1938

The Relationship Between the Home Environment and Certain Phases of Achievement

Maude M. Meriwether

Follow this and additional works at: https://digitalcommons.butler.edu/grtheses

Part of the Education Commons

Recommended Citation


This Thesis is brought to you for free and open access by the Graduate Scholarship at Digital Commons @ Butler University. It has been accepted for inclusion in Graduate Thesis Collection by an authorized administrator of Digital Commons @ Butler University. For more information, please contact digitalscholarship@butler.edu.
THE RELATIONSHIP BETWEEN THE HOME ENVIRONMENT
AND CERTAIN PHASES OF ACHIEVEMENT

By

Maude M. Meriwether

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Science
MASTER OF SCIENCE

COLLEGE OF EDUCATION
BUTLER UNIVERSITY
1938
FOREWORD

This study is the outgrowth of the writer's conviction that the home environment has a great deal to do with the lack of progress among the retarded pupils and the rapid achievement of our better students. After visiting the homes of what are often termed, "the problem cases," we usually return with the feeling that with such home conditions, it is a great wonder that the pupils progress as well as they do. Much must be done toward an analysis of this situation before the problem can be adequately solved. This is merely a step in a laboratory experiment to find out to what extent the learning process is conditioned by the home environment, and finally to recommend a program of adjustment for the progressive school.

The writer wishes to express sincere gratitude to the following persons: To Dr. W. L. Richardson under whose direction the work was begun, and whose suggestions and constructive criticisms inspired the writer to further efforts; to Dr. W. B. Townsend for counsel and valuable assistance during the later stages of the work; to Principals W. E. Baugh and Vivian Marbury through whose kindness the data were secured; to Mrs. Maybelle King for assistance in administering the tests; to Miss Hilda Reeder, Mrs. Aletha Byrd and Mrs. Delight Hinton, IE teachers of the groups studied, who gave their time and valuable assistance. To all others who aided in this study, gratefulness is sincerely acknowledged.

M. M. M.

Indianapolis, Indiana
1938
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREWORD</td>
<td>ii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>v</td>
</tr>
<tr>
<td>I.--INTRODUCTION--Reasons for the Study</td>
<td>1</td>
</tr>
<tr>
<td>II.--PURPOSE OF THE STUDY</td>
<td>4</td>
</tr>
<tr>
<td>III.--PREVIOUS STUDIES</td>
<td>11</td>
</tr>
<tr>
<td>IV.--METHOD OF PROCEDURE</td>
<td>22</td>
</tr>
<tr>
<td>V.--PRESENTATION AND INTERPRETATION OF DATA</td>
<td>30</td>
</tr>
<tr>
<td>VI.--SUMMARY CONCLUSION AND RECOMMENDATIONS</td>
<td>52</td>
</tr>
<tr>
<td>VII.--APPENDIX</td>
<td>56</td>
</tr>
</tbody>
</table>

**Bibliography**

**Samples of Tests**

- Percent of Class at each Level of Test
- Comparison of Reading Readiness Test Scores and Socio-Economic Status of Pupils
- Oral Vocabulary Scores and Socio-Economic Status of Pupils
- Distribution of Reading Achievement Scores
<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>Provisional Levels of Socio-Economic Status</td>
<td>31</td>
</tr>
<tr>
<td>II.</td>
<td>Distribution of Scores Showing the Socio-Economic Status of Pupils</td>
<td>32</td>
</tr>
<tr>
<td>III.</td>
<td>Distribution of Intelligence Quotients of Pupils from School A and B</td>
<td>40</td>
</tr>
<tr>
<td>IV.</td>
<td>Classification of Groups According to Intelligence Quotients</td>
<td>41</td>
</tr>
<tr>
<td>V.</td>
<td>Comparison of Socio-Economic Status and Intelligence Quotients of Pupils</td>
<td>42</td>
</tr>
<tr>
<td>VI.</td>
<td>Paternal Occupations and Comparison with I. Q. of their children</td>
<td>43</td>
</tr>
<tr>
<td>VII.</td>
<td>Per cent of Failures at each Level of Test</td>
<td>44</td>
</tr>
<tr>
<td>VIII.</td>
<td>Per cent of Class at each Level of Test</td>
<td>45</td>
</tr>
<tr>
<td>IX.</td>
<td>Comparison of Reading Readiness Test Scores and Socio-Economic Status of Pupils</td>
<td>47</td>
</tr>
<tr>
<td>X.</td>
<td>Oral Vocabulary Scores and Socio-Economic Status of Pupils</td>
<td>48</td>
</tr>
<tr>
<td>XI.</td>
<td>Distribution of Reading Achievement Scores</td>
<td>49</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

FIGURE

1. Number of Pupils Represented According to Levels of Socio-Economic Status .......... 34
2. Number of Fathers Engaged in Each Occupational Group ............................... 37

Lenses for the Study.—As a result of a reading test which was recently administered to the sixth grade of a certain secondary school, a body of information was secured while devoted used for special study. The symptoms of reading disabilities were so varied that it seemed advisable to delve into the social and economic conditions of the pupils to find out to what extent the home environment was a contributing factor. It is believed that these conditions either hinder or stimulate the educational advantages of many pupils.

In the school building where this experiment was carried on, a program of teacher visits is encouraged. The first three or four days of the new semester are set aside for that purpose. In order to receive the most benefit, the teachers:

2 William S. Gray, "Remedial Reading," Journal of the National Education Association, XI (May, 1931) P. 162.
CHAPTER I

INTRODUCTION

Reasons for the Study.--As a result of a reading test which was recently administered to the sixth grade of a certain elementary school, a body of information was secured which showed need for special study. The symptoms of reading disabilities were so varied that it seemed advisable to look into the social and economic conditions of the pupils to find out to what extent the home environment was a contributing factor. It is believed that these conditions either hinder or increase the educational advantages of many pupils.\(^1\)

In the school building where this experiment was carried on, a program of teacher visitation is encouraged. The first three or four days of the new semester are set aside for that purpose. In order to receive the most benefit, the teachers

\(^1\)William S. Gray, "Remedial Reading." Journal of the National Education Association, XX (May, 1931) P. 163.
are directed to make definite preparation for the visit before going into the home of a patron. They must have definite things in mind so that they may guide, not monopolize the conversation. The visits are made informal and after the visits the information gathered is recorded on cards for that purpose. These cards form a valuable cumulative record file which is kept in the principal's office. The teachers agree that knowing the background of his home life aids very greatly in diagnosing and eliminating the problems which affects the child's progress in school.

The following incident which occurred in the school, helped to substantiate the belief that environmental factors play an important part in the progress of pupils.

