An inventory of psychological characteristics manifested by students of a consolidated high school

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AN INVENTORY OF PSYCHOLOGICAL CHARACTERISTICS
MANIFESTED BY STUDENTS OF A
CONSOLIDATED HIGH SCHOOL

A THESIS
SUBMITTED TO THE FACULTY OF
THE SCHOOL OF EDUCATION, ATLANTA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

BY

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SCHOOL OF EDUCATION
ATLANTA UNIVERSITY
ATLANTA, GEORGIA
JULY, 1965
DEDICATION

To my parents, for their sincere help and encouragement. Also to my brothers, E. W., Buddy, and Charles, with hopes that they will aspire to higher achievements.
ACKNOWLEDGMENTS

The writer wishes to acknowledge his indebtedness to the many persons who have, in various ways, contributed ideas and suggestions which were of great value in the successful completion of this research.

A very real and sincere debt of gratitude is due his advisor, Dr. Huey E. Charlton, and Co-advisor, Dr. Robert Smothers, who have reviewed the entire study and offered many constructive criticisms and suggested many valuable changes in its contents.

Finally, to his mother and father, for their encouragement and end-most help throughout this research.
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CHAPTER I
INTRODUCTION

Rationale.--The children of today will conduct the affairs of tomorrow. How well they will succeed in this tremendous task depends on the family life, school, and community in which they will live, learn, and grow into adult citizens. It is our responsibility as teachers and counselors, working cooperatively with parents, to make the finest development of our children and youth. We must gear our school to the task of developing the whole child. We must keep in mind that the function of the entire school is to develop certain powers within the child, paramount among them is acquiring the power to know, to think, to perform as worthwhile citizens and to be accepted by the society in which he lives. In order to reach these goals, we must know something about these individuals so that we may help them plan their lives so as to minimize future setbacks.

The writer believes that guidance is the process which can help the individual to move toward total adjustment, with emphasis on developing the whole individual to his fullest potential. Guidance is based on the philosophy of individual differences. The fundamental principle
holds that each boy and girl in school is an individual, similar in many respects to each other, but so basically different that any comparison of one with the other only emphasizes to a greater extent their distinguishing qualities.

The writer accepts the belief that all children need help in making proper adjustment and in decision making. This, in the authors opinion, has always been so and will continue to be so as long as human beings exist. The 1958 action of the federal government brought to the attention of the masses the fact that guidance is needed, not only for the poor and early school leavers, but for children from all classes of society. This action and other social and economic changes during the past century have made it increasingly necessary to make definite provisions for guidance in our schools.

Any school which attempts to serve its functions well must consider the educational needs of its youth. Thus a survey of the community circumstances and resources should be made. This helps the school personnel know something of the child's background. In order to further aid the pupil in his development, something must also be known of his abilities, interests, academic achievement, and personality.

Accepting the preceding ideologies, the writer has
reasons to believe that the present study has merit. Like most other educational institutions, Consolidated High School is committed to the responsibility of training youth of the community so thoroughly that they may be able to make wise decisions in almost any endeavor that they may encounter later in life.

Evolution of the problem.--During the 1963-64 academic year the writer had the opportunity to attend the NDEA Guidance and Counseling Institute at Atlanta University, Atlanta, Georgia. As a result of studies undertaken and experiences in which he engaged during this period, the author determined that his research study should be one which would be beneficial to his work and the school in which he is currently employed.

The writer further felt that in order to initiate a good guidance program, he must know something about the students he is to help. Also, on assessment of the interests, mental ability, personality, and academic achievement should be a starting point for acquiring information about the students to whom he was responsible for guidance and counseling services.

Contribution to educational knowledge.--Today's educational trend places focus on consolidation and a larger high school with broad curricula offerings. The fact is, however, for varied reasons, the small high school is still
in existence in many areas throughout the nation.

The writer, employed in a small high school, sees merit in such a study and believes that the findings will prove helpful to teachers, counselors, and administrators who work in situations with a small student population. It is hoped that the study will prove beneficial in helping to plan curricula and in the development of guidance and counseling services for students in a small high school situation.

The writer accepts the premise that the move is rapid toward consolidation. This being the case, it seems natural that as much as possible needs to be found out about students in small high schools. The author, therefore, accepts the idea that educators and counselors are responsible for, or should accept the responsibility for helping these pupils who attend very small high schools make proper adjustment when they become absorbed in the large high schools.

Realizing that a majority of our students will not be able to attend college for various reasons, it is hoped that this study will indicate what the school needs to do in order to prepare those students who are not going to college to find employment, adjust to community life, make contributions to society while accepting responsibilities and pass the value of these responsibilities to our posterity.

Statement of the problem.--The problem involved in this
study was to investigate certain psychological characteristics manifested by the entire student population at Union County Consolidated High School. More specifically, answers were sought to the following questions:

1. How do the students compare with the general population in mental ability?
2. What is the adjustment status of these students?
3. What are the occupational interests of these students?
4. How does the mental ability of these students compare with their academic achievement?
5. What implications for guidance do these findings have?

Purpose of the study.—The major purpose of this study was to obtain some insight as to the distribution of mental ability, personality, interest, and academic achievement of the student population of Consolidated High School, Lake Butler, Florida. More specifically, the purposes were as follows:

1. To determine the occupational interest of the students at Consolidated High School.
2. To examine the personal, social, and total adjustment of these students.
3. To ascertain the academic achievement of these students.
4. To determine the mental abilities of these students.
5. To determine the relationship among interest and intelligence, personality and intelligence, academic achievement and intelligence, and academic achievement and personality.
6. To identify those students whose special needs can
be met through counseling, especially those needs which can be met through use of available resources.

Limitations of the study.--The limitations of this study were:

1. Data were compiled from test results involving students in a one school situation.

2. The size of the sample was small, even though the entire high school population (grades 9-12) was used. There are only 36 students in the high school division.

3. A selected array of psychological characteristics were studied: interest, mental ability, personality, and academic achievement.

Description of subjects.--The subjects involved in this study were students enrolled at Consolidated High School, Lake Butler, Florida, and were in attendance at the only high school for Negroes in Union County. The age level of the participants ranged from 14-19 years and the actual grade placement ranged from 9 to 12.

Locale and period of study.--This study was conducted during the month of June, 1965, at Lake Butler, Union County, Florida.

Method of research.--The descriptive survey was employed as a method of research. Data were collected by use of standardized tests and grade-point averages as measures of academic achievement.

Definition of terms.--The purpose of the following is to define terms used in this study that may not be clear in
the minds of the reader.

1. **Grade-point average.**—The value obtained when the total grade-points are divided by the total number of subjects attempted.

2. **Under-predicted.**—A student whose academic achievement exceeds that which is expected when predictions are made on the basis of intelligence test scores.

