SOCIAL CLASS AND ITS RELATIONSHIP TO ANXIETY, PUPIL ADJUSTMENT, AND ACHIEVEMENT IN TWO SELECTED ELEMENTARY SCHOOLS

by

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PUPIL ADJUSTMENT, AND ACHIEVEMENT IN TWO
SELECTED ELEMENTARY SCHOOLS

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by
Mathelle Zola Carlson
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CHAPTER I

INTRODUCTION

Educators today have been called upon to assume the task of solving individual difficulties, not only in the scholastic field but also in the emotional adjustment, social, and anxiety realms, which provide a great many problems.

For many years schools have been largely concerned with academic requirements. The current crop of badly confused persons and juvenile delinquents points to a lack of understanding of how to produce socially adjusted persons.

The sciences that study human behavior, learning and adjustment are able to explain some of the failures and offer suggestions for improvement. More widespread interest on the school's part is needed to identify and analyze the causes before they become acute. The school must take the responsibility to help children meet realistic goals and work toward the realization of them.

Every child brings his individual problems to school. There are normal growth problems due to differences in maturity levels. Some children come from homes marked by conflict between family members, by rejection of themselves,
and neglect. Those who show hostility toward adults and other pupils are easily identified, but the shy or withdrawn may carry a heavy load of anxiety. Still other children come from homes where they have been over-protected and have meager backgrounds of experiences. They, too, have emotional insecurity and self doubt which require attention.

I. THE PROBLEM

Statement of the problem. The purpose of this study was (1) to determine whether there is a relationship between a child's anxiety, pupil adjustment, and achievement; (2) to study about one hundred sixth grade girls and boys with different socio-economical status in Cedar Rapids, Iowa; (3) to identify some beliefs and causes for differences at this age level; and (4) to determine the relationship between social class and beliefs regarding intellectual academic responsibilities.

It was not the purpose of this study to prove which is more significant in the total development of the child, his emotional adjustment, anxiety or school achievement. In the typical classroom can be found individual problems concerning all three. This study of factors that influence learning as related to two different social class groups of children was made to reveal relationships which could be
learning of loyalty to the smaller and more intimate groups of the family and the peer group. 1

The alert teacher is aware of these functions of social class and peer-group influences. This knowledge is a valuable tool for the teacher who helps in guiding and assists in the educational planning of students at the sixth grade level.

III. DEFINITIONS OF TERMS USED

The following terms are defined as they have been used in this particular study.

Ability. In this study, ability means the score received on the Otis Quick-Scoring Mental Ability Test, Beta Form for intermediate grades. The sixth grade scores were from tests taken in February and March, 1966.

Social class. Social class has been used to indicate groups of individuals in a hierarchy of statuses.

Achievement. Achievement has been based on the grade equivalent scores of the Iowa Tests of Basic Skills, Form 4. The tests were given in February, 1966.

Anxiety. The usual definition of anxiety has been used in this study, that is to mean an unpleasant emotional state or feeling.

state in which present and continuing strong desires and drives are likely to miss the goal. It has also been used to mean fusion of fear with anticipation of future evil and feeling of threat.

Pupil adjustment. The act or process of harmonizing the pupil's needs with his educational environment.

Rating, behavior. The assignment of a rank, score, or mark to the response of an individual in an experimental or observational situation.

Rating, rank-order. A method of rating in which objects, persons, or attributes are placed in serial order in accordance with the rater's judgment of the degree to which a stated or defined, quality is present.

Social class. Social class has been used to indicate a group of individuals in a society or community who accept each other as an equal, the concept of equality being mediated by or hinging upon similarities in such respect as mode of living, behavior form, material possessions, stature of ancestors, type of occupation and amount of education, as well as other prestige yielding qualities.

Socio-economic status. The level indicative of both the social and the economic achievement of an individual or group.
Sociogram. A chart or diagram which portrays the social relationships of individuals in a particular group in terms of responses to stimulus questions on a sociometric test; frequently used in classroom situations to gain insight into the acceptability of each member to the other members of a group.

IV. PROCEDURE

There were ten steps used in gathering and compiling data, and in reporting this project. The first step was a review of the literature concerning the relationship of anxiety, pupil adjustment and its relationship to achievement.

The second step was selection of schools for the study. Selection was made after consulting with the Research Center and obtaining permission from the two building principals. The heavy load of research in the public school system was a main factor in the selection.

The third step was obtaining the occupational status ratings of the students selected for the study in both schools. These ratings were obtained by using language arts and social studies assignments for the purpose of gaining information about fathers' occupations.

Each student was assigned a short creative writing assignment which contained five questions relating to their
parents' occupations. Questions about both parents were included so that children from broken homes and those with only one parent would still feel a sense of belonging. The five questions used to motivate the language arts or social studies assignment were as follows:

1. Where does your father work?
2. What type of work does he do?
3. Does his job require special training or skill?
4. Where does your mother work?
5. Does her job require any special training or skills?

The information concerning fathers' occupations was used to determine occupational status by using a version of the Occupational Scale from the Warner Index of Status Characteristics. In order to obtain positive correlations the numbers were used in reverse order.

The fourth step was obtaining a peer acceptance rating. The peer acceptance instrument was a rating device on which every child rated every other child in his classroom on a friendship basis. This rating was done with rank-order. The rating scale was a modification of the Ohio Social Acceptance Scale.

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The authors have tried to ensure validity of the ratings through protecting children's anonymity and by defining each rating so that all pupils will interpret it in much the same way. Ratings were summarized in such a way as to indicate each child's average social acceptance in the group.

The fifth step involved ratings by teachers using the **Rating Scale for Pupil Adjustment** (Science Research Associates). The homeroom teacher, for each classroom in the study, rated each child on five "adjustment items." Ratings for four items provided a total adjustment rating and the fifth one was a rating of school conduct.

The sixth step was obtaining anxiety scores. The instrument used was the **General Anxiety Scale for Children**. This forty-five item "Yes" and "No" response test was administered by the homeroom teacher on a tape recording. Directions were on the tape and children were instructed to listen carefully to each question and circle the responses on the answer sheets. A six second interval was used between questions.

The seventh step was determining achievement scores using the **Iowa Tests of Basic Skills**, Form 4. This information was taken from the sixth grade cumulative record file. The tests were given in February of 1966 during a four-day period.
The eighth step in gathering information was the intelligence measure. The *Otis Quick-Scoring Mental Ability Tests*, Beta Form EM, had been administered by the Junior High School Counselors during February and March of 1966. The scores for this test were obtained from the Special Services Department of the Cedar Rapids Community School District.

The ninth step was converting the students' ages to months. This information was obtained from the cumulative record files.

The tenth and final step was recording the fourteen variables in the study on large, oaktag charts to obtain the statistical data.

In order not to reveal the names of students involved in this study a number was assigned each student. Names of the two schools involved in the study were assigned letters of A and B, and will be identified as such in the following chapters. School A will be used to identify the Low social area and School B will be used to identify the High social area.

V. LIMITATIONS

This study was limited to four groups of sixth grade students in two socio-economic areas of Cedar Rapids, Iowa
for the school year of 1965-1966. One of the major limitations then would be that the limited number of students involved would determine to some extent the validity of this study.