A twelve year old girl who took no interest in her school work repeatedly came to school dirty. She would be supplied with new clothes, but when they were soiled she would again come unkempt and disgruntled. A visit to the home revealed the factors which proved to be the cause of the abnormal behavior.

The mother was ill. The father used his income for food, medicine, doctor's bills, and other necessities. There was no money left for soap; consequently, the girl couldn't keep her clothes clean.

The teacher was sympathetic toward the situation in which the child lived. She was encouraged by being supplied with
the essentials. The teacher became her confidante and aided by giving personal guidance. The result was a changed character with a decided improvement in attitude and quality of school work. The greatest benefit was a better and more sympathetic teacher understanding of the child and her problem which in turn aided the child in her school progress.

Teachers need to understand that many children cannot solve their school problems because of home situations. We may find pupils failing in their school work because of illness in the home, or incompatibility of parents, with resulting tensions in the household that upset the children to the point that they cannot meet their school situation adequately. "The school and the home can no longer afford to work separately and half blindly, as they have in the past."

It is necessary for the teachers to have a picture of the school population with all the important social and economic factors sketched in as a background. This brings us to the question: Is there a relationship between the home environment and certain phases of achievement? This problem will be discussed in the following chapter.

CHAPTER II

PURPOSE OF THIS STUDY

A. Statement of the Problem

In this study, the writer undertakes to answer the question: Is there a relationship between the home environment and certain phases of achievement? The phases of achievement studied are the reading readiness scores, size of the oral vocabulary, and reading achievement. An intelligence test is given to know the mental ability of the pupils. By using the data collected from tests given on each question of the problem, the writer proposes to show whether pupils whose home environments are inferior in cultural and socio-economic conditions are likely to have correspondingly low scores on the phases of achievement studied. The details of the plan will be explained in the chapter on, "Method of Procedure."

Studies\(^1\) have shown that the average scores on intelligence tests are higher for children of well-to-do and cultured homes than for pupils from inferior homes. The fact

that reading achievement of pupils may be affected by factors of the home environment finds support in the works of Harrison\textsuperscript{2} and Gray.\textsuperscript{3}

The majority of such studies have been made with pupils above first grade level. The writer believes that in many cases pupils' scores are conditioned by previous instruction. That is pupils make high scores on achievement tests because they have had thorough instruction from superior teachers. Since the influence of school training is a contributing factor to pupil achievement, the decision was made to conduct this study with pupils having no previous school experience. Therefore the relationship between the home environment and certain phases of achievement were studied in children of the beginning 1B grade. (No retarded pupils were included.)

2. Significance of the Problem

A. Measurement of Home Conditions--Next to intelligence, perhaps the most important factor that enters into an individual's development is the home background. The school cannot expect to function to its greatest extent unless it takes as a starting point the kind of a home from which the child


comes. It is important that teachers know the social and economic conditions of the pupils because:

The mental health of the child and his home environment is inextricably related to the instructional procedure. The teacher's attitude toward the child should be one of scientific study and observation. A knowledge of his I. Q. is not enough. The teacher must know something of his total situation, of the influences which surround him in his home, of his companions, his games, his interests and his ambitions. 4

Hall Quest states that:

Environmental conditions are of first importance in the life of an individual. The teacher's duty is more than the supervision of instruction; it includes the knowledge and the supervision of his environment, the conditions that make or mar study efficiency.

B. Measurement of Mental Ability—When the teacher is confronted with a new group of children, it is of great importance to know their general mental ability. Especially is this true of pupils just beginning school, because for them there are no records available. Moreover, the teacher must know the level of mental development of the pupils in order to know which ones are ready for formal reading. The following quotation adds strength to the notion that the intelligence test is of great prophetic power.

A great deal of research has been carried on in order to find when reading activities should be

---


introduced. The first important discovery was that most children who failed were those who were mentally immature. The histories of these children were studied and it was found that their difficulties started in the first grade. By testing all children who entered first grade it was found that the children who failed were those who were mentally immature.  

C. The Relative Importance of Various Factors of Reading Readiness.--In a series of recent investigations, an attempt was made to determine the extent to which many of the factors that presumably influence reading readiness are related to success or failure in beginning reading.

Among the factors and abilities considered were mental age: brightness(I.Q.) . . . readiness, oral vocabulary and various aspects of preschool life, such as social-economic status, play and game interests.

There is need for all first grade teachers to know which pupils are ready to learn to read when they enter the first grade. When the teacher has a measure of pupil's ability to learn to read, the pupil can be given the type of work he needs and can do. As stated in the manual for the use of the Lee-Clark tests:

Another need which the test fulfills is that the results are easily explainable to parents. It is impossible to tell parents that their child does not have intelligence enough to begin reading. It is very easy to say that he has been given a test, the results of which tell whether or not he is ready to

---


begin to read, and that according to the results he is not ready to read and would be much better placed in a "junior first grade, pre-primer, or transition group." Being able to justify the educational handling of the pupil to the parent is worth a great deal. It is futile to attempt to obtain worthwhile reading results from beginning pupils unless the oral vocabulary has been analyzed. In the first place, one must know the needs and capacities of the children in order to make the best possible selection of techniques and materials. If one does not know the pupils intimately he cannot guide them to their fullest development.

D. Measurement of Achievement.-- The importance of the home environment as a contributing factor in the reading achievement of beginning pupils should receive due consideration. Dr. W. B. Townsend, Curriculum Consultant of Butler University has given in his check list of points of attack in seeking "Common Causes of Reading Difficulty," the following:

The Home Environment

a. Are there satisfactory relationships between the parents?

b. Do they have poor attitudes toward the child?

c. Is there a stimulus for reading?

d. Do parents read excessively to the child?

e. Is a poor quality of English spoken in the home?

f. Are there other factors which may disturb the child?

The writer feels that the significance of home environment
upon the intelligence scores, reading readiness scores, the size of the oral vocabulary and the achievement of LB pupils is a problem which demands consideration.

3. Definition of Terms

To facilitate better the reading of this study, it will be necessary to define the following terms:

1. Environment consists of those conditions that promote or hinder, stimulate or inhibit the characteristic activities of a human being. 10

For the purpose of this thesis we will consider the term home environment as the home background or socio-economic status of the home as measured by the Sims Score card. 11

2. Reading consists of associating meanings and pronunciations with printed symbols. 12

3. The oral vocabulary is one's store of meaningful symbols.

4. Achievement may be defined in terms of the individual's performance, namely, as his scores on a series of


achievement tests. If they are shown to be affected by the home environment, we shall have to conclude, so far as our evidence goes, that school achievement is affected by the home environment. 14

5. The intelligence quotient indicates the rate of mental growth and is the ratio of mental to chronological age. 15


CHAPTER III

PREVIOUS STUDIES

An exhaustive search of the literature of the field seemed to indicate that no one had attempted this particular type of study. However, the writer is not unmindful of the excellent investigations that have been conducted along similar lines by others. A brief review of some of them will follow.

