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A study of attitudes toward a course in general psychology

Claragene Parks Pinckney

Atlanta University

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A STUDY OF ATTITUDES TOWARD A COURSE IN GENERAL
PSYCHOLOGY

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
CLARAGENE PARKS PINCKNEY

SCHOOL OF EDUCATION

ATLANTA UNIVERSITY
JANUARY, 1948
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CHAPTER I

INTRODUCTION

Statement of Problem.— The emphasis in this study was upon a consideration of the bearing of attitudes and I. Q. on Grades for a class in General Psychology at Morehouse College.

Purpose of Study.— The purpose of this study was to answer the following questions:

1. What are the attitudes of the fifty-two Morehouse College students toward the General Psychology class?
2. What are the I. Q. scores of the fifty-two Morehouse College students in the General Psychology class?
3. What are the Psychology grades of the fifty-two Morehouse College students?
4. How do the attitudes of the group compare with the intelligence of the group?
5. How do attitudes compare with the grades of the fifty-two Morehouse students in General Psychology?
6. How does intelligence compare with the grades of the fifty-two Morehouse students in General Psychology?
7. Which has the greater effect on grades, intelligence or attitudes?
8. What are the findings from oral questionnaire and recorded interview?
9. What are the implications of these data for Education?
Definition of Terms:

1. I. Q. - Intelligence Quotient; Index of relative brightness
2. Attitude - Implicit determining tendencies as reflected by questionnaire and interview in this study
3. Indirect Interview Technique - Technique proposed by Carl R. Rogers wherein the interviewer plays only a small part in the interviewing.

Setting of Study:— This study took place at Morehouse College, an all-male college affiliated with Atlanta University, during the second semester of the 1947-1948 school year. The General Psychology class of this school was the place of investigation selected. The General Psychology class met in three sections during the second semester of 1947-1948—two sections meeting on the same day, three times a week; the other section meeting on alternate days, three times a week. Fifty-two students from the three sections served as subjects for the study— 19 students from Section I, 19 students from Section II, and 14 students from Section III.

Although the course is listed as a General Psychology course, it has all the features of an Experimental Psychology class or a class in Statistics in that experiments and the interpretation of test results comprise the body of the material covered in this class.

Procedure:— This study was limited to the attitudes, I. Q., and General Psychology grades of fifty-two students at Morehouse College for the second semester of 1947-1948. This group was not a selected group but consisted of the whole class.

Written and oral questionnaire and indirect interview technique were the means used in the investigation of attitudes.
A standardized intelligence test, the New California Short Form Test of Mental Maturity, Advanced I Form devised by Clark, Sullivan, and Tieg's was the means used in securing the I. Q. scores. The General Psychology grades of the fifty-two students were secured from the Registrar.

The first thing done was the administration of the intelligence test. The test was administered to each section during the class period with the aid of the instructor. The test required two sittings for each section. Secondly, the attitudes of the fifty-two students were investigated. These investigations were also staged during the class periods. All fifty-two students responded to either a written questionnaire or oral questionnaire, the oral questionnaire containing the same basic questions as did the written questionnaire. Forty-two of the students responded to written questionnaire and ten of the students (the top and bottom five in intelligence) responded to oral questioning. In addition to oral questioning the two highest and the lowest in intelligence were interviewed in a manner suggested by the indirect interview technique and the interviews recorded on plastic discs. These interviews were staged outside the class period. Each student was given a few minutes to just talk with little or no questioning on the part of the interviewer. Most of these interviews were begun with a statement from the interviewer to the effect that the student would be allowed approximately fifteen minutes to talk about the General Psychology class. The answers given in response to the basic questions in the oral questioning along with the answers given in response to the written questionnaire will comprise the data presented in the first part of this chapter.

The advantage of the oral questioning over the written questionnaire was that other questions and responses grew out of the basic questions
and thus gave us a clearer view of the attitudes. Thus, for the purpose of getting a clearer picture and substantiating the answers given to the basic questions, a summary of these more subjective answers given in answer to questions which grew out of the basic questions as well as a summary of the recorded interviews will be given toward the last of the chapter. This is done in order not to confuse the objective data with the more subjective data. The questionnaire is found in the appendix.