3. **Normal-achievers.**—Students whose academic achievement seems to correspond with their intelligence.

4. **Under-achievers.**—Students with high potentials, as measured by intelligence tests, but who perform poorly.

**Research procedure.**—The research procedure employed in conducting this study included the following:

1. Permission to conduct the study was secured from the proper authorities.

2. Related literature pertinent to this study was reviewed, summarized and organized for presentation.

3. Three tests were administered: The Otis Quick-Scoring Tests of Mental Ability, The California Test of Personality, and the Kuder Preference Record, Vocational.

4. Grade-Point averages were computed for each student.

5. The relationships among intelligence and achievement, intelligence and interest, intelligence and adjustment, and grade-point average and adjustment were determined by computing the coefficient of correlation.

6. The data received were organized, analyzed, and presented in tabular forms.

7. The findings, conclusions, implications and recommendations were compiled for presentation.
Description of instruments.--The instruments utilized in this survey were as follows:

1. The California Test of Personality is organized around the concept of life adjustment as a balance between personal and social adjustment. Personal adjustment is assumed to be based on feelings of personal security.

2. The Otis Quick-Scoring Mental Ability Test is designed to measure mental ability—thinking power or degree of maturity of the mind.

3. Vocational interests were obtained through use of the Kuder Preference Record. This instrument makes a systematic approach to occupational fields by measuring preferences in ten broad areas: outdoor, persuasive, social service, computational, mechanical, scientific, artistic, literary, musical, and clerical.

4. Grade-point averages were computed from grades assigned to students in the senior high school.

Survey of related literature.--The related literature in this study deals directly with results of studies related to some aspects of intelligence, interest, personality, and academic achievement.

The relationship between academic achievement and personality has been of continued and increased interest in recent years. Because intellectual ability, as one aspect of personality, is a most important factor in academic success, most of the emphasis in this area has been placed on establishing some measure of intellectual ability and academic achievement.

Teachers and counselors frequently have been aware of individuals with high potentials according to intelligence
test measurement but who perform poorly, conversely, there are many students with limited potentials who perform very well academically. The terms over- and under-achiever are often used to identify these individuals.

In most instances, we will find at one end of the distribution of intelligence the very bright children who find their school work rather easy and are able to handle problems beyond their years. At the other end of the distribution we will find a comparable amount of students who are able to read and write a little. Usually they get through three or four grades in school but are unable to progress further.

When we think of the distribution of mental abilities, we must make allowances for those students who have special abilities.

Teachers and counselors continuously make predictions of academic success of one sort or another. The prediction literature clearly illustrates a reliance on mental tests in predicting academic success. Many studies report correlations between scores on I. Q. tests and grades in various subject matter areas. Feingold made a study of correlations between intelligence and scholarship and found that I. Q. tests correlated more highly with academic than non-academic subjects.¹ Summaries of prediction studies

¹Gustare A. Feingold, "Correlation Between Intelligence and Scholarship," School Review, XXXII(June, 1921), p. 455.
conclude that the average correlation between I. Q. test scores and a given subject is about .50, and the correlation between I. Q. test scores and high school averages range from .53 to .65.²

Most investigators have been concerned with the single correlation between I. Q. score and high school grade-point average or between I. Q. score and marks in a specific subject. Ross correlated grade school variables including the I. Q. score with overall high school average and with marks in specific high school subjects. Dodes used the I. Q. score as one of the several contributing variables to predict overall high school average, and Wellman used the I. Q. score in conjunction with sections of the SRA Primary Mental Abilities Test. These investigators found that the I. Q. score made significant contributions to their prediction batteries.³ More recently, Long noted that the I. Q. score as one of a battery of predictions, did not contribute significantly to the predictions of success in various high school subject matter areas.⁴

²F. F. Bobbott and C. W. Grant, "I. Q. As one of Several Variables in Predicting Academic Success," The School Counselor, XII (October, 1964) p. 18.

³Ibid., p. 18.

Many educators feel that errors in interpretation occur when a child's I. Q., as determined by a given test, is regarded as a fixed value that can be used once and for all in classifying a student or in guiding his work at school. However, the tests have proven to be of great value in assisting individuals and in providing for guidance, treatment, and education adapted to their level. Although what the tests measure is an important factor in the adjustment of humans, it is not the sole factor. Adjustment and good living depends on the combination or pattern of all the resources that make up the person.

In a review of the research concerning the relationship between non-intellectual factors and academic achievement, Goodison reports that the results are somewhat conflicting, but there is evidence that some relationship exists between these factors. He also notes that there seems to be some agreement that the efficiency of predicting academic achievement can be augmented by including measures of non-intellectual factors in test batteries used for the placement and counseling of students.  

Sanford has pointed out that non-intellectual predictor variables have not been found to improve meaningfully.

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predictions based on measures of verbal and mathematic ability. However, Lang, Sferra, and Seymour recently found evidence that some Edwards Personal Preference Schedule variables were significantly related to academic achievement. It was suggested by these investigators that such measures be employed to identify under-achievers early in their freshman year.7

Goodison, in his study of the relationship of several non-intellectual factors to the academic achievement of over- and under-achieving students in several different high school curricula found no differences between the subgroup mean scores on the California Test of Personality. However, some general trends were noted. The best personality test scores were earned by the over-achieving college preparatory girls, while the poorest scores were obtained by the under-achieving general vocational boys. The direction of the total scores would generally seem to indicate that the various curricula had fewer adjustment problems than the under-achieving students.8

Generally speaking, the relationship of personality


8Goodison, op. cit., p. 129.
tests to academic achievement has not been at all clear. There seems to be no set pattern as to the relationship of personality to academic achievement. Some studies show a positive relationship to some personality variables while others show a negative relationship.

Stone and Foster, in a study of academic achievement as related to psychological needs, found that there was a significant relationship. Ten SAI scales were significantly related with the variable of predicted GPA within the majority of the studies student groups. Achievement, Dominance, Humanism, Scientism, and Understanding were found to be significantly correlated in a positive manner with predicted GPA in a majority of the student groups. Order was significantly correlated in a negative fashion with GPA in four of the five student groups; however, aggression was found to be significantly related positively to predicted GPA within Arts and Sciences male groups and Engineering male groups but significantly related in a negative manner with the Home Economics female group.9

Davis states that of the more than 1,500 studies pertaining to personality and academic achievement, the measures of personality seldom are of any practical value.

in prediction of academic success beyond that which is generally obtained from intellectual measures.¹⁰

There have been many studies and research made concerning academic achievement and non-intellectual factors. The following is a summary of a study made by De Sena on the role of consistency in identifying characteristics of three levels of achievement. Non-intellectual factors were identified which characterized consistent over-, under-, and normal-achievers as individual groups and which significantly distinguished them from each other.