In this study, the scores of the Otis Quick-Scoring Test of Mental Ability, Beta Form EM, have been used to determine the potential of the children in the study. The same problems have been present that are usually present in a testing situation. Such factors as home problems, illness, test phobia and the emotional climate during the test may have had a negative effect.

The Otis Test was given in February and March of 1966 to the children by the counselors of the junior high school which they will attend in the fall.

The anxiety scores were based on the General Anxiety Scale for Children. The problems involved were the personalities, self-attitudes and parent-child relationships of each student.

The School Conduct ratings were based on observations of behavior as judged by the teachers. The emotional adjustment of each child and the interpersonal relationship between pupil and teacher present in the classroom have had their influences. Each child has brought his own personality into these situations and has reacted in his own individual way.
The Iowa Tests of Basic Skills scores were based on standardized test scores of achievement. The problems present in a testing situation of several days were present. Such factors as attitude, reading ability, and general physical stamina during the test may have a great effect on the scores.

VI. LOCALE OF THE STUDY

In order that results may be more easily understood, a brief description of the community has been given here.

The Cedar Rapids Community School System consists of over 20,000 children located in a city of approximately 104,101 people from all social-economic class levels. At the present time there are twenty-eight elementary schools with classrooms from kindergarten through sixth grade.

Industry, the largest employer in the district, attracts many scientific and technical trained workers. Employment opportunities are related to the rapid growth of the city in business and industry.
CHAPTER II

REVIEW OF LITERATURE AND RELATED RESEARCH

A review of the literature and related research is presented in this section. This review has been summarized in five major parts: (1) intelligence and achievement, (2) socio-economic status and school achievement, (3) pupil adjustment, (4) measuring social acceptance, and (5) anxiety and achievement.

I. INTELLIGENCE AND ACHIEVEMENT

A number of research workers have focused attention on the relationship among anxiety, academic achievement, and intelligence.

In one study of these relationships Keller and Rowley made a study of anxiety, intelligence and achievement in junior high school children. The subjects were seventh, eighth and ninth grade boys and girls in the Knoxville, Iowa Junior High School. They came from upper lower and lower middle class incomes. The tests used for this study of seventh and eighth grades were: (1) Children's Manifest

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Anxiety Scale, (2) Otis Quick Scoring Mental Ability Tests, (Beta), and (3) Stanford Achievement Tests.

The results showed low nonsignificant correlations between intelligence and anxiety scores. The correlations between scholastic achievement subtests and intelligence were positive and significant.

Similar results have been found by other investigators. A study of intermediate grade students by McCandless and Castaneda centered on anxiety, children's school achievement, and intelligence. The testing instruments used were the Children's Manifest Anxiety Scale, Iowa Every Pupil Tests, and the Otis Quick-Scoring Mental Ability Test, Form B.

The researchers concluded that both anxiety and the Lie Score from the Children's Form of the Manifest Anxiety Scale were related to school achievement. Anxiety was significantly related to intelligence for sixth grade girls. A small prediction of achievement by the anxiety score, over and above the predictive efficiency of intelligence alone, was found for sixth grade boys and girls.

The pattern of results indicates that children's ability to acquire knowledge is influenced not only by his achievement motivation but also by his anxiety.

II. SOCIO-ECONOMIC STATUS AND SCHOOL ACHIEVEMENT

Among the first to point out the educational implications that should be derived from a study of America's social classes was Warner. His studies stimulated other researchers.

Warner's division of social classes in the United States placed social rank in six or nine classes, from Lower-Lower to Upper-Upper.

Two suggestions in literature dealing with social stratification and its effect on American schools stressed new curriculums and better school-community relations.

Parental attitudes toward school may be influenced by economic considerations. Members of a cultural group share similar interests and attitudes and work together at the same kinds of jobs.

A Des Moines study conducted in 1955 related children's interests to socio-economic backgrounds to determine likenesses and differences which might exist at various levels of society. Foss concluded that interests of fifth and sixth grade children at different levels of society are similar.

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Several factors seem to be related to academic success and social class. Sewell and Haller did a factor analysis of the thirty personality test items which had been found to be most highly correlated with socio-economic status.\(^1\) Four factors explained the common variance among the items. These factors were tentatively identified as: (1) concern over status, (2) concern over achievement, (3) rejection of family, and (4) nervous symptoms. They concluded that there seems to be a tendency for children who are concerned about their social status to worry about their achievement, to reject their families and to display nervous symptoms. The evidence from this study points to the fact that these characteristics are more common among lower than higher status children.

III. PUPIL ADJUSTMENT

This section presents the role of pupil adjustment and its place in the total pattern of personality development.

The learning process can break down at a number of points. A person learns many different kinds of responses.

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Adaptation and adjustment are progressive processes. It has been pointed out by McDowell that failures in adjustment may take place at all levels of personality as follows:

A child who is physically weak has difficulty in acquiring skills involving strength. The child who is not intellectually bright may have difficulty adjusting to the requirements of schooling. Inadequate concepts or inappropriate attitudes are potential sources of maladjustment. Failure to learn roles or being required to enact incompatible roles may result in maladjustment. Finally, a discrepancy between how one sees himself and how others see him is a potential source of maladjustment. The individual may have to learn new modes of responding to himself and to his environment. He may have to learn new concepts, attitudes, or roles, or he may have to revise his self-concept in order to obtain need-satisfaction in socially acceptable ways.¹

There are many factors which contribute to successful role adjustment. McDonald has listed the following: (1) the extent to which the learner is likely to obtain need satisfactions by acquiring role expectations and behavior; (2) the availability of relevant information on role expectations; (3) the extent to which the learner can transfer other learned response patterns to the learning of the role. Role adjustment is particularly difficult when role expectations are not clearly defined or when there are conflicting conceptions of the role.²

²Ibid., p. 483.
The school has the responsibility for identifying children's personal and social adjustment problems in the classroom. Observation of pupil behavior is a common technique practiced by teachers. There are several factors in using the observational method. McDonald has itemized these problems for observing what pupils do in and out of the classroom as follows: (1) obtaining a representative sample of behavior; (2) the "lapse in time" allows the influence of selective forgetting to affect the kinds of observations that are recorded; and (3) frequently the behavior to be observed is not adequately defined.\footnote{\textit{Ibid.}, p. 558.}

Semler,\footnote{Ira J. Semler, "Relationships among Several Measures of Pupil Adjustment," \textit{Journal of Educational Psychology}, LI (1960), 60-64.} of the University of Texas, completed a study from which he determined the patterns of interrelationships among three separate approaches to the measurement of adjustment. Two measures of "peer acceptance" were used, one of which was the \textit{Ohio Social Acceptance Scale}. The California Test of Personality provided "self-description" scores. Teacher ratings of pupil adjustment were obtained using the Science Research Associates' \textit{Rating Scale for Pupil Adjustment} on Items I, II, VI, VII, and XI.

Additional measures of adjustment included achievement scores from the \textit{Stanford Achievement Test} and intelligence...
quotients based on the *Otis Quick Scoring Mental Ability Tests*.

Teacher ratings were obtained before classroom testing to prevent rater contamination from knowledge of other adjustment measure results.

Results showed all correlations involving teacher ratings of same sex pupils' adjustment were reliably different from zero at the .05 level of confidence, whereas only one correlation, teacher ratings of opposite sex pupils' adjustment, was significantly different from zero.

