SCHOOL READINESS:
A COMPARATIVE STUDY OF
PSYCHOLOGICAL AND HOME
ENVIRONMENTAL VARIABLES

by

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Supervisor: Professor A. Ramphal
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DECLARATION

I hereby declare that this dissertation is my own original work, and has not been submitted previously for a degree at any other university.

R.D. GAJADHUR

Durban
1990
DEDICATION

This dissertation is dedicated to my parents

Mrs and the Late Mr Gajadhur.
My sincere appreciation and thanks are due to all those who assisted and encouraged me to complete this dissertation, and especially to the following:

1. Professor A. Ramphal, my supervisor, for the patience he has shown throughout my studies and for his invaluable guidance and expert supervision. His courtesy and thoroughness deserve special mention.

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ABSTRACT

The main aim of this study was to identify those elements in a child's home background that assist him to become schoolready. The secondary, though closely related aims were to determine whether significant cognitive and linguistic differences existed between schoolready and non-schoolready children. The study, moreover, sought to establish whether the parents of these two groups of children differed in their views about the manner in which children should be reared.

The sample of children comprised the following two groups:

(a) The Preschoolers, who were due to enter Class 1 in 1990 had had approximately one year's preschool experience. On the basis of the results of a test of schoolreadiness, these children were divided further into two groups - a "schoolready" group and a "non-schoolready group". Each of these groups comprised thirty children.

(b) The Non-Preschoolers, who were also due to enter Class 1 in 1990, but lacked preschool experience. These children were divided into a "schoolready" and a "non-schoolready" group on the same basis as the Preschoolers. Each group comprised twenty children.

Cognitive ability was tested by means of the Raven's Coloured Progressive Matrices and language ability by means of the Peabody Picture Vocabulary Test.
The results of this study highlighted the role of the home as perhaps the single most important educational agency in a child's early years. A stimulating home environment plays an important part in helping the child to become schoolready. The following aspects were found to be particularly influential in this process: low educational level of the parents, poor housing, low income and poor reading habits of parents.

A second major finding of this study was that children who had had preschool experience were better equipped to meet the demands of the formal school situation. Moreover, cognitive development is highly dependent upon the kind of verbal interactions between parents and child, and this, in turn, has a marked impact on the child's scholastic performance.

The study also revealed that the parents of non-schoolready children are, by and large, more authoritarian in their relationship with their children and in their views about how children should be reared.

The report ends with an indication of various steps that can be taken to promote schoolreadiness among preschool children. It is suggested that the implementation of these steps would lead to a smaller number of non-ready six-year-olds seeking admission to Class i at the beginning of each year.
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CHAPTER ONE

THE NATURE, AIMS AND SCOPE OF THE RESEARCH

1.1 INTRODUCTION

The problem of school readiness has been a subject of debate and research over a number of years but several questions still remain unanswered. Not surprisingly, therefore, junior primary educators and administrators continue to express concern about a relatively large number of children who are accepted into Class 1 because they satisfy the Education Department’s chronological age (a) requirements for admission but who, in fact, are not ready to benefit adequately from formal schooling.

Bell and Aftanas (1972:659-667) estimate that the use of chronological age as the sole criterion for entry into first grade has resulted in the failure of 25% to 30% of children to achieve "the solid foundation skills necessary for their subsequent education".

(a) "No child may be admitted to school earlier than the year in which he attains the age of six years. A child who turns six years before 1 July during any year may be admitted to school only during January and February of that year. A child turning six on or after 1 July may be admitted to school only during January or February of the following year" (Department of Indian Affairs, 1966).
In a study of a group of white children who attended school for the first time in the Durban and Pietermaritzburg areas, Coetzee (1969:23) found that 20% of them were not ready for Class 1. Among black children in Soweto, Gordon (1986:70) found that an even higher proportion (30%) were not ready for school. In Germany, Huth (Garbers, 1979:48) discovered that of the children of various ages he tested, only 10% of the six-year olds, 40% of the six-and-a-half-year olds and 90% of the seven-year-olds were ready for school.

Although these various researchers used different tests, different readiness criteria and different samples—thereby making direct comparisons of statistics difficult—it is nevertheless clear that a disturbingly high percentage of children are not ready to benefit optimally from formal instruction in Class 1.

The problem of school readiness is now viewed with such concern that professionals in other disciplines such as medicine and psychology feel obliged to offer their expertise in trying to find answers to vexing questions.
Many educators believe that deficits arising from the initial stages of children's scholastic careers are cumulative (Deutsch, 1965:78-88). If this is correct, the need for reducing the numbers of non-schoolready pupils in Class becomes even more urgent.

From the teacher's point of view, the present system of having to teach several groups of children progressing at different rates within the same classroom is not satisfactory. Krech et al. (1969:64) estimate that when a first-grade teacher meets her class of children, all about six years of age chronologically, she is in fact confronted with a group of pupils who differ in readiness from ages three to eleven. Yet they are all made to sit in the same room, are given essentially the same books and materials to use, and are expected to follow the same type of curriculum. In such an educational system "school is established: the child must fit the establishment" (Cooper, 1966:1817). This type of set-up is too rigid. The school system should be flexible enough to absorb each child in an educationally sound manner. For this, the child's stage of development should be diagnosed and instruction should then be designed to harmonise with his own level of readiness.
Confronting a child who is not yet ready for school with tasks that are far beyond his capabilities could lead to resistant behaviour as a result of lack of interest and failure to succeed (Frandsen, 1967:119).

On the other hand, care must be taken to guard against keeping learning experiences away from the child who has already attained the necessary level of maturation (Hurlock, op.cit.: 17; Edwards, 1968:69). Waiting too long might cause the child's interest to wane to such an extent that he would be unwilling to put forth the effort needed later for successful learning. The teacher's task, therefore, becomes one of presenting each individual child with what for him are the right experiences at the right time. The problems she sets him must be of such a nature that they "tempt him into the next stages of development" (Brunner, op.cit.: 39).

The findings from long-term follow-up studies of such intervention programmes as Head Start and the Perry Preschool Project indicate that quality programmes offered to four-and five-year-olds have a strong potential for mitigating a variety of later academic, health, and social problems (Feeney, Christensen and Moravcik, 1987:28). Pupils who have been in early educational programmes have higher achievement scores in elementary schools, are less
likely to be classified as needing special education, have higher rates of school completion, and have lower pregnancy and crime rates than otherwise would be predicted for them (Sprinthall and Sprinthall, 1987:81). Such findings build a strong case for the cost effectiveness of ensuring that as large a proportion as possible of children seeking admission to Class i should be ready to benefit immediately from formal education. For a small initial investment, society can reap enormous and recurring dividends in later years.

1.2 THE NATURE AND DEFINITION OF SCHOOL READINESS

School readiness is defined by Grové and Hauptfleisch (1981:3) as a stage in a child's development at which he learns easily and effectively and without emotional or other disturbances. Brenner (1962:20) expresses a similar idea when he refers to readiness as a stage of all-round development - physical, mental, emotional and social - at which a child can fulfil the demands of the school without undue difficulty. From the definitions given above, it is clear that school readiness is complex in nature and is the product of factors associated with maturation, development, and environment. The factors relating to the environment are more amenable to change or modification and will be the focus of the present study.
Some of the more important characteristics of a schoolready child, listed by various writers (Grové and Hauptfleisch, 1981; Robinson and Robinson, 1968; Garbers, 1979) may be summarised as follows:

(a) He has good powers of linguistic comprehension and expression.

(b) He is able to concentrate on a task for a reasonable period of time.

(c) He is interested in formal and systematic learning.

(d) His physical development enables him to cope with the strains and demands of school.

(e) He is ready to accept and complete a task independently as well as to work with a group.

(f) He has the intellectual capacity appropriate to his age level to solve problems, to group symbols meaningfully, to remember instructions and to carry them out in a specified sequence.

Besides the concept of school readiness, four other terms which figure prominently in this study need to be defined.

12.1 **Schoolready children (SR)** comprise those pupils who gained a score of 22 points and above on the School Readiness Test B. Details pertaining to this test are given in Chapter Three.
1.2.2 **Non-Schoolready children (N-SR)** are those pupils who scored 21 points and below on the School Readiness Test B.

1.2.3 **Preschoolers (PS)** are those children who had had a year's preschool experience prior to their entry into Class 1.

1.2.4 **Non-Preschoolers (N-PS)** are those children who had had no preschool experience prior to their entry into Class 1.

1.3 **AIMS OF THE PRESENT INVESTIGATION**

Considered against the background that has been given above, the aims of the present study may be stated as follows:

1.3.1 to identify those elements in a child's home background that assist him to become schoolready; conversely, to identify those elements in a child's home background that militate against his becoming schoolready. Information relating to this aspect will be obtained by means of an interview schedule.
1.3.2 to obtain some measure of each parent's position on a set of items relating to child rearing. Broadly, these items can be arranged in terms of a basic psychological dimension of authoritarianism/permissiveness. Information relating to this aspect will be obtained by means of Parental Attitude Questionnaire.

1.3.3 to determine whether significant differences exist in the cognitive development of schoolready and non-schoolready children. Information relating to this aspect will be obtained by means of the Raven's Coloured Progressive Matrices.

1.3.4 to determine whether significant differences exist in the linguistic areas of schoolready and non-schoolready children. Information relating to this aspect will be obtained by means of the Peabody Picture Vocabulary Test.

1.3.5 to determine whether children, initially classified as "non-schoolready" become "schoolready", six months later, i.e. after they have spent six months in the formal classroom situation - thereby giving them additional time in which to mature physically and develop experientially.
1.4 RESEARCH PROBLEMS TO BE INVESTIGATED

Flowing out of the above-mentioned aims, the study was designed to provide answers to the following questions:

1.4.1 Are there significant differences in the material, cultural and psychological variables relating to the homes of children who are ready for school compared to those who are not?

If so, what is the nature of these differences and how do they operate to the child's advantage or disadvantage?

1.4.2 Are there significant differences in the responses of:

(a) the mothers of schoolready and non-schoolready children on the psychological dimension authoritarian/permissiveness?

(b) the fathers of schoolready and non-schoolready children on the same dimension?

1.4.3 Is there a significant difference in the levels of cognitive development of schoolready and non-schoolready children?
1.4.4 Is there a significant difference in the levels of linguistic development of schoolready and non-schoolready children?

1.4.5 Is an additional period of six months sufficient time for non-schoolready six-year-olds to progress, maturationally and experientially, to a state of readiness for formal learning?

1.5 DESIGN OF THE STUDY

In order to obtain answers to the questions posed above, two sets of children and their families were compared on several variables related to school readiness. These variables were identified through several sources such as a study of the literature, the researcher’s own observations and the observations of informed colleagues.

One group was schoolready and the other was not. These children and their families were compared and contrasted with the aim of identifying distinguishing features of each group which may have contributed to the first group becoming ready for formal instruction and the second one failing to do so.
The rationale underlying the design of this study may be stated as follows: if those factors which promote and/or retard readiness for school can be identified, appropriate steps can be taken to provide preschool children with those experiences which would bring them to a stage where they would be better prepared to benefit from formal instruction than is the case at present.

Suggestions are offered in Chapter Six about what can be done at various levels to reduce the number of non-schoolready children who seek admission to Class I. This is an important way in which the wastage of human potential can be minimised. Steps taken in these early formative years could have benefits not only for the individual’s own productivity level but also for the wider community and the nation.

The investigator is particularly well qualified to conduct this study since she has been a junior primary teacher for fifteen years and has served on several education committees responsible for planning pre-primary education.

Hopefully this investigation will provide useful guidelines when further educational provisions for young children are planned. It should enable the administrator to determine the effects of the existing system and to develop a greater
awareness of those areas and policies which call for change. It is also expected that the study will provide future researchers with pointers for further investigation.

A survey of the literature relevant to the present study will be discussed in the next chapter.
CHAPTER TWO

LITERATURE SURVEY:

FACTORs RELATING TO SCHOOL READINESS

As pointed out in Chapter One, whether a particular child is schoolready or not depends on the extent to which he fulfils certain developmental criteria - physical, socio-emotional, cognitive and linguistic. In turn, the extent to which these aspects have developed depends largely on the interaction between his biological potential and the conditions he has experienced in his preschool years. A survey of the literature indicates that two environmental conditions which have a particularly important bearing on school readiness are home background factors (including parental attitudes and socio-economic status) and preschool experience.

The literature survey which follows will be organised around these two important areas.

2.1 HOME BACKGROUND FACTORS

It has always been obvious to many teachers in poor communities that children who come to school inadequately clothed, poorly fed and tired find it difficult to keep abreast of their fellow-pupils in their learning.
Apart from these direct effects of poverty on children, there is an important indirect effect where the mother is compelled for financial reasons to seek employment, to the detriment of the children. The whole question of mothers who work outside the home is a complex one, and often tends to be debated emotionally rather than rationally. In some cases the benefits to the children may outweigh the drawbacks but in other cases the reverse may be true. It is generally agreed, however, that child-neglect can arise from the preoccupation of the mother with other responsibilities; and, where this happens, there may be serious educational repercussions (Nye and Berardo: 1973:281).

The importance of the home as a factor influencing school learning is emphasised by studies such as the Manchester Survey. Wiseman (1967) reporting on this survey, which set out to investigate the relationship between the educational attainment of primary school children and environmental factors, summarized the results as follows: "The most important of our findings, perhaps, is the demonstration that the major forces associated with educational attainment are to be found within the home circumstances of the children. These home variables have, pro rata, nearly twice the weight of neighbourhood and school variables put together" (Campbell, 1971:85).
During early childhood, changes in the physical-motor area involve rapid development of gross and fine motor skills and the emergence of body image and body awareness. The development of cognitive concepts in regard to size, shape, time, and number is related to the child's egocentric view of the world. Language ability also improves rapidly, and by the time children are ready for school they can understand and use it quite well. Autonomy and initiative are characteristic of the social-emotional area in early childhood. The socialization process takes place in the home and the school. In this area play, moral development and sex typing are important components.

For convenience and clarity, studies relating to home background factors will be reviewed under several sub-headings. In practice, however, these factors are interrelated and they interact to shape the child's development.
2.1.1 Self Concept

The child initially builds his concept of himself and makes his self-evaluation on the basis of reflected appraisals from his parents who, in the early years, are the main "significant others" in his world. Parental reactions to his attempts at the developmental tasks of infancy and early childhood determine whether he sees himself as capable and successful, or incapable and clumsy. He brings these self-judgements to the new tasks set up by the school and, accordingly, either faces up to the demands of the school with confidence or assumes a doubtful, hesitant role as a learner (Campbell, 1971:87).

The child who, in the home, is loved for himself and accepted as he is, generally has a secure foundation on which to build. He also handles his encounters with his peer groups and teachers with a good deal of confidence. On the other hand a child who, through parental rejection or overprotection, has had to strive for recognition will probably have less relaxed relationships in new social situations, and this may well have adverse consequences on his school performance (Levy, 1943:70). Shirley (1942:210-217) draws attention to the importance of the influence of the home on the child's security in the following way: "A secure and wholesomely loved child goes forth
to meet new experiences in a spirit of adventure and comes out triumphant in his encounters with new places, new materials, and new friends, young and old. A child that is oversheltered and underloved goes forth from home with misgivings and doubts, and gives an impression of inadequacy and immaturity in his encounter with new experiences that makes him unwelcome either in the society of adults or children". (Campbell, 1971:87).

Research over a long period has demonstrated that there is a significant relationship between a child’s concept of his own ability and his level of school achievement. One typical study is that of Brookover, Thomas and Patterson (1964: 271-278). In a study of 1050 seventh-grade students these researchers found a significant and positive relationship between self concept and performance in the academic world. This relationship was substantial even when measured IQ was controlled.

2.1.2 Permissiveness and Restrictiveness

These dimensions of mother-child interaction have been widely studied in relation to behaviours among children. Few researchers have directly traced the causal chain from maternal restrictiveness/permissiveness through child characteristics to performances in school. However, many
of the characteristics which are associated with the degree of strictness of parental control are likely to be significant in affecting the child's relations with his peers and teachers and the way he attacks problems, and hence the efficiency of his school learning.

Earlier researchers distinguished between authoritarian and democratic parental control of children and studied characteristics of children in the two types of homes. Baumrind (1966:887-907) distinguished three types of control: permissive (where the child is allowed to regulate his own activities as much as possible); authoritarian (where punitive measures are used to enforce correct conduct); and authoritative (where there is firm control but also where independent choices and disciplined conformity are valued). She concluded: "The body of findings on the effects of disciplinary practices as reviewed and interpreted here give provisional support to the position that authoritative control can achieve responsible conformity with group standards without loss of individual autonomy or self-assertiveness". It seems likely that school learning would be fostered when both parents and teachers exert authoritative control.
Watson (1957: 227-249) made an intensive study of the effects of strictness and permissiveness of parental control on boys aged five to twelve years. All the homes in his sample were "good", but whereas in one group there was strict discipline, in the other there prevailed a considerable degree of permissiveness. He found differences between the two groups of boys especially with regard to persistence. Boys from the strict homes were more inclined towards being either unusually persistent or very easily discouraged. The boys from the permissive homes displayed more moderate persistence. Moreover, these boys maintained "a better quality of intellectual activity under difficulty" than did the boys from the strict homes. Watson also found that a greater freedom for the child was associated with more initiative and independence, better socialization and co-operation, less inner hostility and more friendly feelings towards others and a higher level of spontaneity, originality and creativity. Once again, one would expect characteristics such as these to play a significant part in a child's adjustment to the learning situation, to teachers and to peers.
2.1.3 **Achievement Motivation**

The home plays a vital role in arousing and sustaining motivation for school learning. Within the home is created an intellectual climate which, at the one extreme, fosters favourable attitudes to school, develops in children a commitment to striving and learning and leads to a high value being placed on school success; at the other extreme, school learning is held in low or negative regard and there is an absence of parental reinforcement for the academic endeavours of the child.

Douglas (1964: 67-68) in his study of 5362 children from various types of homes found that parental encouragement had an important influence on school achievement. Children who have parents who are ambitious for their academic success pursue their studies with greater vigour and concentration.

Analysis of the data of the 1964 National Survey of Parental Attitudes and Circumstances Related to School and Pupil Characteristics (Plowden Report) also provides evidence on the importance of the home in shaping the child's attitude to and success in school: "Before the inquiry, it was, plain, as a matter of common-sense and common observation, that parental encouragement and support could take the
child 'some way'. What the inquiry has shown is that 'some way' can reasonably be interpreted as 'a long way' and that the variation in parental encouragement and support has much greater effect (on school progress) than either the variation in home circumstances or the variation in schools" (Campbell, 1971:89). The survey also showed that the relative importance of parental attitudes increases as children grow older.

The Manchester Survey of ten-year old children also emphasizes the importance of the intellectual climate of the home. According to Wiseman (1967) what matters is the degree of literacy within the home and the attitude of parents towards books and towards school. These characteristics are seen as more important than mere membership of a particular social class, and notes that there are many "good" homes in the working class and many "bad" homes in the middle class.

A similar view on the important role of the home is found in American research literature. Dave (1963), for instance, has identified the following home variables as being important to educational achievement: achievement drive, language models in the home, academic guidance,
encouragement to explore various aspects of the larger environment, the intellectual interests and activities of the home and the work habits emphasised in the home.

Measurement of these variables led to the determination of an overall index of the home environment, and the correlation between this index and the children's total score on an achievement battery was + .80.

From the discussion thus far it is clear that the degree of encouragement parents offer their children in school-related activities are a reflection of the value they themselves place on education and the level of aspirations for their offspring.

2.1.4 The "Cultural Deprivation" Concept

In the USA during the 1960s a widely accepted explanation for the school failure of disadvantaged children was embodied in the concept of 'cultural deprivation'. Adherents of this view maintained that low achievement could be attributed to early environmental experiences and different child-rearing practices which resulted in cognitive and linguistic deficits (Krugman, 1956; Wrightstone, 1958 and Brooks, 1966). Education was seen as a means of countering these deficits, thereby improving the conditions and life
chances of poor people and ethnic minority groups. Culturally-deprived children were considered to come from homes which were materially and intellectually inadequate. Psychologists such as Hunt (1964) went so far as to state that the "difference between the culturally deprived and the culturally privileged is, for children, analogous to the difference between cage-reared and pet-reared rats and dogs" (Mortimore and Blackstone, 1982:43).

In the course of elaborating on his views, Hunt states that life in an overcrowded home may have stimulating effects during the child’s first year (with more faces peering and more things happening), but that it can become very damaging in the second and subsequent years (Campbell, 1971:97). The reason for this lies in the fact that the activities in which the growing child must indulge for the development of his own interests and skills (such as throwing things around and developing his own means of locomotion) will inevitably be curbed in a crowded setting. As a result he will fail to have the optimum environmental encounters he needs to develop at an appropriate rate. From his third year onwards, says Hunt, the child in an overcrowded situation may suffer further when his questioning is met by no answer, by the wrong answer or by a rebuff. The cumulative effects of such a child’s progressive retardation, by comparison with children brought up under less crowded condi-
tions, may well bring about a position in which such children, by the time they enter school, are several months behind their contemporaries in their development (Watts, 1971:97).