From a total of 1,061 freshman male students enrolled in science curricula at the Pennsylvania State University, three groups of 42 consistent over-, under-, and normal-achievers were matched with a high degree of accuracy on such variables as predicted average, and consistency of over-, under-, and normal achievement over a three-term period. The eight instruments utilized were completed by the population several days prior to their first term as sophomore students.

It is concluded that: (a) common non-intellectual factors in the areas of interest, personality, problems, personal background, values, and academic and social adjust-

ment to college can be identified which characterize over-, under-, and normal-achievers as individual groups and which significantly distinguish them from each other; (b) Neglect of the consistency factor may have been responsible for the failure of standardized instruments in previous studies to discriminate among achievement groups.\textsuperscript{11}

Vocational interests theories suggest an interrelationship between interest and personality characteristics. A number of research studies of the relationship of occupational preferences to measured personality traits have been conducted. After reviewing a number of studies, Super concludes: "Personality adjustment in the sense of feelings of adequacy and security has not been shown to be related to interest patterns. He suggests, however, that an effective theory of interests must take cognizance of a relationship between interest and the 'deeper layers' of personality, as well as personality traits and drives.\textsuperscript{12}

Some authors suggest that the typical concentration of interest in artistic, literary, and musical activities among the emotionally disturbed may reflect preferences


for professional level occupations rather than necessarily for the specific "talent" occupations. The results of various research studies tend to agree. Generally, scientific interest has been found to be related to a lesser concern with people and social activities, and a lesser degree of maturity. Business contact and verbal-linguistic interest patterns tend to be related to a greater social interest, social adjustment, and greater maturity. Aesthetic types of interests generally have been found to be related to personality maladjustment.

From their review of the research studies to 1955, Derley and Hagenah conclude that "there is some support in the research data for some of our cultural stereotypes of personality characteristics of members of various occupational groups."

Patterson also has reviewed several studies in this area and concluded that "A personality or adjustment scale which measures social adjustment- or sociability- or which has many items in this area, will apparently correlate negatively with technical interest, and positively with interests in literature and art, and also with welfare

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interest.\textsuperscript{14}

One may be safe in stating that an individual supplies his energy most purposefully and productively if he finds satisfaction in the activities and association of a task. Research findings indicate that the average adult possesses a pattern of interests which is characteristic of him as a person and that people in the same occupation seem to have similar patterns of interests. Research also shows that the feelings of "liking and disliking" of young people tend to become established during the secondary-school years and to form patterns of interests that suggest probable careers.

Super and Crites concluded: The correlation between the Kuder and various personality inventories is not high enough to warrant substituting interest for personality appraisals in individual vocational diagnosis. Some, however, are high enough to support certain interpretations of interest-personality patterns when measures of each are used together.\textsuperscript{15}

Winick, in his study of the personality characteristics of embalmers found that the successful embalmer is likely


to be a relatively neurotic person with considerable feminine identification. These findings are sharply at variance with the study of Minnesota embalmer trainees, which reported no significantly deviant personality characteristics.\textsuperscript{16}

It is generally agreed by most authors that interest and personality characteristics are correlated to a significant, if modest, degree. Darley and Hagenah observed that "occupational choice and measured occupational interests reflect, in the vocabulary of the world of work, the value systems, the needs, and the motivations of individuals."\textsuperscript{17}

Cronbach states that "a good many empirical studies have found modest relations of interests to personality tests;" he also comments: "There is considerable agreement about the adjustment significance of Kiddler interests."\textsuperscript{18}

There are many supporting statements that show that there is some relationship between interest and personality. The research findings below will support this statement.

1. Evans, in 1947, found that the social and thinking introverts scored low on the Kiddler persuasive scale.

2. Ivey, in 1963, obtained a correlation of -0.31


\textsuperscript{17} Darley and Hagenah, \textit{op. cit.}, p. 191.

(significant at the one per cent level) between the Kuder persuasive scales and theoretical value.

3. Newman, in 1955, found that the more poorly adjusted group of tuberculosis patients tended to score high on the Kuder social service scale.

4. Guilford, in 1959, found that the Kuder Clerical score correlated to the extent of -0.44 with criteria of leadership in a situation in which subjects were doing a clerical task.\(^1\)

We may be safe in saying that individuals differ in mental abilities. Most usually, casual observations will indicate that there are differences among persons in ability to do different things. However, interests and abilities are not unrelated. In general, we like to do the things we can do well, and we do well the things we like to do. It appears that an individual should measure high in those interest areas where there are relatively high abilities; low interests, therefore, would accompany relatively low abilities. In discussing the research, Miller stated that "somehow it seems that there should be a relationship between interest and ability, but if we mean tested ability and inventoried interests, the accumulated evidence is so overwhelming in the negative that there is very little to

be gained by laboring the point. Carter, however, states that "it is believed that patterns of ability may bear significant relationship to the patterns of interest. Cross-sectional studies showing the interrelationship among ability measures and interest scores at any one time are not regarded as adequate."  

Frandson and Sessions derived a method of inter-correlations between interest and achievement, finding that some students may be motivated by interest, while others are more highly motivated by extrinsic values.

Carmical used the Otis Quick Scoring Test of Mental Ability and the Kuder Preference Record in her study of the characteristics of achievers and under-achievers in a large high school. In this study she found that achievers appeared to be interested in occupations of computational, scientific, and social content, while under-achievers seemed to prefer the mechanical or persuasive fields.

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Hake concluded from his survey of a number of previous studies that there were low and moderate correlations between Kuder scores and grade-point average and that literary interest scale scores were positively correlated and mechanical interest negatively correlated with grades in Liberal Arts and Science curricula.24

CHAPTER II

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

The purpose of this chapter is to present and interpret the data collected in attempting to achieve the purposes listed in Chapter I. In summary, those purposes were to determine the occupational interest, personal adjustment, academic achievement, and academic aptitude of students enrolled in the Consolidated High School in Lake Butler, Florida. In addition, the researcher investigated the relationship that existed among those variables for the total population of the Consolidated High School. Finally, an attempt was made to describe this student population so as to enable the school administration to plan a guidance program in accord with the unique needs of the students.

The entire high school population of this rural school is 36 students. This includes 21 females and 15 males. Instruments used to measure the variables and collect the data were the California Test of Personality, Otis Quick-Scoring Test of Mental Ability, and Kuder Preference Record. The Cumulative Record Cards provided teacher-grades in the several subjects taken by the students in the high school. All tests were administered by the researcher under standard
conditions, as suggested in the tests' manuals. Even though the students had very little previous experience with standardized tests, the examiner was able to observe all of the standards stipulated in the manuals.

Test results and grade-point averages were treated statistically by computation of means, medians, standard deviations, and coefficient of correlations.