1. Measurement of Home Conditions

In spite of the importance of the home environment in child development this factor has been neglected because there has been no available simple instrument for measuring the level of the home. The need for such a device is clearly evident to anyone desirous of appraising the home environments of children. The usual method is to have a social worker go into the home and give a description of the general conditions found there. The home may then be recorded as poor, average, or good.

Search through the literature has brought to light

1Ada Sheffield, "The Situation as the Unit of Family Case Study." *Social Forces* (June 1931.)
several attempts to make a rating of homes expressed in the terms of a score on home environment. One is the work of Williams. His procedure was to have a social case worker visit the home and give an arbitrary weighting on each of the following points:

1. Necessities
2. Neatness
3. Size
4. Parental relations
5. Parental supervision

He provided, as a guide in making these weightings, a "Standard Score Sheet" which gives samples of homes with reference to the various points. The score of the home is the total of these weightings.

A rather common method of estimating the home background for statistical purposes is to select some item or condition in the home, then to classify groups on the possession or non-possession of this item or condition.

Counts used occupation of parents and possession of a telephone as measures of the social level, in an extensive investigation of the selective forces operating in public and private secondary schools in different cities in the United States. He showed that both of these factors gave evidence of significant differences for various levels in the school.

---

3 G. S. Counts, Selective Character of American Secondary Education. 1922. (Supplementary Monograph, Unl. of Chi. No. 19)
4 G. S. Counts, loc. cit.
Kornhauser rather arbitrarily decided that the best single index of the economic standing of the parents is the possession of a telephone; and used this measure in an investigation of the relation of intelligence to economic standing.

The recently developed "Sims Score Card" for measuring the socio-economic status offers a new opportunity to study the relation of the "home factor" to such other factors as the achievement and intelligence of school children. The purpose of this card is:

To provide a simple, convenient, and objective device for ascertaining and recording the general cultural, social, and economic background furnished by the homes of school children. The card permits quantitative records and statistical comparisons. Home conditions need no longer be recorded as "average" or "poor" or "good", but may be given a numerical rating that is far more precise than the usual general characterizations.

These studies have well served the purpose of pointing out differences among homes and that the home environment is a complex condition. In measuring the home background we must expect to have to use the same scientific method which is employed in the measure of intelligence.

2. Relation Between Home Environment and Intelligence Quotients


7Ibid. P. 3.
Norval Loren Martin in his study on "The Relationship between Home Conditions, School Grades and Intelligence quotients of the City Pupils of Shields High School, Seymour, Indiana" concluded:

1. There is a low correlation between the home conditions of the individual pupil and the intelligence quotient of that pupil.

2. There is slightly substantial correlation between the grades made in high school and the home conditions of the pupils employed in this study.

The study: "The Effect on the Intelligence Quotient changes from a Poor to a Good Environment," by Agnes L. Rogers, Dorothy Durling and Katherine McBride was considered unsatisfactory. The purpose was to determine the effect of change from a poor to a good environment upon the I. Q. The Stanford Revision of the Binet Scale was used. The subjects were sixty-four girls moved supposedly from an extremely poor to a superior environment. Poor environment was on a theoretical descriptive definition of "probably favorable condition." The good environment consisted of two institutions operated

---


on the cottage plan.

The results were somewhat contradictory in that no appreciable change was found in I. Q. by the tests, but an improvement in educational achievement was reported by the teachers. Tentative conclusions drawn were that on the whole the I. Q. is constant in spite of pronounced changes in environment, although individual cases may show large fluctuations for unknown reasons.

The Stanford Study. — "The Relative Influence of Nature and Nurture upon Mental Development," was started in 1923 by Barbara Stoddard Burks. The question was: To what extent are ordinary differences in mental level due to nature and to what extent are they due to nurture? Stanford test and Whittier Scale were used for Home Grading. The following conclusions were drawn:

1. Home environment contributes about 17 percent of the variance in I. Q.; parental intelligence alone accounts for about 33 per cent.

2. The maximal contribution of the best home environment to intelligence is apparently about 20 I. Q. points, or less, and almost surely lies between 10 and 30 points. Conversely, the least cultured, least stimulating kind of American home environment may depress the I. Q. as much as 20 I. Q. points. But situations as extreme as either of these probably occur only once or twice in a thousand times in American communities.

3. Effect of Home Environment on Reading Readiness

Much intensive study has been devoted to the factors that influence reading readiness and the types of experience and home conditions that prepare for such. It is now generally agreed that successful reading is conditioned to a large extent by the physical, mental, emotional and social maturity of the pupils.12

Lucille Harrison13 states that:

The cultural environment of an individual, the general linguistic quality of his home, his parents' interest, and participation in intellectual pursuits, are powerful environmental factors in affecting reading readiness.

A committee making a study of reading gave the following report:

The child who becomes interested in reading at any age does so because of previous experiences in the home... For example, he may have looked at pictures in attractive books provided for him. His parents may have read or told stories to him from these books. They may have encouraged him to find out stories for himself by studying the pictures that illustrate them. He may have discussed these stories with his playmates, thereby gaining facility in the use of ideas, a relatively wide reading vocabulary, and habits of good expression. In these ways...


as well as through experiences which do not include books, parents stimulate interest in reading and provide for the development of habits that are essential to rapid progress. On the other hand, many children who do not have such advantages, and some who do, spend all their time in whatever way they fancy directs. Consequently, they are not attracted to reading as a form of activity. When these pupils enter the first grade their preparation for, and attitude toward, reading differ widely from those of children whose activities have been carefully directed.\textsuperscript{14}

Another noteworthy study by W. S. Gray\textsuperscript{15} states:

The view is held by some that readiness for initial instruction in reading is attained best through so-called natural processes of growth and development. Undoubtedly many characteristics or qualities developed through processes that are little influenced by school and the physical maturity of the eyes are largely matters of sheer growing up. But other functions involved in reading, such as observation, range of vocabulary and desire to read, may and generally do, benefit from training and guidance . . . It follows that the development depends on what has preceded that stage.

4. Environment and Achievement

Clark Foreman\textsuperscript{16} in a recent study of "Environmental Factors in Negro Education" compared the achievement of Negro children in various sections of the South and concluded:

1. There is considerable evidence that the educational achievement of Negro pupils is greatly influenced by their environment, including the school and community.

2. There is evidence that as the environment of the


Negro pupils approach that of white children from whom the norms of achievement were derived, the achievement of the Negro pupils approaches the norm."