**IV. MEASURING SOCIAL ACCEPTANCE**

A number of worthwhile sociometric studies of social relationships in the classroom have been completed since 1940.

Young made a study of social status and sociometry in the elementary schools in 1947.\(^1\) This researcher used controlled interviews about the school, the *Ohio Social Acceptance Scale*, and a "guess-who" technique, in addition to a standard sociometric test. A rank order correlation of .90 was obtained between the sociometric test and the *Ohio Social Acceptance Scale*.

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Young concluded that the same factors which entered into a child's choice of friends influenced his selecting them for games and class officers.

In another study of relationships between achievement and sociometric status, Buswell in 1953 used 300 fifth grade pupils. 1

This research project used a number of standardized tests, including the Stanford Binet, the Iowa Tests of Basic Skills, and the Ohio Social Acceptance Scale. A sociometric test of best-liked peers was also used in this project. The study stressed relationships between how a learner performs intellectually in class and his relationship with peer groups.

The highly accepted group, as identified and perceived by their peers, was significantly higher than the rejected group in mean achievement. It appeared that achievement is related to social acceptability and, in fact, that acceptability by peers is founded in many instances on the learner's achievement.

V. ANXIETY AND ACHIEVEMENT

Special questionnaires have been devised to measure children's anxiety. Some of the questions have related to

1Ibid., pp. 690-691.
school performance and others to sources of fear. Although different scales have been used with different groups of elementary school children, the results are similar.

Castaneda, McCandless, and Palermo of the Iowa Child Development Research Center have conducted many projects using the Children's Form of the Manifest Anxiety Scale. This scale adapted for children uses similar items of the Taylor Anxiety Scale for Adults. The forty-two item test attempts to measure manifest anxiety in children, using items based on the subjective experiences and symptoms that accompany the disturbance. Many of their studies have compared anxious children with less disturbed children. The scale includes eleven items, which if answered "no," contribute to the Lie Scale Score.

Sarason and his colleagues, at Yale University, completed six years of research on anxiety in children of elementary school age, in 1960. They developed the Test Anxiety Scale for Children, hereafter referred to as the TASC Scale. This scale consisted of thirty questions, using "yes" and "no" type answers.

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This team also developed the General Anxiety Scale for Children, hereafter referred to as the GASC Scale. This scale contained forty-five "yes" and "no" type questions. The two scales were designed to be administered in one sitting with a drawing task interspersed between.

The main research studies of the two scales involved:

1. High anxious and low anxious children
2. Mental abilities tests
3. An English-American study
4. Relationships between test anxiety and social class
5. Parental attitudes
6. Emotional adjustment
7. Aggression
8. Personality factors and sex differences.

The Lie Scale consists of a series of eleven items embedded in the GASC. It includes items of anxiety feelings, and unhappiness listed along with the numbers indicating each item's position:

4. Do you ever worry about knowing your lessons?
8. Do you ever worry about what other people think of you?
12. Do you ever worry that you won't be able to do something you want to do?
16. When you were younger, were you ever scared of anything?
20. Have you ever been afraid of getting hurt?
25. Has anyone ever been able to scare you?
26. Do you ever worry about something bad happening to someone you know?
33. Are you ever unhappy?
37. Do you ever worry about what is going to happen?
41. Have you ever had a scary dream?
45. Do you ever worry?

Several conclusions were reached in research on the two scales where evidence from more than one study was available.

1. The most consistent sex difference is that girls get higher scores than boys on both the TASC and the GASC. The difference between boys and girls on the GASC is greater than the difference on the TASC. This pattern of differences was obtained both in England and America.
2. Girls consistently obtain lower lie scores than boys.
3. In several studies involving problem-solving in non-classroom situations, there were no differences between High Anxious boys and girls.
4. Using a school achievement criterion (grades) one again obtains the expected differences between High Anxious and Low Anxious boys (LA > HA) but not between High Anxious and Low Anxious girls.
5. In those studies relevant to personality and development a much clearer picture emerges in the case of High Anxious boys as compared to the High Anxious girls. Put most briefly, whatever factors reflect or are conducive to the development of anxiety are more frequently found with High Anxious boys than High Anxious girls.
6. The results of several studies involving the two scales show the correlations of both the TASC and the GASC with IQ and the lie scale remain comparable. The test-retest correlations range from .55 to .78 for the TASC and from .67 to .72 respectively.

Feldhusen and Klausmeier completed a study to extend and clarify the work of Sarason and of McCandless, Castaneda and Palermo with children of elementary school age. The

1Ibid., pp. 111-112. 2Ibid., pp. 250-251.
3Ibid., p. 301.
4John F. Feldhusen and Herbert J. Klausmeier, "Anxiety
study centered around the relation between anxiety as measured by test and Intelligence Quotient and between anxiety and school achievement in children of low, average, and high Intelligence Quotient.

Forty children with Intelligence Quotients of fifty-six to eighty-one, forty children with Intelligence Quotients of ninety to 110, and forty children with Intelligence Quotients of 120 to 146 were used as subjects.

Researchers concluded greater mean anxiety was found in the low intelligence group than in the average or high. The correlation between anxiety and intelligence was significant in the average Intelligence Quotient group. Eight correlations of anxiety with intelligence and achievement scores for boys and girls were negative and significant at the 1 per cent level, but mean anxiety level for girls was significantly higher than for boys.

Cox\(^1\) made a study of 266 children in the fourth and fifth grade in two middle class schools in Canberra, Australia. This study had three purposes: (1) to investigate

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\(^1\) F. N. Cox, "Educational Streaming and General Test Anxiety," Child Development, XXXI (June, 1962), 382-389.

and Achievement in Children of Low, Average, and High Intelligence," Child Development, XXXIII (June, 1962), 403-409.
some effects that educational streaming practices have upon scores on the Yale General and Text Anxiety Scales, (an instrument in which drive and habit variables are confounded), (2) to continue an analysis of the relation between the two scales, and (3) to provide further evidence of the validity of both scales.

Children were divided into "superior" and "inferior" educational streams (subgrades) on the basis of academic records of previous years. Three predictions for this sample were: (1) positive correlations between scores on the two scales; (2) that within a school grade there would be a negative relation between level of subgrade and test anxiety; and (3) that general anxiety scores would be independent of educational streaming practices.

Results were similar to other studies on anxiety in America. Test anxiety scores increased with grade and girls obtained higher scores than boys on both anxiety scales. These findings provide further evidence for the validity of the Yale General Anxiety Scale.

Several kinds of conclusions may be drawn from this chapter:

1. Most children of school age are motivated to gain peer-group acceptance.
2. Peer-group status is related to achievement.
3. Teacher observation of pupils helps to locate problem areas.

4. Academic success is related to social class.

5. Intelligence as measured by standard intelligence test is closely related to success in schoolwork.

6. Children's abilities to solve problems and acquire knowledge are influenced by achievement motivation and anxiety about intellectual activities.
CHAPTER III

THE PRESENTATION OF THE STUDY

I. INTRODUCTION

This chapter will report the various steps made in the development of the study which have been outlined in the procedures in Chapter I. The steps developed in this chapter will be steps three through ten.

II. MATERIALS AND METHODS USED IN GATHERING AND COMPILING DATA

The ratings for Occupational Status were obtained by using language arts and social studies assignments for the purpose of gaining information about fathers' occupations.

