol 30. 1959.

D.   Journal of Child Education
5.   Morars, H.E. Advancing Arithmetic Readiness. Child Education. Vol 24. March 1948.
6.   Schindler, A.W. Reading for Learning. Child Education. Vol 24. March 1948.
7.   Sugden, W.E. 'Continuous Study is Necessary' Child Education. Vol 24. No 6. 1948.
8.   Wrightstone, J.W. 'Evaluating Achievement' Child Education. Vol 24. No 6. 1948.

E.   Journal of Clinical Psychology
9.   Hanvick, L. 'A Note of Rotation in the Bender Gestalt Test as Predictor of E.E.G. Abnormalities in
           Children.' Journal of Clinical Psychology. No 9. 1953.

F.   Educare (Journal of the Faculty of Education)
10.   van Vuuren, J.C.G. 'The Dean's Desk' Journal of the Faculty of Education. Educare. Unisa
           Pretoria. 4 - 1 - 1975.

G.   Journal of Educational Research
11.   Morgan, J and Elmer, F. 'Efficiency of Two Tests in Differentiating Potentially Low from Average and High
           First Grade Achievers' Journal of Educational Research. Vol 53.

H.   Elementary English Journal
12.   Kottmeyer, W. 'Readiness for Reading' Elementary English Journal. October 1947.

I.   Elementary English Magazine
13.   Kermolan, S.B. 'Teacher Appraisal of First Grade Readiness' Elementary English Journal. March 1962.

J.   Elementary School Journal
14.   Bigelow, E.B. 'School Progress and Underage Children' Elementary School Journal. Vol 35. 1934 - 1935.
15.   Green, P. 'Chronological Age and School Entrance' Elementary School Journal. Vol 63. 1962 - 1963.
16.   Hall, R.V. 'Does Entrance Age Affect Achievement? ' Elementary School Journal. Vol 63. 1962 - 1963.
17.   Hamalainen, A.E. 'Kindergarten-primary entrance age in Relation to later School Adjustment'
           Elementary School Journal. Vol 52. 1951 - 1952.

18. King, I.B. 'Effect of Age of Entrance into Grade I upon Achievement in Elementary School'
       Elementary School Journal. Vol LX No 6. 1965

19. Morphett, M. and Washburne, C. 'When Should Children begin to Read?' Elementary School Journal.
       Vol 31. 1930 - 1931.

20. Pauley, F.R. 'Sex Difference and Legal School Entrance Age.' Elementary School Journal.
       Vol XLV September 1951.

21. Rowland, M.C. and Nelson, C.C. 'Off to School at What Age.' Elementary School Journal.
       Vol 66. 1959 - 1960.

K. H.S.R.C. Report

22. Reports of the Committee for Differential Education and Guidance with Regard to a National
       Pre-Primary Educational Programme for the Republic of
       South Africa and South West Africa Part I 1971.

L. Opvoedkundige Studies

23. Greyling, P.J. 'n Vergelykende Ondersoek na die Skoolprestasies van Vyf-en-Sesjarige Skoolbeginners in
       Std 3 en 4.' Opvoedkundige Studies No 26.

24. Nel, B.F. et al. 'Die Tekening van Menselike Figuur as 'n Projeksie-tegniek.' Opvoedkundige Studies No 22.
       Fakulteit Opvoedkunde UP. 1958.

M. Journal of Projective Technique

25. Byrd, E. The Clinical Validity of the Bender Gestalt Test with Children: A Developmental Comparison of
       Children in Need of Psychotherapy and Children judged well-adjusted.'
       Journal of Projective Technique, 1956.

26. Clawson, A. 'The Bender Visual Motor Gestalt Test as an index of Emotional Disturbance in Children.'
       Journal of Projective Technique No 23. 1959.

N. Science Research Associates

27. Weitzman, E. 'Guiding Children's Social Growth' Science Research Associates. Chicago 1954.

O. Transvaalse Onderwysdepartement

28. Blignaut, C.M. 'Wat van ons Vyfjariges?' Onderwysblad. Transvaalse Onderwysersvereniging Oktober 1957.

29. Onderwysburo: 'Skoolrypheid van Vyfjarige Leerlinge' Transvaalse Onderwysdepartement. Werkstuk. No 47.

30. 'n Ondersoek :.a Klenteronderwys in Transvaal met die oog op die moontlike oorname daarvan deur
       Provinsie. Transvaalse Onderwysdepartement. No 130. Pretoria 1966.

31. 'n Verslag van 'n Sending na Oorsese lande in verband met Kleuteronderwys. Transvaalse Onderwysdeparte-
       ment. November 1968.

P. Unesco Report

32. Recommendations No 53 to Ministries of Education Concerning the Organization of Pre-primary
       Education. UNESCO, XXIVth International Conference on Public
       Education. Geneva. 1961.

III. MISCELLANEOUS

33.   Catalogue of Tests. H.S.R.C. 1975.

34.   Mothers' Encyclopedia for Care and Raising Children. Book Enterprise. Inc. New York. 1958.

35.   Kommittee van Onderwyshoofde. 'n Same vattende feitlike verslag ten aansien van Kleuteronderwys
                    (pre-primêre onderwys) vir Blanke kinders in Suid Afrika en
                    Suidwes-Afrika. Bloemfontein 1968.

36.   Syllabus. Primary Teacher's Course. Department of Bantu Education 1973.

37.   United States of America. National Council of States Consultants in Elementary Education for
                    Children below six. Planning for America's Children 1959.