On the same subject of the effect of the environment on the achievement of pupils is:

The Chicago Study.--"The Influence of Environment on the Intelligence, School Achievement, and Conduct of Foster Children," was carried out by Frank N. Freeman, Karl J. Holzinger, and Blythe Mitchell. The chief problem was to determine whether the intelligence and achievement of the child is affected by the character of his environment.

A group of children were tested before placement and then retested after placement in a foster home. A comparison of their ratings on the tests gave evidence of a significant improvement in intelligence and achievement (as measured by test scores). A study of certain sub-groups showed that the children in the better foster homes gained considerably more than did those in the poorer homes. Furthermore, the children who were tested and adopted at an early age gained more than those adopted at a later age.

The tentative conclusions of the Chicago study were that an improvement in environment produces a gain in intelligence.

---

as well as achievement and the earlier the environment was improved the greater the gain.

Rankins\textsuperscript{18} states that:

The environment in which children live influences to a marked degree the type and quality of learning in the school. General community facilities and neighborhood characteristics affect all of the children in school although in different amounts. Certain other elements of the environment, such as the characteristics of the child's home and his experiences outside the school, vary widely for different children and affect them differently. Thus the environmental factors may be considered broadly under two classes: (1) those which affect all children; and (2) those which affect individual children; which affect them in different ways and which, therefore, must be discovered and considered with reference to each individual child.

Hall Quest\textsuperscript{19} concluded that:

Environmental conditions are of first importance in the life of an individual. The teacher's duty is more than the supervision of instruction; it included the knowledge and the supervision of his environment, the conditions that make or mar study efficiency.

5. Relative Importance of Heredity and Environment

In a study of this kind one needs to give some consideration to the time-honored dispute of whether learning capacity


P. 139.
is inherited or is partly achieved in the course of an individual life.

Probably the earliest statistical investigation of the question of heredity was made by Sir Francis Galton in 1869. From his observation he concluded that genius was determined by heredity. The inference is that anyone who is gifted will surmount all difficulties and make opportunities regardless of environmental or industrial conditions. Others who would stress the hereditary factor are Woods, Goddard, Dugdale.

Gates made an exhaustive study of eight hundred thirty-two families of European royalty, and on the basis of this concluded that the royal line was superior to all others.

Goddard's fascinating story of family history relates the history of the Kallikak family. He made a study of the family history of Deborah Kallikak, one of the inmates of the "Training School for the Feebleminded," at Vineland, New Jersey, and he concluded that heredity has been the determining factor in the formation of the respective characters of this family.


Sutherland stated that Eastabrook and Dungale made a study of 540 members of the Jukes family who were criminals, paupers, and degenerates, and attributes the degradation of this unfortunate family to the forces of heredity.

The writer believes that it is important that every individual be well born, but according to this thesis it is also imperative that the best environment be provided. As nature and nurture work together, education must take both heredity and environment into account.

We see that studies have drawn only tentative conclusions as to the relationship between the home environment and achievement of pupils. Therefore, the problem of this thesis is still an open question and subject to further study.

However, we wish to emphasize the fact that no attempt is here made to solve a problem that such scholars as the foregoing have failed to solve. This effort is merely to find whether there is a relationship between the home environment and certain phases of school achievement studied in two local Negro communities.

---

CHAPTER IV

METHOD OF PROCEDURE

I. Introduction

Consent was obtained from both the superintendent of schools, and the supervisor in charge of primary education to carry out this experiment in two Indianapolis elementary schools. Additional consent was also obtained from the principals and the first grade teachers of the groups chosen for the study.

2. Schools Chosen

In the effort to find whether there is a relationship between the home environment and certain phases of achievement, fifty-five beginning LB pupils were chosen from two Negro elementary schools. One of these is the Charles Sumner School No. 23, which for the purpose of this study we shall designate as School A. It is located in a congested Negro community. The building, which was constructed in 1879 is a brick structure containing nineteen classrooms housing pupils from the first through the sixth grade. The school lends itself to this particular study because

(22)
of the fact that within the district are to be found homes representative of all levels of socio-economic status from the highest to the lowest. The majority of these homes afford very few of the stimulating cultural features which aid materially the pupil’s progress in school. The houses for the most part are tenements with a few residences of the better type here and there.

The neighborhood is one with a high mobility rate. It is a known fact that schools with relatively fixed memberships can have long term programs of individual study and correction which are difficult to arrange in a school of the type under consideration. In my opinion, School A can make a worthwhile contribution by adjusting the work of the school to meet the particular needs of the pupils.

The second school selected for this experiment, and which we shall term School B, is No. 87 located in the center of a good, well established, Negro residential district. The building has many advanced features. It is a new $200,000 structure, of limestone and brick which was completed in 1936.² It contains sixteen classrooms in addition to rooms for domestic science and manual training, and an auditorium. It houses pupils from the first grade through the junior high school. Within the boundaries of this

school district, all levels of socio-economic status are represented, as is the case in practically every public school, but it has a preponderance of good families of the higher levels of socio-economic status. In sharp contrast to School A, (the other school in question) the general community environment of School B is more wholesome and stimulating. Furthermore, the membership is more permanent as a large percentage of the parents are home-owners. This Negro north side community is considered one of the best in Indianapolis.

3. The Tests

A. The Sims Measurement of Home Condition.—The writer used "The Sims Measurement of Socio-Economic Status" for rating the homes of the pupils of the groups selected. This scale provides a simple, objective device for ascertaining and recording the general cultural and socio-economic background furnished by the homes of school children.

The score card consists of twenty-three questions, the answers to which may be recorded by underlining yes or no. A credit has been assigned to each of the twenty-three questions that has been answered. The sum of the credits is divided by the number of questions answered. The quotient,

carried to one decimal place, and the decimal neglected, is the score, or the socio-economic status.

The writer felt that these pupils could not be relied upon for accurate data regarding the home conditions, and as the nature of the information asked for on the score card was too personal to be sent home for the parents to fill out, a visit was made to each home by the writer.

The nature and purpose of the study was explained to the parents during the interview, and the questionnaire was filled out by the parent with the aid of the investigator.

One further method of establishing the socio-economic level of a family is the occupation of the father. This factor establishes the economic resources of the family, the association of the members of the family, the leisure time which they enjoy, and to a large extent the cultural interest.

For the purpose of this comparison professional men—doctors, lawyers, clergymen, etc were selected at one extreme and unskilled laborers at the other. Anyone would admit that these two groups represent different levels of home background.  

Factors of paternal occupations and education of parents were compared with pupil achievement as determined by standardized tests.

B. Test of Mental Ability.— On February 5, the

---

4 Ibid. p. 12.
Pintner-Cunningham Primary Tests of Mental Ability⁵ were administered to the selected groups of children in this study, and from the tabulation, the intelligence quotients and mental ages were ascertained as an aid in the homogenous grouping of the pupils.