Each student was assigned a short creative writing assignment which contained five questions relating to their parents' occupations. Five questions were used to motivate the language arts or social studies assignments.

The information concerning fathers' occupations was used to determine occupational status by using a version of the Occupational Scale from the Warner Index of Status Characteristics.\(^1\) The distributions of status ratings of

\(^1\)Warner, *op. cit.*, p. 140.
fathers' occupations for the two schools are reported in Table I. This table shows that the status rating of fathers' occupations were much higher in School B than in School A. Over half the fathers in School B had occupation ratings higher than any father in School A.

TABLE I

DISTRIBUTION OF STATUS RATINGS OF FATHERS' OCCUPATIONS FOR SIXTH GRADE IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS

<table>
<thead>
<tr>
<th>Rating</th>
<th>School A</th>
<th>School B</th>
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<tbody>
<tr>
<td>7 (high)</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>1 (low)</td>
<td>8</td>
<td>0</td>
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N=42 N=62

In order to present the differences between girls and boys in School A and School B in all areas, a table of status ratings for girls and boys is given in Table II.
Peer acceptance rating. The ratings were obtained by a peer acceptance instrument on which every child rated every other child in his classroom on a friendship basis. This rating was done with rank-order being assigned to the six questions on the scale.

The rating scale was a modification of the Ohio Social Acceptance Scale. This rating scale for intermediate grades required very little time to administer. Children were given
a separate sheet of paper with the names of every student in his class. The boys' and girls' names were listed alphabetically in two long rows. Each child was given a copy of the scale to read silently as the teacher read orally. Each child received help where extra interpretation of words or phrases was needed.

The directions instructed the students to put a circle in front of their name and to write "Girl" at the top of their paper if student was a girl, or "Boy" if student was a boy. Before children indicated any reactions, they were told that nobody would know how they marked their papers. The important item stressed, involved putting a number in front of every name except one's own. The papers were collected and shuffled at the end of twelve minutes.

Different colors of paper were provided for answer sheets. In each school, the colors of green and yellow were used. This added interest to the exercise and aided the investigator in keeping the class groups separate.

The test consisted of six paragraphs with the numbers one to six assigned as values. The modification involved assigning Paragraph one (Very, very best friends) a weight of six. Paragraph six (Dislike them) was assigned a weight of one. The most popular child would have the highest score in this system when the scores were tallied. The scores
were recorded on a class summary sheet with the children's names alphabetized under the headings of "boys" and "girls" to correspond with the answer sheets. The scores were recorded from each answer sheet for each child individually. This method of recording scores reduces the number of errors. Each child's scores were added to obtain a raw score and divided by the number of children in the room minus one, to obtain the total individual score.

Several inferences may be drawn from these results among peers. Children of this school age chose others of their own sex almost exclusively. These friendships had little relationship to academic achievement. Girls with a measure of social maturity and somewhat alike in height tended to include boys as their (Very, very best friends).

Table III reports the mean scores of Peer Acceptance Ratings for the two schools. The results for the two schools are very similar.

Teacher ratings were obtained by the Rating Scale for Pupil Adjustment (Science Research Associates). Individual conferences with the homeroom teachers preceded the ratings. Agreements regarding the definitions for each of the five items and the method to be used were discussed.

The teacher raters were asked to compare individual pupils with "all" pupils of "his own age" and not merely with
TABLE III
MEAN SCORES FOR THE OHIO SOCIAL ACCEPTANCE SCALE
FOR SIXTH GRADES IN TWO SELECTED CEDAR RAPIDS
ELEMENTARY SCHOOLS

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>22</td>
<td>3.96</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>3.87</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>33</td>
<td>3.95</td>
</tr>
<tr>
<td>Girls</td>
<td>29</td>
<td>3.88</td>
</tr>
</tbody>
</table>

other pupils in his class. The directions stressed rating each item without considering any other item, and completing Item I, for each child before moving on to Item II.

A three week period of time was requested by the teacher raters to complete the task. Since the intermediate grades were departmentalized, each homeroom teacher wanted ample time to observe the students' personal and social development in a wide variety of situations.

Teacher raters in School A worked with both sections of sixth grade students each day. They rated each child in their homeroom as they observed them. They exchanged rating
sheets and rated the other section to see whether a child had a different rating because of subject matter.

Their ratings were approximately the same except for Item XI, School Conduct. An explanation for this difference in scores, perhaps relates to motivation and interest in music and physical education as opposed to motivation and interest in the language arts or social studies area.

Teacher raters in School B worked with homeroom groups on a half-day basis in the area of language arts and social studies. They did not come in contact with the other group in the study so no comparisons of ratings were made.

The Rating Scale consisted of five items: (1) Overall Emotional Adjustment; (2) Social Maturity; (3) Emotional Security; (4) Impulsiveness; and (5) School Conduct. Each area had five weights, ranging from A (high) to E (low). The rater put a check mark for the correct rating, A, B, C, D, and E in the correct answer box. The score for the scale varied with the number of the item. The ratings for the sliding scale were as follows:

Number of A ratings for items I, II, VI, and VIII multiplied by 5

Number of B ratings for items I, II, VI, and VIII multiplied by 4

Number of C ratings for items I, II, VI, and VIII multiplied by 3
Number of D ratings for items I, II, VI, and VIII multiplied by 2

Number of E ratings for items I, II, VI, and VIII

The score was then totaled for a total score for the area of pupil adjustment.

The School Conduct area was rated in the same manner from A (Exceptionally good conduct) to E (Very inadequate conduct). Each letter was assigned a number weight to obtain a score. A (five points), B (four points), C (three points), D (two points), and E (one point). Each student was assigned a number from one to five on the scale for his total school conduct score.

Table IV shows the differences in Pupil Adjustment means for the two schools. Girls in School B show higher Pupil Adjustment and School Conduct scores than boys in School B. Scores for both boys and girls in School A are similar.

Anxiety scores were obtained by using the General Anxiety Scale for Children. This forty-five item scale was used to obtain a measure of drive for children of the same sex. The test was recorded three times on a tape recorder. Each time a special area was stressed. Special attention was given to voice quality, directions, and intervals between questions. The final tape used in this study was approximately twenty-five minutes in length. This included the
### TABLE IV

**MEAN SCORES FOR RATING SCALE FOR PUPIL ADJUSTMENT FOR SIXTH GRADE IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS**

<table>
<thead>
<tr>
<th>Schools</th>
<th>Totals</th>
<th>Pupil Adjustment Items I, II, VI and VIII</th>
<th>School Conduct Item XI</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>22</td>
<td>12.81</td>
<td>3.22</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>12.60</td>
<td>3.60</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>33</td>
<td>14.48</td>
<td>3.72</td>
</tr>
<tr>
<td>Girls</td>
<td>29</td>
<td>17.03</td>
<td>4.55</td>
</tr>
</tbody>
</table>

Time allowed for directions.

The tape recorder was used for two reasons: (1) the scale could be administered when the class had perfect attendance; and (2) it eliminated questions or voluntary explanations to the children.

Anxiety Scales were administered in School A and School B within a two-week period of time. Students were instructed to write their names at the top of the answer sheet, and identify their sex by using a "B" for boy, or a "G" for girl. They were told the questions were about "how you think and feel" and, therefore, there were "no" right or
wrong answers. A child's score on the scale was the number of times he encircled "yes" on his answer sheet.