Many others have also drawn attention to the central importance of experiential poverty arising from the inadequacies of parent-child verbal communication (Bereiter and Englemann, 1966, Tizard and Rees, 1974 and Hunt, Kirk and Lieberman, 1975). The Schools Council in England observed that in disadvantaged homes "verbal communication is grossly limited in form and in content: conversation with children, in the fullest sense of the word, is almost non-existent". Deutsch has pointed out that when a child fails to secure helpful answers (or even any answers at all) to questions put to parents, he tends to stop trying to satisfy his curiosity by questioning adults and this could limit his development both in and out of school. Deutsch also draws attention to the fact that, partly for this reason, the working class child may come to school without the middle class child's common base line of essential information, such as the difference between "near" and "far", "high" and "low", etc. Summing up the matter Deutsch notes that strong evidence can be presented to support the assumption that it is the active verbal engagement of people who surround him which has the most important influence on
the child's language development. These verbal engagements depend a great deal on the family's condition and style of life.

Tizard et al., (1980) found that the quality of the adult-child communication may be even more important than the quantity. After testing 85 children in thirteen nurseries, they found that in nurseries where the children's language development was highest, the staff spent much more time communicating with the children rather than merely supervising them.

Deutsch (1964) stresses the importance of the preschool years as the most effective age at which to offer compensatory enrichment programmes. Some of these such as "Operation Headstart", are aimed at helping preschool children while others such as "Higher Horizons Program" and "Project Upward Bound", are aimed at children of older age groups.

In Britain the concept of cultural deprivation was accepted by the Plowden Committee (Mortimore and Blackstone, 1982:8). According to this Committee a child brought up in a family which cannot provide security or sufficient emotional or intellectual stimulation often misses a significant stage in his early social development. What he
often lacks is the opportunity to develop intellectual interests and this generally shows up in his poor command of language. Deficits such as these undermine the disadvantaged child's chances of educational achievement. The root of these failings, according to the Plowden Committee (1967) usually lies in the lack of the following good qualities: mother-child interactions during the formative years, appropriate language skills and literary experiences offered by parents, and parental interest in the child's education. Further evidence relating to these views will be considered in the section that follows (Mortimore and Blackstone, 1982:43).

2.1.5 Family interactions which shape Intellectual and Cognitive Development

The degree of contact a child has with his parents, the quality of the language model they provide for him, and their reinforcement of his speech activities are important determinants of his language and cognitive development. Children who have a high degree of contact with their parents generally show better language development. Research indicates that homes differ considerably in the number of opportunities they offer for such contact. In the typical middle-class home, settings for verbal interchange are created and utilised. Conversation for example,
is fostered at mealtimes and family discussions on topics of interest are common. Rewards and punishments tend to be verbal rather than physical. Stories are told and books are read to children as part of the daily pattern of life.

By contrast, lower social class and culturally deprived children tend to live in much more impoverished verbal environments. Not surprisingly, therefore, they often display verbal and cognitive retardation. Deutsch (1965:78-88) reports that in such homes there is a paucity of organized family activities and conversation. Milner (1951:95-112), after carefully interviewing and studying forty-two first-grade children who were identified as high and low scorers on reading readiness tests, concluded that high scorers had a much richer verbal environment than low scorers.

Bloom (1964) in a classic book has analysed, sorted, and sifted through a host of studies on intellectual growth. Using these as his basis he plots a negatively accelerated growth curve for intellectual development - that is, with increasing age, there is a decreasingly positive effect from a beneficial environment. Three-year-old children, he says, profit far more from enriching experiences than seven- or eight-year-old children. Bloom argues that beneficial early experience is very essential for cognitive
growth. Almost two-thirds of an individual's ultimate cognitive ability is formed by the time he or she is six years old. This is also the age when most children are just entering school. By the time formal education begins, the child's potential for further intellectual development is beginning to slow down. Earlier intervention is required, especially among the disadvantaged groups. Experience has its most profound effect very early in life, during the period of most rapid growth.

Hunt (1964a: 83-91) in his investigations into intellectual development, emphasises the role of parent-child verbal interaction, particularly during the second and third years of the child's life. He believes that during these years crowded home conditions which so often accompany poverty hamper the child's development. In this connection Hunt writes as follows:

"Late in his second or early in his third year, after he has developed a number of pseudo-words and achieved the 'learning set' that 'things have names', the child in a crowded, poverty-stricken family probably meets another obstacle: his questions too seldom bring suitable answers, and too often bring punishment that inhibits further questioning".

This leads to a reduction in question-asking activity, with disadvantageous effects on later problem-solving activity.
Hunt (1964b:209-248) emphasises throughout his writings the significance of the early years of a child's life for cognitive development. He notes that before World War II it was commonly believed that early experience was important for emotional development and for the development of personality characteristics, but unimportant for the development of the intellect. However, it now appears that early experience may be even more important for the development of perceptual and cognitive functions than it is for emotional and temperamental ones (Campbell, 1971:97). It is interesting to note that in Jensen's view frequency of verbal contact is not the major factor in cognitive development. What is more important, he says are the language habits that are being acquired and the kinds of functions that language serves in the child's home and experiences. It is these factors that shape his intellectual development and his ability for abstraction and conceptual learning. Poor development of these abilities places a low ceiling on educational attainment (Jensen, 1967:4-20).

The different language usages that characterise upper-middle and working classes are described in more specific terms by Bernstein (1961: 288-314). He calls these the "formal" (or elaborated) code and the "public" (or restricted) code respectively. The "elaborated" code is more impersonal and analytic and thus makes possible
precise description and analysis of experiences and their relationships; the restricted code on the other hand uses more ungrammatical phrases and simple vocabulary, largely supplemented by gestures, and is particularly adapted to expressing emotions and personal relations.

Middle-class children, according to Bernstein, can understand and use both codes, but their parents usually employ formal language for explaining concepts, giving information, solving problems, and showing the child what conduct is acceptable or undesirable. For the most part, school teachers follow the same approach. It is not surprising therefore that lower-class children are handicapped in intellectual and educational development and tend to be confused and frustrated at school because they are accustomed to the restricted mode of discourse and are faced with learning what is almost a new language.

The middle-class child, says Bernstein, is encouraged from his earliest years to plan and organize rationally; the working class child lives more in the present and is often subjected to arbitrary and inconsistent rewards and punishments. In other words, the linguistic differences are not merely intellectual; they are closely bound up with differences in values, family living, and socialization.
More recently Bernstein and his colleagues (1971) have greatly expanded this analysis and published an extensive series of related researches. One that is relevant here is the study by Bernstein and Young (1966: 15-23). They compared the attitudes of middle and working-class mothers to children's toys. The former emphasised that toys help children to find out about things, whereas the latter saw them more as a means of keeping children occupied while they themselves got on with their chores. A similar study by Lewis (1976) found that, in reading stories to two- and three-year-olds, middle-class mothers explained and discussed a story in greater detail than working-class mothers and related it to the accompanying pictures.

On the basis of their observational studies of four-year-olds, Hess and Shipman (1965: 869-886) draw attention to the relative poverty of mother-child interactions and instruction in lower-class families. They contrast the cognitive environment of the middle-class child, which focuses on the intrinsic demands of the task, with that of disadvantaged children, whose behaviour is controlled more by imperative commands. The middle-class mother helps the child who is engaged on some problem-solving task to organize his or her approach by showing how language is used as a mediator in planning. In this way she fashions the information-processing skills that the child will need for
intellectual and educational growth at school. The working-class mother is probably at least as affectionate to her young child as the middle-class mother, but she sees no point in beginning to educate a child who, she believes, is too young to benefit from such instruction. Deutsch (1965: 78-88) is another writer who has noticed the lack of reinforcement of cognitive and linguistic achievement of disadvantaged children at home. He goes on so far as to say that these children actually learn to be inattentive by living in a noisy and disorganized environment.

Another finding that has implications for a child's preparedness for school has been made by Meichenbaum, Turk and Rogers (1972: 27-50). They found that lower-class children are more concerned with the "here and now" and are less prepared to accept delayed gratification. They respond better to concrete rewards than to abstract reinforcers such as adult praise. These authors go on to criticise most preschool programmes, ranging from Sesame Street to Bereiter and Englemann's (1966) verbal bombardment, on the grounds that they do little to integrate verbalization with action. For example, Sesame Street, they claim, does not encourage the internal manipulation of experience through language nor does it teach children to reflect on situations and produce organized, adaptive responses.
From the foregoing it appears that there is general agreement that, by and large, lower- and middle-class children differ with regard to attention span, language ability, and motivation. These qualities appear to be significantly associated with the interaction between the baby and his mother. The frequency with which she talks to the infant, how often and how consistently she rewards his accomplishments, how much and how she plays with him, all appear to contribute, directly and indirectly, to the extent of his motivation and readiness for school.
2.2 PRESCHOOL EXPERIENCE

Since the end of World War II there has been a rapidly growing interest in the needs of children whose school progress and life changes are adversely affected by social handicaps such as poverty, a broken or incomplete home and a background offering little stimulation.

In the post-war period a number of factors combined to make the need for preschool education an urgent one, including an increased value which society placed on educational achievement, the wastage of talent arising from the inability of numerous children to take advantage of their educational opportunities, and a growing dissatisfaction with the school system (Chazan, 1973 : 1-2).

The compensatory programmes in the USA have been attempting to make up for those environmental deficits, which retard and limit educational progress (Smiley, 1967). These programmes have included measures to alleviate poverty, the provision of extra medical facilities, the rehousing of families, the building of new schools, changing teaching approaches, devising new educational materials and techniques, increasing the impact of educational technology, extending children’s experience and establishing projects to involve parents and the community.
2.2.1 Approaches to Early Childhood Education

There are several approaches to early childhood education and these differ in philosophy and procedure (Roopnarine and Johnson, 1987: 15-24). Some of the more basic approaches are considered below.

2.2.1.1 The Philosophical or Moral Approach

This framework views early childhood education as an extension of the parental function of child rearing. Its purpose is to socialize and prepare children to fit into society. An early advocate of this view was Froebel, who pioneered the first kindergarten in Germany.

2.2.1.2 The Developmental or Normative Approach

This approach focuses upon the sequential stages of growth in children. Teachers and parents are urged to wait until the child reaches the appropriate developmental stages before trying to teach certain tasks. The proponents of this view argue that most preschoolers are not developmentally ready for formal reading instruction (Ames 1968: 39-76).
2.2.1.3 The Psychoanalytic Approach

This view of the young child is based on the theories of Freud and his followers, including Erikson. The approach assumes that human personality unfolds through the development and satisfaction of stages of psychosocial behaviour. Fixations at an early stage can thwart or distort development in the child and create problems. Therefore every effort should be made to help the child pass through the various stages in as healthy a manner as possible.

2.2.1.4 The Compensatory Education Approach

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2.2.1.4 The Compensatory Education Approach

According to this approach there are crucial inadequacies in the family or the environment in which certain children live. Formal training is needed to help such children compensate for these deficits in their background. An early advocate of compensatory education was Macmillan who began the first nursery school in England in 1919. The "Head Start" programme in the USA was based upon the compensatory education approach.

2.2.1.5 The Behavioural Approach

Behavioural psychologists take the view that a child's environment can be planned and arranged to bring about predetermined forms of desirable behaviour in children. Skinner is a pioneer
of the behavioural approach to learning. Reinforcements, rewards, careful counting of observable behaviour, and the baseline measurement of skills to be learned are all important to this approach. The early childhood programme developed by Bereiter and Engelmann is based upon this style of education.

2.2.1.6 The Cognitive Psychology Approach

This is a relatively recent approach. It concentrates on the child’s maturing thinking abilities and the changing ways in which he views and understands the world about him. Piaget’s theories and ideas of the intellectual development of children are widely used in designing early childhood curricula and instruction. A basic assumption of this approach is that environment and instruction can greatly influence a child’s ability and enhance his chances of school success.

Early childhood education is still a comparatively new field of study. As knowledge about the development of young children increases, many educational advances in early childhood education can be expected.

2.2.2 Related Research

In the 1930’s child psychologists spent great amounts of effort
trying to discover the relative contributions of heredity and environment to a child's intellectual development (Medinnus and Johnson, 1969: 434). One aspect of this controversy was the effect of nursery school experience.

The general conclusion appeared to be that while an enriched nursery school environment could significantly benefit children from deprived or impoverished backgrounds, doubt was expressed about such benefits for children from homes already offering an adequate amount of intellectual stimulation (Medinnus and Johnson, 1969: 434). It was also acknowledged that it would be difficult to identify the specific factors in the nursery school environment that was responsible for reported benefits in the cognitive area.

By the 1940's, interest had shifted from improving children's IQ's to the effect of nursery school experience on their social and emotional adjustment. Studies found a number of personality traits were more clearly noticeable in children with nursery school experience compared to those who did not have such experience. The former group seemed more spontaneous in behaviour and showed more independence, initiative, self-reliance, and curiosity than the control groups (Walsh, 1931: 72-73, Hattwick, 1936: 180-190, Van Alstyne and Hattwick, 1939: 43-72). Bonney
and Nicholson (1958: 125-133) for instance, found that elementary
and Nicholson (1958: 125-133) for instance, found that elementary school children who had had nursery school experience were more popular with their peers.

Proponents of nursery schooling claim that the very nature of the nursery school situation, in which relatively large numbers of children interact under the supervision of one or two adults, tends to encourage the development of independent behaviour. In such a setting the child learns to fend for himself. In addition, a certain amount of social learning inevitably occurs from participation in the group over a period of time. Some behaviours are discovered to be unacceptable to peers, whereas other behaviours result in pleasant favourable responses and are thus reinforced.

Nursery schools vary widely not only in goals and procedures but also in the behavioural results they hope to achieve in children. Teachers deserve special mention in this regard. The importance of the teacher is reflected in an experimental study which analyzed the impact on nursery school children of two different types of teacher-child relations (Thompson, 1944). In one group the teacher was requested to develop a warm relationship with each child and to stimulate the children’s activities by providing information and individual assistance. In the other group contact between teacher and children was kept to a minimum and the teacher participated in the children’s activities only when
requested to do so. At the end of the school year it was found that the children in the first group, in contrast to those in the second, were more constructive in the face of possible failure. Moreover, they showed a greater willingness to participate in social activities and assumed leadership roles more frequently.

A brief description of some important preschool projects given in the next section illustrate the philosophies, goals and procedures of early learning centres.

2.2.3 Examples of Preschool Projects

2.2.3.1 Project Headstart

The 'Headstart' programmes were designed to prepare disadvantaged children to cope with later school life and to prevent developmental deficits which would hamper their educational progress, (McDill, McDill and Sprehe, 1969). These programmes were comprehensive and wide-ranging and stressed social and educational action, including language development and socialisation (Passow, 1970). They combined day care with medical and dental treatment and emphasised the child's psychological development and readiness for school (Chazan, 1973:4).
Project Headstart aimed specifically:

(a) to help the children to learn how to work and play independently in a school setting;
(b) to help them learn to live in a harmonious relationship with other children;
(c) to provide the children with a variety of opportunities so that they could experience success in various types of tasks;
(d) to develop the children’s language skills;
(e) to develop the children’s curiosity;
(f) to strengthen the children’s physical skills and coordination;
(g) to enable the children to express themselves through songs, paintings and handicraft;
(h) to involve parents in the activities of the school and field trips.

Puzzles, games, stories, books, music, art, and opportunities for talking were some of the means used by Headstart to help culturally deprived children.

2.2.3.2 The Smilansky Preschool Project

Smilansky and Smilansky (1967) offer several reasons why preschool education is important for children from disadvantage areas. These include the following:
Rapid changes and growth occur in the preschool years.

The preschool stage is the first period of development when the child moves from the shelter of the family system towards experience and familiarity with new social systems. In this way the child becomes prepared for the setting of the school.

The gap between advantaged and disadvantaged children is still relatively limited.

The child is still relatively confident and predisposed to new experiences for he has thus far experienced little or no failure.

The parents are better prepared to support the intellectual development of the preschool child.

It is important to lay proper foundations for the development of positive mental abilities and attitudes since education is a cumulative process.

The child can still be introduced relatively easily to the language and routine of the school.

In 1961 the Smilanskys themselves started a preschool programme in Israel to remedy some of the disadvantages which low socio-economic status children face when they enter primary school. Two of the disadvantages, among others, which they identified in their sample were the following:

(a) inadequate vocabulary and concepts with a consequent lack of understanding of many things said to them;
(b) a general lack of readiness for the later school programme.

In their programme designed to compensate for these deficits the Smilanskys aimed to develop the children’s powers of perception (visual, auditory and sensory-motor co-ordination), their powers of thinking of given developments in a story, arranging pictures
in a logical sequence, developing vocabulary and linguistic ability, improving and using general knowledge, teaching numerical concepts and concepts relating to place and direction (over, under, beside, less, enough, etc.).

2.2.3.3 Preschool Projects in Britain

Following on the recommendations of the Newsom and Plowden reports, increased attention was given to designing more and better programmes for educating the disadvantaged in Britain. Preschool education was singled out as having great potential for influencing the child's future attitudes so that he could succeed in the formal school situation. One programme designed by the University College of Swansea developed screening techniques to select children in need of compensatory education. These techniques were also used to locate those aspects of the environment that were particularly debilitating to children's progress. A longitudinal infant school study was then conducted to counteract the negative effects of disadvantage.

Another well known British preschool programme was undertaken by the National Foundation for Educational Research. This body started a preschool programme for sixty disadvantaged children between the ages of three and five years. The children were en-
couraged to express themselves, develop their powers of listening and observation, and develop a basis for reading, writing and arithmetic. Parental involvement was also actively encouraged.

Evidence from the studies mentioned in this chapter demonstrates that on the whole good preschool programmes have positive effects on children, especially in the case of those who come from impoverished home circumstances. In the present study the researcher observed that many Indian parents in South Africa have come to feel that a good nursery school or child development centre is a "must" for their children because they believe that what happens to a child's personality and attitudes during the preschool years is very important to later development.

In the light of this desire on the part of parents it is necessary to examine what official preschool facilities exist for Indian children in South Africa and to comment on their adequacy. In the absence of sufficient official documentary information relating to the organisation and operation of pre-primary school education, the researcher had to rely largely on oral evidence. She interviewed the Head of Pre-Primary Education Planning, House of Delegates, Department of Education and Culture (Naidoo: 1990). According to Naidoo (22 October 1990), The Department of Indian Education provides the following services in the area of pre-primary education:
(a) Bridging module readiness-class services at certain departmental schools.

(b) School premises to local community organizations for conducting pre-primary classes.

(a) Bridging Module Readiness Classes

The Department has set up bridging module readiness classes at certain schools (Naidoo: 1990). The children who attend are in the five-year age range and will be entering Class I in the following year.

These classes provide an environment which stimulates children's physical, experiential and psychological development with the ultimate aim of preparing them to cope more adequately with the demands of the formal school situation.

In 1990, 155 bridging module classes were in operation. Each class has a maximum of 30 children and is under the control of qualified teachers holding pre-primary education diplomas.

Even though it is officially acknowledged that more bridging module readiness classes need to be established, this will not be done in 1991 owing to limited funds (Naidoo, 1990).
(b) **Community Based Readiness Classes**

In addition to the bridging module units of its own the Department allows its premises to be used by local community organizations for the purpose of conducting school readiness classes for five-year olds. These readiness classes are conducted from 12:30 to 14:30 in classrooms that have been vacated by junior primary pupils. Persons from the community, not necessarily qualified teachers, conduct these classes. The school principal and his/her junior primary staff assist in a consultative and supervisory capacity. In 1990 there were approximately 302 such classes in operation.

2.2.4 **The quality of existing Pre-Primary Educational Services for Indians**

According to Human Sciences Research Council, the following are some of the more important criteria that need to be considered when assessing the quality of pre-primary educational services:

(a) percentage of trained staff

(b) quality of training

(c) physical provision including equipment

(d) quality and effectiveness of management and supervision (Reilly and Hofmeyr, 1983: 75).
Reilly and Hofmeyr used these criteria in their investigation into the adequacy of existing pre-primary educational services for Indian children in South Africa. Their findings are summarized below.

(a) The number of trained preschool teachers was found to be very low. Consequently, the authorities were compelled to use teacher-aides and other untrained personnel in positions for which they were inadequately qualified.

(b) Facilities and opportunities for trainee preschool teachers were very limited.

(c) The physical provisions for conducting pre-primary classes was generally unsatisfactory. Often old warehouses, garages, old school buildings, church and community halls were used.