The remainder of the chapter is organized around the variables studied.

**Intelligence.**—Intelligence tests have proven to be of value for predictions of how far an individual will be able to go in the average American School. It may be added that the student's reaction to school experiences are influenced by his level of intelligence and his past experiences. For that reason, an attempt was made to describe the levels of intelligence found within this student population. It was found that the students' intelligence quotients ranged from a low of 59 to a high of 116. Seventeen per cent (6) of the students showed I. Q. scores above 100. Thirty per cent (11) possessed I. Q. scores of less than 80. The mean I. Q. for the group was 86.15, the median was 86.10, the standard deviation was 13.5, and the standard error of the mean was 2.25.

Table 1 shows the distribution of I. Q.'s according to sex. As seen from this table, the girls as a whole,
possessed higher I. Q.'s than the boys. It can also be seen from this table that the girls' I. Q.'s covered a wider range than the boys. Twenty-nine per cent of the girls scored above 100, 10 per cent scored between 90 and 99 and 61 per cent possessed I. Q. scores of less than 90.

An inspection of this table reveals that no boys were reported to manifest an I. Q. score above 94. Only 13 per cent possessed I. Q. scores above 90, and 87 per cent received scores of less than 90.

**Academic achievement.**—When considering the academic achievement of boys and girls, educators usually base their assumptions on teacher-given grades and scores merited on tests that purport to measure academic achievement. In this study, teacher-assessed grades were employed, taking into consideration, specifically, the grading system of Consolidated High School incorporated with the grading system of Union County. It must be taken into consideration that a teacher-given grade often represents not only the pupil's achievement, but also the teacher's estimate of native ability, effort, attitude, and other things, including even what students call "apple polishing." Teachers are individuals and thus make use of individualized criteria in assessing grades for their pupils.

The grading system of Consolidated High School, as set up by the Union County School Board, is based on the
TABLE 1
DISTRIBUTION OF INTELLIGENCE QUOTIENTS FOR BOYS AND GIRLS AT CONSOLIDATED HIGH SCHOOL, LAKE BUTLER, FLORIDA.

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Per cent.</td>
<td>Number</td>
</tr>
<tr>
<td>115-119</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>110-114</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>105-109</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>100-104</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>95-99</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>90-94</td>
<td>2</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>85-89</td>
<td>5</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>80-84</td>
<td>4</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>75-79</td>
<td>4</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>70-74</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>65-69</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>60-64</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>55-59</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Mean: 86.15  
Median: 86.10  
Standard Deviation: 13.5  
Standard Error: 2.5
four-point system. The highest grade is "A", carrying a
grade-point equivalent of 4.0. Grades are awarded in all
classes taken by the students. This includes physical
education, home economics, music, and the regular academic
subjects.

Table two shows the distribution of grade-point
averages in number and per cent for boys, girls, and total
group of Consolidated High School.

Table two reveals that the majority of the students
at Consolidated High School are making average progress
academically (2.0-2.9). An analysis of the table showed
that no boys had grade-point averages of 3.0 or above.
Sixty per cent possessed grade-point averages between 2.0
and 2.9, and 40 per cent possessed grade-point averages
between 1.5 and 1.9.

An inspection of this table also revealed that 33 per
cent of the girls obtained grade-point averages of 3.0 and
above, 52 per cent exhibited grade-point averages between
2.0 and 2.9, and 15 per cent revealed grade-point averages
below 2.0.

This table also indicated that 19 per cent of the stu-
dents had grade-point averages of 3.0 or better, 56 per
cent fell below 2.0.

It is evident that the girls earned higher grade-points
averages than the boys. The mean score for the girls was
### TABLE 2

**DISTRIBUTION OF GRADE-POINT AVERAGES FOR BOYS AND GIRLS AT CONSOLIDATED HIGH SCHOOL.**

<table>
<thead>
<tr>
<th>Range and Scores</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5-3.9</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3.0-3.4</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2.5-2.9</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2.0-2.4</td>
<td>8</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>1.5-1.0</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1.0-1.4</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean Group</th>
<th>Boys</th>
<th>Girls</th>
<th>S.D.</th>
<th>S.E.</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.3</td>
<td>2.0</td>
<td>.6</td>
<td>.1</td>
<td>2.4</td>
</tr>
</tbody>
</table>

27
one-half grade-point higher than that of the boys.

Table three presents the grade-point averages and the intelligence quotients of boys and girls at Consolidated High School. This table points up the significant fact that students with high mental ability usually emerge with the better grade-points. It is exhibited in this table that three students with intelligence quotients above 110 obtained grade-point averages between 3.0 and 3.9, three students with I. Q.'s between 105 and 109 possessed grade-point averages between 2.5 and 3.5, three students maintained grade-point averages which ranged from 1.5 to 2.5 and possessed I. Q.'s quotients below 90, two obtained grade-point averages between 3.0 and 3.4, 20 accumulated grade-point averages between 2.0 and 2.9, and eight fell short of the 2.0 level.

The intelligence quotient of a student is an important factor in determining the academic potentials of the student. Academic achievement is also one of the several variables used in predicting future academic success. However, we must not hasten to make decisions based on these data alone. There are many variables that may cause pupils to achieve or fail.

An inspection of Table three reveals that three girls possessed I. Q.'s above 100 and received grade-point averages of 3.0 and above. Three girls with I. Q.'s between 110 and 116 obtained grade-point averages between 2.9 and 3.9. Two
### TABLE 3

**DISTRIBUTION OF INTELLIGENCE QUOTIENTS AND GRADE-POINT AVERAGES FOR STUDENTS AT CONSOLIDATED HIGH SCHOOL**

<table>
<thead>
<tr>
<th>Mental Ability</th>
<th>Grade-Point Ranges</th>
<th>B G T</th>
<th>B G T</th>
<th>B G T</th>
<th>B G T</th>
<th>B G T</th>
<th>B G T</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5-3.9</td>
<td></td>
<td>115-119</td>
<td>000</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>111</td>
</tr>
<tr>
<td>3.0-3.4</td>
<td></td>
<td>110-114</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
</tr>
<tr>
<td>2.6-2.9</td>
<td></td>
<td>105-109</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
<td>011</td>
</tr>
<tr>
<td>2.0-2.4</td>
<td></td>
<td>100-104</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td>1.5-1.9</td>
<td></td>
<td>95-99</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td>1.0-1.4</td>
<td></td>
<td>90-95</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>112</td>
<td>101</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td></td>
<td>85-89</td>
<td>000</td>
<td>011</td>
<td>112</td>
<td>123</td>
<td>303</td>
<td>303</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80-84</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>404</td>
<td>011</td>
<td>011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75-79</td>
<td>000</td>
<td>011</td>
<td>011</td>
<td>202</td>
<td>213</td>
<td>213</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70-74</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65-69</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>000</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60-64</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55-59</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>011</td>
<td>011</td>
</tr>
</tbody>
</table>

Legend: Boy-B  
Girl-G  
Total-T  

Mean I. Q. 86.15  
Mean G. P. A. 2.3
girls with I. Q.'s between 90-94 showed grade-point averages of 2.0 and above. Of the girls with I. Q. scores below 90, two obtained grade-point averages above 3.0, eight possessed grade-point averages between 2.0-2.9, and three received grade-point averages of less than 2.0.