Survey of Related Literature.--- Carl R. Rogers states in chapter "How is Psychology Used In Clinical Practise" found in J. S. Gray's book, Psychology In Use, that one of the first things that psychologists wish to discover by means of tests is the general level of intellectual ability. He states that although there is no one definite or set definition of "intelligence," "the tests which we have seem to indicate the individual's capacity for absorbing learning and education, and his ability to see and understand complex intellectual relationships." In the light of what these tests of intelligence seem to indicate, "they are of great assistance in evaluating (the individual's) adjustment to school and life."1

"By far the most popular factor studied in its relation to college success has been intelligence."2 Studies dealing with the relationship between intelligence and achievement, or intelligence and grades have been made on numerous occasions. Most of these studies indicate a relatively high relationship between intelligence and achievement, or grades earned in

1 J. S. Gray and others, Psychology in Use (New York, 1941), p. 128.
Nelson and Denny\textsuperscript{1} report some correlations of intelligence and grades earned at different schools using the Thorndike Intelligence test. They report a correlation of .60 between intelligence and grades earned at Columbia, .37 at Stanford University, .53 at Chicago, .36 at California.

Extensive use is now made of intelligence tests and similar methods of classification in American colleges. The use of these methods dates from the close of the first World War. "There are indications that the college grade is a variable function in some degree independent of any stable trait measured either by (the intelligence test) or by the marking system."\textsuperscript{2}

Anderson and Spenser\textsuperscript{3} described a study made at Centre College for the purpose of discovering whether any relationship could be discovered between the mental and academic ratings of students and a number of variable factors such as their father's occupation, vocational purpose, participation or non-participation in athletics, section of the country from which they came, and age. There was some positive relationship discovered between these variables and the mental and academic rating.

In another study made by R. M. Bear at Centre College using 172

\textsuperscript{1} M. J. Nelson and E. C. Denny, "The Terman and Thurston Group Test as Criteria For Predicting College Success," \textit{School and Society}, XXVI (January, 1927), 501-02.

\textsuperscript{2} R. M. Bear, "Factors in the Achievement of College Freshmen," \textit{School and Society}, XXIV (April, 1926), 502-04.

freshmen, a tendency toward correlation between intelligence test scores and academic average was found. In the light of the data which he found, Bear suggests that intelligence and purpose are the chief factors contributing to college success.¹

F. S. Freeman found as a result of conferences with college students called to account for marked discrepancies between intelligence test performance and scholastic achievement that there were elusive factors which lower the correlations between test ranks and grades. He believed these elusive factors to be: motivation, extra-curricular activities, work for self support, health, poor study habits and absorption in other than scholastic interests.²

Arthur Bovee and Gustav Froelich have made some observations on the relationship between mental ability and achievement in a specific subject, French. They site instances wherein students with high intelligence are not doing well in French, and conclude that perhaps some factor or other than intelligence is involved. They concluded that in that "intelligence and achievement show a relatively significant correlation, it is probable that the (attitude toward the work) or the motivation (are) more important than, or least as important as native ability."³

Kaufers made a study similar to that of Bovee and Froelich concerning

² F. S. Freeman, "Elusive Factors Tending to Reduce Correlations Between Intelligence Test Ranks and College Grades," School and Society, XXIV (May, 1929), 764-86.
intelligence and a specific subject, Spanish. He found that intelligence was an important factor or cause for failure in Spanish but not the sole cause. He concluded that "pupils of relatively mediocre intelligence may succeed if they are possessed of the proper habits of volition and application."¹

The correlations between Army Alpha scores and grades made on a final examination for which the students were prepared, and quizzes for which they were not prepared were computed for 104 college students. In the case of the examination for which the students were prepared, the correlation between the Army Alpha score and final examination grade was .52 \( \pm .05 \); in the case of the quizzes for which the students were not prepared, the correlation was .055 \( \pm .066 \). The author interprets these findings as evidence that motivation increases the relationship between intelligence and achievement.²