C. Reading Readiness Tests—Subsequently, the "Lee-Clark Reading Readiness Tests"⁶ were administered to the groups of pupils under consideration. Circumstances necessitated that the tests be administered by the classroom teachers with the aid of a trained assistant. Extreme care was taken to see that the tests were uniformly administered on the same day according to explicit directions. The tests were scored and tabulated by the investigator.

D. Oral Vocabulary.—During the second and third weeks of the term, the investigator and the assistant, individually checked the oral vocabulary of each of the pupils under consideration. From a one thousand word oral vocabulary list⁷ the writer used every tenth word until a list of one hundred words was secured. (The list of words may be found in the appendix). With the aid of three first grade teachers, an

⁵Pintner-Cunningham Primary Mental Test. Chicago: World Book Company, 1923.


⁷Kindergarten Union of America. Washington, D. C.
informal test was made to check the pupils' oral vocabulary on these words. The tests involved the use of pictures and the giving of simple directions to be carried out by the child. For example, the child was shown an attractive colored picture of a spring landscape with trees in bloom. The child was asked to "point to the blossoms." For the word act, the child was told to, "act as though you are sick." Examples of other directions were: "Show me the gate in this picture; point to something scarlet," or "can you tell me the name of this animal? (buffalo)

The tests were administered to the pupils individually. On the basis of one hundred words, each correct response was scored as 1. A total score of 100 was possible. The pupil's score in this oral vocabulary was checked with his socio-economic status to see if there was any relationship existing between the two.

E. The Achievement Test.--The 1B teachers of four Indianapolis schools listed the reading vocabulary used during the first three months of the term. From a compilation of these lists, a reading achievement test was constructed by Miss Floro Torrence, supervisor in charge of primary education. This test was given to each of the groups before May 5, 1938.

The reading achievement test was divided into three parts: One part testing visual stimuli; the second part
testing auditory stimuli; and the third part testing compre­

hension.

Part I (Visual stimuli) consisted of ten rows of four
words each, in addition to the samples. Children were asked
to look at each word in a row (using a line marker with which
to keep the place) and to think each word. The person doing
the testing, then exposed one of the words in the row for
three seconds, asking the children to put a line under the
word like the one exposed. This direction was repeated for
each of the remaining rows. Help was given on the samples
as preliminary practice.

Part II, (auditory stimuli) consisted of ten rows of
three words each, thirty different words, in addition to the
samples. Children were asked to look at each word in the
row (using a line marker with which to keep the place) and to
think each word. The administrator then pronounced one word
in the row, asking the children to underline the word. This
same direction was repeated for each row. Five seconds were
given on the samples as preliminary practice.

Part III, a comprehension test consisted of five rows
of two words each. Instead of showing or pronouncing a word
to be underlined, a statement was made concerning one word
and the child was obliged to deduce which word to underline.
For example, the following line: Away and Clown, the person
testing might say: Underline the word that "means the funny
man in the circus." Five seconds time was given for underlining. The same type of direction was given for each of the five lines. Samples were given as preliminary practice. No help was given after the test began.

This test presented eighty words of which at least twenty-five would need to be recognized if a perfect score were made. Only words were included which had been used by all four classes.

A Copy of this test will be found in the appendix.

In scoring, each correct response counted as two (2). Parts I and II have a possible score of twenty (20) each and Part III a possible score of ten (10). The score for each part was recorded on the child's test. The sum of the three parts gave the total score, a possible score fifty (50).

This possible score is the same as the possible score of the Lee-Clark Reading Readiness Test.

2. Distribution of scores of socio-economic status for pupils used in this study.

3. Levels of socio-economic status of school represented.

In order to help the reader better understand the significance of the data, we have used figures to show:

1. Number of pupils represented according to levels of socio-economic status

2. Number of fathers in each occupational group.
CHAPTER V

PRESENTATION AND INTERPRETATION OF DATA

Introduction

In presenting the data derived from the experiment, the tabulation of each phase of achievement will be presented and a comparison made with the socio-economic status of the pupils. For each school, the data will be presented by means of tables and diagrams.

A. Measurement of Socio-Economic Status.--In tables one to three, we will present data of the following:

1. Levels of Socio-Economic Status
2. Distribution of scores of socio-economic status for pupils used in this study.
3. Levels of socio-economic status of school represented.

In order that the reader may better understand the significance of the data, we have used figures to show:

1. Number of pupils represented according to levels of socio-economic status
2. Number of fathers in each occupational group.

(30)
As explained in the manual of directions for the Sims Score card:

This table is read as follows: A score of 36 is the maximal possible score and represents an indeterminately high level (theoretically perfect) of socio-economic status; a score of 29.2 represents the 94.5 percentile and corresponds to the highest status found in the New Haven group; a score of 24.5 represents the 88.5 percentile and corresponds to a very high status; a score of 10 represents the 50 percentile and corresponds to a medium status within the group, etc. The numbers 1 to 10, preceding the descriptive levels, represent suggested ratings that might be used to designate strata of homes graded from 0 (no home at all) to 10 (theoretically perfect homes).

<table>
<thead>
<tr>
<th>Score</th>
<th>Corresponding Percentile</th>
<th>Suggested Rating</th>
<th>Corresponding Level of Socio-Economic Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>94.5</td>
<td>10</td>
<td>Indeterminately High</td>
</tr>
<tr>
<td>29.2</td>
<td>94.5</td>
<td>9</td>
<td>Highest</td>
</tr>
<tr>
<td>24.5</td>
<td>88.5</td>
<td>8</td>
<td>Very High</td>
</tr>
<tr>
<td>17.6</td>
<td>76.0</td>
<td>7</td>
<td>High</td>
</tr>
<tr>
<td>13.2</td>
<td>65.5</td>
<td>6</td>
<td>Medium High</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>5</td>
<td>Medium</td>
</tr>
<tr>
<td>7.5</td>
<td>34.5</td>
<td>4</td>
<td>Medium Low</td>
</tr>
<tr>
<td>5.1</td>
<td>21.2</td>
<td>3</td>
<td>Low</td>
</tr>
<tr>
<td>3.2</td>
<td>12.5</td>
<td>2</td>
<td>Very Low</td>
</tr>
<tr>
<td>1.8</td>
<td>5.5</td>
<td>1</td>
<td>Lowest</td>
</tr>
<tr>
<td>0.0</td>
<td>0.0</td>
<td>0</td>
<td>Indeterminately Low</td>
</tr>
</tbody>
</table>

This table gives the significance of a given score as related to conditions in the schools of New Haven. The table will be used in classifying the homes of pupils in this study.

Table II shows the distribution of socio-economic status scores of the two groups of pupils selected for this study, (represented as Schools A and B) with the average of each group.

