AN INVESTIGATION OF THE DULL-NORMAL CHILD'S ADJUSTMENT TO SCHOOL

THESIS FOR THE DEGREE OF Ph.D.

MICHIGAN STATE UNIVERSITY

BART MULFORD JAMES, JR.

1958

This is to certify that the

thesis entitled

An Investigation Of The
Dull-Normal Child's
Adjustment to School

presented by

Bart Bulford James Jr.

has been accepted towards fulfillment
of the requirements for

Ph.D degree in Guidance and
Counselor Training
Department of Administrative
and Educational Services

Walter F. Johnson
Major professor

Date October 24, 1958

O-169

AN INVESTIGATION OF THE DULL-NORMAL CHILD'S ADJUSTMENT TO SCHOOL

By

Bart Mulford James, Jr.

AN ABSTRACT

Submitted to the School of Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Administrative and Educational Services

Guidance and Counselor Training

1958

Approved Walter F. Johnson

ABSTRACT

The Problem

The primary purpose of this investigation was to obtain some measure of school adjustment of dull-normal children in junior high school. A secondary purpose of the study was to see if there was justification for the use of tests, designed for the normal population, with this group.

Two hypotheses were advanced relative to the purpose of the study. They were:

There is no significant relationship between certain selected tests of pupil adjustment and grade point average of children classified as dull-normal on the basis of group intelligence tests.

Further, there is no significant relationship between grade point average and teacher ratings of children classified as dull-normal on the basis of group intelligence tests.

Methodology and Sample

The group selected for this investigation were children in the Junior High Schools of Euclid, Ohio, who had scored in the dull-normal range of intelligence on the California Test of Mental Maturity. They were given tests that purported to measure adjustment and attitude towards school. Further information concerning adjustment was

sought in the cumulative record of each student in the form of teacher evaluations, grade point average, attendance, promotion, placement, retention, achievement, and extracurricular activities.

The test findings were treated statistically with the selected criterion variables of Grade Point Average and Teacher Rating being correlated with test scores and I.Q. scores.

Findings

Of the two hypotheses the first seems to be true, while the second one was rejected as there seemed to be some degree of relationship between the criteria variables of Grade Point Average and Teacher Rating.

When compared to test norms, this group of dull-normal children achieved scores which placed them in the average range of adjustment. There were variations between the boys and the girls groups with the girls scoring higher as a rule than either the boys or the total group on the tests and criteria variables.

The achievement levels of the group show that 26 per cent of the boys and 36 per cent of the girls were achieving higher grades than would be expected for their measured I.Q. They also showed an academic subject preference i.e. the manipulative type of subject over those of the reading type.

The attendance ratio of this group of dull-normal children was slightly better than that of the total school population. Extra-curricular activities seemed to have little relationship to school adjustment.

AN INVESTIGATION OF THE DULL-NORMAL CHILD'S ADJUSTMENT TO SCHOOL

By

Bart Mulford James, Jr.

A DISSERTATION

Submitted to the School of Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Administrative and Educational Services

Guidance and Counselor Training

1958

ACKNOWLEDGMENTS

The writer wishes to express his sincere appreciation to Dr. Walter F. Johnson, chairman of the Guidance Committee, for his unfailing support, continued encouragement and patience during the development of this investigation.

To Dr. Wellington G. Fordyce, Superintendent, Euclid, Ohio Public Schools, the writer appreciates his kind permission to conduct this study. To the principals of two junior high schools, Dr. Leonard E. Loos and Mr. Robert Holloway, the writer is indebted for their coeperation and assistance in permitting the use of their buildings and pupils. For active participation in testing the writer wishes to give recognition to Mr. Carl Enkler, Miss Lois Pond, and Mr. Melvin Robb, without whose freely given help, the test administration would have been most difficult.

For the judicious help given him by Mr. Ralph F. Blanco and Mr. Tyrus W. Wilson, psychologists, Euclid, Ohio, and Dr. Martin R. Baron, Kent State University, the writer is very grateful.

For his kind permission to adapt the Experimental Interest Index used in this study, as well as his interest in the selection of the other tests, the writer wishes to thank Dr. Harry W. Sundwall.

To the members of the Guidance Committee, Dr. Cecil N. Millard, Dr. Byron H. Van Roekel, Dr. Clyde M. Campbell, and Dr. Harry W. Sundwall, the writer is most appreciative of their interest and

counsel in the development of this investigation.

To Mr. Leonard B. Voorhees, Director of Pupil Personnel, Euclid Public Schools, for whose enthusiasm, sincere help and faith in this study, the writer expresses his thanks.

Finally, to my wife, whose fortitude and optimism have been sorely tried during the completion of this investigation, my sincere gratitude.

Bart Mulford James, Jr.

Candidate for the degree of

Doctor of Philosophy

Final Examination: October 24, 1958.

Dissertation: An Investigation of the School Adjustment of Dull-Normal Children

Outline of Studies:

Major Area: Guidance and Counseling

Minor Areas: Educational Psychology and Administration

Biographical Items:

Born: April 29, 1920, Bernardsville, New Jersey

Undergraduate Studies: University of Virginia
Seton Hall College
Lafayette College, A.B. 1948

Graduate Studies: Kent State University, M.A. 1950

Special Education:

War Dog School, Front Royal, Virginia, 1942; Advanced Instructors School, 1943; Pharmacists Mate Training, Chincoteague, Virginia, 1944.

Experiences:

Clerk, Little Falls Laundry, New Jersey, 1941; Specialist D, Instructor and Animal Handler, United States Coast Guard Reserve, 1942; Pharmacists Mate 3c, (Surgical and Dental Assistant), U.S.C.G.R., 1943-1946; Furniture Salesman, Easton, Pennsylvania, 1946; Case Historian, Greystone Park State Hospital, New Jersey, 1948; Student Clinician, Kent State University Psychological Clinic, Ohio, 1948; Psychological Intern, Stark County Guidance Center, Ohio, 1949; Psychological Intern, Summit County Receiving Hospital, Ohio, 1949; Clinical Psychologist, Hawthornden State Hospital, Ohio, 1950-1952; Graduate Assistant, Michigan State University, 1953-1954; Psychologist, Euclid Board of Education, Ohio, 1954-1958.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

In public schools at present, moderately successful programs and curricula have been devised to meet the needs of the retarded, average, and gifted child. There is a group of children whose educational needs have been for the most part, neglected: children who are between the retarded and the average and who range in I.Q. scores from 75 to 89--the so-called "dull-normal" group.

The Problem

Statement of the problem.--The primary purpose of the study was to obtain various measures of adjustment to school of dull-normal children in the junior high schools of Euclid, Ohio, during the 1956-1957 school year. The measures used to obtain the data were tests, teacher evaluations, and information from cumulative records.

A secondary purpose of the study was to investigate further whether certain tests developed for normal students could be used with children classified as dull-normal.

Importance of the study.--The dull-normal refers to the limitations of the capacity of an individual to learn. Individuals who fall in the category of dull-normal are not "types"; the dull-normal varies only in degree from the normal and is one whose measured ability places him toward the lower end of the distribution of intellectual traits. The dull-normal will go through relatively the same sequence of growth

development as others and will arrive at maturity commensurate with their potential. (5:2) However, upon arrival at maturity, they will not have reached the same level of performance as the brighter individual. (5:2) In all probability, this, the early leveling-off process, may affect in turn, their total adjustment.

Studies of the adjustment of groups of slow-learners, as compared with bright groups, indicate that bright pupils are a little better adjusted and the slow-learners a little less well adjusted than normal, but the differences while statistically significant, are small. (5:5)

One might assume that since school is a major factor in most children's lives, their experiences, favorable and unfavorable, including the curricular and extracurricular activities, will affect their adjustment to school and its environment. The child's perception of school springs from three sources: the home, the community and actual school experience. In addition, the child has the attitudes derived from these sources.

Accordingly, the school experience often determines the course of action taken by these dull-normals, there is no reason to believe that how they feel and behave in school is not important in their later life adjustment. Accompanying this is the thought that the adjustment to school is modifiable according to the experience of the individual and that this is related to his personal and social adjustment.

Hypotheses

There is no significant relationship between performance on certain selected tests of pupil adjustment and grade point average of children classified as dull-normal on the basis of group intelligence

tests.

Further, there is no significant relationship between grade point average and teacher ratings of general adjustment of children classified as dull-normal on the basis of group intelligence tests.

Definition of Terms Used

Dull-normal.--An individual who on a standardized test of intelligence obtains an I.Q. score of 75 to 89 which places him in the dull-normal range of intelligence.

Teacher ratings.--These are ratings made by the junior high school teachers recorded in the pupil's cumulative record, and the scaled values of the ratings were developed by the investigator according to the method described in Chapter III.

Attendance ratio.--Is the percentage of attendance determined by the number of days in attendance out of the total days in school.

Grade average.--The grade average is obtained from the pupil's grades in the subjects taken in junior high school. A detailed outline of the exact procedure employed for the calculation of the grade average will be found in Chapter III.

High, average and low achiever.--As used in this study refers to the generally accepted concept of earning school grades which are either in agreement or disagreement with the learning capacity of the individual. It is recognized that this may be difficult to assess accurately, and for purposes of this study only a general indication was necessary.

Retention, promotion and placement.--These conditions occur yearly in the pupil's school career and are affected by his achievement and adjustment.

Limitations of the Study

The selection of testing instruments purporting to measure general adjustment or adjustment to school was difficult. The majority of these testing instruments have been developed and used with children of normal intelligence. The norms for these tests were based upon the test results of children with greater average ability than the group measured here. However, these testing instruments were used with this group of dull-normal children because of the lack of special tests developed for the dull-normal group.

Further, to find testing instruments designed for the junior high school level that would meet the needs of the study was in itself impossible. Because nothing has been done to develop norms for the dull-normal population, these testing instruments cannot be used as criteria instruments, but rather are used as an experimental battery.

The validity of these testing instruments is subject to all of the objections raised with most testing instruments of this type. These are the use of similar tests as criteria or the judgments of "authorities" as criterion values when attempting to measure validity. Then, too, the so-called validity coefficients are in reality reliability coefficients. (8:316) Although these objections are recognized as limitations, the use of testing instruments as an experimental battery follow common use in experimental procedure.

Another limitation of this study is the nature of the data recorded in the cumulative folders was in many cases incomplete. This data included information concerning attendance, grade averages, teacher evaluations, and extracurricular activities. Although standard forms

are provided for reporting this information, they are not used by all teachers uniformly.

The sample is limited to children in the Euclid Public Schools, Euclid, Ohio. Further, only children in the junior high schools were used as the experimental group. In addition, some of the information collected and studied does not lend itself to statistical treatment, but does provide descriptive data which may permit greater understanding of the dull-normal group. In this category are such items as attendance, school progress including grade level promotion, placement and retention plus participation in extracurricular activities and interest in school subject areas.

Organization of Thesis

In Chapter II, a review of the literature related to study of the dull-normal will be given. The norm group and method used will be discussed in Chapter III, followed by an exposition of the results obtained in Chapter IV. The final Chapter will contain implications derived and a summary of the investigation.

CHAPTER II

REVIEW OF THE LITERATURE

In reviewing the literature pertaining to the dull-normal child, it was noted that many titles seemed to apply to this study; however, the majority, upon examination, proved to have little or no relationship to the problem under investigation. In short, studies concerning the school adjustment of dull-normal children, as far as the author could determine, are very sparse.

Hollingworth (7:52) in 1940 in her summary of the literature on "Personality Development as Related to Inferior Intelligence" in the Thirty-ninth Yearbook of the National Society for the Study of Education stated, "Because the methods of studying personality are still elusive, scientific observation on the phase of the development of inferior intellectual deviates has lagged."