(d) The quality of management and supervision at many of the preschools was of poor quality.

2.2.5 Conclusion

Singh (1987: 48-49) in her study of pre-primary education for Indians made similar observations. In her view the following shortcomings need to be rectified urgently:

(a) inadequate funding

(b) a lack of attractive incentive schemes for training teachers

(c) a general lack of suitable classrooms

(d) a narrow conception of pre-primary education as if the "academic" aspect was the only important one.

A description of the design and other aspects by which data for this study were gathered are presented in the next chapter.
3.1 THE NATURE OF THE PRESENT RESEARCH

Helmstadter (1970:83) classifies methods of research along the following lines:

(a) Historical and case study approaches
(b) Descriptive approaches
(c) Experimental approaches

The present investigation falls into the second category. More specifically, it is a causal-comparative study and comprises the following steps:

(a) the translation of the problem into the specific characteristics to be measured;
(b) choosing a test to measure the traits being studied;
(c) gathering data by administering the test;
(d) analysing the data by computing various descriptive indices and by making appropriate comparisons among groups.

The following is a paradigm for the causal-comparative design used in the study:
<table>
<thead>
<tr>
<th>GROUPS (not randomly assigned)</th>
<th>X, INDEPENDENT VARIABLE (not manipulated by investigator)</th>
<th>Y, DEPENDENT VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schoolready group</td>
<td>Differing home conditions</td>
<td>$T_R$ High scores on schoolreadiness test ($x$ for group)</td>
</tr>
<tr>
<td>Non-School-ready group</td>
<td></td>
<td>$T_{NR}$ Low scores on schoolreadiness test ($x$ for group)</td>
</tr>
</tbody>
</table>

Fig.3.1 A PARADIGM OF THE RESEARCH USED IN THIS STUDY

3.2 METHODS OF DATA COLLECTION IN DESCRIPTIVE RESEARCH

A variety of methods may be used to collect data in descriptive research. The particular instrument used depends upon the nature of the problem. If the existing instruments do not meet the researcher's specific needs, he may supplement them or even construct his own modified version (Lovell and Lawson, 1970:32). In the present study modified forms of two instruments - the Peabody Picture Vocabulary Test and the Parental Attitude Inventory - were used together with other data gathering tools.
3.2.1 The Interview

The interview was an important medium through which information for this project was obtained. Dave (1963) defines an interview as "a structured conversation with a purpose". The interview schedule provides the structure for the conversation, and collecting the data is the purpose. Though it is a time-consuming and expensive approach, the researcher chose the interview technique in preference to the mail questionnaire since it has several important advantages. Parents, for instance, were requested to furnish information on matters relating to their occupation, their level of education, the material environment of their home and their educational aspirations. It is unlikely that many parents would have freely offered accurate information on such matters if an impersonal technique like the mail questionnaire were used.

Other advantages of the interview technique included the following:

(a) The interview situation permitted the establishment of greater rapport. This made it possible for the respondent to give more complete answers.
(b) It provided the investigator with the opportunity of observing and gathering valuable qualitative supplementary data pertaining to the type of dwelling, the presence of various possessions, parent-child interaction and so forth.

(c) The interviewer was able to note signs of evasiveness and non-co-operation, not only through the respondent's verbal behaviour but also through his/her facial expressions, bodily movements and gestures.

A copy of the interview schedule that was used in this study is included in Appendix A. The questions were presented in the same order to each subject.

3.3 SAMPLING AND SAMPLE SELECTION

3.3.1 Choice and Description of the Research Area

Geographically, Durban may be divided into the following four broad areas:

(a) The Northern Areas
(b) The Western Areas
(c) The Southern Areas
(d) The Central Areas

The present study was limited to two districts - Phoenix and Effingham - both of which fall in the Northern Area.
The township of Phoenix lies twenty kilometres north of Durban and was developed by the Durban City Council as a housing scheme for masses of lower-income earners in the Indian community.

Effingham Heights is about seven kilometres north of Durban and has a significantly higher proportion of Indians who have been able to afford building their own homes. Compared to Phoenix, the Effingham homes are more spacious, architecturally more sophisticated and are situated in more congenial surroundings. The standard of living here is visibly higher compared to that in Phoenix.

The ideal of drawing a large representative sample from all four areas was not possible owing to limitations of time, money and fieldwork personnel. The pilot study had already indicated that an average of two hours was required to test each child.

The decision to site the study in Phoenix and Effingham had four important advantages. Firstly, taken together, these two districts contained a reasonable cross-section of the children living in two contrasting types of socio-economic environments. Secondly, both districts were within reasonable travelling distance of the researcher's home and school. Thirdly, there were several primary schools in the
area. Fourthly, the researcher was well acquainted with both areas since she lives and teaches in the neighbourhood.

Fig.3.2 : LOCATION OF EFFINGHAM AND PHOENIX WITHIN THE GREATER DURBAN AREA
3.3.2 Composition of the Samples

The selection of the samples for the present project was a three-stage process involving:

Selection of Schools
Selection of Pupils
Selection of Families

3.3.2.1 Selection of Schools

In 1989, when the first group of pupils was tested, two schools - one from Phoenix and one from Effingham - were used. In 1990 the samples were drawn from two schools in Phoenix and from three in Effingham.

<table>
<thead>
<tr>
<th>NAME OF SCHOOL</th>
<th>1989</th>
<th>1990</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Effingham Heights</td>
<td>30</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>2. Redfern</td>
<td>30</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>3. Ferndale</td>
<td>10</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>4. St. Michaels</td>
<td>17</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>5. Avoca</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>60</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

TABLE 3.1

DISTRIBUTION OF THE SAMPLE BY SCHOOLS (1989 AND 1990)
3.3.2.2 Selection of Pupils

After the schools had been selected the researcher visited the principal of each school to explain the aims and the nature of the study. Parents were also contacted and consent for their child’s participation in the project was obtained. A copy of the letter that was sent to the parents is included in Appendix B.

The distribution of the number of pupils in the sample according to sex and age is given in Table 3.2 and Table 3.3 respectively.

**TABLE 3.2**

**DISTRIBUTION OF SAMPLE ACCORDING TO SEX**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>BOYS</th>
<th>GIRLS</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>21</td>
<td>21</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>30</td>
<td>28</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>51</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>
Though the research sample was not intentionally chosen to ensure equality in number between the sexes, a good balance between males and females was obtained. The breakdown according to sex turned out to be 51% boys and 49% girls.

**TABLE 3.3**

**DIFFERENCES BETWEEN MEAN AGES IN MONTHS OF READY AND NON-READY CHILDREN**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>MEAN</th>
<th>S.D.</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>21</td>
<td>71.38</td>
<td>2.97</td>
<td>0.65</td>
</tr>
<tr>
<td>BOYS</td>
<td></td>
<td>72.14</td>
<td>3.05</td>
<td>0.67</td>
</tr>
<tr>
<td>GIRLS</td>
<td></td>
<td>71.71</td>
<td>3.83</td>
<td>0.72</td>
</tr>
<tr>
<td>NON-READY</td>
<td>30</td>
<td>70.33</td>
<td>2.92</td>
<td>0.53</td>
</tr>
<tr>
<td>BOYS</td>
<td>28</td>
<td>71.71</td>
<td>3.83</td>
<td>0.72</td>
</tr>
</tbody>
</table>

The boys in both groups were younger than the girls but the differences were negligible. The table shows that although the "ready" girls were slightly older the sample as a whole was homogeneous with respect to age.
3.3.2.3 Selection of Families

A total of 100 parents participated in the study. Of these, 42 had children who were ready for school and 58 had children who were not ready for school. As mentioned in Chapter One, readiness was determined by pupils' scores on the School Readiness Test B.

3.3.3 The Sample

At the outset it was decided to exclude from the sample any child, who during the testing or before, showed evidence of any handicap that may be responsible for his/her lack of readiness for formal schooling. A total sample of 166 pupils was chosen for the research. A table of random numbers was used for this purpose (Downie and Heath, 1970:328-329).

3.3.3.1 The Preschoolers

After parental consent had been obtained, preschoolers from both areas were chosen using a random sampling procedure. This group comprised pupils who were due to turn six years of age before 1 July 1990. At the time of testing, these children were pupils at a preschool and were due to be placed in Class I in 1990. They had had approximately one
year's preschool experience. Eighty preschoolers were tested on the School Readiness Test B. Thereafter, these pupils were separated into two groups - a "ready" group and a "non-ready" group - each comprising thirty pupils.

3.3.3.2 The Non-Preschoolers

In order to choose the non-preschoolers - i.e. those pupils who had not attended a preschool and were due to enter Class I in 1990 - the researcher had to wait until the 1990 Class I enrolments had taken place. She then visited the schools participating in this study and, with the help of the class teachers and principals, identified forty-seven non-preschoolers. Of these, the forty required for this project were chosen using a random sampling procedure. These pupils were already six years of age or were due to reach this age before 1 July 1990. These pupils were then given School Readiness Test B to determine the extent of their readiness. It was found that only twelve of the forty non-preschoolers were ready for formal work. The entire sample of one hundred pupils was then given the Peabody Picture Vocabulary Test and the Raven's Coloured Progressive Matrices.

Next, the parents of these pupils were studied using an interview schedule, and an attitude questionnaire.
All the tests were conducted after school hours, over the weekends, and during the summer and winter vacations.

3.4 INSTRUMENTS USED IN THE STUDY

The instruments used in this study comprised a test of school readiness, a picture vocabulary test, a non-verbal test of intelligence, a home interview schedule, a socio-economic index and a parental attitude inventory.

3.4.1 The School Readiness Test B (SRTB)

According to Anastasi (1968:382-8) and Athmann and Glock (1967:4) readiness tests are designed to determine how well an individual will profit from some subsequent course of instruction. These tests are of great value to a Class i teacher as they determine to what extent the children in her class are ready for formal instruction.

School readiness tests can be divided into two types:

(a) General Readiness Tests
These tests, determine readiness for learning by measuring a number of different traits and skills which contribute to success in school work (Hildreth op.cit.: 69).
(b) Specific Readiness Tests
These tests measure readiness for specific subjects such as reading, number work and so on (Hildreth, op.cit.: 69).

Both these types of tests are valuable although a Class I teacher is generally more interested in overall readiness factors. The School Readiness Test B falls into the general category. It has six subtests. Scores on these provide information on the areas in a particular child's profile which need to be strengthened.

The School Readiness Test B was used in this study because it is an established test and is highly recommended by experienced junior primary teachers and administrators in Indian schools. It covers a wide range of activities and gives a reliable estimate of a child's readiness for formal instruction. The six subtests are briefly described below.

In SUBTEST 1 the child has to fit pieces of puzzles in a way that matches the tester's picture. To do this he needs good visual analytic powers and the ability to carry out oral instructions.

In SUBTEST 2 the child is required to sort out various geometric shapes and group them according to their common properties. This tests the child's ability to recognise shapes.
In SUBTEST 3 the child has to choose from a series of pictures, two of which look alike. This tests his capacity for inductive thinking.

In SUBTEST 4 the child has to choose the one object which looks different from many others. He requires a capacity for refined analytical perception to gain a satisfactory score on this test.

In SUBTEST 5 the child’s ability to understand spoken language is assessed as well as his potential for carrying out instructions.

In SUBTEST 6 the child’s ability to handle a pencil and his eye-hand co-ordination are measured. He is requested to complete one pattern within a circle and another within a square. The pattern has to be as close to the outline as possible. The child is also requested to use a pencil to draw the pattern without turning the page.

Instructions for the application of the test are set out in an accompanying manual. Practice examples are provided to enable the child to understand what is required of him. A detailed scoring procedure is also provided.
The total score for each subtest is as follows:

<table>
<thead>
<tr>
<th>TEST</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>28</td>
</tr>
</tbody>
</table>

3.4.2 The Peabody Picture Vocabulary Test (PPVT)

Since the ability to communicate verbally is an important requirement for satisfactory progress in school, it is necessary to examine this aspect in any study of school-readiness. The Peabody Picture Vocabulary Test (PPVT) developed by Dunn (1965) was used in this investigation. This test has two forms (Form A and Form B) and consists of 1350 plates on each of which is a line drawing of increasing difficulty. Each page has four pictures which is shown to the child and he is given the following instructions:

"I will call out a word. I want you to place your finger on the picture of the word I have called out".
Since the PPVT was constructed for use with children in the USA, it was necessary to modify it by "cleansing" it of certain concepts that were uniquely American, before it could be used with children in this study. The changes that were made are explained below.

(a) Firstly, only the first sixty plates were used since a pilot study had shown that six-year-old Indian children generally gave incorrect responses when presented with plates beyond the first fifty. Many of them began guessing wildly after this point. However, in order to accommodate genuinely brighter pupils it was decided to include the next ten plates and this raised the number of plates used to sixty.

(b) Secondly, it was decided to make the stimulus words from Form A the basic list of words for this study. However, when it was found that a particular word from Form A was likely to be out of the range of experience of the Indian child, it was replaced by a corresponding one from the alternate form (Form B) of the PPVT. Sixteen such words were replaced in Form A.

Three sets of stimulus words, i.e. the two sets which appear in the original test as well as the set used in this study - can be found in Appendix C.

An important criticism of the PPVT type tests has been made by Mittler (1971: 43-54). He notes that very young children often point to the first picture that captures their attention, sometimes even without waiting for the examiner's stimulus word. A similar observation was made in this investigation during the pilot study, and, as a precaution, it was decided to repeat questions, if necessary.
3.4.3 The Non-Verbal Test of Intelligence (RCPM)

Raven's Coloured Progressive Matrices (Raven: 1947) was prepared as "a test of observation and clear thinking" for children in the 5 to 11 age group and for intellectually impaired or subnormal children.

This test is made up of several patterns, with parts removed. The missing part is shown at the bottom of the page among other figures of similar shape which do not complete the pattern. The child is asked to indicate the correct part. The problems are arranged in order of increasing difficulty and this enables the child to gain confidence initially. The scores are based on the total number of matrices correctly completed.

3.4.4 Home Interview Schedule (HIS)

Information concerning the home background of the pupils was obtained by means of a structured Home Interview Schedule containing both open-ended and closed-type questions. The closed-type was used to obtain information about home conditions relating to specific categories. The open-ended questions were directed at obtaining information on circumstances unique to the individual and his/her family.
Specific questions were asked relating to the following broad categories:

(a) Parent's level of education
(b) Analysis of data pertaining to the home and living Conditions of the Families
(c) Parent's state of physical health
(d) Analysis of data pertaining to general cultural experiences, educational motivations and parental aspirations
(e) Data pertaining to the child
(f) The interviewer's general impression of the family

Since the respondents were giving voluntarily of their time, it was important to collect the data with a minimum expenditure of time. At the outset it was made clear that the interview was entirely voluntary and that all data gathered would be treated as confidential. Every effort was made to ensure that the stimulus offered was similar in all cases but it was sometimes necessary to use explanatory phrases or examples. Care was taken to establish good rapport with the parents so that information on sensitive topics could be elicited. The researcher-interviewer was also alert to possible defensive and evasive responses by parents and to detecting the subtle signs of problem situations in the family. The interviews generally took place
in a relaxed and informal atmosphere. This made it easy for the respondents to provide the researcher with the information she required.

3.4.5 The Socio-Economic Index (SEI)

The sample in this study was categorised into upper and lower socio-economic groups in order to find out whether contrasting life styles and family circumstances have a significant bearing on children's readiness/lack of readiness for school. Relevant to this point is Woolfolk's observation (1984:126) that many environmental factors influence individuals, some beginning before birth. Different experiences are available to people, depending on income, status, cultural group, sex and education. In addition, every family creates a different environment for its members.

Being labelled "lower class" makes life more difficult. People of higher status generally command a greater portion of the group's resources. Children of poverty see that they cannot easily attain the advantages of their middle-class peers. Others may respond to them in terms of class rather than individual worth. Self-esteem may be affected
adversely. Adjustment to school may be more difficult for these children, since schools tend to value and expect the behaviours more often taught in middle-class homes.

For the present study it was considered sufficient to take the father's occupation as an approximate indicator of a child's social class status. The classification was done on the basis of the information furnished by the Central Statistics Service, Standard Classification of Occupation, Report No. 09-90-01 (1986) p.xxxi.

The occupation of the parents of the 100 preschoolers and non-preschoolers in the sample was coded and classified into two basic categories:

(a) highly skilled and skilled: Training for occupations in this group required a level of education of at least standard 7 or 8.

(b) semi-skilled and unskilled: Training for occupations in this group required a level of education below standard 7.

Table 3.4 shows the distribution of the sample in this study on the basis of high SES and low SES classifications.
### TABLE 3.4

DISTRIBUTION OF SAMPLE BY SOCIO-ECONOMIC STATUS

<table>
<thead>
<tr>
<th>SOCIAL CLASS CATEGORY</th>
<th>DESCRIPTIONS OF SOCIAL CLASS STRUCTURE</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High SES</td>
<td>Highly skilled</td>
<td>50</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Skilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low SES</td>
<td>Semi-skilled</td>
<td>50</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Unskilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

3.4.6 The Parental Attitude Inventory (PAI)

The purpose of this instrument was to obtain a measure of each parent's position on a set of items relating to child rearing. Broadly, these items can be arranged in terms of a basic psychological dimension of authoritarianism/permissiveness.

With regard to the rationale underlying the Parental Attitude Questionnaire, West (1973) explains that excessively authoritarian parents are characterized by rigidly disciplinarian attitudes and over-strict control.
Such parents tend to produce children who are altogether too passive, conventional and rule-bound whereas parents with a more democratic approach produce children with better-adjusted personalities.

To find out the extent to which West's Cambridge Study questionnaires were suitable for use with Indians, they were used in their original forms in a pilot study with six mothers and six fathers. These questionnaires are included in Appendices D and E.

The pilot study revealed that certain items were not suitable for use with Indian parents and had to be either excluded or modified. The following items were excluded from the Mother's Form.

11 "Mother knows best", is still true today.
22 School dinners make a welcome break for mother.
27 Though he says he's poorly at school time he should go just the same.

The following items were excluded from the Father's Form:

22 The saying "Children should be seen and not heard" is just silly.
25 The discipline of the army is fine training for boys.
26 Children get more freedom nowadays, and a good thing too.

The following eleven items on the Mother's Form were modified:

(The item number refers to the Original Form)
2 Original: Parents should decide the sort of work their children should do.
Modified: Parents should decide the kind of work their children should do when they grow up.

3 Original: A mother needs to get right away from her children sometimes.
Modified: It is good for a mother to get right away from her children sometimes.

4 Original: Bedwetting cannot be cured by punishing the child.
Modified: If a child wets his bed at night he can be cured if you punish him.

6 Original: If a boy has got a bit of spirit he won't always do as you say.
Modified: If a boy has got a bit of "guts" he won't always do as you say.

8 Original: It is not right to worry children at home about their school lessons.
Modified: It is not right to worry children at home about their school work.

9 Original: Too much mothering will make a boy a "softie".
Modified: Too much mothering will make a boy a "sissie".

12 Original: It doesn't matter if boys get to know about sex when they are little.
Modified: It doesn't matter if boys get to know about sex when they are still small.

13 Original: No child is really bad if you take enough trouble with him.
Modified: No child is really bad if you take enough trouble to bring him up properly.

14 Original: Keep boys down young and they won’t get into trouble later.
Modified: If you keep boys down when they are young they won’t get into trouble later.

19 Original: We needn’t expect our children to look after us when we are old.
Modified: We shouldn’t expect our children to look after us when we are old.

24 Original: There’s little thanks or pleasure in bringing up children.
Modified: There’s little thanks in bringing up children.

The following seven items in the Father’s Form were modified:

4 Original: The 11 + exam in school is not fair to children.
Modified: Exams in schools are not fair to many children.

8 Original: It doesn’t matter if boys sit up a bit late sometimes watching television.
Modified: It doesn’t matter if boys sit up late sometimes listening to the radio.

10 Original: Children should be able to leave school before the age of 15.
Modified: There’s no harm in children leaving school before they have reached Standard vi.
15 Original: Flats and housing estates should all have special playgrounds.
Modified: Flats and housing schemes should have special playgrounds.

27 Original: More public money should be spent on providing children's playgrounds.
Modified: More of our rates and taxes should be spent on providing children's playgrounds.

28 Original: Boys grow up without spirit if they're kept down young.
Modified: Boys grow up without guts if they're kept down young.

30 Original: Children won't work at school unless you keep on at them.
Modified: Children won't work at school unless you keep checking on them.

The modified questionnaires - one for fathers and one for mothers - each containing thirty statements were finally drawn up. The parents were required to agree or disagree with each of these statements.