**TABLE II. DISTRIBUTION OF SOCIO-ECONOMIC STATUS**

<table>
<thead>
<tr>
<th>Score</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total Cases</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>Average Score</td>
<td>5.4</td>
<td>3.5</td>
</tr>
</tbody>
</table>
The writer anticipated that the two schools were obviously of different levels with reference to the home background. The scores on the tests seem to warrant that assumption. The significant difference between the schools lies in the range of the two scores and the average of each group. The socio-economic status results show a range of scores running from 1 to 15 in School A, whereas in School B the range of scores is from 1 to 29, and School B averages 8.1 points higher in socio-economic status.

It will be remembered that Table I gives the significance of a given score as related to conditions in the schools of New Haven, Connecticut. To illustrate more conclusively, one of the question upon which the scores were based was: How many servants such as a cook, a housekeeper, a chauffeur, or a maid, do you have in your home? This question is not applicable to the groups used in this study, as the economic status of the homes would not afford it. The author of the test states that:

The population may represent a selected group, either positively or negatively, when compared with another city or a general level of many cities. We do not know, for instance, whether the score 10 is really the median score for all homes in the United States or not. Consequently, these levels are tentatively presented until more stable ones can be secured by giving the scale to many groups.

Until these levels are more secure, it is perhaps safest to make comparison between groups only within the same school system, i.e., to consider the results on a relative rather than upon an absolute basis.10

10Ibid, P. 29.
In this case the levels in this survey will be lower than those of the groups previously studied and from whom the norms were made.

In Figure 1, we present graphs showing the distribution of the pupils of each school according to levels of socio-economic status.

Figure 1 shows that in School B the socio-economic status range from 2 (very low) to 9 (highest), while in School A the scores range from 1 (the lowest) to 6 (medium high). Obviously the former school is superior to the latter in terms of socio-economic status of the pupils.

In establishing the socio-economic status of the pupils were classified according to the economic resources of the family, the leisure time which they enjoy, and to a large extent the cultural interests as suggested in the manual.

In this case of this comparison professional people, lawyers, clergyman, etc. were selected as representatives and unskilled laborers, others.

It may be noted that these two groups represent two different levels of home background.

Figure 1. Number of pupils represented according to levels of socio-economic status.
The numerical rating at the bottom of the diagram represents levels of socio-economic status of the pupils' home environment. The figures at the top of each column indicate the number of pupils represented at each level. Using these levels as a basis for comparative purposes, we present the results of this experiment in figure 1.

Figure 1 shows that in School B the socio-economic status ranges from 2 (very low) to 9 (highest), while in School A the scores range from 1 (the lowest) to 6 (medium high). Obviously the former school is superior to the latter in regard to the home environment of the pupils.

**Occupational Levels**

One further method was used in establishing the socio-economic level of a family. The groups were classified according to the occupation of the father. This factor established the economic resources of the family, the leisure time which they enjoy, and to a large extent the cultural interest. As suggested in the manual:

For the purpose of this comparison professional men—doctors, lawyers, clergyman, etc—were selected at one extreme and unskilled laborers at the other. Anyone would admit that these two groups represent different levels of home background.

**Classification of Occupations**

In figure 2, the writer presents a distribution of the

---

11 Loc. Cit.
12 Op. Cit., P. 28
homes used in this study according to the occupation of the father. For a better interpretation of the table, the occupations have been classified into five groups as follows:

Group I. Professional men, proprietors of large businesses, and higher executives.

Group II. Commercial Service, clerical service, large land owners, managerial service of a lower order than in group I, and business proprietors employing from five to ten men.

Group III. Artisan proprietors, petty officials, printing trades employees, skilled laborers with some managerial responsibility, show owners and business proprietors employing one to five men.

Group IV. Skilled laborers (with exception of printers), who work for someone else, building trades transportation trades, manufacturing trades involving skilled labor, personal service. Small shop owners doing their own work.

Group V. Unskilled laborers, common laborers, helpers, "hands," peddlers, varied employment, venders, unemployed (unless it represents the leisured class of retired).
In Diagram 2 it is noted that, in School A, a smaller number of fathers are classified in group I which represents the unskilled labor group, while in School B the occupations of the fathers are more well distributed throughout all the groups but the majority of the fathers are classified in group IV which is the skilled labor group.

School A

School B

Figure 2. Number of Fathers Engaged in Each Occupational Group

These children were then divided into five groups according to the standardized classification given by Vernon, who says...
In Diagram 2, we note that in School A twenty-one fathers are classified in group V which represents the unskilled labor group, while in School B the occupations of the fathers are well distributed throughout all the groups but the majority of the fathers are classified in group IV which is the skilled labor group.

The results from the Sims Score Card proved that the two schools represented different levels of Socio-Economic status. According to the occupations of the fathers, School B has a higher socio-economic rating than School A. The data bear out the assumption that more of the parents of School B are in a higher occupational group than in School A.

B. Measurement of Mental Ability

The data will be presented and an effort made to relate the intelligence scores to the socio-economic status of the family.

On February 5, the Pintner Cunningham Primary Mental Tests were administered to the pupils. For each child included in the investigation the following data were obtained from this test:

1. Chronological age
2. Mental age
3. Intelligence quotient

These children were then divided into five groups according to the standardized classification given by Terman, who says

---

that:

The making and giving of intelligence tests or general ability tests has contributed much to a better understanding on the part of teachers and parents of the nature of intelligence and its distribution. The results of these intelligence tests are given in terms of the following table which is a standardized classification.

<table>
<thead>
<tr>
<th>Table I</th>
<th>The Measurement of Intelligence.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Above 140</td>
</tr>
<tr>
<td>2.</td>
<td>120-140</td>
</tr>
<tr>
<td>3.</td>
<td>110-120</td>
</tr>
<tr>
<td>4.</td>
<td>90-110</td>
</tr>
<tr>
<td>5.</td>
<td>80-90</td>
</tr>
<tr>
<td>6.</td>
<td>70-80</td>
</tr>
<tr>
<td>7.</td>
<td>Below 70</td>
</tr>
</tbody>
</table>

This table was used as a basis for the interpretation of the I.Q.'s of pupils used in this study.

Interpretation of Data

The distribution of the intelligence tests results show a range of intelligence running from 67-118 in School A and from 82-124 in School B as shown in Table IV.

* *Loc. Cit.*
TABLE IV. DISTRIBUTION OF THE INTELLIGENCE QUOTIENTS
OF PUPILS FROM SCHOOL A AND B.