The Lie Scale contained eleven items scattered throughout the GASC. The Lie Scale was designed to include only those items concerning admissions of a child, or denial of feelings of anxiety or unhappiness. A child's Lie Score was the number of times he answered "yes" on the eleven items. The Lie Scale was reviewed in Chapter II.

Results show that the General Anxiety Scale for Children is not related to social class. Scores were related to the same sex.

Table V shows the mean scores for the General Anxiety and Lie Scale scores for both schools. Girls in both schools show high anxiety and Lie Scale scores. Boys in both schools received lower anxiety and Lie Scale scores.

Achievement was determined by the Iowa Tests of Basic Skills, Form 4. The tests were given in February of 1966 by the homeroom teachers and teachers of basic subjects. The four areas of the test included Test V (Reading Vocabulary), Test R (Reading Comprehension), Test L (Language Skills), Test W (Work Study Skills), and Test A (Arithmetic).

Table VI presents grade equivalent scores for the Test Composite. Girls in School B achieved higher than boys in School B in over-all school achievement. Boys in School A achieved slightly higher than girls in School A.
# Table V

Mean scores for the General Anxiety Scale and Lie Scale for Sixth Grade Boys and Girls in Two Selected Cedar Rapids Elementary Schools

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total</th>
<th>Anxiety</th>
<th>Lie Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>22</td>
<td>18.18</td>
<td>8.59</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>29.65</td>
<td>9.60</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>33</td>
<td>19.30</td>
<td>8.93</td>
</tr>
<tr>
<td>Girls</td>
<td>29</td>
<td>25.41</td>
<td>9.55</td>
</tr>
<tr>
<td>Median Scores</td>
<td>School A Boys</td>
<td>School A Girls</td>
<td>School B Boys</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>93-97</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>88-92</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>83-87</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>78-82</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>73-77</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>68-72</td>
<td>5</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>63-67</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>58-62</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>53-57</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>48-52</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>43-47</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>38-42</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>33-37</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
<td><strong>20</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>
Mean scores in Table VII show that girls in School B achieved as much as two years above girls in School A in Reading Comprehension, Language Skills, Arithmetic, and Reference Skills.

**TABLE VII**

**MEAN AND STANDARD DEVIATIONS OF PUPIL SCORES FOR IOWA TESTS OF BASIC SKILLS FOR SIXTH GRADE GIRLS IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS**

<table>
<thead>
<tr>
<th>Achievement Variables</th>
<th>School A Mean</th>
<th>s.d.</th>
<th>School B Mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading V</td>
<td>5.81</td>
<td>1.08</td>
<td>7.51</td>
<td>1.77</td>
</tr>
<tr>
<td>Reading R</td>
<td>5.64</td>
<td>1.24</td>
<td>7.65</td>
<td>1.44</td>
</tr>
<tr>
<td>Language Skills</td>
<td>6.26</td>
<td>1.58</td>
<td>8.28</td>
<td>1.34</td>
</tr>
<tr>
<td>Reference Skills</td>
<td>5.97</td>
<td>1.40</td>
<td>8.05</td>
<td>1.11</td>
</tr>
<tr>
<td>Composite</td>
<td>5.87</td>
<td>1.11</td>
<td>7.80</td>
<td>1.21</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>20</strong></td>
<td></td>
<td><strong>29</strong></td>
<td></td>
</tr>
</tbody>
</table>

Mean scores in Table VIII indicate that boys in School B achieved one year above those in School A in Language Skills and Arithmetic, but the achievement of the two groups of boys is identical in Reading Comprehension. The Standard Deviation of School A was higher, however, in every category than that of School B.
<table>
<thead>
<tr>
<th>Achievement Variables</th>
<th>School A Mean</th>
<th>s.d.</th>
<th>School B Mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading V</td>
<td>6.85</td>
<td>1.73</td>
<td>7.09</td>
<td>1.40</td>
</tr>
<tr>
<td>Reading R</td>
<td>6.78</td>
<td>1.50</td>
<td>6.78</td>
<td>1.09</td>
</tr>
<tr>
<td>Language Skills</td>
<td>6.34</td>
<td>1.66</td>
<td>7.34</td>
<td>1.37</td>
</tr>
<tr>
<td>Reference Skills</td>
<td>6.65</td>
<td>1.34</td>
<td>7.59</td>
<td>1.28</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>6.15</td>
<td>1.44</td>
<td>7.23</td>
<td>0.99</td>
</tr>
<tr>
<td>Composite</td>
<td>6.57</td>
<td>1.40</td>
<td>7.20</td>
<td>1.08</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td></td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

Intelligence Quotients were obtained by using the Otis Quick-Scoring Mental Ability Test, Beta Form EM. The tests were administered to all sixth grade children in the city during February and March of 1966. The tests were given by the counselors of the junior high school which they will attend in the fall.

Table IX shows the distribution of Intelligence Quotients of the Otis Quick-Scoring Mental Ability Tests, Beta Form EM. Students in School B scored higher than students in School A.
### TABLE IX

**DISTRIBUTION OF INTELLIGENCE SCORES FOR SIXTH GRADE IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS**

<table>
<thead>
<tr>
<th>Intelligence Quotients</th>
<th>School A</th>
<th>School B</th>
</tr>
</thead>
<tbody>
<tr>
<td>138-144</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>133-137</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>128-132</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>123-127</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>118-122</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>113-117</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>108-112</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>103-107</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>98-102</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>93-97</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>88-92</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>83-87</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>78-82</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>73-77</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>68-72</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>
Table X shows the distribution of intelligence scores for boys and girls in the two schools. Girls in School B scored higher than boys in School B. Boys in School A scored higher than girls in School A.

**TABLE X**

**DISTRIBUTION OF INTELLIGENCE SCORES FOR BOYS AND GIRLS FOR SIXTH GRADE IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS**

<table>
<thead>
<tr>
<th>Intelligence Quotients</th>
<th>School A Boys</th>
<th>School A Girls</th>
<th>School B Boys</th>
<th>School B Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>138-144</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>133-137</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>128-132</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>123-127</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>118-122</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>113-117</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>108-112</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>103-107</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>98-102</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>93-97</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>88-92</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>83-87</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>78-82</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>73-77</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>68-72</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>22</strong></td>
<td><strong>33</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>
There were no intelligence quotients available for three boys in School B. A mental ability score obtained from the same test given in fifth grade was substituted for one student. The missing scores for the other two students in the same classroom were due to their transferring from out of state after the tests were given. The mean score for the class was used as an intelligence quotient for the missing scores.

Ages of the students were converted to months to obtain one age score. Table XI shows the mean age span for boys and girls in both schools. Girls in School A were older than boys in School A. Boys in School B were older than girls in School B. The mean age for School B was 134.01 or eleven years and two months. The mean age for School A was 139.92 or eleven years and seven months.

The investigator used three sheets of oaktag twenty-four by thirty-six inches in length for recording the data. Each chart was ruled off in one-half inch spaces to allow ample space for recording numbers. The boys' results were recorded at the top of each sheet. Five-inch spaces separated the boys' scores from the girls' scores on each chart.