The information gleaned from Table three reveals that two boys had I. Q. scores between 90-94. One of these boys had a grade-point average of 2.3 and the other had a grade-point average of 1.8. Thirteen of the boys possessed I. Q. scores below 90. Eight of these boys had grade-point averages of 2.0 and above, and five possessed grade-point averages less than 2.0.

This study leaves no doubt in the author's mind as to the relationship between mental ability and academic achievement of the students at Consolidated High School. By utilizing the ascertained data from the tests administered and grade-point averages computed for this study, and applying the Spearman Rank Difference Method of correlation, the author finds that these two variables are significantly related. The coefficient of correlation was found to be .48. The t-ratio was found to be 3.216 which is larger than 2.030 which was required for significance at the 5 per cent level.

Vocational interest.—Table four, shows the results of the Kuder Preference Record-Vocational Form CH for the
students at Consolidated High School. For convenience, the results were categorized into per cent of boys and girls scoring above the average, within the average, and below the average in all areas.

Average scores include those scores that fall between the 25th and 75th percentiles as indicated by the profiles. Below average scores are those scores that fall below the 25th percentile, and above the average are those scores that are above the 75th percentile.

The areas are as follows: (0) outdoor, (1) mechanical, (2) computational, (3) scientific, (4) persuasive, (5) artistic, (6) literary, (7) musical, (8) social service, (9) clerical.

An important purpose in this study was to find the per cent of the enrollment that is above average on the various components of the Kuder Preference Record-Vocational.

Table four indicates the per cent of enrollment that is above average in areas listed in the Kuder Preference Record, Vocational, Form CH for the boys and girls at Consolidated High, Lake Butler, Florida. This table reveals that no boys exhibited above average interest in outdoor activities, seven per cent appeared to have above average interest in mechanical areas, 47 per cent manifested interest above average in computational and social service areas. It was also indicated that 20 per cent
TABLE 4

PER CENT ENROLLMENT ABOVE AVERAGE, AVERAGE, AND BELOW AVERAGE ON THE KUDER PREFERENCE RECORD.

<table>
<thead>
<tr>
<th>Interest</th>
<th>Sex</th>
<th>Above</th>
<th>Average</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor</td>
<td>Boy</td>
<td>0</td>
<td>66</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>19</td>
<td>52</td>
<td>29</td>
</tr>
<tr>
<td>Mechanical</td>
<td>Boy</td>
<td>7</td>
<td>60</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>28</td>
<td>62</td>
<td>10</td>
</tr>
<tr>
<td>Computational</td>
<td>Boy</td>
<td>47</td>
<td>33</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>64</td>
<td>63</td>
<td>3</td>
</tr>
<tr>
<td>Scientific</td>
<td>Boy</td>
<td>37</td>
<td>60</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>48</td>
<td>38</td>
<td>14</td>
</tr>
<tr>
<td>Persuasive</td>
<td>Boy</td>
<td>20</td>
<td>67</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>14</td>
<td>57</td>
<td>29</td>
</tr>
<tr>
<td>Artistic</td>
<td>Boy</td>
<td>33</td>
<td>40</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>9</td>
<td>67</td>
<td>24</td>
</tr>
<tr>
<td>Literary</td>
<td>Boy</td>
<td>20</td>
<td>73</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>38</td>
<td>57</td>
<td>5</td>
</tr>
<tr>
<td>Musical</td>
<td>Boy</td>
<td>20</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>19</td>
<td>53</td>
<td>28</td>
</tr>
<tr>
<td>Social Service</td>
<td>Boy</td>
<td>47</td>
<td>47</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>15</td>
<td>76</td>
<td>19</td>
</tr>
<tr>
<td>Clerical</td>
<td>Boy</td>
<td>40</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>5</td>
<td>90</td>
<td>5</td>
</tr>
</tbody>
</table>
possessed above average interest in persuasive, literary, and musical areas. Twenty-seven per cent displayed above average interest in scientific areas, 33 per cent showed above average interest in artistic areas, and 40 per cent indicated above average interest in clerical areas.

In reference to the girls, Table four indicates that 19 per cent possessed above average interest in outdoor, and musical areas, 64 per cent indicated interest above average in computational areas, 28 per cent appeared to be above average in mechanical areas, 48 per cent showed above average interest in scientific areas, 14 per cent had interest above average in persuasive areas, nine per cent indicated above average interest in artistic areas. It was also pointed out that 38 per cent seemed to be above average interest in clerical areas.

It is revealed in Table four that the majority of the boys and girls at Consolidated High School fell in the average group. We find that the largest number of boys manifested average interest in musical activities and the largest number of girls manifested average interest in clerical areas. Table four further points out that 66 per cent possessed average interest in outdoor activities, 60 per cent indicated average interest in mechanical, scientific, and clerical areas. It was also revealed that 33 per cent displayed average interest in computational
areas, 67 per cent manifested average interest in persuasive areas, 40 per cent manifested average interest in artistic areas, 73 per cent seemed to have average interest in literary areas, 80 per cent seemed to possess average interest in musical areas, and 47 per cent manifested average interest in social service.

Referring to the girls, Table four points out that 52 per cent enjoyed average interest in outdoor activities, 62 per cent displayed average interest in mechanical areas, 33 per cent possessed average interest in computational areas, and 38 per cent had average interest in scientific areas. It also pointed out that 57 per cent of the girls displayed average interest in persuasive and literary areas, 67 per cent had average interest in artistic areas, 53 per cent possessed interest that was average in musical areas, 76 per cent indicated average interest in social service, and 90 per cent seemed to have had average interest in clerical areas.

Table four points out those areas in which the boys and girls fell below average or below the 25th percentile. It further shows that the largest number of boys fell below average in outdoor activities while the largest number of girls fell below average in outdoor and persuasive areas.

Table four also points out that 34 per cent of the boys fell below average in outdoor activities, 33 per cent
were below average in mechanical areas, 20 per cent manifested below average in computational, 13 per cent indicated below average in scientific, and persuasive areas. There were 28 per cent below average in artistic areas, seven per cent were below average in literary areas, and six per cent revealed below average interest in social service. No boys were reported to be below average in musical or clerical areas.