<table>
<thead>
<tr>
<th>I. Q.</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>118</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>113</td>
<td>1</td>
</tr>
<tr>
<td>110</td>
<td>Above 140</td>
<td>1</td>
</tr>
<tr>
<td>109</td>
<td>120-140</td>
<td>1</td>
</tr>
<tr>
<td>107</td>
<td>110-119</td>
<td>1</td>
</tr>
<tr>
<td>104</td>
<td>100-109</td>
<td>4</td>
</tr>
<tr>
<td>101</td>
<td>90-99</td>
<td>2</td>
</tr>
<tr>
<td>100</td>
<td>Below 90</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>97</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>94</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>93</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>91</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>86</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>85</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>68</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 24
Median: 98
Mean: 97.1

The medians of intelligence quotients indicated that the schools were nearly equal as to the mentality of the groups.
Dividing the pupils on the basis of intelligence into groups according to Terman's classification, the range is as follows:

**TABLE V. RANGE OF INTELLIGENCE QUOTIENTS OF PUPILS USED IN THIS STUDY.**

<table>
<thead>
<tr>
<th>Group</th>
<th>I.Q.</th>
<th>No. of Pupils School A</th>
<th>No. of Pupils School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Above 140</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>120-140</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>110-119</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>90-109</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>5</td>
<td>80-89</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>70-80</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Below 70</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Median 98 95

Total No. of Pupils 24 30

In addition to Table V we have Table VI which shows more specifically the relation between the pupil's intelligence and his socio-economic status. As already stated the socio-economic status is made on the possession or non-possession of things such as the occupation of parents, the possession of books and magazines, the physical necessities and luxuries provided in the home and the outside contacts of the parents and the children. The entire range of this index was from one to fifteen in School A and from three to twenty-nine in School B, which in Table VI is divided into eleven parts indicating levels of socio-economic status from the very highest to the lowest. The corresponding levels
of intelligence of these pupils are shown by means of the intelligence quotients which range from 57-118 in School A and from 82-124 in School B.

TABLE VI. COMPARISON OF SOCIO-ECONOMIC STATUS, AND INTELLIGENCE QUOTIENTS OF PUPILS

<table>
<thead>
<tr>
<th>Levels of Socio-Economic status</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Pupils</td>
<td>Av. Intelligence quotient</td>
<td>No. of Pupils</td>
</tr>
<tr>
<td>36-30</td>
<td>2</td>
<td>102</td>
</tr>
<tr>
<td>29-25</td>
<td>5</td>
<td>108</td>
</tr>
<tr>
<td>24-18</td>
<td>1</td>
<td>97</td>
</tr>
<tr>
<td>17-14</td>
<td>4</td>
<td>106</td>
</tr>
<tr>
<td>10-8</td>
<td>2</td>
<td>103</td>
</tr>
<tr>
<td>7-5</td>
<td>3</td>
<td>92</td>
</tr>
<tr>
<td>4-3</td>
<td>7</td>
<td>91</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>94</td>
</tr>
<tr>
<td>Median of Socio Economic Status</td>
<td>5.4</td>
<td>13.5</td>
</tr>
<tr>
<td>Average Intelligence Quotient</td>
<td>97.1</td>
<td>98.5</td>
</tr>
</tbody>
</table>

Table VI shows that School B averages 18.1 points higher in socio-economic status while the difference in the average of I.Q. is only 1.4. Obviously there is no relationship between the intelligence of the pupils and their home environment.
The children were divided according to the occupation of the father into professional and laboring groups and the distribution of the Intelligence Quotients were made for each group as shown in our next table.

**TABLE VII.: DISTRIBUTION OF INTELLIGENCE QUOTIENTS AND COMPARISON WITH PATERNAL OCCUPATIONS**

<table>
<thead>
<tr>
<th>I.Q.</th>
<th>Professional Group, Clerical, Workers</th>
<th>Unskilled Labor Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>120--140</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>110--119</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>90--109</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>80--89</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>70--79</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Below 70</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total Cases</td>
<td>23</td>
<td>27</td>
</tr>
</tbody>
</table>

This table shows a pronounced relationship between the occupation of the father and the intelligence of the child. We observe that of seven children whose I.Q. ranks above the average, their parents are all in the professional group.

The present data seem to justify the conclusion that the children of professional parents are characterized by a high intelligence level and that parental occupation is a rough index of the pupil's intelligence.

C. Measurement of Reading Readiness

As was stated in a previous chapter, the "Lee-Clark
Readiness Test*, was given to see whether any relation existed between the socio-economic status and the reading readiness scores of the pupils.

The interpretation of the tests scores which follow is based on a careful study in a number of school systems. The data is a basis for predicting the probable success a pupil will have in learning to read. Table VIII indicates the probable success of children in the 1B Grade.

<table>
<thead>
<tr>
<th>Score</th>
<th>Probable Per Cent of Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>48-50</td>
<td>0</td>
</tr>
<tr>
<td>44-47</td>
<td>0</td>
</tr>
<tr>
<td>40-43</td>
<td>0</td>
</tr>
<tr>
<td>36-39</td>
<td>3</td>
</tr>
<tr>
<td>32-35</td>
<td>5</td>
</tr>
<tr>
<td>28-31</td>
<td>10</td>
</tr>
<tr>
<td>24-27</td>
<td>14</td>
</tr>
<tr>
<td>20-23</td>
<td>22</td>
</tr>
<tr>
<td>16-19</td>
<td>30</td>
</tr>
<tr>
<td>12-15</td>
<td>40</td>
</tr>
<tr>
<td>8-11</td>
<td>60</td>
</tr>
<tr>
<td>4-7</td>
<td>75</td>
</tr>
<tr>
<td>0-3</td>
<td>90</td>
</tr>
</tbody>
</table>

Based on 472 cases

The manual states that:

Pupils scoring below 12 will probably fail and should

---


14 Ibid
be grouped together in the reading period for pre-reading activities, or placed immediately in a junior first grade or transition group.

Pupils scoring between 12 and 22 on the test are apt to fail (2 pupils failing out of 5). They should be grouped together and carefully observed by the teacher for the first six weeks. It should then be possible for the teacher to tell which of these pupils are ready to read.

Pupils scoring above 22 will in all probability succeed in reading. 15

The probable success of pupils in Schools A and B, used in this study as shown by the scores made on this test are given in Table IX. The per cent of the class indicated in each division is given.

**TABLE IX. DISTRIBUTION OF PUPILS SCORE ON THE LEE-CLARK READING READINESS TEST AND THE PER CENT OF CLASS INCLUDED IN EACH DIVISION.**

School A.

<table>
<thead>
<tr>
<th>Score</th>
<th>No. of Pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>1</td>
</tr>
<tr>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

**Median 25.**

13 Ibid, P.7
The reader's attention is called to the fact that School A enrolls pupils whose home background is inferior while School B enrolls pupils from homes which are predominantly superior. The tests show that School B has 18% more of its pupils who are likely to succeed than in School A; while School A has 15% more who are apt to fail than School B.