Young states that "why some college students should win high scholastic honors while others drop out due to failure is a question which has long perplexed educators and psychologists. Intelligence tests have given some information concerning this problem but are yet inadequate to predict success in college. While there is usually a moderate correlation between the intelligence scores and the college grade, the relation is not close and failure cannot be predicted accurately. As a result, personality factors besides intelligence have been discussed as significant

---

¹ W. Kaulfers, "Intelligence and Spanish Failures," Psychological Abstract, III, p. 343.
² I. M. Corey, "The Effect of Motivation Upon the Relationship Between Intelligence and Achievement," School and Society, XII (April, 1935), 256-57.
in scholastic work."¹

"There are factors which govern a student's achievement and which can be revealed only by measuring all other factors possible which could account for the difference between his ability and his achievement."²

The individual's interpretation or attitude toward a situation is an important phase of the situation, thus, the individual's attitude toward the school is an important factor in the school situation. "There are personality or attitudinal problems so complex and severe that they tend to preclude or prevent school adjustment. The individual's increased interest grows out of better adjustment to the school."³

Thurstone states that attitudes can be measured. He concedes at the outset that "an attitude is a complex affair which cannot be wholly described by any single numerical index." The concept, "attitude as he uses it, denotes "the sum total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specific topic."⁴

M. E. Herriott has studied attitudes as factors of scholastic success. He concludes that the major factors of scholastic success are (1) previous preparation (2) intelligence (3) study habits (4) self-confident vs. dependent attitude (5) evaluative vs. non-evaluative attitude.⁵

¹ J. E. Young, "How Emotional Traits Predispose to College Failure," Journal of Educational Psychology, XVIII (April, 1927), 631-36.
² H. E. Garrett, op. cit., p. 96.
⁴ L. Thurstone "Attitudes Can be Measured." American Journal of Sociology, XXXIII (March, 1927), 529-541.
At the Student's Middle School Tokyo, boys of superior and inferior scholarship were selected and asked to rate their school subjects in terms of preference for the subjects, value, effort required to master. It was found that preference for the subjects correlated highly with marks. Value or importance of the subject did not consistently correlate high with marks. Effort that is helpful for high scholarship seems to come from liking or interest in the subject, Aoki concluded.¹

H. E. Garrett found a higher correlation between intelligence test scores and later college grades for students with higher intelligence than for students of average and low intelligence. "This would seem to indicate that students with high intelligence tend to succeed in college in spite of all other factors operating. With students of lesser mental ability, however, some may put other factors into operation to bring them scholastic success and some may not."²

Over against the old or direct method of counseling and psychotherapy we have a newer approach which has been growing up in the field of child and adult guidance. This approach is indirect in its method. It represents in a number of ways, a fundamentally different viewpoint from the direct method wherein the interviewer assumes the responsibility for the direction of the interview. In this new type of counseling or psychotherapy, the individual rather than the problem is the important factor. Greater stress is placed upon the emotional elements, the feeling aspects of the situation than upon the intellectual aspects.

² H. E. Garrett, op. cit., p. 97.
The aim of this therapy or counseling is to aid the individual to "grow" rather than to aid him in solving a particular problem so that he may become better able to solve this particular problem himself as well as later problems which may arise. This new technique is suggested by Carl R. Rogers.¹

One of the types of interviews attempted in this study is the non-directive or indirect interview technique.

Because of the unavailability of some of the sources desired, some summaries from the Psychological Abstracts are used rather than the original sources. In such instance, reference is made to the Psychological Abstract in the footnotes.

CHAPTER II

PRESENTATION AND INTERPRETATION OF DATA

The data collected for use in this study will be presented in the same sequence as the nine questions proposed under, "Purpose of Study," and will be in answer to each of these questions.