APPENDIX

UNIVERSITY OF THE NORTH

DEPARTMENT OF EMPIRICAL EDUCATION

SURVEY QUESTIONNAIRE

QUESTIONNAIRE FOR PARENTS

N.B.	1.	We are asking you to fill in this questionnaire which the tester will help you answer. The information you give is very important for the education of your children and the children in the community.
	2.	Please try to give your sincere opinion.
	3.	The information you give is treated as highly confidential.

1. Please give the following information about yourself and your family.

1.1 Are you the father, mother or guardian in the family? _____

1.2 What is the highest standard you have passed _____ and when? _____

1.3 What is your professional qualification? _____

1.4 What is your occupation? _____

1.5 Approximately how much do you earn monthly? _____

1.6 How many members of the family are working? _____

1.7 How many children in the family attend school? _____

1.8 How old are you? _____

1.9 What language do you speak at home? _____

1.10 How many of the children in the family have attended a preschool? _____

2. Say whether you agree or disagree with the printed statements below. Mark with a cross (X) the statement that suits your opinion. (A Agree and D disagree) If you neither agree nor disagree mark with a cross in the column N (neutral).

	A	N	D
2.1 I have taken one (or more) of my children to a nursery school.			
2.2 I wish to take my children to a nursery school before they attend formal school.			
2.3 There are enough nursery schools in the community.			
2.4 There is a nursery school not far from my home.			
2.5 I want to take my child to a nursery school so that I can work.			

	A	N	D
2.6 The nursery school is good for the child's learning.			
2.7 Teachers at the nursery school know how to educate and bring up children.			
2.8 Nursery schools help to keep children away from the streets.			
2.9 I have sufficient play equipment which my children can play with.			
2.10 My yard is big enough for children to play in.			
2.11 It is better to allow my child to remain at home rather than go to the nursery schools.			
2.12 It is better to allow my child to stay with his granny rather than take him to a nursery school.			
2.13 The nursery school teachers do sometimes invite us to their meetings to tell us how important nursery schools are.			
2.14 I am interested in the education of my children.			
2.15 I see to it that my children do their school work.			
2.16 I assist my children when they have problems with their school work.			
2.17 I find it difficult to follow what my children are studying.			
2.18 I cannot afford to take my child to the nursery school because of the high fees.			

3.   If you so wish say in your own words everything you would like to say about the nursery schools. (Tabulate your points.)

UNIVERSITY OF THE NORTH

DEPARTMENT OF EMPIRICAL EDUCATION

SURVEY QUESTIONNAIRE

TO BE FILLED IN BY NURSERY SCHOOL PRINCIPAL/OR HER ASSISTANT.

DATE: _____

N.B.   1.   Kindly provide us with the information required below for educational purposes.

          2.   We are appealing to you to give objective and sincere information.

          3.   The information you provide is confidential.

1.   What is the name of your nursery school? _____

2.   What is the maximum number of children that can be accommodated in your school? _____

3.   Do you normally have accommodation for all the children who wish to be registered in your school? _____

4.   Will you please fill in the table below the number of children enrolled in your school at the end of 1976.

AGE GROUP	BOYS	GIRLS	TOTAL
Below 3 years			
3 - 5 years			
5 years plus			
TOTAL			

5.1   How many teachers do you have in your school including yourself? _____

5.2   What is the highest standard passed by your most qualified teachers including yourself? _____

5.3   What is the lowest standard passed by your lowest qualified teachers? _____

5.4   How many of your teachers have had professional training? _____

5.5   How many of your teachers are not professionally qualified? _____

5.6   What is the highest monthly salary earned by any of your staff (you included)? _____

5.7   What is the lowest monthly salary earned by any of your staff? _____

5.8   Who pays your salaries? _____

5.9   How often do your staff attend refresher's course conferences? _____

6.1   Is your nursery school officially registered? _____

6.2   Under which control is your nursery school (e.g. church, private, child welfare, Department of Education, etc.)? _____

6.3   Which language do you use for instruction? _____

7. Below you have a number of statements. Mark with a cross (X) the statement that suits your opinion. (A = Agree and D = Disagree.) If you neither agree nor disagree mark with a cross in the column marked N (neutral).

	A	N	D
7.1 The main aim of my school is to make the child follow his Sub. Std A education with ease.			
7.2 My school follows a well-defined time-table.			
7.3 The school has a particular curriculum that we follow.			
7.4 My staff is conversant with the contents of the syllabus for Sub-Standard A.			
7.5 My children get medical check-ups from a doctor once or twice a year.			
7.6 My children get regular medical check-ups from a registered staff nurse.			
7.7 There is a social worker who regularly visits our school..			
7.8 There is enough furniture for the children.			
7.9 The school has enough outdoor and indoor play equipment.			
7.10 My staff together with the children make some play equipment.			
7.11 The school is sufficiently equipped with kitchen facilities.			
7.12 We (staff) sometimes visit houses of prescholars to discuss their problems with parents.			
7.13 We sometimes call parent meetings to discuss with them and to show them what their children are doing.			
7.14 Parents are encouraged to help in the running of the school.			
7.15 We sometimes organize programmes to instruct and inform parents about methods of child upbringing.			
7.16 Each child has a progress card to assess his development during the course of the year.			
7.17 We sometimes have conferences with Lower Primary School teachers to co-ordinate our work.			

8.   Below you have columns with headings of groups of play equipment and furniture for nursery schools. Under each column indicate the kinds of equipment and materials that you have and the ones that you would like to have.

OUTDOOR PLAY EQUIPMENT		INDOOR PLAY EQUIPMENT		FURNITURE	
Have	Need	Have	Need	Have	Need

9.   If you so wish say in your own words anything you wish to say in connection with your work. (Please tabulate your points.)