It is reasonable to assume that an important link exists between a pupil's overall readiness for school and the attitudes held by his/her parents towards child rearing.
Most of these interviews were conducted after school hours, over weekends and during the vacations. Very often it was not possible to get both parents at home at the same time. Generally, it was the father who was not available. In such cases the forms were left at their homes for them to complete. The researcher returned to collect the completed forms.

3.5 THE PILOT STUDIES

The main study was preceded by pilot studies in which tests and questionnaires were pre-tested. The pilot study also alerted the investigator to some of the problems she needed to solve beforehand and enabled her to gain certain insights and ideas which helped to improve the quality of the main study. Information was gained about such procedural matters as the best ways of approaching subjects and recording responses. The pilot study also enables the researcher to select, from several others, a readiness test, the School Readiness Test B (SRTB), that was most suitable for her purpose.

The readiness test was first given to a sample of twelve five-year-olds. It immediately became apparent to the tester that these pupils were too young to understand what was required of them. None of these five-year-olds ob-
tained the twenty-two points which would have enabled them to be classified as schoolready. The researcher therefore, could not proceed further with this relatively young group of children.

She was, therefore, forced to choose another pilot group comprising older preschoolers. These six children who were due to turn six years of age within a few months were given the SRTB. Four of these children scored 22 points, one scored 20, and another scored 19. These results indicated that children of a similar age could be used in the main study.

These six pupils who were given the school readiness test were also tested on the RCPM and PPVT. These tests were conducted individually. The examples were explained slowly and thoroughly to give the pupils a sound understanding of what was required of them in each test. The pupils reported that of the three tests they did, they liked the PPVT most. It proved valuable in establishing rapport. Shy pupils felt at ease when they were shown pictures. The PPVT began at a very simple level and this gave the children confidence.
On the basis of these observations it was decided to administer the tests individually to each child in the following order:

(a) SRTB
(b) PPVT
(c) RCPM

It became clear during the pilot study that certain precautions had to be taken during the main study. These will now be discussed.

3.6 CONTROL PRECAUTIONS

From the pilot study it became apparent that the school was the best place in which to test the pupils. Pupils tended to respond better when placed in a more formal situation. When pupils were tested at home they tended to behave poorly and needed to be coaxed both by the parents as well as the researcher. This prolonged the testing session. Testing over the weekends and during holidays also proved to be frustrating as visitors to the homes increased the number of interfering "spectators" who were present when the children in the pilot study were being tested.
As a precaution against making incorrect assessments the researcher postponed testing a child whenever she felt that disruptive elements were present at an unacceptably high level.

All the tests were administered individually. Sample items were often repeated to assist the child in understanding the requirements. No time limits were placed.

3.7 THE TESTING PROGRAMME

As already indicated, the SRTB was administered first because it was the basic test and was used to divide pupils into the "ready" and "non-ready" categories. It took an average time of about fifteen minutes per child to administer this test. The PPVT was administered second and this took about ten minutes. The child then did the third test, the RCPM. This took about ten minutes. An interval of about five minutes was allowed between tests. The home interview schedule took about twenty minutes to complete. On an average it took about two hours to test each pupil and interview his parents.

The number of days taken to visit the homes was in excess of what had been estimated. There were several reasons for the slow progress. The testing and the interviews could
only be done after school hours. Sometimes it was very
difficult to find children at home during these times. On
several occasions the researcher had to return to a pupil’s
home three times before finally finding him/her at home.
The time needed for locating and moving from one home to
another caused further delay.

After all the required data were collected, they were sum-
marised and analysed. The results are presented in Chap-
ters Four and Five.
CHAPTER FOUR

RESULTS OF THE PRESENT STUDY

HOME BACKGROUND FACTORS AND PARENTAL ATTITUDES

As indicated in Chapter One, the first aim of the study was to identify those factors in the home background that assisted children to become schoolready. Concomitantly, elements in the children's home background that militated against their becoming schoolready were also to be identified.

In keeping with this aim, the following questions were posed:

Are there significant differences in the material, cultural and psychological variables relating to the homes of children who are ready for school compared to those who are not? If so, what is the nature of these differences and how do they operate to the child's advantage or disadvantage?

Some of the variables which were examined included the material environment of the home, family health, general cultural experiences, educational motivation and the aspirations parents had for their children. Information on these aspects was obtained through the use of a structured interview schedule.
The second aim was to obtain some measure of each parent's position on a set of items relating to child rearing. Broadly, these items can be arranged in terms of a basic psychological dimension of authoritarianism/permissiveness.

Corresponding to this aim the following questions were posed:

In so far as attitudes towards child rearing is concerned, do significant differences exist between:

(a) the mothers of children who are schoolready and the mothers of those who are not?
(b) the fathers of children who are schoolready and the fathers of those who are not?

Information on this aspect was obtained by means of a Parental Attitude Inventory.

The results pertaining to home background factors and parental attitudes will be discussed in the present chapter.

The data relating to the three other variables involved in this study viz., the cognitive, linguistic and school readiness variables, will be analysed in the next chapter.
Brief notes on some of the more important statistical techniques used for analysing the data in this report are presented in Appendix J. NWA Statpak programmes (1986) were used for computations.

An analysis of the results pertaining to Home Interview Schedule and the Parental Attitude Inventory follows.

4.1 RESULTS PERTAINING TO HOME BACKGROUND FACTORS

4.1.1 Introduction

An examination of the items in the interview schedule shows that a number of them relate to the parents and the children in the sample. The responses to these items are analysed in the sections that follow.

Healthy parental concern in the preschool years plays an important part in assisting a young child to cultivate a positive attitude to school. Several research studies show that the influence of the mother is especially important (Jubber, 1988:291, Chazan, 1973:142, Vernon, 1979:104).

In this study more mothers than fathers were interviewed in both the ready and non-schoolready groups. This can be seen from the data given in Table 4.1.
The fact that very few fathers (14% in each group) availed themselves for the interview should not be seen as being due to a lack of interest on their part in their children's progress. It just happened that many fathers were at work when the interviewer visited their home.

4.1.2 Parents' Level of Education

The general educational atmosphere which prevails in the home is likely to affect the attitudes of parents and their children towards education. The educational level of the parents is a useful indication of the educational climate in which children are reared. According to Goodacre (1970: 106-107) parents with higher educational levels are more likely to inculcate positive attitudes in their children towards education. She goes on to say that parents with
little or no formal education often fail to understand the school's role in promoting children's educational experiences.

In another study, Fraser (1959:42) found a correlation of 0.49 between the parents' educational rating and school progress, and a correlation of 0.42 between the parents' educational rating and children's IQ. This indicates that the parents' level of education is related to the child's scholastic progress quite apart from the influence of intelligence. Fraser goes on to elaborate on this finding. She explains that in a case of two children of equal intelligence, having parents of different educational levels, the child with the better-educated parents is likely to produce work of a higher standard in school. This may be due to the fact that his parents are better placed to encourage him and help him whenever necessary.

The present study examined separately the educational levels of mothers and fathers in relation to their children's level of schoolreadiness.

The level of education of the fathers of schoolready and non-schoolready children in the sample is presented in Table 4.2
Table 4.2 shows that there is a significant difference between the educational levels of the fathers of schoolready and non-schoolready children. Only 62% of the fathers of the non-schoolready children had an educational level of matriculation or above compared to 79% of the fathers of schoolready children. This difference is statistically significant ($\chi^2 = 10.72$, df = 1).

For most children, it is their mother who is the most important influence on their intellectual development in the preschool and early school years. This pre-eminent role is the result of the close and intense relationship which the pattern of modern child-rearing encourages. The rise of the nuclear family has increased the importance of the
mother as a key determiner of early intellectual development. Her intellectual attitudes and abilities as well as her own stock of knowledge constitute the major ingredient of the home as an informational environment for the young child during its early years. It follows, therefore, that children born to mothers who have the appropriate cognition-enhancing attitudes, approaches and knowledge and whose mothers are able to spend a good deal of time with them, enjoy a distinct advantage over children who are not so fortunate.

One measure of the quality of a mother (or other primary socializing agent) as a cognition-enhancing agent, is the level and amount of formal education she herself has received. Not only is much of the content of this potentially useful to the child, but the knowledge and experience she possesses of formal learning and schooling is also of value to him.

A mother’s occupation, whether still being pursued or not, is another variable which gives some indication of the quality and quantity of school-relevant information she has at her disposal and which she is able to transmit to her child. It also gives some indication of her own occupational ambitions and those she might have for her child.
Her intellectual ability is yet another factor which presumably plays an important part in helping her child to become ready for school (Jubber, 1988:291).

Table 4.3 furnishes information on the level of education of mothers of schoolready and non-schoolready children who participated in this study.

**TABLE 4.3**

**MOTHER’S LEVEL OF EDUCATION**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>NO SCHOOLING TO STD.6</th>
<th>STD.7 AND ABOVE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>10 (24%)</td>
<td>32 (76%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>28 (48%)</td>
<td>30 (52%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ x^2 = 8.19 \quad df = 1 \quad p < 0.05 \]

Table 4.3 shows that 76% of the mothers of schoolready children had educational levels of matriculation and above as opposed to only 52% of the mothers of the non-schoolready children. This shows that there is a significant relationship between the mother’s level of educa-
tion and the readiness variable. The children of better-educated mothers are more likely to be ready for school than the children of poorly-educated mothers.

Seen in overall terms, it is evident that parents with higher levels of education provide their children with the kind of training that equips them better to meet the educational demands of the school situation than do parents with lower levels of education.

Noteworthy also is the point made by Hunt (1973:103) that lower educational levels lead to less well-paid jobs. Children from these families are at an obvious disadvantage since families with adequate financial resources are in a much better position to maintain an adequate level of functioning than economically deprived ones (Woolfolk, McCune-Nicolich, 1984:122-123).

4.1.3 Analysis of data pertaining to the Home and Living Conditions of the Families

Family income contributes to a child's cognitive development directly and indirectly. Its more direct effects relate to such things as the relationship between income and nutrition; health; quality of school attended; preschool education; the quality of the home as an information
environment; the value attached to education, and the ability of the family to supply the kinds of educational support, equipment and experiences which foster school success.

According to Chazan (1973:12) homelessness and bad housing conditions play an important part in breaking up families and causing ill-health and strain, with consequent adverse effects on children’s progress and adjustment in school.

Douglas (1964:65) adds to this by pointing out that parents who are unskilled workers generally have lower educational qualifications, show little interest in their children’s schoolwork, have larger families, and live in houses lacking certain essential amenities.

It is against this background that it was decided to examine the relationship between children’s schoolreadiness and the comfort that their homes provided.

The distribution of the main types of dwelling occupied by the schoolready and non-schoolready pupils' families in the sample is given in Table 4.4.
It will be noted that a higher percentage of the non-schoolready children (71% vs 60%) lived in dwellings classified as "other". This category includes outbuildings, garages, basements and council homes, all of which have restricted living space. This places children who are reared in such homes at a disadvantage since, as Wedge and Prosser (1976:25) point out, the child’s opportunity for investigation and exploration is restricted and so is the space for indoor activity and play.

At the other end of the scale more than twice the number of schoolready children’s families lived in relatively spacious single cottages (29% vs 14%).
Although there is no statistically significant difference between the two groups, inspection of Table 4.4 shows that the non-schoolready children are somewhat worse off than their schoolready counterparts.

Figure 4.1 gives a pictorial comparison of the distribution of the types of dwelling of schoolready and non-schoolready children.

![Graph showing the types of dwelling of schoolready and non-schoolready children](image)
In order to establish whether the home had certain essential amenities, the parents were asked whether they had electricity, cold running water, hot running water, radio, television and telephone.

It was found that electricity and cold running water were available in every child's home in the sample. Since these two items did not discriminate between the two groups of children, they were omitted in the final analysis.

Table 4.5 shows the comparative availability of essential amenities in the homes of the two groups of children.

**TABLE 4.5**

**ESSENTIAL AMENITIES IN THE HOME**

<table>
<thead>
<tr>
<th>AMENITY</th>
<th>READY</th>
<th>NON-READY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Water</td>
<td>32 (76%)</td>
<td>38 (66%)</td>
</tr>
<tr>
<td>Radio</td>
<td>40 (95%)</td>
<td>47 (91%)</td>
</tr>
<tr>
<td>Television</td>
<td>40 (95%)</td>
<td>44 (76%)</td>
</tr>
<tr>
<td>Telephone</td>
<td>30 (71%)</td>
<td>42 (72%)</td>
</tr>
</tbody>
</table>

From the statistics given above a difference in the level of material comfort between the homes of the two groups of pupils will be noted. The pupils who are schoolready
generally enjoy the convenience of various amenities to a greater extent. For example, hot running water is available to 76% of the schoolready pupils.

The child’s general development is also affected by the availability of living space. Douglas (1964:64) showed that overcrowding and the lack of space have adverse effects on children’s test scores. In such homes children often have to share their beds with other persons. In the present survey 95% of the non-schoolready pupils, as opposed to 88% of the schoolready pupils, shared their beds with other members of the family. Although this difference is not large, it does not reflect what transpired in the course of the interviews, viz., that the non-ready children generally had to share their beds with a greater number of people. It should be noted that sharing a bed increases the likelihood of disturbed sleep, cross-infection, and discomfort arising out of one child sharing the bed and wetting himself. Disturbed sleep often causes fatigue and results in lack of concentration in school. The home visits also revealed that in a significant number of these homes a single room was used concurrently as a kitchen, a dining room and a bedroom. The full impact of the finding of the material environment will only be appreciated when the various aspects are seen in relationship to each other.
Overall it is evident that schoolready pupils come from homes that enjoy more material comfort than do the non-schoolready pupils.

4.1.4 Parents' State of Physical Health

Physical illness in parents is another factor which can impede children's scholastic progress. Children, say Douglas et al. (1968:72) are adversely affected by an atmosphere made gloomy or morbid by chronic, mental or physical illness in the parents.

In the present study, the interviewer, using a two point scale, viz. 'good' and 'poor', recorded each parent's state of health.

The distribution of the two sets of mothers and the two sets of fathers by state of physical health are given in Tables 4.6 and 4.7 respectively.

| TABLE 4.6 |
| MOTHER'S STATE OF PHYSICAL HEALTH |

<table>
<thead>
<tr>
<th>GROUP</th>
<th>GOOD</th>
<th>POOR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>39 (95%)</td>
<td>3 (7%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>53 (91%)</td>
<td>5 (9%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>92</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>
An examination of the data in the table above reveals that most of the mothers of both the schoolready and the non-schoolready groups enjoyed good health. A slightly higher percentage of the non-schoolready children's mothers had poor health as compared to the schoolready children's mothers (9% vs 7%). It is reasonable to expect that an ailing mother will not be in a position to help her child as well as a healthy mother can.

With respect to the father's health, the schoolready children once again had an advantage over their non-ready peers (10% vs 12%).

**TABLE 4.7**

**FATHER'S STATE OF PHYSICAL HEALTH**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>GOOD</th>
<th>POOR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>38 (90%)</td>
<td>4 (10%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>51 (88%)</td>
<td>7 (12%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>89</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>
4.1.5 Analysis of data pertaining to General Cultural Experiences, Educational Motivation and Parental Aspirations

The general cultural atmosphere which prevails in the home is likely to affect the attitude of parents and children towards education. This variable can, to some extent, be determined by the parents’ and children’s reading habits and the time they spend listening to the radio and watching television programmes. A favourable family environment is one in which the parents value good reading habits, have a positive attitude to education, and readily answer their children’s questions.

The Bullock Report (1975) makes a strong plea for the active interest of parents in their children’s preschool learning, their language development, and their interaction with books. Parents who read widely have a better vocabulary and, presumably, assist their children in their language development. An unfavourable family environment on the other hand handicaps children’s preparation for schooling. Deutsch (1963:163-179) found that such children often have poorer auditory and visual discrimination powers. He points out that these deficits are not due to physical defects of the eye, ear and brain but to inferior habits of listening, seeing and thinking. Presumably, the
family environment of these children did not teach them to "pay attention" to what was being said around them or to the visual scene. When these pupils attend school, their school performance not surprisingly, is poorer than that of children raised in an environment with higher cultural standards.

Another criterion sometimes used to determine the cultural level of a home is purchase of the daily newspaper. The data concerning this aspect in the present study is given in Table 4.8 below.

**TABLE 4.8**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>REGULARLY</th>
<th>SOMETIMES/NEVER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>25 (60%)</td>
<td>17 (40%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>24 (41%)</td>
<td>34 (59%)</td>
<td>58</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>49</strong></td>
<td><strong>51</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

\[ x^2 = 23.42 \quad df = 1 \quad p < 0.05 \]

Table 4.8 reveals that fewer parents of non-schoolready pupils purchased a daily newspaper (41% vs 60%). This difference is significant \( (x^2 = 23.42 \quad df = 1) \).
The findings of the present study with regard to purchasing the weekend paper are interesting. These are presented in Table 4.9.

### Table 4.9

**PURCHASE OF WEEKEND PAPER**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>REGULARLY</th>
<th>SOMETIMES/NEVER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>32 (76%)</td>
<td>10 (24%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>44 (76%)</td>
<td>14 (24%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>76</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ x^2 = 8.26 \quad \text{df} = 1 \quad p < 0.05 \]

Table 4.9 shows that an equal percentage of parents of both groups of children purchased the weekend paper. This is different from the finding relating to the purchase of daily newspapers. Presumably, poorer families can only afford to purchase a single newspaper each week, and they choose to buy the weekend one.

With respect to the purchase of books and magazines, only 22% of the parents of the non-schoolready group purchased these as compared to 48% of the parents of the schoolready children.
This study also revealed that 76% of the schoolready pupils as opposed to only 45% of the non-schoolready pupils possessed books of interest to them. This is a statistically significant difference ($X^2 = 26.01, \text{ df } = 1$). This suggests that books as a means of broadening one’s general knowledge are more likely to be found among schoolready children.

The frequency with which children look at books even before they can read helps develop a child’s interest in books. This is important for later reading. Table 4.10 shows the frequency with which both the groups view books.

**TABLE 4.10**

**FREQUENCY AT WHICH CHILDREN VIEW BOOKS**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>OFTEN</th>
<th>OCCASSIONALLY NEVER/HAS NONE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>33 (79%)</td>
<td>9 (21%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>24 (41%)</td>
<td>34 (59%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>57</td>
<td>43</td>
<td>100</td>
</tr>
</tbody>
</table>

$x^2 = 29.40 \quad \text{df } = 1 \quad p < 0.05$
A study of the figures show that almost twice the number of school-ready children compared to the non-school-ready children looked at books often (79% vs 41%). This difference is significant ($X^2 = 29.40\ df = 1$).

Educationists are unanimous about the importance of parents reading regularly to their preschool children. This promotes language development, stimulates cognitive development and promotes a positive attitude to books and reading (Lindberg and Swedlow, 1985:162-163). In a recent study by Jubber (1988:296) this variable was shown to be significantly correlated with school achievement. Data pertaining to this variable in the present study is reflected in the table below.

**TABLE 4.11**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>42 (100%)</td>
<td>-</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>52 (90%)</td>
<td>6 (10%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>94</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4.11 illustrates the frequency with which various members of the family read to children from the schoolready and non-schoolready groups.

**TABLE 4.12**

MEMBERS OF A FAMILY WHO READ TO A CHILD

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>READY</th>
<th>NON- READY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTHER</td>
<td>33 (79%)</td>
<td>36 (62%)</td>
</tr>
<tr>
<td>FATHER</td>
<td>22 (52%)</td>
<td>24 (41%)</td>
</tr>
<tr>
<td>GRANDFATHER</td>
<td>6 (14%)</td>
<td>4 (7%)</td>
</tr>
<tr>
<td>SIBLING</td>
<td>25 (60%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>OTHER</td>
<td>1 (2%)</td>
<td>-</td>
</tr>
</tbody>
</table>

The overall percentages show that a larger proportion of the schoolready children were told stories. This gives them an important advantage over their non-ready peers.

The histogram below provides a pictorial representation of the frequency with which different members are involved in reading to the child.
Fig. 4.2 HISTOGRAM SHOWING MEMBERS OF FAMILY WHO READ TO CHILDREN

Television and radio play a significant role in providing entertainment in Indian homes. It is not unreasonable to suppose that such exposure helps to supplement children's general knowledge and assists their language development.

A recent study by Neuman (1980:15-18) concerning the relationship between children's listening behaviour and television viewing indicates that the association between the two variables is more complex than is generally supposed. He found that the total amount of television viewed was not a significant factor in improving listening skills. Television will only play a meaningful role if there is discussion based on the programmes. From a linguistic point of view,
"the benefit of children watching television on their own is not very great. Language learning requires feedback and this is only possible in life. Television produces speech and meaning by various kinds of pictures, language and sound but television does not listen, respond or acknowledge a particular viewer" (Lindberg and Swedlow, 1985:275-278).