For the girls, Table four shows that 29 per cent had below average interest in outdoor and persuasive areas, 10 per cent possessed below average interest in mechanical areas, three per cent manifested below average interest in computational areas, 14 per cent showed below average interest in scientific areas, 24 per cent seemed to be below average in artistic areas, five per cent were below average in interest pertaining to literary activities, and clerical areas. It was also indicated that 23 per cent displayed below average interest in musical areas, and 19 per cent were below average in social service.

An interesting revelation is noticed between interest and mental ability of the students at Consolidated High School as revealed by data from the Kuder Preference Record, Vocational Form GH and the Otis Quick-Scoring Test of Mental Ability. These facts, shown in Table five were determined by use of the Spearman Rank Order coefficient of correlation. Coefficients reflecting the
relationship of these two variables vary from -0.22 for the persuasive area to 0.30 for the social service area. These coefficients are not significant at the five percent level of confidence.

In a further study of Table five one notes that the largest coefficients were obtained from the social service and clerical areas. The computational, scientific, and persuasive areas showed the lowest coefficients.

The correlation between mental ability and the ten areas listed in the Kuder Preference Record, Vocational, as reported in Table five, reveals the fact that none of the ten areas were significantly related for the majority of the students at Consolidated High School. Outdoor, mechanical, literary, social service, and clerical areas were found to be correlated in a positive, but modest degree. Computational, persuasive, artistic, and musical areas were correlated in a negative, but modest degree. No relationship was shown between the scientific area and mental ability for the majority of the students.

These data would suggest that, for many students at Consolidated High School, there is little relationship between patterns of interest and mental ability.

Guidance is important in this situation in directing the students into avenues of training for occupations in which their interests seem highest, and into occupations which are in keeping with their abilities.
### Table 5

The Relationship Between Vocational Interest and Mental Ability

<table>
<thead>
<tr>
<th>Areas</th>
<th>Obtained</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor</td>
<td>0.812</td>
<td>0.14</td>
</tr>
<tr>
<td>Mechanical</td>
<td>0.232</td>
<td>0.04</td>
</tr>
<tr>
<td>Computational</td>
<td>0.290</td>
<td>-0.05</td>
</tr>
<tr>
<td>Scientific</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>Persuasive</td>
<td>1.298</td>
<td>-0.22</td>
</tr>
<tr>
<td>Artistic</td>
<td>0.590</td>
<td>-0.22</td>
</tr>
<tr>
<td>Literary</td>
<td>1.062</td>
<td>0.18</td>
</tr>
<tr>
<td>Musical</td>
<td>0.522</td>
<td>-0.09</td>
</tr>
<tr>
<td>Social Service</td>
<td>1.830</td>
<td>0.30</td>
</tr>
<tr>
<td>Clerical</td>
<td>1.500</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Personality.--Table 6 and 7 reveals the results of the California Test Of Personality, Form AA. For convenience, the results were categorized into the per cent of boys and girls enrolled scoring above the average in all areas of the instrument. The same procedure is followed with average and below average on this instrument.

Average scores are those scores that fall between the 40th and 60th percentiles as indicated on the profile. Below average are those scores which fall below the 40th percentile on the profile, and above average are those scores that are above the 60th percentile on the profile.

Section I deals with personal adjustment. The areas are as follows: self-reliance, sense of personal worth, sense of personal freedom, feeling of belonging, withdrawing tendencies, nervous symptoms, and personal adjustment.

The areas under social adjustment are as follows: social standards, social skills, anti-social tendencies, family relations, school relations, community relations, and social adjustment.

Table 6 shows the per cent of students who are above average, average, and below average in areas listed on the personal adjustment section of the California Test of Personality, Form AA.

Table 6 indicated the per cent of enrollment scoring above average in areas listed on the personal adjustment
### Table 6

**PERCENT OF ENROLLMENT THAT IS ABOVE, BELOW, AND AVERAGE ON THE PERSONAL ADJUSTMENT SECTION OF THE CALIFORNIA TEST OF PERSONALITY.**

<table>
<thead>
<tr>
<th>Personal Adjustment</th>
<th>Sex</th>
<th>Above</th>
<th>Average</th>
<th>Below</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reliance</td>
<td>Boy</td>
<td>46</td>
<td>27</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>38</td>
<td>14</td>
<td>48</td>
<td>100</td>
</tr>
<tr>
<td>Sense of Personal Worth</td>
<td>Boy</td>
<td>33</td>
<td>33</td>
<td>34</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>24</td>
<td>38</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td>Sense of Personal Freedom</td>
<td>Boy</td>
<td>27</td>
<td>20</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>5</td>
<td>19</td>
<td>76</td>
<td>100</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>Boy</td>
<td>46</td>
<td>34</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>24</td>
<td>29</td>
<td>47</td>
<td>100</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>Boy</td>
<td>0</td>
<td>34</td>
<td>66</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>14</td>
<td>19</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>Boy</td>
<td>27</td>
<td>46</td>
<td>29</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>10</td>
<td>23</td>
<td>67</td>
<td>100</td>
</tr>
<tr>
<td>Personal Adjustment</td>
<td>Boy</td>
<td>33</td>
<td>33</td>
<td>34</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>5</td>
<td>38</td>
<td>57</td>
<td>100</td>
</tr>
</tbody>
</table>
section of the California Test of Personality for boys and girls at Consolidated High School. This table shows that 35 per cent of the girls had above average adjustment in self-reliance, 24 per cent possessed above average and adjustment in personal sense worth and feeling of belonging, five per cent seemed to be above average in sense of personal freedom, 14 per cent exhibited above average adjustment in withdrawing tendencies (freedom from), 10 per cent possessed above average adjustment in nervous symptoms (freedom from), and five per cent showed adjustment above average in total personal adjustment.

In reference to the boys, 46 per cent had above average adjustment in self-reliance and feeling of belonging, 33 per cent were above average in sense of personal worth, 27 per cent were above average in sense of personal freedom and nervous symptoms (freedom from). No boys showed above average adjustment in withdrawing tendencies, and 33 per cent exhibited above average adjustment in total personal adjustment.

Table 6 reveals that 14 per cent of the girls had average adjustments in self-reliance, 35 per cent enjoyed adjustment in sense of personal worth, 19 per cent seemed to possess average adjustment in sense of personal freedom and withdrawing tendencies (freedom from), 29 per cent possessed average adjustment in feeling of belonging, 23
per cent enjoyed average adjustment in nervous symptoms (freedom from), and 38 per cent manifested average adjustment in total personal adjustment.

Table 6 also points out that 27 per cent of the boys appeared to have average adjustment in self-reliance, 33 per cent of the boys disclosed average adjustment in sense of personal worth and withdrawing tendencies, 34 per cent seemed to have average adjustment in feeling of belonging, 20 per cent showed average adjustment in sense of personal freedom, 46 per cent revealed average adjustment in nervous symptoms (freedom from), and 33 per cent manifested average adjustment in total personal adjustment.