The results were recorded and means were obtained by using the formula: \( M = \frac{\sum X}{N} \). The standard deviation was completed using the following basic formula:

\[
\sigma = \sqrt{\frac{\sum X^2}{N}}
\]
TABLE XI

MEAN AND STANDARD DEVIATIONS OF PUPIL AGES FOR SIXTH GRADE BOYS AND GIRLS IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total</th>
<th>Mean (Months)</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>22</td>
<td>139.63</td>
<td>11.14</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>140.25</td>
<td>13.43</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>33</td>
<td>135.54</td>
<td>10.56</td>
</tr>
<tr>
<td>Girls</td>
<td>29</td>
<td>132.27</td>
<td>7.40</td>
</tr>
</tbody>
</table>

The statistical data obtained in this study were reported to the Research Center of the Cedar Rapids Community School District. Statistical data compiled by this investigator were put on key punch cards and extra statistical data were obtained by computers. Arrangements for this service were made by the Research Center with the Computer Center of the State University of Iowa, Iowa City, Iowa.

III. THE FOLLOW UP

The information gathered on occupational status, Ohio Social Acceptance Scale, Rating Scale for Pupil Adjustment,
and the General Anxiety Scale for Children was reported to
the principals of the two schools in the study.

The investigator met with the two homeroom teachers in
each school after the statistical results were compiled. Gen-
eral information pertaining to individual classrooms was given
to the teachers.

Table XII summarizes the scores for all classrooms
combined. Students in School B have higher mean scores in
all variables except Anxiety and Social Acceptance. The mean
score for Anxiety is higher for School A than for School B.
The mean score for Social Acceptance is the same for both
schools.

A large difference in variables between schools was
in the area of Intelligence Quotients. A summary of the
Analysis of Variance is presented in Table XIII. Pupils in
School B scored considerably higher in this area than those
of School A. The intraclass correlation revealed that intel-
ligence differences are significant at the 1 per cent level
of confidence.
## Table XII

### Mean and Standard Deviations of Pupil Scores for Fourteen Variables for Sixth Grade in Two Selected Cedar Rapids Elementary Schools

<table>
<thead>
<tr>
<th>Variable</th>
<th>School A Mean</th>
<th>School A s.d.</th>
<th>School B Mean</th>
<th>School B s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>139.92</td>
<td>12.29</td>
<td>134.10</td>
<td>9.36</td>
</tr>
<tr>
<td>2. Intelligence Quotient</td>
<td>105.11</td>
<td>13.36</td>
<td>117.22</td>
<td>9.66</td>
</tr>
<tr>
<td>3. Social Class</td>
<td>2.11</td>
<td>0.79</td>
<td>5.04</td>
<td>1.41</td>
</tr>
<tr>
<td>4. Anxiety</td>
<td>23.64</td>
<td>8.99</td>
<td>22.16</td>
<td>6.81</td>
</tr>
<tr>
<td>5. Lie Scale</td>
<td>9.07</td>
<td>1.93</td>
<td>9.22</td>
<td>1.68</td>
</tr>
<tr>
<td>6. Adjustment</td>
<td>12.71</td>
<td>2.11</td>
<td>15.67</td>
<td>2.96</td>
</tr>
<tr>
<td>7. School Conduct</td>
<td>3.40</td>
<td>0.53</td>
<td>4.11</td>
<td>0.86</td>
</tr>
<tr>
<td>8. Social Acceptance</td>
<td>3.92</td>
<td>0.73</td>
<td>3.92</td>
<td>0.77</td>
</tr>
<tr>
<td>9. Reading (Test V)</td>
<td>6.36</td>
<td>1.55</td>
<td>7.28</td>
<td>1.60</td>
</tr>
<tr>
<td>10. Reading (Test R)</td>
<td>6.23</td>
<td>1.50</td>
<td>7.18</td>
<td>1.34</td>
</tr>
<tr>
<td>11. Language (Test L)</td>
<td>6.30</td>
<td>1.62</td>
<td>7.78</td>
<td>1.44</td>
</tr>
<tr>
<td>12. Work Study (Test W)</td>
<td>6.32</td>
<td>1.41</td>
<td>7.80</td>
<td>1.22</td>
</tr>
<tr>
<td>13. Arithmetic (Test A)</td>
<td>5.92</td>
<td>1.26</td>
<td>7.34</td>
<td>1.06</td>
</tr>
<tr>
<td>14. Composite Scores</td>
<td>6.24</td>
<td>1.32</td>
<td>7.48</td>
<td>1.18</td>
</tr>
</tbody>
</table>

| Total                     | N=42          |               | N=62          |
TABLE XIII

ANALYSIS OF VARIANCE OF INTELLIGENCE SCORES FOR SIXTH GRADE IN TWO SELECTED CEDAR RAPIDS ELEMENTARY SCHOOLS

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean of Squares</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>3669.987</td>
<td>3669.987</td>
<td>28.15160**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>102</td>
<td>13297.243</td>
<td>130.365</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>16967.231</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p < .01.
CHAPTER IV

SUMMARY AND CONCLUSIONS

The purpose of this study was to determine whether there was a relationship between a child's anxiety, pupil adjustment, and achievement; and to identify some beliefs and causes for differences at this age level.

A sample of four sixth-grade classrooms in two elementary schools was selected by the investigator after consulting with the Research Center of the school system and obtaining permission from the two building principals. The heavy load of research in the public school system was a main factor in the selection of the schools. A total of 104 children (fifty-three boys and fifty-one girls) enrolled in the four selected classrooms participated in this study. The cooperation of teachers and principals was excellent.

An occupational status rating was obtained by using language arts and social studies assignments for the purpose of gaining information about fathers' occupation. Information concerning fathers' occupation was used to determine occupational status by using a version of the Occupational Scale from the Warner Index of Status Characteristics.
Peer acceptance ratings were obtained by using a modification of the Ohio Social Acceptance Scale. This rating device involved every child rating every other child in his classroom on a friendship basis.

Pupil Adjustment was determined by using the Rating Scale for Pupil Adjustment (Science Research Associates). The homeroom teachers rated each child on five "adjustment items." A fifth item was for school conduct.

Anxiety scores were obtained by using the General Anxiety Scale for Children. This instrument was a forty-five item "yes" and "no" response test.

Achievement was determined by using the Iowa Tests of Basic Skills, Form 4. This information was gathered from the cumulative record file.

The Otis Quick-Scoring Mental Ability Tests, Beta Form EM, provided information for the intelligence measure. The scores were obtained from the Special Services Department of the Cedar Rapids Public Schools.

Students' ages were obtained from the cumulative record files and converted to months. This information and the data from the other instruments were put on large charts to obtain the statistical data.
I. SUMMARY

The following conclusions have been drawn by the writer from the standpoint of relating data to points stated in the problem.

1. There was a difference in the ages of students in School A and School B. The mean age for School A was 139.92 or eleven years and seven months. The mean age for School B was 134.01 or eleven years and two months.

2. One of the greatest differences in variables between schools was in the area of Intelligence Quotients. Pupils in School B scored considerably higher in this area than those of School A.

3. Status ratings of fathers' occupations were much higher in School B than in School A. Over one-half the fathers in School B had occupation ratings higher than any father in School A.

4. Girls showed high anxiety and Lie Scale Scores than boys in their respective schools.

5. Girls in School B showed higher Pupil Adjustment and School Conduct Scores than boys in School B. Scores for both boys and girls in School A are similar.