Listening to the radio and watching television can also provide good opportunities for parent-child interaction. The guidance given by parents to their children in the choice of their programme can place a child at an advantage in his early learning years. Such a child benefits from the wisdom and experience of his parents. Where a child is not given this guidance and is left to make his own choices entirely, he may hurriedly discard programmes with valuable educational content as having no interest for him.

The average time per day spent by a child watching television programmes is shown in Table 4.13.

Table 4.13

<table>
<thead>
<tr>
<th>GROUP</th>
<th>0 - 2 HRS</th>
<th>3 - 5 HRS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY</td>
<td>30 (71%)</td>
<td>12 (29%)</td>
<td>42</td>
</tr>
<tr>
<td>NON-READY</td>
<td>37 (77%)</td>
<td>11 (23%)</td>
<td>58</td>
</tr>
<tr>
<td>TOTAL</td>
<td>67</td>
<td>23</td>
<td>100</td>
</tr>
</tbody>
</table>

\[ x^2 = 7.09 \quad \text{df} = 1 \quad p < 0.05 \]
Table 4.13 shows that a major proportion of both groups of pupils watch television for approximately two hours per day. Ten pupils from the non-schoolready group had no television. This places the child at a disadvantage when programmes viewed are discussed in class.

The study also revealed that 90% of the non-schoolready children as compared to 86% of the schoolready children watched video cassette recordings for about two hours per weekend. It was found that 79% of the schoolready children's parents as opposed to 55% of the non-schoolready children's parents encouraged their children in the choice of their programmes. This gave the schoolready children a greater opportunity of acquiring a sound vocabulary.

A greater percentage of the parents of schoolready children discussed television programmes with their children (95% vs 72%). This difference is significant ($X^2 = 9.20$, df = 1).

Regular discussion that encourages questions and answers enables a child to develop a good command of language and promotes schoolreadiness. In this study the schoolready children and their parents had more frequent discussions (95% vs 71%). This difference was significant ($X^2 = 13.14$, df = 1).
During the interviews when parents' opinions were sought on other aspects relating to television viewing a number of them stated that, in their opinion their children spent too many hours watching television. Some were critical of television claiming that this medium provides world representations in only two dimensions. Others felt that every hour spent in front of a television screen deprived the child of much needed exercise and practice in using his body at an age when he was growing rapidly.

Listening to the radio together often provides material which is used as a basis for discussions between parents and children. Knowledgeable parents are able to help their children by elaborating on certain interesting points and removing misconceptions.

Although the popularity of the radio has dropped since the introduction of television, many people still listen to the radio. The present study revealed that 18% of the families in the sample had no radio sets; 10% had no television sets. Both ready and non-ready children listened to radio programmes for about two hours per day. However, by and large, the schoolready children and their parents listened to the radio together more frequently than did the non-schoolready children (69% vs 60%).
4.1.6 Data pertaining to the Child

In this part of the interview the investigator wished to find out whether significant differences existed between schoolready and non-schoolready children in the areas of dressing, washing, playing with and caring for toys, helping at home, and going on educational or social excursions.

A child’s ability to dress himself is a good indicator of the extent to which he can attend to his own needs. As he grows older he should become progressively more independent in this regard.

In this study, 29% of the parents of schoolready children as compared to only 15% of the parents of non-schoolready children reported that their children did not require help when dressing. On the question of washing themselves, 31% of the schoolready and 7% of the non-schoolready children’s parents stated that their children were able to do this independently. The researcher also observed that the parents of non-schoolready children in particular deprived their children of opportunities of dressing and washing themselves. This led to loss of valuable learning experiences as well as the opportunity for building up feelings of confidence which is so vital if a child is to be ready for school.
The extent of a child's level of responsibility, independence and helpfulness can to some degree be gauged by the duties he performs in the home. In this study 83% of the schoolready children and only 62% of the non-schoolready children put away their toys after playing. Moreover, 20% of the non-schoolready children were rated as "destructive" in the handling of their toys as opposed to only 5% of the schoolready children.

As expected schoolready children possessed a greater number of toys (74% vs 48%) and these toys were more often of the kind that stimulated thinking. Constructional toys and building blocks were seen more rarely in the collections belonging to non-ready children. It is generally acknowledged that children who do not have a sufficient range of educational toys, puzzles and paints lack an important source of learning. Parents of children who lacked these learning aids cited financial hardship as their reason for failing to make these purchases.

A similar reason was given in connection with the limited number of visits to family members, friends and places of educational interest. Twenty-one percent of the schoolready children as opposed to only 9% of their non-schoolready counterparts reported that they visited family or friends frequently. Similarly, schoolready children
paid more visits to parks and playgrounds (17% vs 3%); to libraries (53% vs 38%); to the cinema (43% vs 16%); and to the circus or the zoo (50% vs 38%). Once again, it can be seen that non-schoolready children were at a disadvantage. They were less able to benefit from the invaluable first-hand experiences that come from visits to such places.

Typical responses of parents of children who were denied these experiences included the following:

"I am too tired from the long hours at work to take my children anywhere".

"I need the time that I am at home to clean up my house and to have a rest".

"I don't have enough money to meet my daily expenses. So where can I afford to take my children out".

Home background differences such as the ones discussed in this section appear to contribute significantly to children's readiness or lack of readiness for formal schooling.

4.1.7 The Interviewer's General Impression of the Family

The last section in the interview schedule called for an overall assessment of the interviewer's general impression of the family. This included the personal appearance of
the interviewee and the child as well as the amount of care that was taken to keep the home in a neat and orderly condition.

At the end of each interview the researcher paused for a while and considered all the information she had gained about the family through the discussion as well as through her observations. She then made a global assessment of the family using the categories "clean", "average", and "dirty".

In general, higher ratings were gained by families in the schoolready group. Of course, there were notable exceptions. Presumably, more wholesome home environments instil a feeling of pride and confidence in children which stands them in good stead in the formal school situation.

4.2 RESULTS PERTAINING TO THE PARENTAL ATTITUDE INVENTORY

4.2.1 Introduction

It will be recalled that the second aim of this study was to obtain some measure of each parent's position on a set of items related to child rearing. These items, with certain modifications, were used by West and Farrington (1973)
in a well-known British study on delinquent development. Their purpose was to obtain some measure of each parent's position in respect of the basic dimension authoritarianism-permissiveness, and, in the case of the mother, on the dimension of overconcern - under concern as well.

It is generally acknowledged that the lessons of life and how they are taught influence the child's self-concepts and his characteristic behaviour toward others. Some parents dominate their children's lives to an excessive degree and exercise rigid control over their actions and experiences through authoritarian methods of child rearing. Other parents submit to every demand made by an offspring. Still others allow the child varying degrees of freedom in which to develop, to explore, and to learn. Consequently homes and parents are often described in such terms as overprotective, rejecting, democratic, autocratic, permissive, accepting, indifferent, and so on (Garrison, Kingston and Bernard, 1967 : 322-325). Investigators have found correlations between certain specific attitudes and practices on the part of one or both parents and certain kinds of behaviour in their children. Lyle and Levitt (1955:42-46), for example, found a positive relationship between the punitiveness in parents and that in their children.
Democratic parents, in general, are emotionally mature and they work steadily toward the development of independence in their children. They consider each child as being unique, as developing personality who needs love, understanding, and a reasonable amount of freedom, and encouragement, to develop his potential at his own rate (Garrison, Kingston and Bernard, 1967: 322-325).

4.2.2 Parental Attitude: Mother's Response

Chi-square analyses of the responses of the mothers of schoolready children and non-schoolready children on each of the thirty items in the Parental Attitude Inventory are given in Table 4.14. Chi-square values (with Yates correction for continuity) accompany each item.
### TABLE 4.14

**COMPOSITE CHI-SQUARE TABLE : MOTHER’S FORM**

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>VARIABLE</th>
<th>$x^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>You must expect a real boy to get into fights</td>
<td>15.76x</td>
</tr>
<tr>
<td>2</td>
<td>Parents should decide the kind of work their children should do when they grow up</td>
<td>13.96x</td>
</tr>
<tr>
<td>3</td>
<td>It is good for a mother to get right away from her children sometimes</td>
<td>14.99x</td>
</tr>
<tr>
<td>4</td>
<td>If a child wets his bed at night he can be cured if you punish him</td>
<td>41.61x</td>
</tr>
<tr>
<td>5</td>
<td>Small children must learn to do without their mothers sometimes</td>
<td>6.62x</td>
</tr>
<tr>
<td>6</td>
<td>If a boy has got a bit of &quot;guts&quot; he won’t always do as you say</td>
<td>12.00x</td>
</tr>
<tr>
<td>7</td>
<td>It is most important for a mother to see who her boy plays with</td>
<td>1.23</td>
</tr>
<tr>
<td>8</td>
<td>It is not right to worry children at home about their school work</td>
<td>6.34x</td>
</tr>
<tr>
<td>9</td>
<td>Too much mothering will make a boy a &quot;sissie&quot;</td>
<td>13.17x</td>
</tr>
<tr>
<td>10</td>
<td>Troublesome teenagers often come from harsh homes</td>
<td>5.39x</td>
</tr>
<tr>
<td>11</td>
<td>It doesn’t matter if boys get to know about sex when they are still small</td>
<td>20.04x</td>
</tr>
<tr>
<td>12</td>
<td>No child is really bad if you take enough trouble to bring him up properly</td>
<td>7.06x</td>
</tr>
<tr>
<td>13</td>
<td>If you keep boys down when they are young they won’t get into trouble later</td>
<td>6.06x</td>
</tr>
</tbody>
</table>
It's the school's job to teach the child - not the parent's. .......................... 16,72
There is no harm in boys playing with dolls or at girlish games ......................... 7,75
Parents should not let their children take up all their time .............................. 12,65
Boys should fight their own battles and not run to their mother .......................... 8,21
We shouldn't expect our children to look after us when we are old ...................... 14,35
Children should have a fixed bed-time and never sit up later .............................. 4,74
There should be more discipline in school's today ............................................. 0,73
A child should never keep a secret from his mother .......................................... 3,12
There's little thanks in bringing up children ..................................................... 6,34
Children will respect you more if they are a bit afraid sometimes ......................... 11,57
It's sad to see boys grow up because then they don't seem to need you .................. 8,67
Mothers must learn to mind their own business when a boy is growing .................. 11,45
Strict discipline develops good strong character in children ................................ 5,35
Sometimes children are more of a nuisance than a blessing .................................. 7,99
A mother must always know just what her children are doing ............................. 1,99
If there's trouble at school, mothers should always see a teacher ......................... 2,69
Old-fashioned parents were far too strict ......................................................... 2,64
Table 4.14 shows that significant differences existed between the mother's attitudes of schoolready children and non-schoolready children in respect of all the items, except six. The items on which the mothers differed most have been highlighted in the brief discussion that follows.

The mothers of schoolready children generally felt that it was normal for boys to get into fights (62% vs 55%). For them such experiences are part and parcel of the process of growing up. Mothers of schoolready children also had less puritanical attitudes towards children's knowledge about sex. They generally did not mind if boys got to know about sex while they were still young.

It is also interesting to note that a larger proportion of the mothers of non-schoolready children (74%) as opposed to mothers of schoolready children (29%) believed that bedwetting can be cured if a child is punished. These mothers, unlike the mothers of schoolready children also expected their children to take care of them when they were old.

Both sets of mothers tended to agree with the sentiments expressed in the following items:
It is important for a mother to see who her boy plays with

There should be more discipline in schools today

A child should never keep a secret from his mother

A mother must always know just what her children are doing

If there's trouble at school, mothers should always see a teacher

Old-fashioned parents were far too strict

4.2.3 Parental Attitude: Father's Response

Chi-square analyses of the responses of the fathers of school ready children and non-schoolready children on each of the thirty items in the Parental Attitude Inventory are given in Table 4.15.
TABLE 4.15

FATHER'S FORM

COMPOSITE CHI-SQUARE TABLE: FATHER'S FORM

\( \text{df} = 1 \) in each case
\( x = \text{significant at 5 percent level} \)
\( x^2 = x^2 \text{ used with Yates correction for continuity} \)
SPLITS = YES/NO throughout

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>VARIABLE</th>
<th>( x^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Older girls and boys should be taught at the same school</td>
<td>7.99*</td>
</tr>
<tr>
<td>2</td>
<td>Punishing a boy is a father's job</td>
<td>13.43*</td>
</tr>
<tr>
<td>3</td>
<td>Children have a right to choose their own jobs</td>
<td>3.57</td>
</tr>
<tr>
<td>4</td>
<td>Exams in schools are not fair to many children</td>
<td>18.57*</td>
</tr>
<tr>
<td>5</td>
<td>Boys should just do as they are told without any argument</td>
<td>3.30</td>
</tr>
<tr>
<td>6</td>
<td>Immunization against polio should be compulsory</td>
<td>1.44</td>
</tr>
<tr>
<td>7</td>
<td>Strict discipline develops a good strong character in children</td>
<td>3.21</td>
</tr>
<tr>
<td>8</td>
<td>It doesn't matter if boys sit up late sometimes listening to the radio</td>
<td>17.04*</td>
</tr>
<tr>
<td>9</td>
<td>Old-fashioned parents were far too strict</td>
<td>8.67*</td>
</tr>
<tr>
<td>10</td>
<td>There's no harm in children leaving school before they have reached Std.VI</td>
<td>10.32*</td>
</tr>
<tr>
<td>11</td>
<td>You should never make a child afraid of you</td>
<td>13.01*</td>
</tr>
<tr>
<td>12</td>
<td>Troublesome teenagers often have parents who were too soft</td>
<td>10.29*</td>
</tr>
<tr>
<td>13</td>
<td>Caning in schools should be abolished</td>
<td>10.82*</td>
</tr>
</tbody>
</table>
14 It's better for a boy to be obedient than clever ........................................ 9,62x
15 Flats and housing schemes should all have special playgrounds ......................... 2,22
16 Most mothers nag at their children too much ................................................. 8,35x
17 There is no harm in boys playing with dolls or at girlish games ........................... 16,73x
18 You won't get children to obey unless you can tell them why ............................ 6,82x
19 Most boys need a good thrashing sometimes .............................................. 10,30x
20 In a good home father's word is law .................................................. 5,71x
21 Woman schoolteachers are just as good as men teachers .................................. 4,37x
22 If parents stand no nonsense bedwetting can soon be cured ............................. 8,30x
23 Children should have fixed bedtimes and never stay up later ........................... 4,43x
24 More of our rates and taxes should be spent on providing children's playgrounds .. 8,67x
25 Boys grow up without "guts" if they are kept down young ................................. 7,96x
26 There should be more discipline in schools today ...................................... 4,06x
27 Children won't work at school unless you keep checking on them .................... 8,92x
28 Children learn to behave best if their parents are patient with them ............... 4,76x
29 Mothers are generally too soft with their sons ........................................... 7,64x
30 Children who are made to obey will thank their parents later ......................... 1,31
Table 4.15 shows that significant differences existed between the father's attitudes of schoolready children and non-schoolready children in respect of all the items, except six. The items on which the fathers differed most have been highlighted in the brief discussion that follows.

Fewer fathers of schoolready children felt that punishing a boy was a father's job (43% vs 50%). They believed that both parents should be responsible for disciplining their children. In marked contrast to the fathers of the non-schoolready children, these fathers also saw little harm in boys sitting up late sometimes listening to the radio; nor did they see the point of children being afraid of them. Views such as these suggest a more enlightened attitude toward child rearing. Fathers of non-schoolready children tended to be more authoritarian in their approach and held the view that troublesome teenagers were often the product of parents who were "too soft" in their dealings with them.

Both sets of fathers tended to agree with the sentiments expressed in the following items:
Item No:

3. Children have a right to choose their own jobs

5. Boys should just do as they are told without any argument

6. Immunization against polio should be compulsory

7. Strict discipline develops a good strong character in children

15. Flats and housing schemes should all have special playgrounds

30. Children who are made to obey will thank their parents later

Overall, the results show that the parents of non-schoolready children are, by and large, more authoritarian in their relationship with their children and in their views about how they should be reared.

More results - those that deal with data pertaining to the readiness, cognitive and linguistic aspects - will be given in the next chapter.
CHAPTER FIVE

RESULTS OF THE PRESENT STUDY (Continued)

COGNITIVE, LINGUISTIC AND SCHOOL READINESS ASPECTS

5.1 INTRODUCTION

The results pertaining to the first two aims of this study, i.e. those relating to home background factors and parental attitudes, were analysed in Chapter Four. In the present chapter the results pertaining to the three remaining aims will be discussed. These relate to the cognitive, linguistic, and school readiness aspects as well as an assessment of the level of school readiness of a selected group of children after they had been in a formal class for six months.

Although the main interest of the present study is on the ready/non-ready dimension, supplementary data on three other related dimensions will be presented since they help to shed further light on the problem under investigation. These additional dimensions are the following:
Preschoolers vs Non-Preschoolers
Boys vs Girls
High SES children vs Low SES children

The inclusion of the Peabody Picture Vocabulary Test (PPVT) and the Raven's Coloured Progressive Matrices (RCPM), which are largely verbal and non-verbal mental tests respectively, were administered so as to provide a broader basis for conclusions. This would not have been possible if the School Readiness Test B (SRTB) were used on its own.

5.2 RESULTS PERTAINING TO THE COGNITIVE ASPECT (RCPM)

It will be recalled that the third aim was to determine whether any significant difference existed in the cognitive aspect between the mean scores of the schoolready and non-schoolready groups. In keeping with this aim the following question was posed:

Are there significant differences in the cognitive development of the children who are ready and their peers who are not ready for school?

Data relating to this aspect was obtained by means of the Raven's Coloured Progressive Matrices.
5.2.1 Schoolready vs Non-Schoolready Groups

The frequency distributions of the raw scores of the two groups are presented graphically in Fig. 5.1

An analysis of the data presented in Fig. 5.1 shows that the schoolready pupils tended to gain higher scores on the RCPM than the pupils who were not ready for school.
More detailed statistical comparisons of the two groups are given in Table 5.1.

**TABLE 5.1**

**COMPARISON OF THE MEANS OF THE RAW SCORES OF SCHOOLREADY AND NON-SCHOOLREADY CHILDREN ON THE RCPM**

<table>
<thead>
<tr>
<th>TEST</th>
<th>READY (N=42)</th>
<th>NON-READY (N=58)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCPM</td>
<td>$\bar{X} = 6.93$</td>
<td>$\bar{X} = 3.84$</td>
<td>3.02</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>$SD = 4.79$</td>
<td>$SD = 3.22$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.1 indicates that the schoolready children as a group obtained significantly higher scores than non-school ready children on the RCPM. This result is in the expected direction.

5.2.2 **Boys vs Girls**

For easier visual comparison the frequency distribution of the raw scores of boys and girls are given in the form of frequency histograms in Fig.5.2.
Fig. 5.2 HISTOGRAM SHOWING THE DISTRIBUTION OF RAW SCORES OF BOYS AND GIRLS ON THE RCPM

A more detailed analysis of these scores on the RCPM is given in Table 5.2.

**TABLE 5.2**

<table>
<thead>
<tr>
<th>TEST</th>
<th>BOYS (N=51)</th>
<th>GIRLS (N=49)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCPM</td>
<td>(\bar{X} = 5.75)</td>
<td>(\bar{X} = 5.63)</td>
<td>0.15</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>SD = 4.31</td>
<td>SD = 2.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

122
Table 5.2 shows that boys as a group did not obtain significantly higher scores than girls as a group on the RCPM. This is consistent with the observation made by Sprinthall and Sprinthall (1987:404) that the full-scale IQ's of males and females of a given age are almost identical.

5.2.3 High SES children vs Low SES children

The frequency distributions of the raw scores of the two groups of children are delineated pictorially in Fig.5.3.

![Frequency Polygons Showing the Distribution of Raw Scores of Children from High SES and Low SES on the RCPM](image)
A more detailed analysis of these scores on the RCPM is given in Table 5.3.

**TABLE 5.3**

**COMPARISON OF THE MEANS OF THE RAW SCORES OF HIGH SOCIO-ECONOMIC STATUS CHILDREN AND LOW SOCIO-ECONOMIC STATUS CHILDREN ON THE RCPM**

<table>
<thead>
<tr>
<th>TEST</th>
<th>HIGH SES (N=50)</th>
<th>LOW SES (N=50)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCPM</td>
<td>(\bar{X} = 6.48)</td>
<td>(\bar{X} = 4.94)</td>
<td>2.16</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>SD = 3.33</td>
<td>SD = 3.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 shows children from the high socio-economic group obtain significantly higher scores than do the children from the low socio-economic group.

This finding is consistent with the findings of researchers such as Douglas (1964), Goldstein (1980), and Wedge and Prosser (1973).