As recently as 1951 Lightfoot stated, "A survey of the literature in Education and Psychology yielded meager results in regard to investigations bearing directly upon personality differences of bright and dull children." (12:17)

The points to be covered in this chapter are:

1. Definitions of intelligence and its relationship to adjustment.
2. The relationship of needs and adjustment.
3. Attitudes toward school.

4. Interest patterns.

5. Teacher ratings.

6. Personality and adjustment.

7. Recognition of need for further investigation.

In this investigation, the child is considered to be dull-normal because of certain intellectual limitations. These "limitations" are viewed by different authors in a variety of ways and, as seen by them, are accompanied by a variety of causes. Tredgold (20:170) in his book on Mental Deficiency, refers to "dull" children as a group who "suffer from imperfect development of a group of mental factors whose presence is requisite for scholastic learning. These children show no lack of common sense or social adaptiveness. They usually made good after school adjustment." He further wondered if this group was the result of a "delayed evolution of mental processes concerned with scholastic educability." Another point Tredgold makes about this group is, "scholastic success is associated with a 'defect' or 'excess' of the emotional attributes of the mind. In the former, there is a marked want of interest, a general indifference, and a lack of initiative; in the latter, there is pronounced emotional instability, impulsive behavior, lack of attention, and incapacity for sustained mental application." (20:171)

This latter statement of Tredgold might be well applied to present day individuals of this particular group of dull-normal children. However, it is felt that factors beyond a labeling a 'defect' or 'excess' of emotional attributes of the mind as being the causes for such behavior should be further identified. Study, observation, and analysis of factors affecting the dull-normal's environment is necessary for a

more complete understanding of the individual's adjustment to his environment.

This is brought out by Stoddard (17:252) in his statement of "almost any combination of reliable measures of the functions of (memory, reading, comprehension, reasoning ability, vocabulary, and general information) accompanied by clinical observation, will give fair prediction of academic success and of general ability to solve problems." Stoddard (17:253) goes on to say that, "the same conditions that lead to poor school work may yield low I.Q.'s; in fact, there is thus far no higher validity for mental testing than its tendency to parallel school achievement. Under cultural conditions that make school work dominant from ages six to eighteen and highly important at younger and older ages, this is to be expected." He also felt that for the child, the safe, prudent, approved life involves, most importantly, a constant familiarity with the three R's and their up-to-date companions. Intelligence, according to Stoddard, (17:259) "as a system of behavior manifestations, is culturally determined." In defining intelligence, Stoddard says:

> Intelligence is the ability to undertake activities that are characterized by: (1) difficulty, (2) complexity, (3) abstractness, (4) economy, (5) adaptiveness to a goal, (6) social value, and (7) the emergence of originals; and to maintain such activities under conditions that demand a concentration of energy and a resistance to emotional forces.

Edwards (3) views intelligence as "a function which we may define as 'flexibility' or 'versatility' of adjustment."

Sherman (15:3) in his book concerning intellectual deviations summarized the general definitions of intelligence by stating, "Some psychologists emphasized the capacity to learn as a criterion of intelligence; others believed that the ability to use abstract concepts

defined intelligence; and still others defined intelligence in terms of the adequacy with which an individual solves his problems." To this he adds the additional criteria of emotional stability, perseverant drives and an ability to withstand frustration and failure.

Adjustment is the one thread that runs through both explanations. This ability to adjust is dependent upon the original inherited structures and upon the modifications which have occurred during the lifetime of the child or the person.

In discussing the needs and their relationship to adjustment, Featherstone (5:8) feels that the needs of the dull-normal are as fundamental as the needs of other individuals, although the ways of meeting these needs are necessarily somewhat different. He requires adequate food, shelter, clothing, etc. His need for "status" is no different than those of other children, but the inability to recognize these needs through channels open to brighter children, motivates much of the behavior of the dull-normal. If the opportunity for self-direction is limited by either lack of ability or no close harmony with reality, it is likely that his basis for general behavior will be less rational.

"When a child feels good about going to school and sees his teachers as friendly and helpful adults, his emotional, intellectual, and social development is greatly facilitated." Eiserer goes on to say that if a child cannot make much sense out of school activities and they are not related to his needs, he probably will not feel good about school. This, in turn, will reflect upon the kind and quality of his learning. "School must meet other needs, i. e. social and personal, beyond the needs met by the deliberate school program." Further, the realism of youngsters leads them to rebel against responsibility that

is imposed upon them for activities which are not relevant or real to them. The attitudes toward school and teachers are learned mainly through interactions with people. (4)

With the curricula and other activities such as clubs, organizations, and other groups geared to the average child, the dull-normal individual may be forced by pressures and felt needs into competition with those of greater ability. The degree of success in these numerous endeavors is dependent upon an individual's ability to utilize his native and acquired capacity. If this is less than average, then problems of adjustment may ensue.

Lewis and McGeehee's (11) study of the interests of the mentally superior and retarded children shows interest patterns by measuring the various activities accomplished by both groups. They found that the lower group participated in more organized and unorganized sports, that participation in hobbies was twelve times less for this group than for the upper group, and that interest in housework, farm, or store work was the only area where the lower group exceeded the upper group. They also concluded that the lower group was less handicapped in learning situations that tend to minimize academic aspects of education and emphasize the activity and manual phases of the educational process.

The effect of teachers' rating, and this implies both quantitative and qualitative judgment of these dull-normal children, can be a factor in the school adjustment of these children.

Varner's article (21) concerning recognition and identification of the dull child shows that with age and length of time in school this ability to judge mentality is more difficult. In this study teacher's

judgments and ratings of dull and bright pupils were compared with test scores. The upper twentieth and the lower twentieth percentiles were used as the comparison groups in two grade levels, the second and eighth grades respectively. The interesting point related to this investigation was that teacher ratings of dull children, verified by test scores, was higher percentage-wise than their rating of bright children on both grade levels. However, the teacher's estimates were poor for special class selection and unreliable for the gifted children. Varner concludes that from this study of teachers' ability to select bright and dull children, inferences may be drawn as to their ability to select pupils according to other character traits.

Levinson's well drawn description of the "borderline" child serves as an introduction to the review of literature concerning the adjustment of the dull-normal group. (10:119)

> The child who is nearest the normal standard, the one whose intelligence quotient is from 75 to 85 is known as the borderline child.
>
> The borderline child presents the best prospects for education and yet he is the most pathetic and most unhappy of all retarded types. He is intelligent enough to realize that he is different and that makes him very sensitive. He feels he is unwanted because the other children won't play with him. They do more than that. They poke fun at him and call him names. They taunt him in the brutal way children often show toward those they consider inferior.
>
> No wonder that the borderline child feels that he "does not belong." No wonder that he becomes a problem child and falls an easy victim to every evil influence that makes him feel he is a somebody and can do something.
>
> The borderline child is frequently worse off than the more severely retarded child because he is placed either with children above his mental level, which thwarts him, or with children below his mental level, which degrades him. Many parents make the mistake of trying to keep their borderline child in a class with normal children. Some teachers, in their anxiety to please the parents, concede to their wishes, only to find that the child cannot keep up the pace for very long.

Studies of the adjustment of the dull-normal child when compared

with bright groups indicate that the bright pupils are a little better adjusted and the dull-normal a little less well adjusted than normal. (5:5)

Lightfoot (12:18) in her study of Characteristics of Bright and Dull Children found that, "most studies reported findings in terms of 'desirable' or 'undesirable' traits; all but one found the former usually possessed by superior children and conversely the latter by the inferior child."

In keeping with this is the comment by Baker in Introduction to Exceptional Children where he says, "as a group, slow learning children lack some of the desirable personal and social qualities which are found in more favorable groups." (1:249)

Burt (3:571) feels that the chief reasons for educational backwardness are "psychological." This he supports by saying that in the majority of the children he studied, it was found that the "inherent" dullness was aggravated by social and physical disadvantages.

It is to be expected that bright children will excel dull-normal children in those personality characteristics closely associated with intellectual capacity but in the areas of personal traits, i.e. kindliness, obedience, etc., which are rooted in the affective life, the dull-normal is not barred from achieving satisfactory degrees of effectiveness. (5:6)

Another approach as to reasons why the dull-normal may have adjustment difficulties is found in Laycock's comment that, "an analysis of the traits possessed by the inferior group indicates clearly a lack of training for the inferior child is a major causal factor in the genesis of his maladjustment." (9)

Wrenn, Ferguson, and Kennedy (22:301) concluded that, (1) "Extremes of intelligence do not appear to be associated with differences in degree of emotional stability"; (2) "Intelligent students are more self-sufficient and independent, mentally and socially . . . than students at the lower levels of ability." Although this particular study was on a higher level group than the dull-normal, the findings seem to have some application for this study.

Reswick (14) states that there is "a need for more comprehensive knowledge of individual differences." He raised the question whether or not children are forced to perform above their level of ability and, if so, it could create a "distressing" situation for the child. Another point made was that low achievement is often the product of standards established for the normal range of ability. These standards are "impossible goals" for the child with less ability. He feels that "frustration after several failures often convinces the child that he is inadequate." This feeling may be expressed by misbehavior or other acts which can be considered as signs of poor adjustment to school. Recognition of a child's limitations as well as his assets often forms a better basis for a working relationship with the child. From the standpoint of proper development of the child's personality, the curriculum content must be of a flexible nature to be adapted where need be to the child's requirements.

Smith (16), in his article concerning seriously maladjusted junior high school youth, feels that we must "remodel our laws, philosophy, and methods where they do not fit the 1955 child." Another important point he makes, which is relevant to this study, is the statement, "Schools must recognize that they are missing the educational

needs of youth."

Both Reswick and Smith have cited a need for further knowledge in the fields of individual differences and methods of dealing with the problem of adjustment and particularly adjustment to school. The following chapter gives a description of the group and methods used in this study. This will be followed by chapters concerning the results of the investigation and a discussion of the findings of the study.

CHAPTER III

METHODOLOGY

The Sample

The dull-normals which constituted the sample of this study were selected from the public junior high school population of Euclid, Ohio. All scored between 75 to 89 I.Q. on the California Test of Mental Maturity when it was administered to all sixth grade pupils in the Euclid School System. The sixth grade class record sheets of the California Mental Maturity Test, Form AA, were examined for the years 1954, 1955 and 1956, and 149 students were found to meet the primary selection criterion of scoring in the range of 75 to 89 I.Q. Out of the primary selection of 149 individuals, 53 were no longer in the school system when the testing was begun. This left 96 individuals who were included in this study. There were 38 girls and 58 boys in the total group. This group was the total population of all junior high schools in the Euclid System having dull-normal intelligence as measured by the California Test of Mental Maturity.

The California Test of Mental Maturity was a selective instrument used in this study as it was felt to be a fairly reliable group measure of intelligence. It was not possible to administer individual tests of intelligence because of the factor of time entailed, although it is recognized that this would have been a preferred procedure.

The Community

The city of Euclid is the easternmost suburb of Cleveland, Ohio. It has a present population of approximately 70,000 residents. The total school population consists of about 11,000 public school pupils and 4,200 parochial school pupils. The city is both residential and industrial with large corporations such as Chase Brass, Thompson Products, Addressograph-Multigraph, and the Euclid Division of General Motors having large plants here. In addition, there are many small industries such as machine shops, tool designers, etc., located between the Nickel Plate and the New York Central railroad lines. The remainder of the city contains residential areas including large and small apartment buildings, private homes, both single and duplex, as well as two large former Federal government housing projects.