On the basis of these results the writer feels safe in stating that a school whose pupils come from superior homes will have a greater number of beginning pupils who are ready to read.
than schools enrolling pupils from inferior homes.

TABLE X. READING READINESS SCORES AND SOCIO-ECONOMIC STATUS

<table>
<thead>
<tr>
<th>Reading Readiness Scores</th>
<th>School A</th>
<th></th>
<th>School B</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Pupils</td>
<td>Average Socio-Economic Status</td>
<td>No. of Pupils</td>
<td>Average Socio-Economic Status</td>
</tr>
<tr>
<td>48-50</td>
<td>1</td>
<td>13</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>44-47</td>
<td>1</td>
<td>11</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>40-43</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>36-39</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>32-35</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>28-31</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>24-27</td>
<td>4</td>
<td>10</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>20-23</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>16-19</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>12-15</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>8-11</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>0-3</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results shown in this table seem to warrant the conclusion that pupils of low socio-economic status are likely to show correspondingly low scores in reading readiness. The fact that there are exceptions is significant.

D. The Measurement of Oral Vocabulary

Authorities agree that a relatively wide speaking or oral vocabulary, which enables a child to recognize quickly the meaning of words and groups of words, is a pre-requisite to reading.

The next table shows the comparison between the pupil's oral vocabulary test score and his socio-economic status score.

---

On the basis of the comparison shown in Table XI the writer feels safe in stating that teachers may expect high scores in oral vocabulary from IB pupils who rate high in socio-economic status. There is a pronounced relationship between the socio-economic status of pupils and the oral vocabulary, since the table indicates that pupils who ranked
high on the oral vocabulary test had a relatively high socio-economic status.

E. Measurement of Reading Achievement

Our final effort was to find out if there was a relationship between the home environment and the achievement scores of pupils. We present data showing the scores made by each group on the test and compare the average of the achievement scores with the average of socio-economic status of the groups. Table XIII shows the distribution of scores made on the achievement test, and the average of each group.

TABLE XII. DISTRIBUTION OF READING ACHIEVEMENT OF THE SCHOOLS

<table>
<thead>
<tr>
<th>Reading Achievement Scores</th>
<th>No. of Pupils School A</th>
<th>No. of Pupils School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>48</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>46</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>44</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>40</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>38</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>50</td>
</tr>
</tbody>
</table>

Average Reading Achievement
School A = 29
School B = 39
F. Interpretation of Results in Achievement Test

The data presented show that School A made an average of 29 on the achievement test while School B made an average of 39. It will be recalled that School B has a higher socio-economic status than School A.

The data seem to bear out the idea that schools whose pupils rank high in socio-economic status will rank higher in achievement than schools enrolling pupils from inferior home environments.

To summarize then, the study dealt with:

For the purpose of answering the question, Is there a relationship between the home environment and certain phases of achievement? The phases of achievement studied were the reading readiness scores, size of the oral vocabulary, and reading achievement. The study was to prove the problem in question was:

A. Rating the home by the home score card
B. Constructing an oral vocabulary test based on vocabulary made by kindergarten Union of America.
C. Giving and scoring the following tests:
   1. Fisher Cunningham Primary Mental Test
   2. Reading Readiness Test
   3. Oral Vocabulary Test
   4. Reading Achievement Test
CHAPTER VII

GENERAL SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

To summarize then, the study herein described was made for the purpose of answering the question, Is there a relationship between the home environment and certain phases of achievement? The phases of achievement studied were the reading readiness scores, size of the oral vocabulary, and reading achievement. The steps taken to prove the problem in question were:

A. Rating the homes by the Sims Score Card

B. Constructing an oral vocabulary test based on vocabulary made by Kindergarten Union of America.

C. Giving and scoring the following tests:
   1. Pitner Cunningham Primary Mental Tests
   2. Reading Readiness Test
   3. Oral Vocabulary Test
   4. Reading Achievement Test

(51)
Fifty-four children were tested in two Negro schools of Indianapolis.

Conclusion

This summary includes statements of the comparisons made and the conclusions which seem to be warranted as a result of the findings.

1. A comparison of the results of the tests of socio-economic status and scores on the other tests were made and it was found that those pupils who stood in the higher levels of socio-economic status generally showed higher scores on all achievement tests than those in the lower levels.

2. It was observed that those pupils falling in the higher levels of socio-economic status generally come of parents whose occupations fall into the highest groups.

3. The data gathered seem to warrant the assumption that differences in socio-economic status generally correspond to differences in achievement and where you find pupils of poor home environment you are likely to find poor reading achievement.

With the foregoing results as a background the writer draws the following conclusions which seem to be warranted. There is considerable evidence that:

1. There is a relationship between the home environment and school achievement.

2. Occupations of parents is an index of the intelligence
of pupils.

3. Schools whose pupils come from superior homes will have a greater number of beginning pupils who are ready to read than schools enrolling pupils from inferior homes.

Recommendations

The writer offers the following recommendations as an aid in the solution of the problem:

1. It is suggested that a record of the socio-economic status should be kept, together with records of achievement and intelligence of individual pupils.

2. That when comparative studies of schools are made on the basis of intelligence and achievement of pupils that the socio-economic status of the homes from which the pupils come be considered.

3. Allowance for environmental factors should be made in the homogeneous grouping of pupils.

4. That no child be taught to read until he has attained a sufficient readiness for reading.

Recommendations For Further Study

The writer suggests the following problems as recommendations for further study:

1. What factors in the home environment of Negro children tend to raise their school achievement?

2. What would be the findings if the problem of this
investigation were carried out with a wider sampling of Negro children?

**Books**


BIBLIOGRAPHY

Books


Magazine Articles


Dreer, H. "Education of the Negro with Respect to his Background." Journal of Negro History, 19: 45-52; Ja'34.


Johnson, R. H. Experiment to Determine the Relative Roles of Heredity and Environment in Human Behavior." School and Society. 35: 754, Je 4-12.

Judd, Charles H., "Intelligence as a Method of Adaptation." Journal of Educational Psychology. (Sept. 1929) Pp 397-404.

Klineberg, O. "Cultural Factors in Intelligence test Performance." Journal of Negro Education. 3:478-83 Jl' 34.


Sandiford, Peter. "Paterno Occupations and Intelligence of the off-spring" School and Society, XXIII. (Jan. 23, 1926).


Townsend, W. B. "How to Teach Reading." The Instructor, Nov. 1935. Pp. 25, 80.

Thesis


Grant, Edmonia White, Some Conditioning Factors Affecting the Elementary School Achievement of Negro Children. Master--1933 Fisk University.


Yates, Charlotte. The Influence of Environment upon the Intelligence Test Scores of Sixth Grade Pupils. Masters--Columbia 1932.