**5.2.4 Preschoolers vs Non-preschoolers**

The frequency distributions of the raw scores of the two groups are presented graphically in Fig.5.4.
The statistics presented in Fig. 5.4 show that the preschoolers tended to gain higher scores on the RCPM than the non-preschoolers. More detailed statistical comparisons of the two groups are given in Table 5.4.

**TABLE 5.4**

**COMPARISON OF THE MEANS OF THE RAW SCORES OF PRESCHOOLERS AND NON-PRESCHOOLERS ON THE RCPM**

<table>
<thead>
<tr>
<th>TEST</th>
<th>PS (N = 60)</th>
<th>N-PS (N = 40)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCPM</td>
<td>$\bar{X} = 6.32$</td>
<td>$\bar{X} = 4.7$</td>
<td>$t = 2.20$</td>
<td>$p &lt; 0.05$</td>
</tr>
<tr>
<td></td>
<td>SD = 4.20</td>
<td>SD = 2.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.4 shows that there is a significant difference in the mean scores of the preschoolers and the non-preschoolers on the RCPM. Other researchers such as Wellman (1932) and Skodak and Skeels (1949) showed that attendance at nursery school or kindergarten before the age of five or six helps children to gain higher scores on tests of a cognitive nature. The better performance by the preschoolers suggests the need for the development of more preschool facilities.

5.2.5 **Interactions among the independent variables:**

**Readiness/Non-Readiness, Sex and Status (RCPM)**

In order to determine whether there were any interactions among the main variables, a 2 x 2 x 2 factorial analysis of variance was conducted. Since this design calls for equal N's in each group, it was decided to equalize the groups, using the group with the lowest "N" as the base. Scores were eliminated from the other two groups by a random procedure as advocated by Sommer and Sommer (1986:230). Each of the three groups comprised nine children. A summary of the data used in the analysis is presented in Table 5.5.
### TABLE 5.5

**SUMMARY: COMPOSITE MASTER SHEET - RCPM**

<table>
<thead>
<tr>
<th>SCHOOLREADINESS/ NON-READINESS</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>STATUS</td>
<td>C1</td>
<td>C2</td>
<td>C1</td>
<td>C2</td>
<td>C1</td>
<td>C2</td>
<td>C1</td>
<td>C2</td>
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<tr>
<td>N</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RAVEN'S COLOURED PROGRESSIVE MATRICES</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>63</td>
<td>81</td>
<td>60</td>
<td>50</td>
<td>55</td>
<td>29</td>
<td>61</td>
<td>29</td>
</tr>
<tr>
<td>STD. ERROR</td>
<td>2.07</td>
<td>1.44</td>
<td>0.44</td>
<td>0.91</td>
<td>1.06</td>
<td>1.01</td>
<td>1.23</td>
<td>1.12</td>
</tr>
</tbody>
</table>

A1 = READY
A2 = NOT READY
B1 = BOYS
B2 = GIRLS
C1 = HIGH SES
C2 = LOW SES

The analysis of variance results is summarized in Table 5.6.
### TABLE 5.6

**ANALYSIS OF VARIANCE OF THE RAW SCORES OF THE SCHOOLREADY/NON-SCHOOLREADY CHILDREN ON THE RCPM**

<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>D.F.</th>
<th>MEAN SQUARE</th>
<th>F.RATIO</th>
<th>SIG.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A : READY/NOT READY</td>
<td>88,889</td>
<td>1</td>
<td>88,889</td>
<td>6,423</td>
<td>0.014</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>B : SEX</td>
<td>10,889</td>
<td>1</td>
<td>10,889</td>
<td>0.787</td>
<td>0.378</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>C : STATUS (SES)</td>
<td>34,722</td>
<td>1</td>
<td>34,722</td>
<td>2.509</td>
<td>0.118</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>A X B : READY/NOT READY X SEX</td>
<td>22,222</td>
<td>1</td>
<td>2,222</td>
<td>1.606</td>
<td>0.210</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>A X C : READY/NOT READY X STATUS</td>
<td>60,50</td>
<td>1</td>
<td>60,50</td>
<td>4.371</td>
<td>0.041</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>B X C : SEX X STATUS</td>
<td>16,056</td>
<td>1</td>
<td>16,056</td>
<td>1.160</td>
<td>0.286</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>A X B X C : READY/NOT READY X SEX X STATUS</td>
<td>6,722</td>
<td>1</td>
<td>6,722</td>
<td>0.486</td>
<td>0.488</td>
<td></td>
</tr>
<tr>
<td>ERROR : WITHIN GROUP</td>
<td>885,778</td>
<td>64</td>
<td>13,840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL :</td>
<td>1125,778</td>
<td>71</td>
<td>15,856</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Appendix G for statistical information related to Table 5.6
The data in table 5.6 shows that there were no significant interactions among the three independent variables: Ready/Not-Ready, Sex and Socio-economic Status. All six null hypotheses are, therefore, accepted and the main effects of factors A, B, and C do not have to be qualified. The effects of these factors do not depend on each other.

5.3 RESULTS PERTAINING TO THE LINGUISTIC ASPECT (PPVT)

It will be recalled that the fourth aim was to determine whether significant differences exist in the linguistic abilities of schoolready and non-schoolready children. In keeping with this aim the following question was posed:

Are there significant differences in the linguistic development of the children who are ready for formal schooling and their peers who are not?

The data relating to this variable was obtained by means of the Peabody Picture Vocabulary Test.

5.3.1 Schoolready vs Non-Schoolready Groups

The distribution of the raw scores of the two groups are given in the form of frequency histograms in Fig.5.5.
The data presented in Fig. 5.5 shows that the schoolready pupils tended to gain higher scores on the PPVT than the non-schoolready pupils.

More detailed statistical comparisons of the two groups are given in Table 5.7.

<table>
<thead>
<tr>
<th>TEST</th>
<th>READY (N = 42)</th>
<th>NON-READY (N = 58)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT</td>
<td>$\bar{X} = 44,62$</td>
<td>$\bar{X} = 35,62$</td>
<td>4,81</td>
<td>&lt;0,05</td>
</tr>
<tr>
<td></td>
<td>$SD = 7,59$</td>
<td>$SD = 10,27$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.7 shows there is a significant difference between the mean scores of those who are ready and those who are not on the PPVT. This indicates that the ready pupils as a group obtain higher scores than the non-ready group on the PPVT test. This suggests that the schoolready children have a distinct advantage over the non-ready children in the area of vocabulary.

5.3.2 Boys vs Girls

For easier visual comparison the frequency distribution of the raw scores of the boys and girls are given in the form of frequency histograms in Fig. 5.6.

Fig. 5.6 HISTOGRAM SHOWING THE DISTRIBUTION OF RAW SCORES OF BOYS AND GIRLS ON THE PPVT
A more detailed analysis of these scores on the PPVT is given in Table 5.8.

### TABLE 5.8

**COMPARISON OF THE MEANS OF THE RAW SCORES OF BOYS AND GIRLS ON THE PPVT**

<table>
<thead>
<tr>
<th>TEST</th>
<th>READY (N = 42)</th>
<th>NON-READY (N = 58)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT</td>
<td>$\bar{X} = 39.29$</td>
<td>$\bar{X} = 39.51$</td>
<td>$0.11$</td>
<td>$&lt;0.05$</td>
</tr>
<tr>
<td></td>
<td>$SD = 10.28$</td>
<td>$SD = 10.26$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.8 shows that boys as a group did not obtain significantly higher scores than girls as a group on the PPVT.

5.3.3 **High SES children vs Low SES children**

The frequency distributions of the raw scores of the two groups of children are delineated pictorially in Fig.5.7.

![Fig.5.7](image)

**Fig.5.7** FREQUENCY POLYGONS SHOWING THE DISTRIBUTION OF RAW SCORES OF CHILDREN FROM HIGH SES AND LOW SES ON THE PPVT
A more detailed analysis of these scores on the PPVT is given in Table 5.9.

**Table 5.9**

COMPARISON OF THE MEANS OF THE RAW SCORES OF HIGH SOCIO-ECONOMIC STATUS CHILDREN AND LOW SOCIO-ECONOMIC STATUS CHILDREN ON THE PPVT

<table>
<thead>
<tr>
<th>TEST</th>
<th>HIGH SES (N=42)</th>
<th>LOW SES (N = 58)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT</td>
<td>( \bar{X} = 43 )</td>
<td>( \bar{X} = 35.4 )</td>
<td>3.93</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>SD = 8.14</td>
<td>SD = 11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.9 shows that children from the high socio-economic group obtain significantly higher scores than do the children from the low socio-economic group. This result can be seen as a reflection of the parents' role in language development: upper class parents serve as better linguistic models for their growing children and equip them more adequately to understand the kind of language used in the classroom.
5.3.4 Preschoolers vs Non-preschoolers

The frequency distributions of the raw scores of the two groups are presented pictorially in Fig. 5.8.

The data represented in Fig. 5.8 show that the preschoolers gained higher scores on the PPVT than the non-preschoolers. A more detailed statistical comparison of the two groups is given in Table 5.10.
Table 5.10 shows a significant difference between the mean raw scores of preschoolers and non-preschoolers on the PPVT. This finding indicates that interaction with teachers and other children at preschool gives children the opportunity to extend their vocabularies and exercise language skills on a scale not possible at home.

5.3.5 Interactions among the independent variables: Readiness/Non-Readiness, Sex and Status (PPVT)

In order to determine whether there were any interactions among the main variables, a 2 x 2 x 2 factorial analysis of variance was conducted. The procedure described in Section 5.2.5 was used to form three groups, each comprising nine children.

A summary of the data used in the analysis is presented in Table 5.11.
<table>
<thead>
<tr>
<th>SEX</th>
<th>STATUS</th>
<th>SES</th>
<th>N</th>
<th>PEABODY PICTURE X</th>
<th>STD. ERROR</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>C1</td>
<td>C1</td>
<td>9</td>
<td>46.67</td>
<td>3.07</td>
</tr>
<tr>
<td>B1</td>
<td>C2</td>
<td>C2</td>
<td>9</td>
<td>45.44</td>
<td>1.6</td>
</tr>
<tr>
<td>A1</td>
<td>B2</td>
<td>C1</td>
<td>9</td>
<td>47.56</td>
<td>1.71</td>
</tr>
<tr>
<td>B2</td>
<td>C1</td>
<td>C1</td>
<td>9</td>
<td>39</td>
<td>2.29</td>
</tr>
<tr>
<td>B2</td>
<td>C2</td>
<td>C2</td>
<td>9</td>
<td>35.22</td>
<td>3.23</td>
</tr>
<tr>
<td>A2</td>
<td>B1</td>
<td>C1</td>
<td>9</td>
<td>42.33</td>
<td>1.81</td>
</tr>
<tr>
<td>A2</td>
<td>B1</td>
<td>C2</td>
<td>9</td>
<td>28.44</td>
<td>3.75</td>
</tr>
</tbody>
</table>

A1 = READY
B1 = BOYS
C1 = HIGH SES
A2 = NOT READY
B2 = GIRLS
C2 = LOW SES

The analysis of variance results are summarized in Table 5.12
### TABLE 5.12

ANALYSIS OF VARIANCE OF THE RAW SCORES OF THE SCHOOLREADY/ NON-SCHOOLREADY CHILDREN ON THE PPVT

<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>D.F.</th>
<th>MEAN SQUARE</th>
<th>F.RATIO</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A : READY/NOT READY</td>
<td>1144,014</td>
<td>1</td>
<td>1144,014</td>
<td>17.409</td>
<td>0.0001&gt;0,</td>
</tr>
<tr>
<td>B : SEX</td>
<td>130,681</td>
<td>1</td>
<td>130,681</td>
<td>1.989</td>
<td>1.163&gt;0,</td>
</tr>
<tr>
<td>C : STATUS (SES)</td>
<td>960,681</td>
<td>1</td>
<td>960,681</td>
<td>14.619</td>
<td>0.0003&gt;0,</td>
</tr>
<tr>
<td>A X B : READY/NOT READY X SEX</td>
<td>17,014</td>
<td>1</td>
<td>17,014</td>
<td>0.259</td>
<td>0.612&gt;0,</td>
</tr>
<tr>
<td>A X C : READY/NOT READY X STATUS</td>
<td>42,014</td>
<td>1</td>
<td>42,014</td>
<td>0.639</td>
<td>0.426&gt;0,</td>
</tr>
<tr>
<td>B X C : SEX X STATUS</td>
<td>415,681</td>
<td>1</td>
<td>415,681</td>
<td>6.326</td>
<td>0.014&gt;0,</td>
</tr>
<tr>
<td>A X B X C : READY/NOT READY X SEX X STATUS</td>
<td>1,125</td>
<td>1</td>
<td>1,125</td>
<td>0.017</td>
<td>0.8963</td>
</tr>
<tr>
<td>ERROR : WITHIN GROUP</td>
<td>4205,777</td>
<td>64</td>
<td>65,715</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL :</td>
<td>6916,986</td>
<td>71</td>
<td>97,422</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Appendix H for statistical information related to Table 5.12
The data in table 5.12 shows that there were no significant interactions among the three independent variables: Ready/Not-Ready, Sex and Socio-economic Status. Consequently, none of the six null hypotheses can be rejected. Had the interactions been significant it would have become necessary to qualify the main effects of Factors A, B, and C since one level of Factor A would not always have produced the "best" results. The same would have held true for one particular level of Factor B and of Factor C. The effects of Factors A, B, and C would have depended on one another.

5.4 RESULTS PERTAINING TO THE READINESS ASPECT (SRTB)

In order to determine whether children in the present study were ready or not for formal schooling, a schoolreadiness test was administered.

Data relating to this aspect was obtained by the School Readiness Test B.

5.4.1 Schoolready vs Non-schoolready Groups

The frequency distributions of the raw scores of the two groups are presented graphically in Fig.5.9.
More detailed statistical comparisons of the two groups are given in Table 5.13.

**TABLE 5.13**

COMPARISON OF THE MEANS OF THE RAW SCORES OF SCHOOLREADY AND NON-SCHOOLREADY CHILDREN ON THE SRTB

<table>
<thead>
<tr>
<th>TEST</th>
<th>READY (N = 42)</th>
<th>NON-READY (N = 58)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRTB</td>
<td>$\bar{X} = 23,90$</td>
<td>$\bar{X} = 16,19$</td>
<td>11,28</td>
<td>&lt;0,05</td>
</tr>
<tr>
<td></td>
<td>SD = 1,76</td>
<td>SD = 4,17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.13 indicates that which was expected, viz., the schoolready children as a group obtained significantly higher scores than non-schoolready children on the SRTB. The statistical data provided in the table provides a quantitative assessment of these differences.

5.4.2 Boys vs Girls

The frequency distributions of the raw scores of the two groups are presented graphically in Fig.5.10.

Fig. 5.10 HISTOGRAM SHOWING THE DISTRIBUTION OF RAW SCORES OF BOYS AND GIRLS ON THE SRTB
A more detailed analysis of these scores on the SRTB is given in Table 5.14

### Table 5.14

**Comparison of the Means of the Raw Scores of Boys and Girls on the SRTB**

<table>
<thead>
<tr>
<th>TEST</th>
<th>BOYS (N = 51)</th>
<th>GIRLS (N = 49)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRTB</td>
<td>$\bar{X} = 19.06$</td>
<td>$\bar{X} = 19.98$</td>
<td>0.93</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>SD = 5.60</td>
<td>SD = 4.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.14 indicates that boys as a group did not obtain significantly higher scores than girls as a group on the SRTB. For practical purposes the boys and girls could be considered as belonging to the same population in respect of the variable schoolreadiness.

#### 5.4.3 High SES children vs Low SES children on the SRTB

The frequency distributions of the raw scores of the two groups are presented graphically in Fig.5.11.
Fig. 5.11 FREQUENCY POLYGONS SHOWING THE DISTRIBUTION OF THE RAW SCORES OF CHILDREN FROM HIGH SES AND LOW SES ON THE SRTB

A more detailed analysis of these scores on the SRTB is given in Table 5.15.

**TABLE 5.15**

<table>
<thead>
<tr>
<th>TEST</th>
<th>HIGH SES (N=50)</th>
<th>LOW SES (N=50)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRTB</td>
<td>$\bar{x} = 20.94$</td>
<td>$\bar{x} = 17.88$</td>
<td>3.13</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>$SD = 3.78$</td>
<td>$SD = 5.79$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.15 shows that children from high socio-economic group obtain significantly higher scores than do the children from the low socio-economic group. Ramphal (1972:167) in his study of schoolreadiness came to a
similar conclusion. This finding indicates that the advantages enjoyed by children who come from high socioeconomic homes help them to become schoolready compared to their less fortunate peers.

5.4.4 Preschoolers vs Non-Preschoolers

The frequency distributions of the raw scores of these two groups of children are delineated pictorially in Fig.5.12.

![Graph](image)

**Fig.5.12** FREQUENCY POLYGONS SHOWING THE DISTRIBUTION OF THE RAW SCORES OF PRESCHOOLERS AND NON-PRESCHOOLERS ON THE STRB
The data presented in Fig. 5.12 shows that the preschoolers tended to gain higher scores on the SRTB than the non-preschoolers.

A more detailed statistical comparison of the two groups is given in Table 5.16.

**TABLE 5.16**

**COMPARISON OF THE MEANS OF THE RAW SCORES OF PRESCHOOLERS AND NON-PRESCHOOLERS ON THE SRTB**

<table>
<thead>
<tr>
<th>TEST</th>
<th>PS (N = 60)</th>
<th>N-PS (N = 40)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRTB</td>
<td>$\bar{X} = 20.33$</td>
<td>$\bar{X} = 18.08$</td>
<td>2.22</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td></td>
<td>SD = 4.60</td>
<td>SD = 5.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.16 shows that the preschoolers as a group obtained significantly higher scores than the non-preschoolers. This finding suggests that preschooling assists children to become schoolready by providing them with certain physical, mental, social and emotional experiences unique to the preschool situation. In the light of this conclusion, strenuous efforts should be made to extend provisions for preschool education. Such provisions would be especially beneficial to children who come from disadvantaged homes. Here preschooling would, to some extent, compensate for loss incurred as a result of coming from a relatively less stimulating home.
5.4.5 Interaction among the independent variables: Readiness/Non-Readiness, Sex and Status (SRTB)

In order to determine whether there were any interactions among the main variables, a 2 x 2 x 2 factorial design analysis of variance was conducted. The procedure described in Section 5.2.5 was used to form three groups each comprising nine children.

A summary of the data used in the analysis is presented in Table 5.17.
### TABLE 5.17

**SUMMARY: COMPOSITE MASTER SHEET - SRTB**

<table>
<thead>
<tr>
<th>SCHOOLREADINESS/</th>
<th>A₁</th>
<th>A₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-READINESS</td>
<td>B₁</td>
<td>B₂</td>
</tr>
<tr>
<td>SEX</td>
<td>C₁</td>
<td>C₂</td>
</tr>
<tr>
<td>STATUS SES</td>
<td>C₁</td>
<td>C₂</td>
</tr>
<tr>
<td>N</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOLREADINESS TEST</th>
<th>EX :</th>
<th>220</th>
<th>206</th>
<th>217</th>
<th>213</th>
<th>164</th>
<th>135</th>
<th>155</th>
<th>136</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST</td>
<td>X :</td>
<td>24,4</td>
<td>22,89</td>
<td>24,11</td>
<td>23,67</td>
<td>18,22</td>
<td>15,0</td>
<td>17,22</td>
<td>15,11</td>
</tr>
<tr>
<td>B STD. ERROR :</td>
<td>0,80</td>
<td>0,980</td>
<td>0,510</td>
<td>0,50</td>
<td>0,66</td>
<td>1,72</td>
<td>1,22</td>
<td>1,31</td>
<td></td>
</tr>
</tbody>
</table>

A₁ = READY
B₁ = BOYS
C₁ = HIGH SES

A₂ = NOT READY
B₂ = GIRLS
C₂ = LOW SES

The analysis of variance results are summarized in Table 5.18 below.
<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>D.F.</th>
<th>MEAN SQUARE</th>
<th>F.RATIO</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A : READY/NOT READY</td>
<td>982,722</td>
<td>1</td>
<td>982,722</td>
<td>103,105</td>
<td>0.0</td>
</tr>
<tr>
<td>B : SEX</td>
<td>0.222</td>
<td>1</td>
<td>0.222</td>
<td>0.023</td>
<td>0.879</td>
</tr>
<tr>
<td>C : STATUS (SES)</td>
<td>60,50</td>
<td>1</td>
<td>60,50</td>
<td>6.348</td>
<td>0.014</td>
</tr>
<tr>
<td>A X B : READY/NOT READY X SEX</td>
<td>2.0</td>
<td>1</td>
<td>2.0</td>
<td>0.210</td>
<td>0.648</td>
</tr>
<tr>
<td>A X C : READY/NOT READY X STATUS</td>
<td>12.5</td>
<td>1</td>
<td>12.5</td>
<td>1.312</td>
<td>0.256</td>
</tr>
<tr>
<td>B X C : SEX X STATUS</td>
<td>5.556</td>
<td>1</td>
<td>5.556</td>
<td>0.583</td>
<td>0.448</td>
</tr>
<tr>
<td>A X B X C : READY/NOT READY X SEX X STATUS</td>
<td>5.63E-12</td>
<td>1</td>
<td>5.63E-12</td>
<td>5.90E-13</td>
<td>1.0</td>
</tr>
<tr>
<td>ERROR : WITHIN GROUP</td>
<td>610</td>
<td>64</td>
<td>9,531</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL :</td>
<td>1673.5</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Appendix I for statistical information related to Table 5.18
The data in Table 5.18 show that there were no significant interactions among the three independent variables: Ready/Not-Ready, Sex and Socioeconomic Status. All six null hypotheses are, therefore, accepted and the main effects of factors A, B, and C do not have to be qualified. The effects of these factors do not depend on each other.