6. Results of Peer Acceptance Ratings for the two schools are very similar. These friendship scores had little relationship to academic achievement.
7. Achievement scores show that girls in School B achieved as much as two years above girls in School A in Reading Comprehension, Language Skills, Arithmetic, and Reference Skills.

8. Achievement scores show that boys in School B achieved one year above those in School A in Language Skills and Arithmetic, but the achievement of the two groups of boys was identical in Reading Comprehension.

II. CONCLUSIONS

School B students, who had higher intelligence scores, and parents of higher occupational scale had a slightly lower anxiety score and higher adjustment scores than School A students. School B students were younger in age and rated higher in school conduct. Achievement scores were above grade level in all areas.

Whether the rather wide difference in occupational scale of parents is responsible for the anxiety and adjustment score differences can only be conjectured.
BIBLIOGRAPHY

[Text begins with the name of the first author and continues]

While sitting in a room, the reader can see the page number 233930.
BIBLIOGRAPHY

A. BOOKS


B. PERIODICALS


C. UNPUBLISHED MATERIALS

APPENDIX

Pause. They say, "I am now going to read the last paragraph. Read silently to yourself, and then aloud. If you don't know the meaning of any word, raise your hand, and I will try to help you to understand its meaning."
THE OHIO SOCIAL ACCEPTANCE SCALE

Directions for Teachers

1. Provide each student with a sheet of paper on which is listed the name of every student in the class—or—Provide each student with a sheet of lined paper and, as you dictate, have the students write, in an orderly column, the name of every person in the class.

2. Then say: "When you have difficulty in arithmetic I try to help you. I help you with your writing, with your spelling, with reading and many other things. I also want to help you in making friends, in being good companions to other people. But to do this I must know how you feel about every boy and girl in this room and how each boy and girl feels about you. Hence, today we are asking you to tell us how you feel about the other boys and girls in this room. As soon as you have written how you feel about your classmates, all your papers will be shuffled so no one will know who filled out any certain paper."

3. "First, I want you to put a circle in front of your own name. Do that now. Put a circle in front of your own name. If you are a girl, write GIRL at the top of your paper. If you are a boy, write BOY at the top of your paper."

4. Pause. Then say: "I am now going to read the first paragraph. Read quietly to yourself as I read aloud. If you don't know the meaning of any word, raise your hand, and I will try to help you to understand the words."

5. Teacher reads PARAGRAPH SIX. After a slight pause she says:

"If that fits any person in our room, put the number SIX in front of every name that it fits."

6. Pause for a minute or two while the children are writing. Then read paragraph FIVE and say again:

"If that fits any person in our room, put the number FIVE in front of the name. Put the number FIVE in front of every name that it fits."
Pause while students are writing. Then read the next paragraph and continue this way until all paragraphs have been read.

7. Have the students turn their papers FACE DOWN, when they have finished the task. Remind them, several times, that there should be a number in front of every name. Give them time to read the paragraphs over again to themselves. Help them out where they need help in interpreting words or phrases.

8. When the papers have been collected, shuffle them up in front of the class, and emphasize very much the point that you will not know how anybody marked the papers; that nobody can ever find out how they marked their papers.
DIRECTIONS: On a separate sheet you will find the name of every student in your class. We want you to put a number in front of every name. The number you put down should be the number of one of the following paragraphs.

"My very, very, best friends."

I would like to have this person as one of my very, very, best friends. I would like to spend a lot of time with this person and would enjoy going places with this person. I would tell some of my troubles and some of my secrets to this person and would do everything I could to help this person out of trouble. I will give a number Six to my very, very best friends.

"My other friends."

I would enjoy working and being with this person. I would invite this person to a party, and would enjoy going on picnics with this person and our friends. I would like to talk and make and do things with this person. I would like to work with this person and I would like to be with this person often. I want this person to be one of my friends. I will give a number Five to every person who is my friend.

"Not friends, but Okay."

I would be willing to be on a committee with this person or to be in the same club. It would be all right for this person to be on the same team with me or to live in my neighborhood. I would be in a play with this person. I would just as soon work with this person in school. This person is not one of my friends, but I think this person is all right. I will put a number FOUR in front of the name of every person I think is all right.
"Don't know them."

I do not know this person very well. Maybe I would like this person, maybe I wouldn't. I don't know if I would like to be with this person. I will put a number THREE in front of the name of every person I don't know very well.

"Don't care for them."

I say "hello" whenever I meet this person around school or on the street, but I do not enjoy being with this person. I might spend some time with this person if I didn't have anything else to do, but I would rather be with somebody else. I don't care for this person very much. I will give number TWO to people I don't care for very much.

"Dislike them."

I speak to this person only when it is necessary. I do not like to work with this person and would rather not talk to this person. I will give a number ONE to every person I do not like.
### THE OHIO SOCIAL ACCEPTANCE SCALE
### CLASS SUMMARY SHEET

**Class Roster** | **Boys' and Girls' Judgments** | **Raw Score**
--- | --- | ---
**Boys - Girls** | | |
1. Aakin, James | 6 5 5 6 4 6 6 6 6 6 6 5 | |
2. | | |
3. | | |
4. | | |
5. | | |
6. | | |
7. | | |
8. | | |
9. | | |
10. | | |
**Girls** | | |
Jones, Mary | 4 5 5 5 5 6 4 6 4 4 4 | |

The total score is obtained by dividing the raw score by the number of students minus one.
THE GENERAL ANXIETY SCALE FOR CHILDREN

Directions:

I'm going to be asking you some questions—questions different from the usual school questions for these are about how you feel and so have no right or wrong answers. First I'll hand out the answer sheets and then I'll tell you more about the questions.

Write your name at the top of the first page, both your first and your last names. Also write a B if you're a boy or a G if you're a girl.

As I said before, I am going to ask you some questions, No one but myself will see your answers to these questions, not your teacher or your principal or your parents. These questions are different from other questions that you are asked in school. These questions are different because there are no right or wrong answers. You are to listen to each question and then put a circle around either "Yes" or "No." These questions are about how you think and feel and, therefore, they have no right or wrong answers. People think and feel differently. The person sitting next to you might put a circle around "yes" and you may put a circle around "no." For example, if I asked you this question: "Do you like to play ball?" Some of you would put a circle around "yes" and some of you would put it around "no." Your answer depends on how you think and feel. These questions are about how you think and feel about school and about a lot of other things. Remember, listen carefully to each question and answer it "yes" or "no" by deciding how you think and feel. If you don't understand a question, ask me about it.

Now let's start by everybody putting their finger on Number 1. Here is the first question. Number 1. "When you are away from home, do you worry about what might be happening at home?"

1. When you are away from home, do you worry about what might be happening at home?

2. Do you sometimes worry about whether (other children are better looking than you are?) (your body is growing the way it should?).

3. Are you afraid of mice or rats?

4. Do you ever worry about knowing your lessons?

5. If you were to climb a ladder, would you worry about falling off it?

6. Do you worry about whether your mother is going to get sick?

7. Do you get scared when you have to walk home alone at night?

8. Do you ever worry about what other people think of you?

9. Do you get a funny feeling when you see blood?

10. When your father is away from home, do you worry about whether he is going to come back?

11. Are you frightened by lightning and thunderstorms?

12. Do you ever worry that you won't be able to do something you want to do?

13. When you go to the dentist, do you worry that he may hurt you?

14. Are you afraid of things like snakes?

15. When you are in bed at night trying to go to sleep, do you often find that you are worrying about something?

16. When you were younger, were you ever scared of anything?

17. Are you sometimes frightened when looking down from a high place?
18. Do you get worried when you have to go to the doctor's office?