Attitudes Toward the General Psychology Class.—The attitudes of the fifty-two General Psychology students were investigated through three means (1) response to oral questioning (2) response to written questionnaire (3) recorded oral expression suggested by the indirect interview technique. All fifty-two students responded to either a written or oral questionnaire. The data found in the tables will be based on the answers of these fifty-two students made on the written and oral questionnaire. For the purpose of substantiating the attitudes further, ten of the fifty-two students, the top five in intelligence, and the bottom five in intelligence responded to oral questioning. Four of the students, two of whom were first and second from the top in intelligence, and two of whom were first and second from the bottom in intelligence were investigated by means of recorded oral expression as well as by oral questioning.

The questionnaire handed to those concerned dealt chiefly with seven broad aspects:

(1) The degree of interest in the course and like or dislike for course
(2) The degree to which the course was felt to be stimulating
(3) The effectiveness of the instructor's presentation of the course
whether the instructor is liked, student's opinion of his capability, and fairness.

(4) Student's estimate of own intelligence

(5) The Student's estimate of own comprehension of the course

(6) The difficulty of the course as compared with other courses taken at Morehouse

(7) The amount of time spent by students in preparation for class meetings

The questionnaire presented to the group is found in the Appendix. The questions were designed to give the information desired as set forth in the above seven aspects. The questions presented in the questionnaire in respect to the above seven aspects are as follows: question 1, corresponding questions on questionnaire 1-11; question 2, corresponding question, 12; question 3, corresponding question, 13-14; question 4, corresponding question, 16-18; question 6, corresponding question, 19; question 7, corresponding question, 20.

The data here given are based on the answers given by the fifty-two students on the written questionnaire. Ten of the fifty-two students were interviewed orally, but the basic questions were the same as those found on the questionnaire. Four of the fifty-two students were interviewed not only by oral questionnaire but by recorded oral expression in order to further investigate the attitudes. In that this information is subjective, it will be presented later.

(1) The degree of interest in the work presented in the course and like or dislike for the course.

These data are found in table 1.

All the questions presented in table 1 were designed to measure
<table>
<thead>
<tr>
<th>Question</th>
<th>No. Yes</th>
<th>Per Cent Yes</th>
<th>No. No</th>
<th>Per Cent No</th>
<th>No. All Right</th>
<th>Per Cent All Right</th>
<th>No. Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you like the study of Psychology?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever had a course in Psychology before?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read books on Psychology other than text?</td>
<td>27</td>
<td>52</td>
<td>17</td>
<td>32</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Think you would like Psychology?</td>
<td>36</td>
<td>69</td>
<td>7</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like this class in Psychology</td>
<td>45</td>
<td>86</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Interest in Class?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do your best work in this course?</td>
<td>26</td>
<td>50</td>
<td>22</td>
<td>42</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Do your best work in other courses?</td>
<td>38</td>
<td>73</td>
<td>9</td>
<td>17</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Planning to take Psychology again?</td>
<td>19</td>
<td>37</td>
<td>24</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is class challenging enough?</td>
<td>29</td>
<td>56</td>
<td>21</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taken this course had it not been required?</td>
<td>36</td>
<td>69</td>
<td>13</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Little</td>
<td>Per Cent</td>
<td>Little</td>
<td>No.</td>
<td>Boring</td>
<td>Per Cent</td>
<td>No.</td>
</tr>
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<td>-----</td>
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<td>--------</td>
<td>-----</td>
<td>--------</td>
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<td>-----</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>39</td>
<td>7</td>
<td>13</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
TABLE 1

INTEREST, LIKE OR DISLIKE OF GENERAL PSYCHOLOGY FOR FIFTY-TWO MOREHOUSE COLLEGE STUDENTS

<table>
<thead>
<tr>
<th>Per Cent Some-Times</th>
<th>No. Seldom</th>
<th>Per Cent Seldom</th>
<th>No. Uncertain</th>
<th>Per Cent Uncertain</th>
<th>No. Strong</th>
<th>Per Cent Strong</th>
<th>No. Average</th>
<th>Per Cent Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>15</td>
<td>2</td>
<td>4</td>
<td>23</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13
interest, like or dislike of the General Psychology class. Eighty-six percent answered "yes" to the specific question concerning "like" or "dislike" for the class whereas only four percent reported strong interest; forty-four per cent, average interest; thirty-nine per cent, little interest; and thirteen per cent reported the class as boring. The answers to the remaining questions designed to indirectly measure interest, like or dislike for the course substantiate the answers given to the two specific questions, especially where interest is concerned in that a great percentage of the answers were unfavorable.