Table 6 points up the various adjustmental status with respect to categories of adjustment as listed in the California Test of Personality for boys and girls who were below average in self-reliance, 76 per cent were below average adjustment in sense of personal worth, 47 per cent revealed below average adjustment in feeling of belonging, 67 per cent showed below average adjustment in withdrawing tendencies (freedom from) and nervous symptoms (freedom from), and 57 per cent manifested below average adjustment in total personal adjustment.

Table 6 further points out that 27 per cent of the boys displayed adjustment below average in self-reliance and nervous symptoms (freedom from), 34 per cent revealed
below average adjustment in sense of personal worth, 20
per cent manifested below average adjustment in feeling
of belonging, 53 per cent displayed below average and adjust-
ment in sense of personal freedom, 67 per cent displayed
average adjustment in withdrawing tendencies (freedom from),
and 34 per cent manifested below average adjustment in total
personal adjustment.

A close scrutiny of the table points out the fact that
57 per cent of the girls revealed low personal adjustment
and 38 per cent of the boys revealed low personal
adjustment.

Table 7 shows the per cent of students who were above
average in categories as listed in the social adjustment
section of the California Test of Personality. Twenty per
cent of the boys were found to have adjustment above average
in social standards, 13 per cent of the boys seemed to pos-
sess above average adjustment in social skills and family
relations, seven per cent disclosed above average adjust-
ment in anti-social tendencies, and 33 per cent exhibited
above average adjustment in community relations.

In reference to the girls, 33 per cent were found to
be above average in adjustment pertaining to social stand-
ards, 14 per cent manifested above average adjustment in soc-
ial skills, school relations, and community relations. It was
also revealed that 19 per cent were above average in family
### TABLE 7

**PER CENT OF ENROLLMENT ABOVE AVERAGE, AVERAGE, AND BELOW AVERAGE ON THE SOCIAL ADJUSTMENT SECTION OF THE CALIFORNIA TEST OF PERSONALITY.**

<table>
<thead>
<tr>
<th>Adjustment</th>
<th>Sex</th>
<th>Above</th>
<th>Average</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Standards</td>
<td>Boy</td>
<td>20</td>
<td>27</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>33</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>Social Skills</td>
<td>Boy</td>
<td>13</td>
<td>27</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>14</td>
<td>39</td>
<td>47</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>Boy</td>
<td>7</td>
<td>20</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>0</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Family Relations</td>
<td>Boy</td>
<td>13</td>
<td>20</td>
<td>67</td>
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relations, and no girls were above average in anti-social tendencies. Only four per cent were found to be above average in social adjustment and total adjustment.

By observing Table 7 one can see that 27 per cent of the boys at Consolidated High School revealed average adjustment in social standards, social skills, and school relations. It was also pointed out that 20 per cent of the boys revealed adjustment that was average in anti-social tendencies, family relations, and community relations. As for social adjustment and total adjustment, 20 per cent of the boys were listed as average.

The social adjustment section of the California Test of Personality also revealed that 33 per cent of the girls seemed to have had average adjustment in social standards, 39 per cent possessed average adjustment in social skills, 29 per cent were found to be average in anti-social tendencies, 14 per cent displayed average adjustment in family relations and school relations, 43 per cent enjoyed average adjustment in community relations, and 34 per cent manifested average adjustment in social adjustment and total adjustment.

An insight into the social adjustment of boys and girls at Consolidated High School may be seen by a study of the data given in Table 7. Social adjustment might be listed as one of the special needs of pupils enrolled at this high school.
school. Looking at the table, one sees that 67 per cent of the boys were scoring below average, while 62 per cent of the girls were scoring likewise.

Table 7 points out the fact that 33 per cent of the girls were below average in the social standards section, 47 per cent were below average in social skills, 71 per cent fell below average in anti-social tendencies, 67 per cent showed below average adjustment in family relations, 72 per cent divulged below average adjustment in school relations, and 43 per cent revealed below average adjustment in community relations.

Referring to the boys, 53 per cent appeared to be below average in social standards, 60 per cent manifested adjustment below average in social skills, 73 per cent exhibited adjustment below average in anti-social tendencies, 67 per cent were below average in family relations, and 53 per cent seemed to be below average in community relations.

As expected, the adjustment of these students varied. However, it was not anticipated that the total adjustment of these students would be as low as revealed. In general, these students tended to register in the extremes on the range of scores. This, within itself, provided bases for the search into the causation of their possible uneven adjustments.
The relationship between academic adjustment and personality revealed the fact that these two variables were related in a positive but low degree. (.04)

The coefficient of correlation reflecting the relationship between personality and mental ability was found to be 0.31. This was not significant at the five per cent level of confidence.
CHAPTER III

SUMMARY AND CONCLUSIONS

Introduction.—The children today will conduct the affairs of tomorrow. How well they will succeed in this tremendous task depends on the family life, school and community in which they live, learn, and grow into adult citizens. It is our responsibility as teachers and counselors, working cooperatively with parents, to make the school, the home, and the community the best environment for the finest development of our children and youth. We must gear our school to the task of developing the whole child. In order to reach these goals, we must know something about these individuals we are to help, so as to minimize future setbacks.

The writer believes that guidance is the process which can help the individual to move toward total adjustment, with emphasis on developing the whole individual to his fullest potential. Guidance is based on the philosophy of individual differences. The fundamental principle holds that each boy and girl in school is an individual, similar in many respects to each other, but so basically different that any comparison of one with the other, only
emphasizes to a greater extent their distinguishing qualities.

The writer accepts the belief that all children need help in making proper adjustments and in making decisions. This, in the author's opinion, has always been so and will continue to be so as long as human beings exist.

Any school which attempts to serve its function well must consider the educational needs of its youth. Thus, a survey of the community circumstances and resources should be made. This helps the school personnel know something of the child's background. In order to further aid the pupil in his development, something must also be known of his abilities, interests, academic achievement, and personality.

Accepting the preceding ideologies, the writer has reasons to believe that the present study has merit. Like other educational institutions, Consolidated High School is committed to the responsibility of training youth of the community so thoroughly that they may be able to make wise and acceptable decisions in almost any endeavor that they may encounter later in life.

Problem and methodology.—The major purpose of this thesis was to inventory the psychological characteristics manifested by students at the Consolidated High School.
More specifically, this study has, to some extent, determined the occupational interest, personal adjustment, academic aptitude, and academic achievement of students enrolled at Consolidated High School. Additionally, the researcher has investigated the relationship that existed among those variables for the total population at Consolidated High School. Finally, an attempt was made to describe this student population so as to enable the school administration to plan a guidance program in accord with the unique needs of the students.