The city has a cosmopolitan background with Slovenian and Italian being the largest of the nationality groups. Euclid has experienced a tremendous growth in the past fifteen years, tripling in population during this period.

The Schools

In the past seven years eight new buildings have been added. The teacher-pupil ratio is one teacher per 26 students. There is a centrally located senior high school of approximately 2,000 students. The two junior high schools have populations of about 1,500 and 900.

Testing Instruments

The testing instruments which comprised the experimental

battery used in this study were:

1. The Bell School Inventory--H.M. Bell, Stanford University Press, 1937.

2. Interest Index--Educational Testing Service, Princeton, New Jersey, 1950.

3. What Kind Of Year Are You Having?--P. M. Symonds, Bureau of Publications, Teachers College, Columbia University, New York, 1932.

4. Experimental Interest Index--H. R. Sundwall, Michigan State University, East Lansing, Michigan. (Adapted for the present investigation)

The Bell School Inventory.--The inventory consists of statements regarding teacher-student relationships, attitudes regarding school subjects, and the administration of the school. The subject is asked to circle a "Yes," "No," or "?" in answering the questions being reassured that his answers will be treated with the strictest confidence and in no case will they be used to cause him any embarrassment. The coefficient of reliability reported for this test is .94 with a probable error of .004. According to the manual accompanying the test, a low score is indicative of good adjustment. The validity is reported in terms of the difference of the means between good and poorly adjusted students with a standard error yielding a critical ratio of 6.97. The criterion of adjustment was teacher selection of the subjects who took the test in the original standardization of the instruments. This group was composed of an approximately equal number of high school freshmen, sophomores, juniors, and seniors. A personal communication from the author of this test states that the reliability and validity coefficients for this test are to be found in the manual. These are reported in the discussion above. He further states that some other studies have been done on the School Inventory, but he did not state whether or not they

were published. As far as it can be determined, a thorough search of the literature did not reveal studies concerning reliability or validity.

The Interest Index.--This index consists of 200 items concerning various school subjects and is to be answered by marking "Like," "Dislike," or "Indifferent," to the subject being measured. In addition, there are scores concerning a preference for "Reading" or "Manipulative" areas of learning as well as a total score for both "Like" and "Dislike" of school. This was used as part of the descriptive data. Tabulations were done on the subject areas; i.e. Biology, Sports, Mathematics, etc., as well as the Manipulative, Reading, and Total Scores. The Interest Index has reported reliability coefficients ranging from .79 to .92 which according to the manual are "satisfactory" despite the small number of items for most fields included in the test. However, it is recognized that the optimum number of items to produce adequate reliability and validity should probably be larger than the number used in this particular test. Furthermore, low reliability of a test affects the predictive value of the test and in reference to the dull-normal this might be an indication that the test should not be used with this particular group. Yet, the fairly high reliability coefficients reported may have value for the purpose of descriptive data pertaining to the adjustment of the dull-normal child.

What Kind Of Year Are You Having?--This pupil adjustment attitude scale by Symonds consists of a series of twenty-two statements concerning home and school. The subject is asked to place a check mark before each statement that he truthfully could say applied to him. A cross is placed before each statement that the subject is certain does

not apply to him. There is a question mark made when the subject is doubtful about the statement. Finally, there is a double check mark before the one statement that best described the subject's point of view. Each item has a scale value with the score being the average of the items checked. According to the manual, the higher the scale value, the better is the adjustment of the subject being tested. According to the research in the standardization of this test, the coefficient of reliability is .70. As with tests of this kind, the coefficient of validity is absent, but implied. In a personal communication with Symonds, he states that he had no further data regarding reliability and validity other than that found in the original monograph by himself and the co-author Jackson (18, 19). Therefore, this may well be considered as an experimental instrument.

The Experimental Interest Index.--This index consists of two parts. The first part includes 45 statements concerning general social attitudes, the second part is an anxiety scale of 55 items that cover anxieties which are related to general adjustment. These two scales were adapted from the original Experimental Interest Index with only some of the items being used. The reason for the adaption was that it was felt that the original scale was too long and that the statements were too sophisticated for this group. In selecting items to be used in this test, the items were reviewed by another psychologist with the author. Selection was made on the basis of applicability to the junior high school level. The two scales were scored by subtracting the wrong answers from the total number of items given. Unfortunately, there were no norms available for either dull-normals or junior high school students at the time the testing was done.

Test Administration

The tests were administered to the students in the junior high school cafeterias on two occasions. These rooms were the largest in the buildings where writing space was available. There were subsequent make-up sessions for a few students who were absent when the larger groups were tested.

Each test administration was preceded by an orientation period in which the subjects were told that they had been selected to "try out some new tests." With each test given, the group was reassured that the results would not affect their school standing nor would the test results become part of their school record. In short, every effort was made to secure the best rapport and testing situation possible.

The directions were given orally for each test followed by a period for questions from the group about the way to answer the particular test being taken. When all questions pertaining to administration had been answered, the test was administered with each question being read aloud to the group. The subjects were free to interrupt the test administrator if a question occurred concerning the statements in the test. Occasionally, certain statements or words had to be clarified, such as the words "et cetera" and "sarcastic." In addition to having the test questions or statements read to them, the subjects were free to follow the printed questions or statements on the test itself. The purpose of reading the test questions or statements was to avoid any problems in either reading rate or reading comprehension. Of course, since this was a dull-normal group, not all problems of vocabulary could be controlled by this procedure.

The author was assisted in the test administration by two counselors in one of the schools and the assistant principal of the other junior high school where the group was smaller. Their help consisted of reading questions or statements from the test when the author's voice would tire, seating the subjects, passing out test blanks, and collecting the tests when they were completed.

Following the completion of the test administration, all of the tests were hand scored by the author and tabulated in preparation for statistical treatment.

The Cumulative Record

The cumulative record of each subject was examined for grade point average, teacher evaluations, attendance, and extracurricular activities. As noted in Chapter I, this data was not complete because a uniform manner of recording information had not been followed by the teachers.

Grade Point Average.--The grade point averages were obtained by assigning a numerical value of four (4) to zero (0) for the corresponding grades of A, B, C, D, and F. Thus, A equals 4, B equals 3, C equals 2, D equals 1, and F equals 0. The grade averages were then computed on the five basic academic subjects taken by all of these students in the seventh and eighth grades. For the ninth grade students, there are four basic academic subjects. Therefore, a total of fourteen grades were averaged for the ninth grade students, ten grades were averaged for the eighth grade students, and five grades were averaged for the seventh grade students. The basic subjects for the seventh grade are English, Health and Physical Education, Geography,

Mathematics, and Science. The eighth grade subjects include four of the above except that History is substituted for Geography. In the ninth grade, the four basic subjects are English, Health and Physical Education, Social Science, and Mathematics.

Teacher Ratings.--The teacher ratings were taken from the anecdotal records made by the subject's homeroom teachers. The vocabulary used by the teachers was used in the construction of a five point scale concerning the areas of personality, academic effort, acceptance by peers, and appearance. Another school psychologist assisted in the construction of the scale and checked the rating criteria assigned to each scale point. The author then went through each cumulative record and recorded the statements made by teachers about each subject. Then a scale value was assigned to each subject according to the statements made by the subject's teacher concerning areas listed above. The other school psychologist then checked the assigned values and agreement was reached on any disputed rating value. Listed below are the teacher rating criteria and their assigned values:

Scale Points	Rating Criteria
5	Very personable, conscientious, well-accepted, excellent appearance.
4	Fairly personable, fairly conscientious, fairly well-accepted, above average appearance.
3	Average personality, average conscientiousness, average acceptance, average appearance.
2	Below average personal and social adjustment, low level performance, tolerated, poor appearance.
1	Extremely poor personal and social adjustment, rarely works, rarely accepted, unkempt.

The teacher ratings were done in this manner to avoid bias and prejudice by the current homeroom teacher if they were asked to rate the subject at the time of testing. By compiling the evaluations of one to three teachers, it was felt that this technique would minimize ratings weighted by halo effect or severe rejection. By asking the current teachers to rate the subjects, the purpose of the study might have been revealed and the antipathy of teachers toward the study would have been aroused. This last factor was suggested by the principals of the buildings wherein the subjects were attending school.

Attendance Ratio.--The attendance ratio is based upon the number of days absent in the three school years that comprise the junior high school level. Taking 180 days as the school year, the number of days absent was divided by 180 to give a percentage of absence in any one of the three years or the total three years depending upon the grade level of the subject.

Statistical Method

The two criteria variables of grade point averages and teacher ratings were established as being the ones which are most commonly found and used as bases of school adjustment. These then, were compared with the other variables of I.Q. and test scores. The product moment correlation formula was used to derive correlations between the two criteria variables. Further, correlations were done with each criterion variable and each set of test scores. The final correlation was done between the two sections of the Experimental Interest Index to see what the degree of relationship was in this test.

To ascertain if there were any sex differences in the obtained

results, the correlations mentioned above were done for boys and girls and the total group.

For each correlation the level of significance was determined and a regression equation was run on the two criteria variables of grade point average and teacher rating.

These correlations and levels of significance will be presented in tabular form in the next chapter which deals with a report of the results of testing and other information obtained in this investigation.

CHAPTER IV

ANALYSIS OF DATA

The discussion in this chapter will be based upon the purposes of the study: (1) to get some measure of adjustment to school of dull-normal children, and (2) to see if there is justification for the use with this group of testing instruments developed for normal students.

The Means and Standard Deviations of Tests and Criterion Variables

Grade Point Average and Teacher Rating.--The criterion variables of Grade Point Average and Teacher Rating were used as they are the ones most commonly found and used as bases of school adjustment.

Generally speaking, the means for the girls in all areas of this investigation are higher than the means for the boys. There are only two exceptions noted to this finding. When the mean Grade Point Averages of boys and girls are compared, it will be noted in Table I that the means of the girls are higher and their standard deviations lower. The range of Grade Point Averages is from .2 to 3.0 and for girls the range of Grade Point Averages is from .4 to 3.0. Girls were also rated higher in the means derived from Teacher Ratings and were as indicated before somewhat higher than the boys. One explanation of this could be the cultural stereotype that girls are more passive and amenable to routine and discipline than boys. Therefore, girls may tend to be rated higher in teacher evaluations than boys. The range

TABLE I

SUMMARY OF MEANS AND STANDARD DEVIATIONS
OF THE DISTRIBUTION OF THE VARIABLES

Variables	Boys		Girls		Total	
	Mean	S. D.	Mean	S. D.	Mean	S. D.
Grade Point Average	1.45	0.589	1.66	0.552	1.53	0.583
Teacher Rating	2.10	0.941	2.82	1.21	2.38	1.11
School Inventory	29.9	16.2	17.0	14.3	24.8	16.7
Kind of Year Having	5.83	1.34	6.39	1.21	6.05	1.32
Social Attitudes	28.9	5.24	31.1	4.92	29.8	5.24
Anxiety Scale	39.7	7.36	38.0	9.43	39.0	8.29
Intelligence Quotient	83.9	3.97	83.0	4.39	83.6	4.17

of Teacher Ratings is from 1 to 5.

Bell School Inventory.--On the School Inventory, girls again achieved a higher score than did the boys which may show that their attitude and adjustment towards school is better than the boys. When compared to the norms given for the test, both the boys and girls groups are in the average range of adjustment as measured by this test. The total group score according to the norm in the manual is from 13 to 30 points. The range for boys in this group is from 4 to 64. The range for the girls on this test is from 0 to 60. It must be noted that the norms for the Bell School Inventory are not differentiated by sex.