(2) Is the course stimulating and broadening in its effect? Only nine or seventeen per cent found the course stimulating and broadening in its effect, nineteen or thirty-seven per cent answering no; and twenty-four or forty-six per cent uncertain.

(3) Is the instructor a good teacher? The answers to this question are found in table 2.

Ninety-four per cent of the students liked the instructor and seventy-eight per cent thought him capable, but a greater percentage of the fifty-two students (fifty percent) answered "no" to the question of whether the course had been effectively presented than those answering "yes". This may account for the general low interest level of the class. Sixty-four per cent of the students felt the instructor to be a fair instructor although there was a conspicuous percentage (fifteen percent) not answering the question.

(4) Student's estimate of own intelligence

Fourteen students or twenty-seven per cent of the students classify themselves as of high intelligence while thirty-eight or seventy-three percent classify themselves as of average intelligence.
TABLE 2
OPINIONS OF INSTRUCTOR OF FIFTY-TWO MOREHOUSE COLLEGE GENERAL PSYCHOLOGY STUDENTS

<table>
<thead>
<tr>
<th>Question</th>
<th>Number Yes</th>
<th>Per Cent Yes</th>
<th>Number No</th>
<th>Per Cent No</th>
<th>Number Undecided</th>
<th>Per Cent Undecided</th>
<th>Number no Answer</th>
<th>Per Cent no Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has course been effectively presented?</td>
<td>24</td>
<td>46</td>
<td>26</td>
<td>50</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you like the instructor?</td>
<td>49</td>
<td>94</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Think the instructor capable?</td>
<td>41</td>
<td>78</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Think the instructor fair?</td>
<td>33</td>
<td>64</td>
<td>8</td>
<td>15</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>
Although a lesser percentage of the students classify themselves as of high intelligence, this is a rather high percentage when we consider the normal distribution curve for any group with the concentration of scores in the center and a few extremes at both ends of the curve.

(5) Student's estimate of mastery or comprehension

These data are found in table 3.

The data presented in table 3 indicate that fourteen per cent of the students thought their mastery of the course to be very thorough, eighty-two per cent, reasonable; four per cent, little or none.

In answer to the question concerning the grade the student thought he should get, fourteen or twenty-seven per cent of the students thought they should get A; twenty-eight or fifty-three per cent, B; three or six per cent, C; five or ten per cent, undecided; two or four per cent, no answer. In answer to the question concerning the grade the student thought he would get, ten or nineteen per cent thought they would get A; twenty-two or forty-two per cent, B; twelve or twenty-three per cent, C; five or ten per cent, undecided; three or six per cent, no answer.

The data presented in table 3 indicate that although fourteen per cent of the students thought their mastery of the course to be very thorough, twenty-seven per cent expected to get "A" out of the course. This incompatibility of data may be due to the fact that some of the students were unable to see that the instructor had any definite system of marking, a fact or opinion which was brought out in the oral questioning by some of the students interviewed orally. It may also be seen that whereas twenty-seven per cent of the students thought they should get "A", only nineteen per cent felt that they would get a grade of A. This may also be due to the felt lack of an objective system of marking in the
TABLE 3

ESTIMATE OF MASTERY OF COMPREHENSION FOR FIFTY-TWO MOREHOUSE COLLEGE GENERAL PSYCHOLOGY STUDENTS

<table>
<thead>
<tr>
<th>Mastery of Course</th>
<th>Number</th>
<th>Per Cent of Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Thorough</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Reasonable</td>
<td>43</td>
<td>82</td>
</tr>
<tr>
<td>Rather Unsatisfactory</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Little or None</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

opinion of some students.