5.5 RESULTS PERTAINING TO THE SCHOOL READINESS TEST AFTER SIX MONTHS OF SCHOOLING

The fifth aim of this study as indicated in Chapter One was to determine whether children, initially classified as non-schoolready, become schoolready six months later, i.e. after spending six months in the formal classroom situation - thereby giving them additional time in which to mature physically and develop experientially.

In keeping with this aim the following question was posed:

Are there significant differences in the development of pupils in terms of maturation and experience after an additional period of six months at school?

Data for this aspect comprised the scores obtained by 58 low scorers on the School Readiness Test B on the first testing, and the scores of the same children on the same test after they had spent six months in Class i.
The results indicate that an overwhelming number of children (53 out of 58) who were not schoolready on the first testing became schoolready by the time the second test was administered. This supports the view of those who believe that schooling as well as greater maturation assists children to become school ready.

5.6 INTER-CORRELATIONS AMONG TESTS ON READY/NON-READY VARIABLE

5.6.1 Ready and Non-Ready Children

In order to determine the degree of relationship that existed among the three tests that were used in this study, the scores that were obtained on each of them by the schoolready and non-schoolready groups were correlated by means of the Pearson r. The results are presented in Table 5.19.
TABLE 5.19

INTER-CORRELATIONS AMONG TESTS BASED ON RAW SCORES OF SCHOOLREADY AND NON-SCHOOLREADY CHILDREN

<table>
<thead>
<tr>
<th></th>
<th>READY N = 42</th>
<th>P*</th>
<th>NON-READY N = 58</th>
<th>P**</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRTB/PPVT</td>
<td>0.35</td>
<td>&lt;0.05</td>
<td>-0.04</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td>STRB/RAVENS</td>
<td>0.22</td>
<td>&gt;0.05</td>
<td>0.36</td>
<td>&lt;0.05</td>
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<tr>
<td>PPVT/RAVENS</td>
<td>0.24</td>
<td>&gt;0.05</td>
<td>0.24</td>
<td>&gt;0.05</td>
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</table>

* cut-off point for significance for 42 pairs at 0.05 level = .304

** cut-off point for significant for 58 pairs at 0.05 level = .25

The results are self-explanatory.

5.6.2 Preschoolers and Non-Preschoolers

Pearson r coefficients were computed to determine the degree of association the three tests used in this study and based on the raw scores obtained by the preschoolers and the non-preschoolers. The results are presented in Table 5.20.
TABLE 5.20

INTER-CORRELATIONS AMONG TESTS BASED ON RAW SCORES OF PRE-SCHOOLERS AND NON-PRESCHOOLERS

<table>
<thead>
<tr>
<th></th>
<th>PS (N=60)</th>
<th>P*</th>
<th>N-PS (N=40)</th>
<th>P**</th>
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<tr>
<td>SRTB/PPVT</td>
<td>0.58</td>
<td>&lt;0.05</td>
<td>0.54</td>
<td>&lt;0.05</td>
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<tr>
<td>STRB/RAVENS</td>
<td>0.42</td>
<td>&lt;0.05</td>
<td>0.36</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>PPVT/RAVENS</td>
<td>0.58</td>
<td>&lt;0.05</td>
<td>0.22</td>
<td>&gt;0.05</td>
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</tbody>
</table>

* cut-off point for significance for 60 pairs at 0.05 = .25
** cut-off point for significance for 40 pairs at 0.05 = .304

The results are self-explanatory.

5.7 CONCLUSIONS

Considered overall, the results show that children who come from the high socio-economic homes, by and large, have a better chance of becoming school-ready. The same is true of children who attend preschool. In contrast, being male or female, plays no part in determining the child's readiness for formal instruction.
CHAPTER SIX

DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

6.1 INTRODUCTION

The findings of this study have particular relevance for education at the preschool and junior primary levels.

At the outset mention was made of the fact that the home is perhaps the single most important educational agency in a child's early years and the provision of a stimulating home environment plays an important part in helping the child become schoolready. This study showed that the following aspects are particularly influential in this process: low educational level of parents, poor housing, low income and poor reading habits of parents.

A second major finding of this study relates to the beneficial effects of preschooling. By and large, children who had preschool experience were found to be better equipped to meet the demands of the formal school situation.
In the light of these two basic findings, recommendations are made later in this chapter on what specific steps need to be taken to ensure that an even greater proportion of children seeking admission to Class I would be ready for formal instruction.

As a point of departure, the researcher will examine and evaluate the existing practices, facilities, and functions with a view to determining their effectiveness in preparing preschool children for formal education. Where existing systems are ineffective it may be necessary to modify them or even terminate them. Where essential provisions or practices do not exist, suggestions will be made about what needs to be instituted and how this can be done.

The section that follows is an amalgam of the study of the relevant literature, personal experiences and research, interviews and discussions with parents, teachers, administrators and educationists.

6.2 DISCUSSION

Education is a continuous process which begins at birth and finishes at death. A person is educating himself or being educated during this whole period. The main agencies
through which education is gained are the home, the family, the school and the peer group. Much deprivation is evident when children enter a school situation because of inadequate home or family background. Some of the characteristics of this deprivation are a sense of low status, lack of power, cultural alienation, economic deprivation and limited opportunity. It is this situation which faces the school when children present themselves for education. When teachers in the present study were asked the question, "What, in your opinion, are the characteristics of a disadvantaged child?", their replies included the following statements:

(a) He lacks proper self-image. He feels alienated from the larger social structure.

(b) He expects little from life and has little academic drive.

(c) He tends to have more health and physical difficulties.

(d) His language development is poor. He has a limited vocabulary. Even though he uses short sentences, these are sprinkled with grammatical errors. His sentence structure is often faulty.

(e) He has more perceptual difficulties. He recognizes fewer objects than most children. He is generally poor in auditory attention and interpretation skills and experiences great difficulty in blending sounds.

(f) He is unaware of the ground rules for success in school.

(g) He learns more readily through a physical and concrete approach.
(h) His attention span is short, and he is not motivated by long-range goals.

(i) His experiential background is limited.

The schools themselves have value systems. These value systems tend to favour the middle-class child from a home in which there is sufficient financial support for the purchase of books, study facilities and other physical attributes, and in which a varied and interesting social life is provided. Many working-class pupils feel left out of the system in school because they lack one or more of the above facilities. These pupils are in some danger of failing to benefit from the positive aspects of education. If children enter the system from a social or cultural background which is different from that of the school, they are at an immediate disadvantage. As they progress through the system from infant school to primary school and then to secondary school, their disadvantage tends to worsen, owing to the greater emphasis which is placed on intellectual learning and the acquisition of academic knowledge as pupils ascend the ladder of formal schooling. It is not surprising, therefore, to find that educators often greet the emphasis on nursery education with relief. This is seen as a small, inadequate but perceptible step in the direction of redressing the disadvantage which many children suffer from being born into a deprived home background.
In the present study a significant difference was found between preschoolers and non-preschoolers: a greater percentage of preschoolers were ready for formal instruction at school. This finding supports Deutsch's observation (1964: 249-263) that children with preschool experience are more likely to cope with the demands of school than are children who have not had this experience. However, there is no certainty that the increased nursery provision will attract the child from the deprived home. There is a definite danger that the alert mother from the adequate or more than adequate home will take further advantage of these increased facilities to the detriment of the deprived in times of financial stringency. Far too often, families from deprived backgrounds are unable or unwilling to seek the advantages which nursery education can provide for their children. Steps can be taken to try to alleviate deprivation in the early stages before children enter formal schooling. Social and welfare workers could add disadvantage or deprivation to their list of danger signals to be detected and use their persuasive powers to have children placed in nursery schools with an environment which will help them to adjust easily to formal schooling.
Bereiter and Engleman (1966:185) have written controversially about their view on how the curriculum of preschools should be structured for children from deprived home backgrounds. They advocate formal teaching and lesson organisation as being more effective on the grounds that this is what such children have missed at home. There are numerous studies showing that children who enter school after having made a start on the basic skills of reading have less trouble in settling into formal schooling and also achieve better than those who do not possess such skills on entry. One such study is that by Pringle et al. (1966). It is possible, though, that an imposed solution by officials such as social or welfare workers is less effective than that of re-educating the home into adopting the mores of non-deprived homes.

The typical child from a middle class home, although his parents may well have made no conscious attempt to teach him, begins school with a learning history of considerable richness and variety. He can follow simple instructions, recognise the relevant aspects of a learning situation, concentrate his attention upon them and resist minor distractions. He lives in the expectation of reward for good performance or correct behaviour, and has the ability to postpone gratification, a characteristic encouraged by the family with ambitions for its children. From the outset,
the skills of orienting and attending are already established. These skills are essential for success in school and the development of higher-order skills and concepts. He has acquired a wide range of sensory discrimination and a grasp of rudimentary concepts of space and time. Furthermore, the endeavours of his parents 'shape' the patterns of his speech and make them conform to their own. This provides him with training in auditory discrimination which will facilitate still further his acquisition of language. Verbal exchanges between child and parent, moreover, are more frequent and spontaneous in his home than they are in the working class home.

An important factor in promoting his superior verbal skills is the relatively undivided attention of his mother, or significant adult, between the ages of one and four years, a condition more frequently met in the middle class family where births are more widely spaced and where children spend relatively less time in the company of their verbal peers. Language development is retarded unless the child is compelled to 'reach' for higher levels set by the adults and older children with whom he interacts. He is encouraged to experiment and explore, and to create his own world in his own way and on his own terms. In addition, positive encouragement is given to his questioning. This is an essential component of the ability to solve problems
unaided later at school. His curiosity is not extinguished by lack of reinforcement from parents who are too pre-occupied to answer, extend and elaborate on their children’s questions or to engage in conversation with them or who may actually discourage their 'chatter'.

Several researchers have observed mothers as they try to help their children perform a task to see if there are differences among socio-economic status (SES) groups. Studies have shown that higher SES mothers talk more; give more verbal guidance; help their children see reasons for actions; make plans and anticipate consequences, direct their children’s attention to the relevant details in a problem; and generally encourage the child to solve the problem on his own. These interactional styles may account for some of the cognitive and linguistic differences found among children from various SES groups.

Hess and Shipman (1967: 103) studied the teaching styles of mothers from different social classes and found that mothers of one culturally different group controlled the child’s behaviour by imperatives. This method did not provide an opportunity for mediation of behaviour by verbal cues nor the use of language to bring meaning to the experience encountered. Such a cognitive environment, they concluded "produces a child who related to authority rather
than to rationale... and for whom the consequences of an act are largely considered in terms of immediate punishment or reward rather than future effects and long-range goals. This, of course, is in direct contrast to the future-oriented long-range planning goals of middle-class families. As a consequence, schools of middle-class orientation do not provide for the needs of children from lower-income families in a way that enables them to cope with the schools’ expectations and demands.

The child may come from a home in which he or she has learned to expect physical punishment, threats, and abuse. This child may have difficulty in adjusting to a teacher who does not shout, threaten, or hit. This child may need help in learning to make decisions, having been told at home quite firmly how to behave. Since our society leans towards independent decision making and choice of behaviour, such a child may have ambivalent feelings and experience difficulty in adjusting to the expected behaviour for school and peers.

Other children, having received much attention and constant direction, may have become overly-dependent upon what the parents think is correct behaviour. Still other children
are insecure and appear shy and withdrawn. They need activities to help them develop a feeling of security and self-confidence.

Young children, moreover, need to move towards independent thinking for, as they mature, they move away from the parental home to the school, to peers, and to a larger society. They will no longer have an adult always beside them to make choices. It will be easier to know which path to take as they approach adolescence and adulthood if they have begun to make appropriate decisions in their early years.

A number of studies (inter alia. Plowden (1967), Wiseman (1968) show that there is a strong relationship between poor educational performance and material deprivation. As Banks (1968:74) pointed out, poverty, malnutrition and poor living conditions are bound to affect school attainment. Such adverse circumstances are likely to result in impaired health and so impaired ability to learn, and lead to a number of undesirable consequences for the child:

"Poverty can make a parent less willing to keep a child at school, can make it difficult for him to afford books and toys, or expeditions which help a child to learn, can enforce housing conditions which make the whole family strained and unhappy or make it almost impossible for parents and child to talk or play together. Moreover, even when these conditions are no longer present, the fact that they have existed in the
recent past, or were a feature of the parents' own childhood, may exert an influence on attitudes, values and aspirations for a generation or even more".

From the analysis of the relevant data it was found that a greater number of the homes of non-schoolready children fell into the category "less neat" than did the homes of schoolready children. Moreover, many of the parents of non-schoolready children did not own their place of abode. Invariably they lived in rented outbuildings, garages and basements.

The interview material in the present study showed that low income parents have to spend more time at their jobs or on household tasks and this leaves them with little time to spend with their children. They have little money to spend on books, crayons, puzzles, outings and other such means of helping children's development towards acquiring the skills which schools reward.

Poor conditions at work can also have an indirect effect on employees' children and their educational experience. Long hours and short holidays reduce the amount of time parents have available for their children. Heavy physical work, which gives rise to severe fatigue means they are frequently too tired to meet some of their children's needs. More indirectly it is possible that a sense of powerless-
ness at the work place carries over into other aspects of
life. When this happens parents may passively accept low
standards of educational provision for their children at
school.

Research evidence on parental attitudes should be treated
with caution. Lack of interest has often been assumed from
teacher's assessments of parents but direct evidence from
parents suggests that most do not lack interest but are in-
hhibited by lack of self-confidence or insufficient
knowledge (Mortimore and Blackstone, 1982:48-49).

Another notable finding of this study was the fact that the
non-ready children's homes often had very few magazines and
newspapers. It is reasonable to assume that the general
reading habits of the parents are likely to influence the
language development of their children and hence their
readiness for school. Parents who are better-read are
likely to have a wider vocabulary which should benefit
their children in their language development. Better-read
parents are also likely to encourage their children to read
widely. Parents who have not had the benefit of extended
education themselves are generally less well-equipped to
help their children with school work than are those who
have had this advantage. This inadequacy puts an even
greater responsibility on the school. The trouble is that
it is the very group of parents who appear to need help most that have the least contact with the school throughout the children's time there. The consistent differences in favour of the schoolready group reflect the more adequate preparation of these children for the demands of schooling by their parents. The fact that their gain is maintained is probably due in some measure to relatively greater parental support and interest in their educational achievement. At this point it is important to stress that educational disadvantage is not simply dependent on social status but represents a whole syndrome of family characteristics. Parents who aspire to the goals schools set for their children, and who actively involve themselves in the educational process, substantially improve their children's prospects. Other parents who reject these goals and, perhaps through no fault of their own, provide little educational support for their children, lay the foundations of educational failure.

This section has reviewed the findings and implications of this study for early education. In essence the findings indicate that material disadvantage may both limit access to education and make it more difficult for children to benefit from it. Poverty increases the possibility of family stress. The research also indicates that cognitive development is highly dependent upon the kind of verbal
interactions between parent and child. The particular patterning of cognitive abilities which the child develops is a function of his home environment, and it will, in its turn, help determine his academic future.

While acknowledging that home backgrounds cannot be changed overnight, nor indeed in some respects in a generation (particularly where the problem is cultural poverty, parental attitudes or poverty of language), some steps can be taken early on to compensate children who are handicapped by them.

6.3 SUMMARY OF RECOMMENDATIONS

6.3.1 More school social workers should be appointed. These workers should be readily available to teachers and should assist them in securing prompt assistance from specialized social services.

6.3.2 Teacher training courses should take greater cognisance of the social factors that affect school performance and of the structure and functions of the social services. Faculties of education and colleges need to widen their curricula to include the study of child growth and development. More desirable child rearing environmental conditions can be identified and created. It is
possible in the future that the task of being a mother or father will require far more training and preparation than has been the case so far. If children of the future are to profit from knowledge about the influence of environment on development, then parents of the future must be given this knowledge.

6.3.3 Efforts should be made to improve the general living conditions and circumstances of disadvantaged families through broad social reforms so that parents and children can live more satisfactory lives. Such improvements will also help to break the vicious cycle of poverty and deprivation, thereby reducing the problems of the next generation.

If a home is deficient as a learning environment the prognosis for a child's later development is very poor. Factors which may contribute to a deficient learning environment in the home, are for example, a low level of educational development of the parents, a poor standard of living arrangements, lack of essential amenities in the home, a low level of reading pattern among the parents and the lack of sufficient interaction between children and parents.
6.3.4 There is a need to improve and extend existing educational programmes through literacy programmes and plans incorporating appropriate child-rearing practices. In this way parents can become better equipped to raise their children.

Community libraries should play a more active role in helping raise the literacy level of parents and encouraging children to become members.

6.3.5 Community-based centres staffed by professionals such as social workers, psychologists, educationists, and medical personnel should be established to offer guidance to parents at crisis points in the child-rearing process.

6.3.6 Efforts must be made to involve parents more fully in preschool programmes so that they can acquire a better understanding of the aims and procedures of these early education centres and extend their activities to the home environment.

Parents are the earliest and most influential teachers of their children. Their effectiveness, however, depends on their knowledge, their experience, and their interest in helping their children realize their educational potential.
Good nutrition, nurturing relationships and stimulating environments lay the essential foundations which enable later relationships and learning to develop positively.

6.3.7 The value of laying a sound educational foundation for future academic progress and, later, for suitable employment and upward mobility, must be impressed on parents.

6.3.8 Financial allocations should be increased so that more and better facilities can be established to care for the children of working mothers. More nursery schools and recreational centres should also be established. Benefits flowing out of such investments will help promote school readiness in children, especially among those who come from deprived home backgrounds.

6.3.9 Resources similar to those found in secondary schools should be extended to infant schools. At present in Indian schools, there is a marked disparity between resources and research efforts directed at the secondary school and at the infant school. The presence in secondary schools of counsellors and specialized teachers provides evidence of the attention that has been given to the needs of the adolescent and the school leaver. These provisions
may be overstretched and inadequate, but they are generous indeed in comparison with those available for the infant school pupil and the school entrant.

Some children are disadvantaged in school because of inadequacies in the emotional climate of their homes. These inadequacies often stem from the personality characteristics of their parents. In such cases it becomes the task of the school and community mental health services to bring about a change. The schools have many functions to serve and among these is the fostering of healthy personalities. If, in the academic programme itself, the teachers and the counsellors can promote the mental health of children by undertaking a remedial role, these children, when they become parents, are more likely to establish satisfactory relationships with their own children and create within the home a climate conducive to proper cognitive and personality development.

6.3.10 Preschool educational services should be extended to include children from the age of three. At present these services are available to five- and six-year olds only. In this connection it is important to heed Pringle’s warning:
"Failure to provide the necessary programmes for children and their families merely postpones the day when the community has to pay a much higher price for not being willing to meet the needs earlier. The cost in the long run is extremely high - not only in terms of human misery and wasted potentialities, but also in terms of unemployability, mental ill-health, crime and a renewed cycle of inadequate parenting. Even in the short run, it is by no means economical to do too little and to do it too late". (Pringle, 1975:154).

It is acknowledged that a number of tasks mentioned above cannot be easily performed by the state or any other social agency. The origins of the underlying problems often lie in family and in social history and they are sustained and reproduced by prevailing social conditions and structures. If basic improvements in education are to take place in South Africa, there will need to be a transformation of many aspects beyond the schooling system. Poor housing, low income, uncertain health, insecure employment, and poor parenting skills will almost certainly lead to a rise in the number of low achieving, poorly behaved, disenchanted or alienated young people.