What Kind of a Year Are You Having?--On Symond's pupil adjustment attitude scale of "What Kind of a Year Are You Having?" the girls were again higher than the boys on the total group. When compared to the norm (18:51) where the mean is 6.83 with a S.D. of 1.128, the girls approached this mean but were still somewhat below it. The boys were just one point below the mean of the standardization group.

Experimental Index.--The first part of the Experimental Index covering Social Attitudes shows the girls mean score was somewhat higher than the boys. The top possible score here was 45 with a range of scores for the boys being from 18 to 43. The range of scores for the girls was from 18 to 40.

On the second part of the Experimental Index that attempts to measure anxiety, the girls mean was lower than the boys mean, but they also had a larger S.D. than boys. The range for the boys group was from 21 to 51, while the range for the girls was from 20 to 50. The possible top score on this test was 55.

The mean I.Q. scores for boys and girls did not differ too widely. The total group mean shows that this particular group of dull-normal children were about in the middle of the range of dull-normal I.Q. score limits as defined earlier in this study.

Correlation Analysis of Criterion and Test Variables Studied

The obtained coefficients are subject to sampling errors and therefore must be further treated so as to determine within what range the true (population) correlation coefficient might be. In order to do this at the 1% level of confidence, the correlation coefficients were determined using Fisher's R to Z transformation (13:391).

These correlation coefficients in Table II are then the limits of the range within which the true coefficient of correlation will lie at the 1% level of confidence. This was done with the 36 correlations obtained in this investigation and these limits are given in Table II. This means that the chances are only one in one hundred that the true coefficients of correlation might be beyond the limits designated.

It will be noted in the above Table II in 16 instances the 1% level of confidence of the obtained correlations go below zero. This means that our obtained correlation coefficients in these instances could be chance deviations from zero. It is necessary therefore, to conclude that in these uses, the true correlation coefficients might very well be zero.

In looking at Table II, the confidence limits at the 1% level are different from column to column, i.e. Boys to Girls to Total, even though the coefficients of correlation might be the same. For example,

TABLE II

THE CORRELATION COEFFICIENTS OF CRITERION VARIABLES WITH LIMITS OF CONFIDENCE AT THE 1% LEVEL

	Boys		Girls		Total	
	r	Limits of Confidence	r	Limits of Confidence	r	Limits of Confidence
Grade Point Average-Teacher Rating	.52	.23 — .72	.54	.17 — .77	.52	.30 — .69
Grade Point Average-School Inventory	.28	.06 — .56	.33	-.09 — .65	.37	.12 — .57
Grade Point Average-Kind of Year Having	.34	.01 — .60	.38	-.03 — .68	.38	.13 — .58
Grade Point Average-Social Attitudes	.20	-.14 — .50	.39	-.03 — .69	.29	.03 — .51
Grade Point Average-Anxiety	.18	-.16 — .48	.49	.11 — .74	.29	.03 — .51
Grade Point Average-Intelligence Quotient	.04	-.29 — .36	.36	-.05 — .66	.15	-.11 — .39
Teacher Rating-School Inventory	.12	-.22 — .43	.42	.02 — .70	.33	.08 — .54
Teacher Rating-Kind of Year Having	.35	.02 — .61	.25	-.17 — .59	.35	.10 — .56
Teacher Rating-Social Attitudes	.23	-.22 — .52	.51	.13 — .76	.39	.14 — .59
Teacher Rating-Anxiety	.12	-.22 — .43	.36	-.05 — .66	.20	.06 — .43
Teacher Rating-Intelligence Quotient	.04	-.29 — .36	.06	-.35 — .45	.02	-.24 — .27
Experimental Interest Index-Social Attitudes-Anxiety	.53	.23 — .73	.85	.68 — .93	.62	.43 — .76

Grade Point Average and What Kind of Year Are You Having for the boys has an r value of .34 with the limits of .60 and .01 and the girls Grade Point Average and Intelligence Quotient has an r value of .36 with the limits of .66 and .05. This is due to the fact that there is a difference in sample size and the confidence limits and the reliability are affected by the number of cases upon which the correlation is based. Even though with correlation coefficients of .50 and .40, the true correlation coefficients could be as low as .04 at the 1% level of confidence.

This must be considered when evaluating the obtained correlation coefficients. Although the obtained r's are low in most cases, the establishment of the limits for each still might have some value for prediction either positively or negatively. If one takes the strict viewpoint that the obtained correlation coefficients are too low, then it can be said that for the majority of these tests, they have little significance as measures of school adjustment for dull-normal children. In an effort to see if limited predictions of school adjustment could be made on the bases of the results obtained in this investigation, the coefficient of alienation (k) was used to measure predictive efficiency. (6:335)

In view of the fact that tests are costly in terms of time and money an arbitrary k value was decided upon to determine whether a testing instrument was valuable or not. Since coefficients of correlation must equal .40 before k equals .90, only those instruments that showed correlation of more than .40 with one of the criterion variables would improve our prediction above chance by 10%. In looking at Table II, there are only three of the correlation coefficients that exceed .40.

These are all for the girls in the areas of Grade Point Average and Anxiety; Teacher Rating and School Inventory; and Teacher Rating and Social Attitudes. None of these correlation coefficients would be very efficient to use for prediction for the reasons that (1) it would be necessary to keep in mind norms for boys and girls separately and (2) the 1% level of confidence limits are so wide as to make the use of the obtained correlation coefficients dangerous for general prediction. Therefore, there is only one correlation coefficient that increases the prediction above 10% based upon a reasonably large population. This is the correlation coefficient between Grade Point Average and Teacher Rating, the two criterion variables. Here a k value of .84 was obtained thus reducing the S.D. of the predicted scores by 16%.

The use of the coefficient of alienation implies the use of the regression equation on the criterion variables of Grade Point Average and Teacher Rating for the total group. This regression line is based upon a correlation of .52, the 1% confidence limits of which are .30 and .69. If the true correlation coefficient is less than .52, the difference between the Grade Point Average predicted scores from the Teacher Rating scores of 1 and 5 becomes smaller. Figure 1 illustrates the regression line showing the predicted Grade Point Average from Teacher Rating. The use of the regression equation serves to predict those individuals who may experience difficulties in adjustment at one time or another.

Generally speaking, the results seem to indicate that the girls group obtained higher correlation coefficients than the boys despite the smaller population. However, the fact that results are more reliable with a larger population the boys scores and the total scores may have

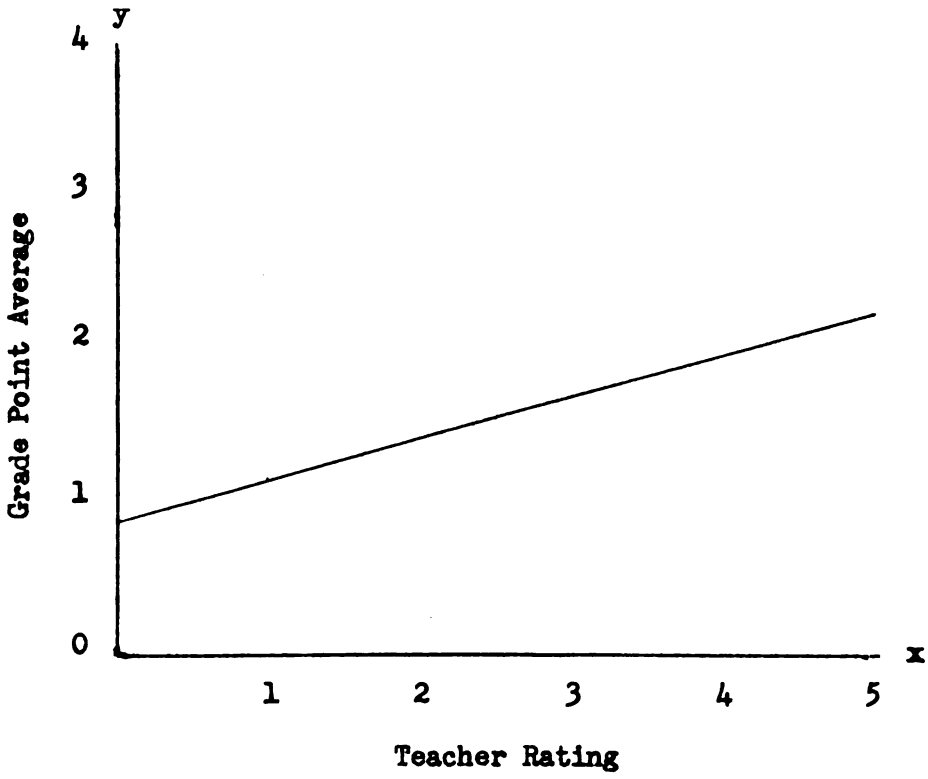

Fig. 1.--Illustrating the Regression Line of the Two Criterion Variables of Grade Point Average and Teacher Rating

more meaning. The impression gained from these results seem to favor girls over boys, but this could be due to the cultural pattern of the female. In our society, the female is supposed to be submissive, docile, and less aggressive than the male. It may be that this possible factor was operating when these girls were being tested. This then, could be reflected in all their scores which might indicate a better adjustment to school for low ability girls than for low ability boys.

It would seem from these results, in so far as the investigator was able to find tests which were pertinent, that the use of tests to measure school adjustment are of limited value. The criterion variables of Grade Point Average and Teacher Rating seem to have the most value in predicting or describing school adjustment for this group of dull-normal children.

The Interest Index.--The Interest Index was given with the intent that the information derived would be descriptive and would perhaps give further insight into the school adjustment of dull-normal children. The results of this test are presented in Figures 2, 3, and 4, which show the subject areas in rank order of preference for the boys, girls, and total group. Figures 5 and 6 give the preference of types of activities such as manipulative, reading and total scores of the groups. These findings show that while there were some common areas of preference in academic subjects, the boys had some different subject preference compared to the girls. The four most preferred subjects in rank order were:

Boys - Industrial Arts, Sports, Physical Science, and Business

Girls - Home Economics, Business, Sports, and Fine Arts

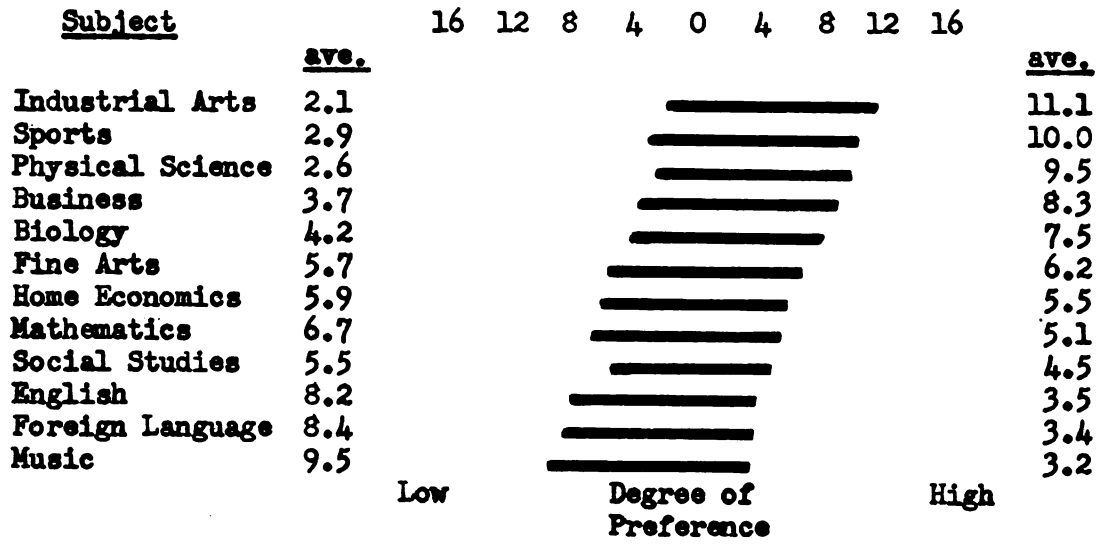

Fig. 2.--Results of the Interest Index for Boys

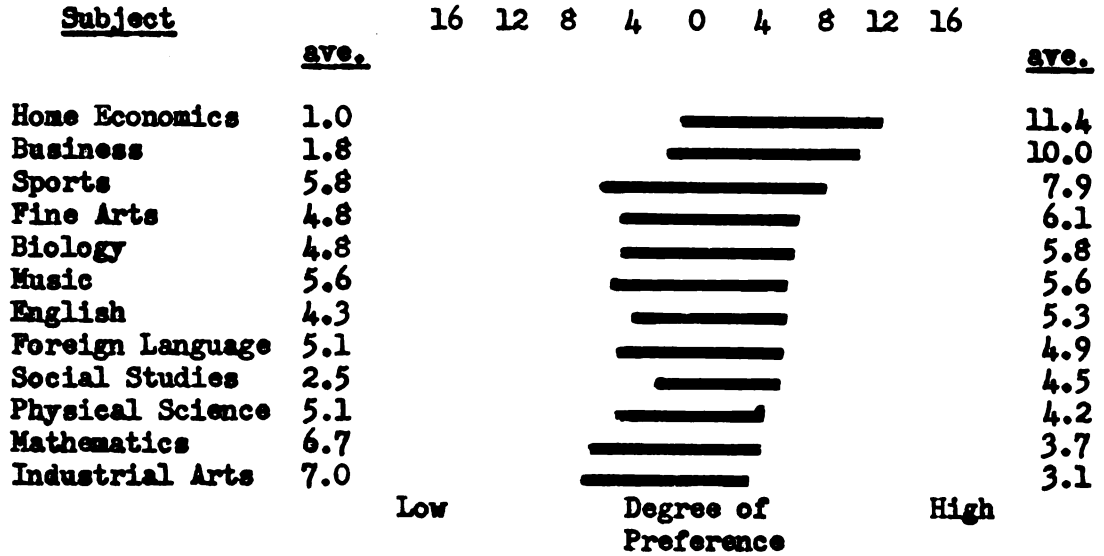

Fig. 3.--Results of the Interest Index for Girls

Figs. 2 and 3.--Each graph represents the degree of subject preference on the Interest Index for boys and girls respectively. The theoretical limits are plus 16 and minus 16 wherein complete acceptance of each subject or complete rejection of each subject are possible. The 0 value in each case represents the situation where the pupils would mark "Indifferent" to every question related to the subject and mark no "Like" or "Dislike" answers in the catagory. The graph is arranged in rank order having the most preferred subject at the top and decreasing in subject preference.

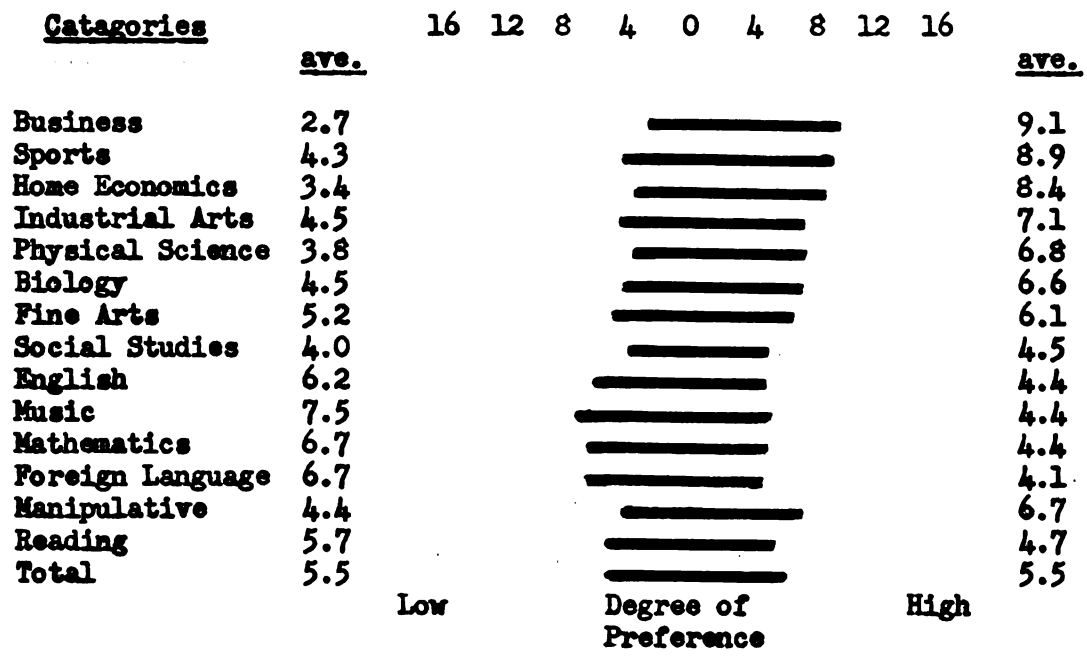

Fig. 4.--Results of the Interest Index for Total Group

Fig. 4.--This graph represents the degree of preference for subjects, types of activity, and Total Scores when measuring both boys and girls. The limits contained are identical to the limits described in Figures 2 and 3.

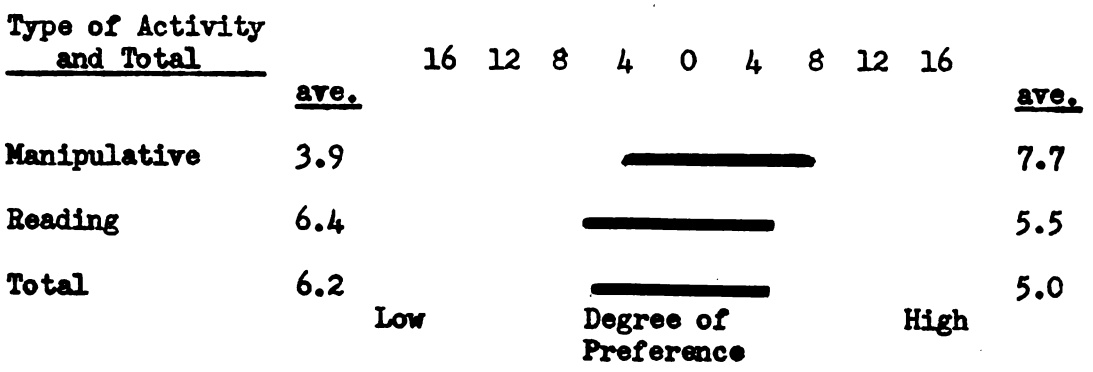

Fig. 5.--Results of the Interest Index for Boys

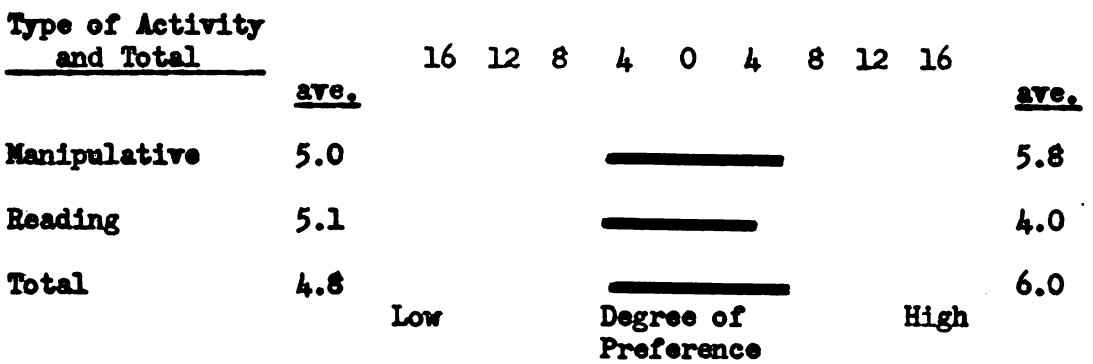

Fig. 6.--Results of the Interest Index for Girls

Figs. 5 and 6.--Each graph represents the degree of preference in Manipulative and Reading Activities and in Total Score. The limits contained are identical to the limits described in Figures 2 and 3.

The four least preferred subjects were in rank order:

Boys - Music, Foreign Language, English, and Social Studies

Girls - Industrial Arts, Mathematics, Physical Science, and Social Studies

It was noticed that both boys and girls preferred manipulative type subjects to reading type subjects. However, there was much overlapping in all cases wherein some preference for both types of activity was indicated as being acceptable by the total group regardless of sex. Boys tended to prefer manipulative subjects more than girls do on the average. The boys also disliked reading subjects more than did the girls. But both groups disliked reading subjects more than they liked them.

There were two academic subjects which had approximately equal rank order appeal to both boys and girls, namely Business and Sports. The remainder tended to rank toward the middle range of preferences or lower. There was only one subject which apparently had the least appeal to the group, that is, Social Studies.

As a total group, the boys and girls, tended to prefer subjects which were of a more practical, concrete and manipulative nature and which might be more closely related to their probable vocational endeavors than academic subjects allied with future academic training.

Some degree of preference was shown in each subject and type of activity by both boys and girls. For example, boys did not totally reject all phases of Home Economics usually relegated to girls. In many instances, girls had some preferences for Industrial Arts and were quite interested in Sports.

The boys tended to dislike more of the basic subjects as they

indicated lower preferences for Mathematics, Social Studies, and Foreign Languages. Girls seemed to dislike to a greater degree only the basic subjects of Mathematics and Social Studies, although Foreign Language was below average in preference too.

In regard to the total group results, Business, Sports, Home Economics and Industrial Arts were in rank order, the most frequently preferred subjects. The subjects least preferred were Foreign Language, Mathematics, Music and English respectively.

The girls total score indicates that they generally preferred more subjects in school than the boys did, this being, perhaps, an indication of better overall school adjustment. In addition, the girls had fewer total "dislike" responses than boys on the entire test.

Attendance.--When computing the attendance ratio for this group, it was found that the boys ratio was .030 or 3% and the girls ratio was .042 or slightly over 4%. The total group ratio was .035 or 3 1/2%. This shows that the girls absence rate was slightly higher than that of the boys.

Retention, Placement and Promotion.--Concerning retention, placement and promotion, it was found that 26 of the boys had been placed a total of 56 times while only 11 girls had been placed a total of 26 times. From the retention standpoint, 30 of the boys had been retained a total of 36 times while 7 of the girls had been retained 8 times. This means approximately one-half of the boys in this group were retained and placed one or more times in their school attendance. Viewing the girls group, it was noted that approximately one-third of them had been placed and one-fifth had been retained in their school career. The remainder of both groups had been regularly promoted while

attending school in Euclid.

Achievement.---There are rather wide individual differences when the factor of achievement is considered in this study. The boys group had 24% getting C's. Despite the I.Q. range of this dull-normal group, 2% of the boys were able to obtain B's. This might be considered as overachievement. Although the fact that the mean Grade Point Average was 1.45 with 90% obtaining D's or better, 10% received grades below D. These may be considered as being underachievers when the mean Grade Point Average was 1.45.

The girls achievement shows 2% of them achieving a Grade Point Average of B and 34% of the girls achieved a Grade Point Average of C. Again, this may be interpreted as a degree of overachieving if we apply the criteria mentioned above. About 5% of the girls had a Grade Point Average below D and might be considered as underachievers.