The data for this research were collected from 36 rural high school subjects. This included 15 males and 21 females. Instruments used to measure the variables and collect the data were the California Test of Personality, the Otis Quick-Scoring Test of Mental Ability, the Kuder Preference Record, Vocational, and Cumulative Record Cards. At various settings, the researcher administered all of the test under standard conditions as suggested by the manuals. Tests and grade-point averages were treated statistically by computation of means, medians, standard deviations, and coefficients of correlations.

Summary of related literature.--Teachers and counselors continually make predictions of academic success of one sort or another. The literature clearly illustrates a reliance on mental tests in prediction of academic success.
Feingold made a study of correlations between intelligence and scholarship and found these two variables to be highly correlated.\textsuperscript{25} Summaries of prediction studies conclude that the average correlation between I. Q. tests scores and a given subject is about .40, and the correlation between I. Q. scores and high school averages range from .53 to .65.

Most investigators have been concerned with a single correlation between I. Q. score and high school grade-point averages or between the I. Q. score and marks in a specific subject. Ross correlated the I. Q. with overall high school averages, Dodes used the I. Q. score to predict high school success, and Welkman used the I. Q. score in conjunction with sections of the primary Mental Abilities Test. These investigators found that I. Q. score made significant contributions to the prediction of success in various high school subject matter areas.\textsuperscript{26} More recently, Long found that the I. Q. score, as one of a battery of predictions, did not contribute significantly

\textsuperscript{25} Gustare A. Feingold, "Correlation Between Intelligence and Scholarship," \textit{School Review}, XXXII (June, 1921), p. 455.

\textsuperscript{26} E. F. Bobbott and C. W. Grant, "I. Q. As one of Several Variables in Predicting Academic Success," \textit{The School Counselor}, XII (October, 1964), p. 13.
to the predictions of success in various high school subject matter areas. 27

In a review of the research concerning the relationship between non-intellectual factors and academic success, Goodison reports that the results are somewhat conflicting, but there is evidence that some relationship exists between these factors. 28

Sanford has pointed out that non-intellectual predictor variables have not been found to improve meaningfully predictions based on measures of verbal and mathematical ability. 29 However, Lang, Sferra, and Seymour recently found evidence that some Edward Personal Preference Schedule variables were significantly related to academic achievement. 30

Goodison, in his study of the relationship of several non-intellectual factors to academic achievement of over


and under-achieving students in several different high school curricula, found no differences between the sub-group mean scores on the California Test of Personality.\textsuperscript{31}

Generally speaking, the relationship of personality tests to academic achievement has not been at all clear. There seems to be no set pattern as to the relationship of personality to academic achievement.

We may be safe in stating that individuals differ in mental abilities. Most usually, casual observations will indicate that there are differences among persons in ability to do different things. However, interests and mental abilities are not unrelated; in general, we like to do the things we do well, and we do well the things we like to do. It appears that an individual should measure high in those interest areas where there is relatively high abilities; low interests, therefore, would accompany relatively low abilities. In discussing the research, Miller stated that "somehow it seems that there should be a relationship between interests and ability, but if we mean tested ability and inventoried interests, the accumulated evidence is so overwhelming in the negative that there is very little to be gained by laboring the point."\textsuperscript{32} Carter, however, states that "it is believed that patterns of

\textsuperscript{31}Goodison, \textit{op. cit.}, p. 129.

ability may bear significant relationship to patterns to interest. Gross-sectional studied showing the inter-
relationship among ability measures and interest scores at any one time are not regarded as adequate. 33

Frandson and Sessions, in their intercorrelation between interest and achievement, found that some students may be motivated by interest, while others are more highly motivated by extrinsic values. 34

Hake concluded, from his survey of a number of previous studies, that there were low and moderate correlations between Kuder scores and grade-point averages and that literary interest scale scores were positively correlated, and mechanical interest negatively correlated with grades in Liberal Arts and science curricula. 35

Carmicel used the Otis Quick-Scoring Test of Mental Ability and Kuder Preference Record in her study of the characteristics of achievers and under-achievers in a large high school. In this study, she found that the


34A. H. Frandson and A. D. Sessions, "Interest and School Achievement," Educational Psychology Measurement (1953), p. 94.

achievers appeared to be interested in occupations of the computational, scientific, and social content, while the under-achievers seemed to prefer the mechanical or persuasive fields.  

Summary of findings

1. The range of I. Q.'s for the group extended from 59 to 116. The mean I. Q. was 86.

2. The mean grade-point average for the group was 2.3. Seventy-five per cent of the group possessed accumulated grade-point averages of 2.0 and above.

3. The mean grade-point average for girls was 2.5 and for boys the mean grade-point average was 2.0.

4. Girls showed high occupational interest in scientific and computational areas; boys showed high interest in social service and computational areas.

5. The coefficient of correlation between measured ability and inventoried interest was negligible.

6. The majority of the students at Consolidated High School were below average in total adjustment. Sixty-seven per cent of the boys scored below average and 62 per cent of the girls scored below average.

7. For most students who had high I. Q. scores also had high grade-point averages.

Conclusions.--The data of this research warrent that certain conclusions be drawn. Each conclusion is based on the purpose of the study. The conclusions so warrented are:

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1. The majority of the students are making satisfactory progress academically.

2. The vocational interests of the subjects seem to lean toward computational, scientific, and social service activities.

3. The majority of the students scored below normal on the mental ability test.

4. The subjects with higher measured abilities made the better grade-points.

5. The correlation between mental ability and academic achievement was significant.

6. The personality test showed that the majority of the subjects were poorly adjusted.

7. The correlation between personality and intelligence showed no significant relationship.

8. The correlation between mental ability and interest showed no significant relationship.

9. The correlation between academic achievement and personality showed no significant relationship.

Implications.—The findings and conclusions warrent that certain implications be made. They are as follows:

1. The students need to be serious about preparing themselves for their future careers.

2. They need to be aided in learning about related fields of work.

3. Tests results suggest the need for a reading program.

4. Steps should be taken to provide enrichment programs for the students.

5. One should be slow to reach definite and final conclusions relative to pupils' problems, interests, achievements, and adjustments.
Recommendations.--The following recommendations seem reasonable in the light of the findings of this study:

1. That the test results be utilized as one source of data in planning educational experiences which will meet the students' needs.

2. That a guidance program be initiated at Consolidated High School with emphasis on guidance in the elementary department also.

3. That the teachers acquaint themselves with the pertinent facts of this study.

4. That immediate steps be taken to help all of the students make proper adjustments.

5. That students be encouraged to make the most of their educational opportunities in preparing for the world of work.
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UNPUBLISHED MATERIALS


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APPENDIX I