19. Do some of the stories on radio or television scare you?

20. Have you ever been afraid of getting hurt?

21. When you are home alone and someone knocks on the door, do you get a worried feeling?

22. Do you get a scary feeling when you see a dead animal?

23. Do you think you worry more than other boys and girls?

24. Do you worry that you might get hurt in some accident?

25. Has anyone ever been able to scare you?

26. Are you afraid of things like guns?

27. Without knowing why, do you sometimes get a funny feeling in your stomach?

28. Are you afraid of being bitten or hurt by a dog?

29. Do you ever worry about something bad happening to someone you know?

30. Do you worry when you are home alone at night?

31. Are you afraid of being too near fireworks because of their exploding?

32. Do you worry that you are going to get sick?

33. Are you ever unhappy?

34. When your mother is away from home, do you worry about whether she is going to come back?

35. Are you afraid to dive into the water because you might get hurt?

36. Do you get a funny feeling when you touch something that has a real sharp edge?

37. Do you ever worry about what is going to happen?
38. Do you get scared when you have to go into a dark room?

39. Do you dislike getting in fights because you worry about getting hurt in them?

40. Do you worry about whether your father is going to get sick?

41. Have you ever had a scary dream?

42. Are you afraid of spiders?

43. Do you sometimes get the feeling that something bad is going to happen to you?

44. When you are alone in a room and you hear a strange noise do you get a frightened feeling?

45. Do you ever worry?
ANSWER SHEET FOR GENERAL ANXIETY SCALE

1. YES NO
2. YES NO
3. YES NO
4. YES NO
5. YES NO
6. YES NO
7. YES NO
8. YES NO
9. YES NO
10. YES NO
11. YES NO
12. YES NO
13. YES NO
14. YES NO
15. YES NO
16. YES NO
17. YES NO
18. YES NO
19. YES NO
20. YES NO
21. YES NO
22. YES NO
23. YES NO
24. YES NO
25. YES NO
26. YES NO
27. YES NO
28. YES NO
29. YES NO
30. YES NO
31. YES NO
32. YES NO
33. YES NO
34. YES NO
35. YES NO
36. YES NO
37. YES NO
38. YES NO
39. YES NO
40. YES NO
41. YES NO
42. YES NO
43. YES NO
44. YES NO
45. YES NO
RATING SCALE FOR PUPIL ADJUSTMENT

Be sure to compare the pupil with others of his own age group. See Manual for further directions.

Name of Pupil _____________ School _____________ City ______
Age. Yrs. ____ Mos. ____ Group ______ Rated by ________
Position ______________________ Date ____________________

I. Over-all Emotional Adjustment
   (Definition: Total emotional adequacy in meeting the
daily problems of living as shown in school.)
   A. Very well adjusted  
   B. Well adjusted       A B C D E
   C. Moderately adequate adjustment
   D. Poorly adjusted
   E. Very poorly adjusted

II. Social Maturity
   (Definition: Ability to deal with social responsibili-
ties in school, in the community, and at home,
appropriate to his age.)
   A. Very superior social maturity
   B. Slightly superior social maturity
   C. Average social maturity
   D. Slightly inferior social maturity
   E. Very inferior social maturity

III. Tendency Toward Depression
   (Definition: Tendency toward pervasive unhappiness.)
   A. Generally very happy
   B. Moderately happy
   C. Occasionally unhappy
   D. Tendency toward depression
   E. Generally depressed
IV. Tendency Toward Aggressive Behavior  
(Definition: Overt evidence of hostility and/or aggression toward other children and/or adults.)

A. Rarely aggressive  
B. Occasionally aggressive  
C. Fairly aggressive  
D. Frequently aggressive  
E. Extremely aggressive  

ABCDE

V. Extroversion-Introversion  
(Definition: Tendency toward living outwardly and expressing his emotions spontaneously vs. tendency toward living inwardly and keeping emotions to himself.)

A. Extremely extroverted  
B. Characteristically extroverted  
C. About equally extroverted and introverted  
D. Moderately introverted  
E. Extremely introverted  

ABCDE

VI. Emotional Security  
(Definition: Feeling of being accepted by and friendly toward one's environment and the people in it.)

A. Extremely secure  
B. Moderately secure  
C. Only fairly secure  
D. Moderately insecure and apprehensive  
E. Extremely insecure and apprehensive  

ABCDE

VII. Motor Control and Stability  
(Definition: Capacity for effective coordination and control of motor activity of the entire body.)

A. Extremely good motor control and stability  
B. Moderately good motor control and stability  
C. Fair motor control and stability  
D. Moderately poor motor control and stability - restless, hyperkinetic  
E. Extremely poor motor control - markedly restless, hyperkinetic  

ABCDE
VIII. Impulsiveness
(Definition: Tendency toward sudden or marked changes of mood.)

A. Extremely stable in mood
B. Stable in mood
C. Usually stable - only infrequent and minor mood changes
D. Unstable in mood - shows marked mood changes on occasion
E. Extreme changes in mood - shows marked or sudden mood changes frequently

IX. Emotional Irritability
(Definition: Tendency to become angry, irritated, or upset.)

A. Usually good-natured
B. Good-natured - rarely irritable
C. Fairly good-natured - occasionally irritable
D. Moderately irritable - frequently shows moderate irritation
E. Extremely irritable - frequently shows marked irritation

X. School Achievement
(Definition: Over-all evaluation of pupil's competency in school subjects, relative to his own age group.)

A. Very superior
B. Slightly superior
C. Average
D. Slightly inferior
E. Inferior

XI. School Conduct
(Definition: Conduct in the classroom situation as evidence of his ability to accept the rules and regulations of the school community.)
A. Exceptionally good conduct
B. Superior conduct
C. Average conduct
D. Somewhat inadequate conduct - troublesome disciplinary problem
E. Very inadequate conduct - very serious disciplinary problem

A B C D E

XII. Below are listed a number of physical conditions which may handicap the child in some or all phases of his adjustment to school life. Place a cross in the parentheses to the right to indicate which conditions apply to this child. Feel free to add any relevant comments in the space labeled "Comments."

1. Unusually tall or his age ( )
2. Unusually short for his age ( )
3. Markedly overweight ( )
4. Unusually underweight or anemic ( )
5. Physical disfigurement (specify) ( )
6. Limitations in the movement of his arm(s) ( )
7. Limitations in the movement of his leg(s) ( )
8. Seriously impaired vision ( )
9. Seriously impaired hearing ( )
10. Poor heart condition ( )
11. Diseased lung condition ( )
12. Speech handicap (specify) ( )

Comments:

Number of A ratings for items I, II, VI, & VIII multiplied by 5
Number of B ratings for items I, II, VI, & VIII multiplied by 4
Number of C ratings for items I, II, VI, & VIII multiplied by 3
Number of D ratings for items I, II, VI, & VIII multiplied by 2
Number of E ratings for items I, II, VI, & VIII

Total Score