Here the cultural sex difference in behavior may be operating. The girls on the whole are better students perhaps (as is commonly thought) because they are quieter and less prone to cause classroom problems.

Extracurricular Activities.---The information relative to extracurricular activities was the least well reported of all the items sought in the cumulative record. It must be noted that while 80% to 90% of all students in the junior high schools take part in some club or extracurricular activity of their choice, this is not always noted in their cumulative record.

The club activities in each school consist of two forty minute periods per week where the students meet in assigned rooms and carry out their club program. Sports activities usually take place after

school and are open to both boys and girls.

The dull-normal group in this study had extracurricular activities that ranged from clubs that covered hobbies to participation in sports. Among the clubs mentioned for this group were Model Building, Chess, Hot Stove League (a baseball discussion group), Charm Club, Games, Dancing, etc. It was also noted that some of this group chose Study Hall in place of participation in any club. Generally speaking, the extracurricular activities such as clubs and sports seemed to have little bearing on the child's adjustment to school. That this should be so might be explained by the fact mentioned above that at least 80% to 90% take part in club activities.

CHAPTER V

SUMMARY AND CONCLUSIONS

The Problem

The primary purpose of this investigation was to obtain some measure of school adjustment of dull-normal children in junior high school. A secondary purpose of the study was to see if there was justification for the use of tests, designed for the normal population, with this group.

Two hypotheses were advanced relative to the purpose of the study. They were:

There is no significant relationship between certain selected tests of pupil adjustment and grade point average of children classified as dull-normal on the basis of group intelligence tests.

Further, there is no significant relationship between grade point average and teacher ratings of children classified as dull-normal on the basis of group intelligence tests.

Methodology and Sample

The group selected for this investigation were children in the Junior High Schools of Euclid, Ohio, who had scored in the dull-normal range of intelligence on the California Test of Mental Maturity. They were given tests that purported to measure adjustment and attitude towards school. Further information concerning adjustment was sought

in the cumulative record of each student in the form of teacher evaluations, grade point average, attendance, promotion, placement, retention, achievement, and extracurricular activities.

The test findings were treated statistically with the selected criterion variables of Grade Point Average and Teacher Ratings being correlated with test scores and I.Q. scores. The limits of significance at the 1% level was done for each correlation and a coefficient of alienation was done on the one correlation of Grade Point Average and Teacher Rating. This was the only correlation so treated as it was the only one that with the coefficient of alienation reduced the error of prediction 10% or more.

Findings

1. Of the two hypotheses advanced in this study the first by the results obtained in this study seems to be true. Namely, that there is no significant relationship between tests of pupil adjustment and grade point averages.
2. The second hypothesis is rejected because there seems to be some degree of relationship between the criteria variables of Grade Point Average and Teacher Rating. While it is not as high as it might be (significant at the 1% level) it appears to be the best measure of school adjustment for this particular group of dull-normal children of those variables which were included in the study.
3. When compared to test norms, this group of dull-normal children achieved scores which placed them in the average range of adjustment.

4. There were variations between the boys and the girls groups with the girls scoring higher as a rule than either the boys or the total group on the tests and criteria variables.
5. Only one correlation seemed to have significance and that was the two criteria variables of Grade Point Average and Teacher Rating. The other correlations between tests, I.Q. scores, and the criteria variables must be regarded as being not too reliable.
6. This group showed an academic subject preference, the manipulative type of subject over those of the reading type.
7. Certain academic subjects were ranked low by both groups, i.e. Social Studies and English.
8. The attendance ratio showed that this group of dull-normal children was absent about 3% of the time whereas the total school population is absent about 5% of the time.
9. The achievement levels of the group show that about 26% of the boys were achieving higher grades than would be expected for their measured I.Q. Approximately 36% of the girls were achieving above their measured I.Q. scores. The percentages of those underachieving was 10% and 5% respectively for boys and girls.
10. Extracurricular activities seem to have little relationship to school adjustment.

Conclusions

The conclusions of this study suggest:

1. Better tests are needed when attempting to measure school adjustment.

2. Normative data for groups such as the dull-normal need to be established.
3. That caution be used in using tests for measuring groups such as this because of the low correlations obtained.
4. Some revision or adjustment of the curriculum be investigated so that this group might show a higher preference for the basic subjects of English and Social Studies.
5. That cumulative records be more uniform especially in reporting adjustment, attitudes, and other pertinent information.
6. Teachers should be somewhat more careful in their evaluation of pupils especially in reporting school and general adjustment.

Implications for Further Study

Several possible areas of further study suggested by this investigation are:

1. More research is needed on dull-normal children related to adjustment.
2. That research on differential norms for junior high school level on various tests of adjustment might be of benefit to all groups of varying ability.
3. That research on differential norms for the dull-normal group of various tests would be of value in the guidance of these individuals.
4. A further study of teacher evaluations concerning pupil adjustment especially related to this group of dull-normals.

BIBLIOGRAPHY

1. Baker, Harry J., Introduction to Exceptional Children, New York, The MacMillan Company, 1944. p. 249.

2. Burt, Cyril, The Backward Child, D. Appleton-Century, New York, 1937. p. 571.

3. Edwards, A. S., "Intelligence as Capacity for Variability or Versatility of Response," Psychological Review, 35, 1928, 198-210.

4. Eiserer, Paul E., "Children's Perception of School and Teachers," Educational Leadership, 11:409-12, April 1954.

5. Featherstone, W. B., Teaching the Slow Learner, Bureau of Publications, Teachers College, Columbia University, New York, 1951.

6. Garrett, Henry E., Statistics in Psychology and Education, Longmans, Green and Co., New York, Third Ed. 1949, p. 487.

7. Hollingworth, Leta, Intelligence: Its Nature and Nurture, The Thirty-ninth Yearbook of the National Society for the Study of Education, Part 1, Public School Publishing Co., Bloomington, Illinois, 1940.

8. Johnson, Palmer O. and Jackson, Robert W. B., Introduction to Statistical Methods, Prentice-Hall, Inc., 1953, p. 316.

9. Laycock, S. R., "Adjustment of Superior and Inferior School Children," Journal of Social Psychology, 4:353-366, 1933.

10. Levinson, Abraham, The Mentally Retarded Child, The John Day Company, New York, 1952, p. 119.

11. Lewis, W. Drayton and Mc Geehee, William, "Comparison of the Interest of Mentally Superior and Retarded Children," School and Society, 52:597-600, 1940.

12. Lightfoot, Georgia, Characteristics of Bright and Dull Children, Bureau of Publications, Teachers College, Columbia University, New York, 1951.

13. McNemar, Quinn, Psychological Statistics, Second Edition, John Wiley & Sons, Inc., New York, 1955, p. 391.

14. Reswick, Joseph, "Classroom Maladjustment Can Be Reduced," Educational Administration and Supervision, 40:489-93, December 1954.

15. Sherman, Mandel, Intelligence and its Deviations, The Ronald Press Company, New York, 1945.

16. Smith, Ralph, W., "Providing for the Seriously Unadjusted Junior High School Pupils," California Journal of Secondary Education, 30:204-8, April 1955.

17. Stoddard, George D., "On the Meaning of Intelligence," Psychological Review, 48:250-60, 1941.

18. Symonds, Percival M. and Jackson, Claude E., Measurement of Personality Adjustment of High School Pupils, Monograph, Teachers College, Columbia University, New York, 1935, p. 110.

19. Symonds, Percival M. and Jackson, Claude E., "Measurement of Personality Adjustment of High School Pupils," Teachers College Record, 37:232-3, December 1935, Abstract.

20. Tredgold, A. F., A Textbook of Mental Deficiency, 7th Edition, Williams and Wilkins, Baltimore, 1947.

21. Varner, G. F., "Can Teachers Judge Bright and Dull Children?", Journal of Educational Research, 6:126-32, 1922.

22. Wrenn, C. Gilbert, Ferguson, Leonard W. and Kennedy, John L., "Intelligence Level and Personality," Journal of Social Psychology, 7:301-8, 1936.

APPENDIX

THE SCHOOL INVENTORY

By HUGH M. BELL

Published by
STANFORD UNIVERSITY PRESS
Stanford, California

NAME _____ SCHOOL _____

SEX _____ DATE _____ SCHOOL CLASS _____

DIRECTIONS TO STUDENT

On the following pages you will find a list of questions concerning things about this school which may or may not be satisfactory to you. We should like to know what things about this school you like and what you dislike. *Your answers will be treated with the strictest confidence and in no case will they be used to cause you any embarrassment.* If you will answer these questions honestly and thoughtfully, the school will endeavor to improve the conditions which your answers indicate need improvement.

There are no right or wrong answers. Indicate your answer by drawing a circle around "Yes," "No," or "?" Try to answer all questions either "Yes" or "No." If you are certain that you cannot answer "Yes" or "No," then use the question mark.

There is no time limit, but work rapidly.

SCORE	DESCRIPTION	REMARKS

STANFORD UNIVERSITY PRESS
STANFORD, CALIFORNIA

Yes	(No)	?	Do you like all of the subjects you are now taking in this school?
(Yes)	No	?	Have you found the students in this school friendly and willing to "meet you halfway"?
Yes	No	?	Do you think this school places too much emphasis upon grades?
Yes	(No)	?	Do you think that too much importance is attached to the possession of money and good clothes in this school?
(Yes)	No	?	Do you find that most of the subjects which you are taking are very interesting?
Yes	No	?	Have you found that some of your teachers are easily "upset" over trifles?
Yes	No	(?)	Do you think that the students in this school are "snobbish"?
Yes	(No)	?	Do you think that all of your teachers are "up to date" in their ideas and actions?
(Yes)	No	?	If you were able to do so, would you like to attend some other school than the one you are now attending?
(Yes)	No	?	Do you find that some of your teachers refuse to change their attitude toward you once they have made up their minds that you are "no good"?
Yes	No	(?)	Do you think that your school activities are controlled by too small a group of students?
(Yes)	No	?	Do most of your teachers make their lesson assignments definite and clear?
Yes	No	(?)	Do you feel that some of your teachers hold a "grudge" against you?
(Yes)	No	?	Would you like to take a different group of courses than those in which you are now enrolled?
Yes	(No)	?	Do you think that there are too many social cliques in this school?
Yes	(No)	?	Do you find that some of your teachers are very hard to get acquainted with?
Yes	(No)	?	Is this school providing the kind of preparation that you want for your chosen occupation?
Yes	No	(?)	Do you think that some of your teachers feel that they are superior to their students?
Yes	No	?	Do some of your teachers "talk over the heads" of their students?
(Yes)	No	?	Have you been able to get into the school activities in which you are interested?
(Yes)	No	?	Would you like to quit school and go to work?
Yes	No	?	Do you think that some of your teachers lack physical strength to do their best work?
(Yes)	No	?	Are some of your teachers nervous and easily excited?
Yes	No	?	Does this school provide adequate opportunity for you to meet and make friends?
(Yes)	No	?	Are some of your courses very boring to you?
(Yes)	No	?	Are some of your teachers very sarcastic?
Yes	(No)	?	Do you have difficulty in keeping your mind on what you are studying?
Yes	No	?	Do you find that most of your teachers are systematic and orderly in the way they conduct their classes?
Yes	No	?	Do you think that some of your teachers are narrow-minded?
Yes	No	?	Have you frequently found the ventilation poor in some of your classrooms?
Yes	No	?	Do you think that some of the women instructors in this school show favoritism toward boys in their classes?