For a start, parents need to be informed of the vital role they can play in their children's education. The results of the present inquiry also serve as a reminder that the child is part of a larger environment and that his school progress is vitally affected by this environment: through
the attitudes which it encourages, by the motivation it provides, and by the stability and security which he can derive from it.
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APPENDIX A

HOME INTERVIEW SCHEDULE

NOTE: 'N' STANDS FOR NAME OF CHILD

Code

1. PRELIMINARY DETAILS

1.1 Name of child :

1.2 Home address :

1.3 Age of child : _______Years _______Months

1.4 Sex of child : 

MALE

FEMALE

1.5 Relationship of interviewee to 'N'

MOTHER

FATHER
2. **CRITERIA FOR SOCIAL CLASS DIVISION**

2.1 Father’s occupation: ____________________________

2.2 Mother’s occupation: ____________________________

2.3 Father’s level of education:
   - No schooling to Std.6
   - Std. 7 and above

2.4 Mother’s level of education:
   - No schooling to Std.6
   - Std. 7 and above

3. **MATRIAL ENVIRONMENT OF THE HOME**

3.1 Type of house:
   - Single cottage
   - Double storey
   - Other

3.2 Does the house have
   - Cold water?
   - Hot water?
   - Radio?
   - Television?
   - Telephone?

3.3 Does 'N' share his bedroom?

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4. **FAMILY HEALTH**

4.1 Is mother's health good?

- Yes
- No

4.2 Is father's health good?

- Yes
- No

4.3 Is child's health good

- Yes
- No

5. **(A) GENERAL CULTURAL EXPERIENCES IN THE HOME**

5.1 Do you buy the daily newspaper?

- Regularly
- Sometimes
- Never

5.2 Do you buy the weekend paper?

- Regularly
(B) RADIO AND TELEVISION PROGRAMMES PREFERRED

5.3 How many hours per day does 'N' spend watching television?
   0 - 2 Hrs
   3 - 5 Hrs

5.4 How many hours does 'N' spend watching video recordings during the weekend?
   0 - 2 Hrs
   3 - 5 Hrs

5.5 Do you as a parent tell 'N' about the types of programme he must watch?
   Yes
   No

5.6 How many hours per day does 'N' spend listening to the radio?
   0 - 2 Hrs
   3 - 4 Hrs

5.7 What type of radio programmes does 'N' listen to?
   Music
   Drama stories/Quiz
6. EDUCATIONAL MOTIVATIONS, AWARENESS AND ASPIRATIONS OF PARENTS

6.1 How often do you watch T.V. with 'N'?
   Everyday/Once/Twice a week
   Seldom
   Never

6.2 Do you explain things which 'N' has seen but did not understand?
   Yes
   No

6.3 If yes, how often?
   Always/most times
   Seldom

6.4 How often do you listen to the radio with 'N'?
   Everyday/Once/Twice a day
   Seldom/Never
6.5 Do you explain things 'N' has listened but did not understand?

Yes □

No □

6.6 If yes, how often?

Always/most times □

Seldom □

6.7 How often do you help "N" with the following?

(a) dressing himself

Usually □

Occasionally □

Never □

(b) washing himself

Usually □

Occasionally □

Never □

7. DISCIPLINE

7.1 Do you expect 'N' to:

(a) put away his toys?

Always □
Never
(b) help in the home?
Always
Never

8. EXPERIENTIAL OPPORTUNITIES AVAILABLE TO THE CHILD

8.1 Does 'N' have books at home to look at?
A few
None

8.2 Does 'N' like looking at books?
Yes
No

8.3 Do other people read to him?
Yes
No

8.4 If yes, who reads to him?
Mother
Father
Grandfather

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8.5 Does 'N' ever play with

<table>
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<th>Activity</th>
<th>Often</th>
<th>Occ.</th>
<th>Has None</th>
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<td>(a) building blocks</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>(b) jig-saw puzzles</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>(c) toy cars</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>(d) pencil and paper</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>(e) paints</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>(f) plasticine or clay</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>(g) sand</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

8.6 How well does 'N' look after his toys and books?

- Well  
- Average
- Destructive

8.7 Do you take your child

(a) shopping?

- Frequently
- Occasionally
- Never
(b) visiting families and friends?
   Frequently
   Occasionally
   Never

(c) parks or playgrounds?
   Frequently
   Occasionally
   Never

(d) beach?
   Frequently
   Occasionally
   Never

(e) library?
   Frequently
   Occasionally
   Never

(f) cinema/theatre?
   Frequently
   Occasionally
   Never
(g) zoo/circus?

More than once □

Once □

Never □

(h) swimming pool?

More than once □

Once □

Never □

9. OBSERVATIONS

9.1 Were other people present when the interview was being conducted?

Yes □

No □

9.2 Did the interviewee appear

Clean? □

Average? □

Dirty? □

9.3 Did the children appear

Clean? □

Average? □
9.4 Was the interviewee
   Co-operative?  □
   Not co-operative?  □

9.5 Did the home appear
   Clean?  □
   Dirty?  □

9.6 Time taken for interview

9.7 Comments

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

193
Dear Sir/Madam

I am a Junior Primary Teacher at the REDFERN PRIMARY SCHOOL in Phoenix and I am engaged in a research project on school readiness among Indian children. The study will form part of my dissertation for a Master’s Degree at the University of Durban-Westville.

The children who will be seeking admission to Class 1 at the beginning of 1990 will form my sample. Since your child falls in this category, I shall be grateful if you could grant me permission to administer three short tests which will help us to determine his/her readiness for formal instruction.

Information pertaining to the tests and the pupils will be treated confidentially and used for academic purposes only.

Thanking you and looking forward to meeting you.

Yours faithfully

R.D. GAJADHUR
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<th>FORM B</th>
<th>ADAPTED FORM</th>
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APPENDIX D

WEST, D.J. : PRESENT CONDUCT AND FUTURE DELINQUENCY
(FIRST REPORT OF THE CAMBRIDGE STUDY IN DELINQUENT DEVELOPMENT)

LONDON, HEINEMAN, 1969
(ORIGINAL FORM)

PARENTAL ATTITUDE INVENTORIES USED FOR MOTHERS AND FATHERS RESPECTIVELY

(1) MOTHERS FORM

Please read each item and: if you agree put a ring round Agree or if you don't agree put a ring round Disagree. Don't miss any please: Your opinion is wanted on all these questions.

1. You must expect a real boy to get into fights
2. Parents should decide the sort of work their children are to do
3. A mother needs to get right away from her children sometimes
4. Bedwetting cannot be cured by punishing the child
5. Small children must learn to do without their mothers sometimes
6. If a boy has got a bit of spirit he won't always do as you say
7. It is most important for a mother to see who her boy plays with
8. It is not right to worry children at home about their school lessons
9. Too much mothering will make a boy "softie"
10. Troublesome teenagers often come from harsh homes
11. "Mother knows best", is still true today
12. It doesn't matter if boys get to know about sex when they are little
13. No child is really bad if you take enough trouble with him
14. Keep boys down young and they won't get into trouble later
15. It's the school's job to teach the child - not the parents
16. There is no harm in boys playing with dolls or at girlish games
   Agree  Disagree
17. Parents should not let their children take up all their time
   Agree  Disagree
18. Boys should fight their own battles and not run to mother
   Agree  Disagree
19. We needn't expect our children to look after us when we are old
   Agree  Disagree
20. Children should have a fixed bed-time and never sit up later
   Agree  Disagree
21. School dinners make a welcome break for mother
   Agree  Disagree
22. There should be more discipline in schools today
   Agree  Disagree
23. A child should never keep a secret from his mother
   Agree  Disagree
24. There's little thanks or pleasure in bringing up children
   Agree  Disagree
25. Children will respect you more if they are a bit afraid sometimes
   Agree  Disagree
26. It's sad to see boys grow up because then they don't seem to need you
   Agree  Disagree
27. Though he says he's poorly at schooltime he should go just the same
   Agree  Disagree
28. Mothers must learn to mind their own business when a boy is growing up
   Agree  Disagree
29. Strict discipline develops a good strong character in children
   Agree  Disagree
30. Sometimes children are more of a nuisance than a blessing
   Agree  Disagree
31. A mother must always know just what her children are doing
   Agree  Disagree
32. If there's trouble at school, mothers should always see the teacher
   Agree  Disagree
33. Old-fashioned parents were far too strict
   Agree  Disagree
APPENDIX E

WEST, D.J.: PRESENT CONDUCT AND FUTURE DELINQUENCY
(FIRST REPORT OF THE CAMBRIDGE STUDY IN DELINQUENT
DEVELOPMENT)

LONDON, HEINEMAN, 1969
(ORIGINAL FORM)

PARENTAL ATTITUDE INVENTORIES USED FOR MOTHERS AND FATHERS
RESPECTIVELY

(2) FATHERS FORM

Please read each item and: if you agree put a ring round Agree or if you don't agree put a ring round Disagree. Don't miss any please: Your opinion is wanted on all these questions.

1. Older boys and girls should be taught together at school
   Agree Disagree

2. Punishing a boy is a father's job
   Agree Disagree

3. Children have a right to choose their own jobs
   Agree Disagree

4. The 11+ exam in school is not fair to many children
   Agree Disagree

5. Boys should do just as they are told without any argument
   Agree Disagree

6. Immunization against polio should be compulsory
   Agree Disagree

7. Strict discipline develops a good strong character in children
   Agree Disagree

8. It doesn't matter if boys sit up a bit late sometimes watching TV
   Agree Disagree

9. Old-fashioned parents were far too strict
   Agree Disagree

10. Children should be able to leave school before the age of 15
    Agree Disagree

11. You should never make a child afraid of you
    Agree Disagree

12. Troublesome teenagers often have parents who were too soft
    Agree Disagree

13. Caning in schools should be abolished
    Agree Disagree

14. It's better for a boy to be obedient than clever
    Agree Disagree

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15. Flats and housing schemes should all have special playgrounds

16. Most mothers nag at their children too much

17. There is no harm in boys playing with dolls or at girlish games

18. You won't get children to obey unless you can tell them why

19. Most boys need a good hiding sometimes

20. In a good home father's word is law

21. Women schoolteachers are just as good for boys as men are

22. The saying "Children should be seen and not heard", is just silly

23. If parents stand no nonsense, bedwetting can soon be cured

24. Children should have a fixed bedtime and never stay up later

25. The discipline of the army is a fine training for boys

26. Children get more freedom nowadays, and a good thing too

27. More public money should be spent on providing children's playground

28. Boys grow up without spirit if they're kept down young

29. There should be more discipline in schools today

30. Children learn to behave best if their parents are patient with them

31. Children won't work at school unless you keep on at them

32. Mothers are generally too soft with their sons

33. Children who are made to obey will thank their parents later
APPENDIX F

HOME INTERVIEW SCHEDULE
COMPOSITE $X^2$ TABLE OF SIGNIFICANT RESULTS:
HOME BACKGROUND VARIABLES: SCHOOLREADY VS
NON-SCHOOLREADY GROUPS

<table>
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<tr>
<th>ITEM NO</th>
<th>VARIABLE</th>
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<th>$X^2$</th>
</tr>
</thead>
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<td>2.3</td>
<td>Father's level education</td>
<td>No schooling to std.6/std.7 and above</td>
<td>10.72x</td>
</tr>
<tr>
<td>2.4</td>
<td>Mother's level of education</td>
<td>No schooling to std.6/std.7 and above</td>
<td>8.19x</td>
</tr>
<tr>
<td>5.1</td>
<td>Purchase of daily newspaper</td>
<td>Regularly/Sometimes; Never</td>
<td>23.42x</td>
</tr>
<tr>
<td>5.2</td>
<td>Purchase of weekend paper</td>
<td>Regularly/Sometimes; Never</td>
<td>8.26x</td>
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<tr>
<td>8.1</td>
<td>Possession of books by children</td>
<td>Many/few; none</td>
<td>26.01x</td>
</tr>
<tr>
<td>8.2</td>
<td>Frequency with which children view books</td>
<td>Oftten/occasionally; never</td>
<td>29.40x</td>
</tr>
<tr>
<td>5.3</td>
<td>Amount of time per day children spend watching television</td>
<td>0-2 hrs/3-5 hrs</td>
<td>7.09x</td>
</tr>
<tr>
<td>6.2</td>
<td>Parents' discussion of television programmes with their children</td>
<td>Yes/No</td>
<td>9.20x</td>
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<tr>
<td>6.4</td>
<td>Frequency with which parents and children listen to radio programmes together</td>
<td>Once/twice a week; everyday/Seldom; never</td>
<td>14.56x</td>
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**APPENDIX G**

DATA FOR THE COMPUTATION OF THE ANALYSIS OF VARIANCE OF THE RAW SCORES OF 72 SCHOOLREADY/ NON-SCHOOLREADY CHILDREN ON THE RCPM

<table>
<thead>
<tr>
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<tr>
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</table>

\[ \sum x = 63 \quad 81 \quad 60 \quad 50 \quad 55 \quad 29 \quad 61 \quad 29 \]

- \[ \bar{x} = 7 \quad 9 \quad 6.67 \quad 5.55 \quad 6.11 \quad 3.22 \quad 6.78 \quad 3.22 \]
- \[ \text{S.E.} = 2.07 \quad 1.44 \quad 0.44 \quad 0.91 \quad 1.06 \quad 1.01 \quad 1.23 \quad 1.12 \]

- \( A1 = \text{READY} \quad A2 = \text{NON-READY} \)
- \( B1 = \text{BOYS} \quad B2 = \text{GIRLS} \)
- \( C1 = \text{HIGH} \quad C2 = \text{LOW} \)
APPENDIX H

DATA FOR THE COMPUTATION OF THE ANALYSIS OF VARIANCE OF THE RAW SCORES OF 72 SCHOOLREADY/ NON-SCHOOLREADY CHILDREN ON THE PPVT

\[
\begin{array}{cccccccc}
44 & 43 & 46 & 39 & 43 & 28 & 43 & 34 \\
47 & 52 & 51 & 46 & 45 & 37 & 46 & 41 \\
54 & 43 & 54 & 41 & 48 & 51 & 49 & 7 \\
46 & 40 & 49 & 28 & 41 & 36 & 49 & 19 \\
53 & 48 & 42 & 40 & 31 & 17 & 43 & 27 \\
51 & 42 & 45 & 43 & 44 & 43 & 42 & 42 \\
27 & 53 & 46 & 40 & 38 & 31 & 36 & 33 \\
58 & 47 & 40 & 15 & 32 & 41 & 33 & 32 \\
40 & 41 & 55 & 43 & 29 & 33 & 40 & 21 \\
\text{\textbf{\textit{X}}} & 220 & 409 & 428 & 335 & 351 & 317 & 381 & 256 \\
\text{\textbf{\textit{X}}} & 46.67 & 45.44 & 47.56 & 37.22 & 39 & 35.22 & 42.33 & 28.44 \\
\text{S.E.} & 3.07 & 1.60 & 1.71 & 3.24 & 2.29 & 3.23 & 1.81 & 3.75 \\
A1 = READY & A2 = NON-READY & \\
B1 = BOYS & B2 = GIRLS & \\
C1 = HIGH & C2 = LOW & \\
\end{array}
\]
APPENDIX I

DATA FOR THE COMPUTATION OF THE ANALYSIS OF VARIANCE OF THE RAW SCORES OF 72 SCHOOLREADY/ NON-SCHOOLREADY CHILDREN ON THE SRTB

A1

B1 C1

B2 C2

A2

B1 C1

B2 C2

27 25 26 25 21 12 21 17
25 23 22 25 18 14 12 14
22 22 25 22 18 20 20 11
27 26 24 22 16 18 21 15
28 22 25 22 21 4 14 8
23 25 22 26 18 21 20 21
22 24 24 24 18 18 16 15
24 23 23 23 15 13 15 16
22 26 26 24 19 15 16 19

\[ \bar{x} \] 220 216 217 213 164 135 155 136
\[ \bar{y} \] 24,44 24 24,11 23,67 18,22 15 17,22 15,11

S.E. 0,80 0,98 0,51 0,50 0,66 1,72 1,12 1,31

A1 = READY
B1 = BOYS
C1 = HIGH

A2 = NON-READY
B2 = GIRLS
C2 = LOW
BRIEF NOTES ON SOME STATISTICAL TESTS USED IN THIS REPORT

a.  The 2 x 2 Chi-square test

The 2 x 2 chi-square test is a statistical test with one degree of freedom: \((r-1)(c-1) = (2-1)(2-1) = 1\). Whenever the theoretical sampling distribution of chi-square is used with 1 df, Yates’s correction for continuity should be used (Shavelson, 1981: 540). This can be accomplished by subtracting 0.5 from the observed frequency whenever it exceeds the expected frequency, and adding 0.5 to the observed frequency whenever it is less than the expected frequency.

b.  Pearson r

A measure of correlation which uses interval data. It is thus a parametric test.

In a positive correlation, when one variable increases, the other increases. If two variables show a negative correlation, then as one increases the other decreases. A perfect positive or negative correlation will show changes in the two variables which are exactly proportional to one another, a weaker correlation will show more variability in
the extent to which the two measurements match up. In situations where there's little or no relationship between the two measurements, the coefficient correlation will be close to zero.

c. The t-test

The t-test is a parametric test which is obtained by comparing the means of two data samples in order to determine whether any differences which occur between them are statistically significant. The null hypothesis of any given study will predict that any differences which have occurred between two sets of data have happened simply by chance. In other words, all the scores have come from the same population, and differences between the means are simply due to random variation. On the other hand, if the means of the two sets of data are very different, it is unlikely that they have come from the same population, they are more likely to have resulted from two different populations. In that case the null hypothesis would be refuted. The t-test looks at the mean of each set of data, bearing in mind the standard deviation of each one. By giving a final statistic which expresses how strong the differences between the two samples are, it allows the user to judge just how likely it is that these differences have arisen by chance.
d. **Analysis of Variance (ANOVA)**

A statistical procedure to test whether groups of scores differ from each other. The principle is that if the scores are not being influenced in different ways, the variation (variance) of scores within each group will allow us to predict how much variation there will be between the means of the groups. If it turns out that the group means vary more than expected, we conclude that the groups differ (and have therefore been influenced in different ways). Several different sources of influence can be tested within a single ANOVA design, and the complex relationship or interactions between them can be analysed. (Shavelson, 1981; Dayton, 1970; and Winer 1971).
APPENDIX K

SOME NOTEWORTHY OBSERVATIONS RELATING TO THE
HOME ENVIRONMENT OF SCHOOLREADY CHILDREN

1. The parents, by and large, consistently provide warmth and love. Parents express delight with the child's new achievements.

2. The child is provided with ample opportunity to try out things for himself and help is given when needed.

3. The parents are willing to foster the child's independence as he explores his world. They adopt an interested and enthusiastic attitude and compliment the child's adventurous pursuits.

4. The parents recognise and accept the child's individuality in terms of his needs to develop his own interests. They provide him with tasks relating to his individual tastes.
5. The parents accept the child's individual abilities, limited though they may be; and they also acknowledge with respect his achievements. They do not put undue pressure on him to accomplish things for which he is not ready.

While these traits are also found in the homes of non-schoolready children, the researcher-interviewer found them less frequently and to a less marked degree.
APPENDIX L

CASE STUDIES

1. A SCHOOLREADY CHILD

Reneal (aged 6 years and 2 months), a schoolready child, comes from a home where his parents provide him with favourable conditions for his development.

The circumstances relating to his birth were normal. His father is a plumber and his mother is a housewife. His parents have been married for sixteen years and they still have a very good relationship. Reneal is the youngest of three children. The difference in age between Reneal and his elder brother is five years.

His test scores were as follows:

(a) SRTB : 24/28
(b) PPVT : 58/60
(c) RCPM : 5/11

His parents place great value on education and are very interested in Reneal’s progress at school. They visit the school regularly to monitor his progress.
2. A NON-SCHOOLREADY CHILD

Serosha (6 years old) is a non-schoolready child. She comes from a home where her widowed mother cannot provide her with favourable conditions for her development.

The circumstances relating to her birth were normal. Her father died when she was four years old. Her mother is a housewife and is a member of an extended family consisting of ten members. The family lives in overcrowded and noisy conditions.

Her test scores were as follows:

(a) SRTB : 14/28  
(b) PPVT : 28/58  
(c) RCPM : 6/11

Her mother, is fully occupied with household chores and does not find the time to monitor her progress at school.

The researcher asked each of the mothers of the children mentioned above about how she prepared her child for school, i.e., What did she tell him/her on the eve of his/her enrolment at school?
Reneal's mother replied: "I made him aware that school is a place for learning and that there is no need for him to be afraid. Since he will be in a classroom and his teacher will be in charge, he must ask his teacher permission if he wishes to leave the classroom to visit the toilet. The lunch break is time for him to have his sandwiches. There will be lots of things for him to do which he will enjoy."

Serosha's mother replied: "I told her that at school she cannot behave as she wishes. She will have to listen to her teacher and not walk around the classroom and get up to mischief."

An examination of the two sets of replies reveals that the mother of the schoolready child viewed school as a place where learning is the important activity; the mother of the non-ready child on the other hand was more concerned with the child's behaviour rather than with the learning aspect.