(Yes)	No	?	Are most of your teachers successful in putting across their subject matter?
Yes	No	(?)	Do you think that some of your teachers expect too much of you?
Yes	No	(?)	Do you find that most of your teachers are very interesting to know personally?
Yes	(No)	?	Do you find that this school tends to make you unhappy?
Yes	No	?	Have you experienced considerable difficulty preparing your lessons for your classes?
(Yes)	No	?	Have you found that the speaking voice of some of your teachers is irritating to you?
(Yes)	No	?	Do you think that some of your teachers are lazy?
Yes	(No)	?	Do you find your school work dull and uninteresting?
Yes	No	?	Do you think that some of your teachers lack force of character?
Yes	No	(?)	Do you think that the disciplinary cases are handled fairly in this school?
(Yes)	No	?	Do you think that the principal and teachers in this school lack patience when dealing with students?
Yes	No	?	Do you think that some of your teachers allow themselves to become too familiar with some students?
Yes	No	?	Do you find that some of your teachers hold themselves aloof from the students and do not mix freely?
Yes	(No)	?	Do you think that the principal of this school is too strict with students?
(Yes)	No	?	Have you found that principal and teachers in this school tend to act as if they were always right and you were always wrong?
(Yes)	No	?	Do you find that some of your teachers assign too long lessons?
(Yes)	No	?	Do you think that this school is run as if it were a prison?
(Yes	No	?	Have you been able to choose the subjects you like in this school?
(Yes	No	?	Do you think that some of your teachers act as if they were bored with their work?
(Yes)	No	?	Do some of your teachers produce a feeling of fear in you?
(Yes	No	?	Do you find it rather easy to get well acquainted with your teachers?
Yes	(No)	?	Do you think that your school makes a mistake when it sends home without your permission a report of your scholarship?
Yes	(No)	?	Are you often frightened by the way some of your teachers call on you in class?
(Yes)	No	?	Have some of your teachers criticized you unjustly?
Yes	(No)	?	Do you like the teacher who has been designated as your counselor?
(Yes	No	?	Do you dislike intensely certain teachers in this school?
(Yes)	No	?	Do you think that some of your teachers show partiality toward certain students?
Yes	No	?	Do you think that your teachers require too much work to be done outside the regular class period?
Yes	No	?	Do you think that some of the men teachers in this school show partiality toward girls in their classes?
(Yes)	No	?	Do you think that some of your teachers are susceptible to "apple polishing"?

Yes No ? Do you think that some of your teachers lack a sense of humor?

Yes No ? Do you think that some of your teachers treat you as if you were a small child?

Yes No ? Do you feel that most of your teachers have confidence in your ability to succeed?

Yes No ? Have you found that some of your teachers are very "bossy"?

Yes No ? Do you find that some of your teachers make you feel as if you did not care whether you learned anything in their classes or not?

Yes No ? Do you find that all of the teachers in this school are cheerful and pleasant to meet?

Yes No ? Do you find that some of your classes are very monotonous?

Yes No ? Do you think that the principal of this school allows the students sufficient opportunity to participate in the administration of the school?

Yes No ? Do you find that some of your teachers fail to stimulate in you the desire to do your best work?

Yes No ? Do you find that some of your teachers apparently take delight in making you feel embarrassed before the class?

Yes No ? Do you have the feeling that some of your teachers dislike their jobs?

Yes No ? Do you find that your teachers are honest and straightforward in their dealing with you?

Yes No ? Do you think that some of your teachers show a lack of interest in school activities?

Yes No ? Do you think that some of your teachers lack enthusiasm for their work?

Yes No ? Do you find that your teachers are always ready to help you individually with your school work?

On the space below please list specific suggestions which you may have for the improvement of your school.

I don't have any ideas to im-
prove the school. Its alright. But
some of the teachers should be im-
proving their selves.

GENERAL EDUCATION SERIES

Interest Index

Test No. 278-42-1

AN EVALUATION INSTRUMENT OF THE EIGHT-YEAR STUDY

General Instructions

The Interest Index lists 200 activities commonly carried on in twelve different fields of study. You are to tell whether you like, dislike, or are indifferent to each of these activities. Record these answers on the answer sheet on page 2 of the Interpretative Leaflet. Do not write in this test booklet.

You have probably never engaged in some of the activities which are listed. If the activity sounds interesting and profitable, answer that you like it; if it sounds boring and useless, answer that you dislike it; and if you have no feeling about it one way or the other, answer that you are indifferent to it. If you can't do some of these things, such as writing stories, mark them according to whether you would like to be able to do them, whether you would dislike them even if you could do them, or whether you would be indifferent to them.

Try to mark every item. Work rather rapidly and trust the way you feel about each item as you read it.

PUBLISHED BY

COOPERATIVE TEST DIVISION

EDUCATIONAL TESTING SERVICE

PRINCETON, NEW JERSEY • LOS ANGELES, CALIFORNIA

INTEREST INDEX

Directions: First of all, write your name and the other information requested on the cover of the Interpretative Leaflet. Then fold back your leaflet so that only the answer sheet (page 2) is visible. Read the directions at the top of the page.

As you read each item in this Index, first decide whether you like, dislike, or are indifferent to it. Then record your answer on the answer sheet of the Interpretative Leaflet. In the blank after the number of the activity, write:

L if you like or would enjoy the activity,
I if you are indifferent to the activity,
D if you dislike or would not enjoy the activity.

1. To write stories.
2. To learn how to go about getting a job.
3. To go on trips with a class to find out about conditions such as housing, unemployment, etc.. in various parts of your community.
4. To take part in class discussions of literature.
5. To visit stores, factories, offices, and other places of business to find out how their work is carried on.
6. To correspond in a foreign language with a student in another country.
7. To play baseball or softball.
8. To take part in a campaign against countries or business firms which treat people unjustly.
9. To speak a foreign language.
10. To play gymnasium games such as dodge ball, relays, two-deep, etc.
11. To decorate a room.
12. To sing songs at parties, picnics, etc.
13. To attend public meetings to protest against something which you regard as unfair.
14. To learn how to cook well (in camp or at home).
15. To sing in a glee club, chorus, or choir.
16. To put eggs into an incubator and open one every day to see how the chick develops.
17. To sketch or paint.
18. To try to estimate the answer in problems involving size, weight, distance, etc.
19. To experiment with plants to find out how various conditions of soil, water, and light affect their growth.
20. To carve wood, soap, or stone.
21. To make chemical compounds.
22. To make things of wood, metal, etc.
23. To do the arithmetic necessary in planning trips or parties for a class.
24. To study rock formations and to learn how they developed.
25. To make mechanical drawings or blueprints.
26. To write poetry.
27. To find out about occupations which you might enter: chances of getting work, nature of the work, salary, qualifications and training needed, etc.
28. To analyze, compare, and criticize the platforms or proposals of different political parties.
29. To discuss books with friends.
30. To have assembly programs in which successful men discuss their fields as a possible career.
31. To write in a foreign language.
32. To play basketball.
33. To write letters to public officials urging them to support or oppose a certain course of action.
34. To listen to broadcasts in a foreign language.
35. To play horseshoes or quoits.
36. To take care of a home and its surroundings: cleaning, arranging furniture, gardening, etc.
37. To play a musical instrument.
38. To get people to vote for certain candidates for public offices.
39. To set an attractive table for guests.
40. To take music lessons.
41. To experiment with animals to see how different foods affect their health and growth.
42. To draw cartoons.
43. To make graphs, charts, and statistical tables.
44. To do delicate experiments requiring the use of exact instruments such as microscopes, balances, micrometers, etc.
45. To make linoleum blocks or woodcuts.
46. To find out how various types of motors work: gasoline, diesel, electric, steam, etc.
47. To make things of leather, paper, beads, raffia, reed, etc.
48. To construct geometric figures with ruler, compasses, and protractor.
49. To find out what light is and how it may be used or controlled, as in optical instruments.

50. To repair furniture, electrical appliances, etc.
51. To write for the school newspaper or magazine.
52. To have a job in a business office or store as training for a regular job.
53. To hear lectures or radio talks on political and social problems.
54. To speak at a club or class meeting.
55. To typewrite business letters.
56. To make English translations of passages written in a foreign language.
57. To play field hockey or ice hockey.
58. To study and discuss such problems as unemployment, housing, crime, etc.
59. To learn the grammar of a foreign language.
60. To shoot with bow and arrows.
61. To keep a house in order.
62. To play in an orchestra or a band.
63. To write about political or social issues, problems, or events.
64. To go shopping for food.
65. To make up tunes to hum or to compose music.
66. To experiment with mouthwashes and antiseptics to find out whether they really prevent infection.
67. To make posters.
68. To study graphs, charts, and statistical tables giving figures related to some problem which you are investigating.
69. To make and classify a collection of plants or insects.
70. To model with clay or to make pottery.
71. To repair or construct a radio.
72. To make models of buildings, airplanes, boats, trains, etc.
73. To learn how mathematics is used in figuring life-insurance rates, taxes, etc.
74. To visit an observatory to learn how astronomers study the stars.
75. To set type and operate a printing press.
76. To learn how to write interesting letters.
77. To talk with people in various lines of business about the nature of their work.
78. To take part in discussions of current events both in school and at home.
79. To join in a public-speaking class.
80. To operate business machines such as the adding machine, the dictaphone, the mimeograph, etc.
81. To compare the different ways in which the same idea is expressed in English and in foreign languages.
82. To take part in track and field events.
83. To follow day-by-day reports of the development of some national or international situation or problem.
84. To study the derivation of English words from words in other languages.
85. To tap dance or clog.
86. To sew, mend, knit, weave, or crochet.
87. To play in a dance orchestra.
88. To collect clippings about current affairs for a bulletin board.
89. To plan well-balanced meals.
90. To conduct a band, orchestra, or chorus.
91. To dissect frogs and rats to find out what the skeleton, muscles, nerves, and organs are like.
92. To draw illustrations for books or articles.
93. To use statistics and statistical methods in studying such problems as unemployment, housing, taxation, etc.
94. To make careful observations to find out whether certain popular beliefs are true, such as whether red-haired people have bad tempers, whether additional vitamins in a normal diet will prevent colds, whether it is dangerous to eat fish and ice cream together, etc.
95. To make jewelry.
96. To develop and print photographs.
97. To tinker with mechanical things.
98. To take part in a mathematics club.
99. To find out what certain substances like soap, cellophane, paint, etc., are made of.
100. To paint or refinish furniture, woodwork, etc.
101. To read great novels written in the past.
102. To learn anything in school which may possibly be useful in business, such as mathematics, Spanish, punctuality, courtesy, etc.
103. To read detailed accounts by foreign correspondents of the backgrounds and causes of events in other countries.
104. To read reviews of new books.
105. To learn how to take dictation in shorthand.
106. To read stories and plays in a foreign language.
107. To play volleyball.
108. To compare accounts of the same events in different newspapers.

109. To read articles and books by foreign writers to get their points of view on international problems.

110. To do setting-up exercises.

111. To design clothes, textiles, etc.

112. To listen to a symphony orchestra on the radio.

113. To read magazine articles about current affairs, such as what our government is doing, what is going on in foreign countries, etc.

114. To test clothes and textiles for durability and quality.

115. To go to concerts or operas.

116. To study how certain characteristics of plants and animals are inherited and how they may be improved by breeding.

117. To design decorative objects such as lamps, bookends, ash trays, etc.

118. To read about how distances to inaccessible places are measured, such as from the earth to the sun.

119. To read such books as the *Life of Pasteur, Microbe Hunters, Arrowsmith* (the life of a doctor), etc.

120. To read about the lives of great artists.

121. To read scientific theories about the origin of the earth and other planets.

122. To draw plans for houses, buildings, or things you wish to make.

123. To try various mathematical tricks or puzzles.

124. To find out how to predict changes in the weather.

125. To work with electric motors, transformers, wiring, etc.

126. To read poetry.

127. To learn how to sell merchandise successfully.

128. To read about labor problems, strikes, unions, etc.

129. To study the development of English or American literature.

130. To learn how to keep accounts in business, to figure costs and profits, and to do other bookkeeping operations.

131. To read newspapers and magazines written in a foreign language.

132. To play tennis or badminton.

133. To study different systems of government: the English parliamentary system, the city-manager plan, civil service, communism, fascism, etc.

134. To compare the customs and ideas of people in other countries with our own.

135. To do acrobatic stunts.

136. To look at pictures and floor plans of well-designed homes.

137. To pick out which instrument in an orchestra is playing a certain part.

138. To study and discuss what our government should do about foreign affairs.

139. To learn how to take care of infants and sick people.

140. To study the history of music.

141. To study diseases: what causes them and how they may be prevented or treated.

142. To study and experiment with color combinations.

143. To memorize figures or measurements such as the population of cities, the distance from one place to another, etc.

144. To study how soil conservation and flood control are related.

145. To study the history of art, architecture, etc.

146. To read about the processes of manufacturing such articles as rayon, photographic film, cellophane, etc.

147. To watch carpenters, mechanics, and other craftsmen at work.

148. To work problems in arithmetic.

149. To find out what makes the different colors in neon lights.

150. To find out about the newest developments in architecture.

151. To read biographies and autobiographies.

152. To study how to display and advertise goods.

153. To read about how people lived in the past.

154. To study English grammar.

155. To learn how the routine work of a business office is carried on.

156. To read translations of foreign novels, plays, etc.

157. To take part in swimming or diving contests.

158. To compare the problems and conditions of today with those of various times in the past.

159. To compare a foreign civilization and its problems with our own.

160. To listen to sports broadcasts.

161. To plan a home within a given budget.

162. To listen to phonograph records of classical music.

163. To study the history of your community or state.

164. To read the reports of bureaus which test various products and tell whether they are safe to use and worth what they cost.

165. To study the music of particular composers such as Bach and Beethoven.

166. To find out what causes the changes in people as they grow up.

167. To see art exhibits.

168. To read about how mathematics is used in developing scientifie theories such as the explanation of how the planets move around the sun.

169. To find out why children are like their parents in certain ways and yet differ from them in other ways.

170. To talk about painting, sculpture, and other arts with people who are interested in them.

171. To read about new scientific developments such as the cyclotron (atom-smasher), new uses of X rays, the "electric eye," etc.

172. To study fine craftsmanship in wood, metal, pottery, printing, etc.

173. To work on algebra problems.

174. To find out what fire is: what happens when things burn.

175. To read articles about how to make things, such as those in *Popular Mechanics.*

176. To read books of travel and exploration.

177. To learn the general principles which explain and control business practices, the rise and fall of prices, depressions, etc.

178. To find out when certain historic events took place, when certain famous people lived, etc.

179. To consult a dictionary to find the meaning of unusual or rarely used words.

180. To study laws and court decisions which apply to business.

181. To read books dealing with life in other countries.

182. To play golf.

183. To find out how historical events in one country or at one time were influenced by events in other countries or at other times.

184. To find out how languages have changed and grown and influenced one another.

185. To act as manager of an athletic team.

186. To read "household hints" and other articles about the care of the home.

187. To analyze the structure of a musical composition, picking out themes, development, etc.

188. To study the history of present political and social problems to find out what causes them and what has been done about such problems in the past.

189. To learn how to select clothing of suitable materials and design.

190. To read about great musicians.

191. To study how diet and exercise affect a person's complexion and weight.

192. To collect reproductions of paintings.

193. To read about the lives of famous mathematicians.

194. To find out how dangerous bacteria may be kept out of water, milk, and other foods.

195. To learn to recognize the work of particular artists such as Rembrandt, Whistler, and Van Gogh.

196. To read about the construction and use of the new 200-inch telescope.

197. To see exhibits which show how automobiles, rubber tires, rayon, paper, etc., are made.

198. To work out proofs of exercises in geometry.

199. To read about the lives of great scientists.

200. To read about new improvements in automobiles, airplanes, etc.

END OF TEST

WHAT KIND OF A YEAR ARE YOU HAVING?

A Series of Statements of Pupil Adjustment Attitudes

Name_____H.R. Teacher_____How old are you?_____yrs._____months

School_____Class and Section_____

Home Address_____

Age_____Years Last Birthday_____

On this sheet are statements that pupils have made concerning their school and life. Place a CHECK ( ) before each statement that you could truthfully have said about yourself.
Place a CROSS (X) before each statement that you are certain does not apply to you.
Place a QUESTION MARK (?) before each statement about which you are doubtful.
DOUBLE CHECK ( ) the one statement that best describes your point of view.
If none of these statements exactly or completely expresses your point of view, write a brief statement beneath them that tells in your own words what kind of a year you are having.
The purpose of this sheet is to help evaluate the work of your school and home in providing a satisfactory educational environment for you.

_____1. This year is the most eventful year of my life, but not all of it is roses. Both winter and summer have been unpleasant.
_____2. My life is sometimes happy and sometimes sad, but on the whole I'm quite cheerful.
_____3. This year is the happiest I have ever lived as far as school and home life are concerned.
_____4. School at the present time is very enjoyable. My outlook on life is one of hopeful expectancy and desire. This year is a bit easier than other school years.
_____5. Life is O.K. Outside of a few minor troubles life is rather bright.
_____6. On the whole I really consider this year the best of my life so far.
_____7. Interesting. As getting older I realize that there are responsibility.
_____8. Life for me this year hasn't been quite up to the mark.
_____9. Happiness and good fortune have been almost constant companions this year.
____10. Life is neither so good nor so bad.
____11. It has been a happy one for the greater part of the year, but it has also been very, very unhappy.
____12. Life is getting too fast for me.
____13. This year is one of the happiest and most satisfactory years of my life.
____14. Such a life is not worth living.
____15. This year seems to be one of the worst years.
____16. This year is in some ways better and some ways worse. It is about as good and could have been worse.
____17. My attitude toward life this year has been varied. There have been periods when everything seemed to go wrong. But, at times, I feel perfectly content.
____18. I hate my life.
____19. I am thoroughly disgusted with my life this year.
____20. Outside of school life this year is terrible.
____21. My life isn't at its best this year. I get bored often and wish things at home looked better for the future than they do.
____22. I think this is a most satisfactory year.

EXPERIMENTAL INTEREST INDEX Section I

Name _____ Grade & Section No. 7 7-7

School SHORE Boy or Girl Box Date March 4, 1957

TRUE	FALSE		
X		1.	You can't tell what a person thinks by what he says.
X		2.	Most laws are worthwhile.
	X	3.	Girls are more sincere than boys.
X		4.	Often I cannot trust some of my best friends.
X		5.	I like best persons near my own age.
	X	6.	Anger is a childish reaction.
X		7.	Nearly all parents love their children.
X		8.	A disobedient child should be punished.
	X	9.	Occasionally I refuse to talk to someone else.
X		10.	Most laws are for my protection.
X		11.	Policemen frighten me a little.
X		12.	Boys are more sincere than girls.
	X	13.	I do not have a really close friend.
	X	14.	Anyone who won't fight is a coward.
X		15.	Life won't be worth much without my parents.
X		16.	Children should obey parents even when parents are wrong.
	X	17.	It is fun to break laws.
X		18.	When I am angry I like to be alone.
	X	19.	All people are worth knowing.
	X	20.	I usually go to movies alone.
	X	21.	All quarrels start because of selfishness.
X		22.	I have many close friends.
	X	23.	I hate one or more of my relatives.
X		24.	I rarely if ever go to the movies.
	X	25.	Once I thought I might have been an adopted child.
X		26.	Sometimes I want to talk to someone, but I am afraid to do so.
X		27.	I prefer working alone.
	X	28.	I usually feel at ease around strangers.
X		29.	I like to work with others very much.
X		30.	My neighbors are not very friendly.
	X	31.	I am afraid to walk out alone at night.
	X	32.	Teachers are more important than parents in training children.
X		33.	The more friends one has the better.
	X	34.	No one can tell me what to do.
X		35.	I am sure I am being talked about.
X		36.	It is always a good thing to be frank.
X		37.	I have very few quarrels with members of my family.
X		38.	I forget right away what people say to me.
	X	39.	I frequently have to fight against showing that I am bashful.
X		40.	I frequently ask people for advice.
	X	41.	I get all the sympathy I should.
X		42.	I certainly feel useless at times.
X		43.	I do not like everyone I know.
X		44.	I do not mind meeting strangers.
X		45.	I easily become impatient with people.

EXPERIMENTAL INTEREST INDEX Section II

Name _____ Grade & Section No. 7 2 2

School Hope Boy or Girl Boy Date March 48

TRUE	FALSE		
	X	1.	I sometimes feel that I am about to go to pieces.
X		2.	I think that I feel more intensely than most people do.
	X	3.	I work under a great deal of tension.
X		4.	I am not afraid of mice.
X		5.	I shrink from facing a crisis of difficulty.
	X	6.	I have had periods in which I lost sleep over worry.
	X	7.	It makes me nervous to have to wait.
X		8.	I seldom worry about my health.
	X	9.	Almost every day something happens to frighten me.
X		10.	I am not easily angered.
	X	11.	I cry easily.
	X	12.	One or more members of my family is very nervous.
X		13.	I get mad easily and then get over it soon.
X		14.	Most people are honest chiefly through fear of being caught.
X		15.	I have nightmares every few nights.
X		16.	It makes me angry to have people hurry me.
X		17.	I am not afraid of fire.
	X	18.	I worry quite a bit over possible misfortunes.
	X	19.	A windstorm terrifies me.
	X	20.	I am often afraid of the dark.
	X	21.	I worry over money and business.
X		22.	I am greatly bothered by forgetting where I put things.
	X	23.	I feel anxiety about something or someone almost all the time.
X	X	24.	Religion gives me no worry.
	X	25.	I have certainly had more than my share of things to worry about.
	X	26.	Lightning is one of my fears.
	X	27.	I have very few fears compared to my friends.
X		28.	I believe I am being plotted against.
X		29.	At times I feel like smashing things.
X		30.	I am not afraid to handle money.
	X	31.	I brood a great deal.
X		32.	Life is a strain for me much of the time.
	X	33.	I am easily awakened by noise.
	X	34.	I frequently find myself worrying about something.
	X	35.	My sleep is fitful and disturbed.
	X	36.	It does not bother me that I am not better looking.
X		37.	I do not worry about catching diseases.
	X	38.	I am afraid to be alone in the dark.
X		39.	The future is too uncertain for a person to make serious plans.
	X	40.	I am worried about sex matters.
	X	41.	I am afraid of using a knife or anything very sharp or pointed.
	X	42.	I have been afraid of things or people that I knew could not hurt me.
	X	43.	Most of the time I feel blue.

EXPERIMENTAL INTEREST INDEX - Section II (cont'd)

TRUE	FALSE		
	X	44.	I have often been frightened in the middle of the night.
	X	45.	It is safer to trust nobody.
	X	46.	I am afraid of losing my mind.
X		47.	I am afraid when I look down from a high place.
	X	48.	Dirt frightens or disgusts me.
	X	49.	I am not afraid of picking up a disease or germs from door knobs.
	X	50.	I believe I am being followed.
	X	51.	I dread the thought of an earthquake.
	X	52.	Several times a week I feel as if something dreadful is about to happen.
X		53.	I have been told that I walk during sleep.
X		54.	Most nights I go to sleep without thoughts or ideas bothering me.
	X	55.	I hear strange things when I am alone.