(6) Is the course thought by students to be as difficult of mastery as courses in other fields?

Forty-eight or ninety-two per cent of the students felt the course in psychology to be easy while four or eight per cent considered the course to be of average difficulty. No student reported the course as being difficult. This would seem to indicate that the requirements of the course might without injustice, be increased.

(7) How much time do you give to this course?

Five or ten per cent of the students indicated that they gave a "great deal of time to the study of Psychology whereas ninety per cent reported giving little time to Psychology." The majority of the students (as has already been indicated) spend little time in preparation for this course, a fact which is compatible with the fact that the majority of the students
finds the course easy.

An attempt was made to classify each of the fifty-two students' attitudes in a general way. The attitudes will be grouped under the following headings:

- favorable
- slightly favorable
- slightly unfavorable
- unfavorable

The answers given to the nine key questions of the questionnaire (questions 1, 5, 6, 7, 9, 10, 13, 14, 19) will be examined in order to determine under which of the general headings the attitudes will fall. Answers of "Yes" to from 8 to 9 of these key questions indicate favorable attitudes; answers of "yes" to from 5-7 questions indicate "slightly favorable attitudes; answers of "yes" from two 2-4 questions indicate "slightly unfavorable" attitudes; from 0-1 indicates "unfavorable" attitudes.

The results of grouping each students into a general attitude category may be found in table 4.

It can be seen that the most frequently occurring attitude was "slightly favorable" which means that an answer of "yes" or a favorable answer was given to from 5-7 of the key questions for each of the twenty-four students. Unfavorable attitudes were held by fewer students than was the case for any other attitude category.

Intelligence of the Group.—The California Test of Mental Maturity Short Form was administered to fifty-two General Psychology students at Morehouse College in order to determine the I. Q. of the students.

The California Test is divided in two parts a language and a non-language section. Both sections yield an I. Q. score. Approximately
two-thirds of the students made higher language scores than non-language scores. The combined scores yield a total I. Q. score which is the score used in this study.

In classifying subjects according to intelligence, the "New California Short Form Test of Mental Maturity Descriptive Chart" was used.¹ This system of classification is shown in table 5 along with a classification of the fifty-two General Psychology Students at Morehouse College as to intelligence.

The data presented in table 5 show that the intelligence of the students in the General Psychology class at Morehouse College may be represented by a normal distribution curve, the concentration of scores being in the center and a few extreme scores on each end. The largest number of students fall in the high average group in intelligence.

The I. Q. for each student was computed from the raw score. The mean I. Q. and other pertinent data for these students are found in table 6.

The scores ranged from 77 to 135 with 59 as the true range. The median was 109 which means that 109 was the mid-score or the point above which and below which lie fifty per cent of the cases. The mean or average of this group was found to be 108.8 which places the group in the "high average" category in intelligence according to the descriptive classification chart. The mode or most frequently occurring score was 117.5. The standard deviation for this group was 11.35 which indicates a relatively homogeneous group. It was found that approximately thirty of the fifty-two students taking the test made scores equal to or above the mean score.

¹ W. Clark, E. Sullivan, and Ernest Tiegs, Manual of Directions: New California Short Form Test of Mental Maturity Advanced L7 Form (California, 1947), p. 5.
TABLE 4

GENERAL ATTITUDES OF FIFTY-TWO MOREHOUSE GENERAL PSYCHOLOGY STUDENTS

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Number of Students</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Slightly Favorable</td>
<td>24</td>
<td>46</td>
</tr>
<tr>
<td>Slightly Unfavorable</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

The remaining twenty-two students taking the test made scores equal to or below the mean score.

General Psychology Grades of the Group.— The General Psychology grades of the fifty students were secured from the registrar at the completion of the course. The grades of the students are presented in table 7.

The median grade for the group was 3.09 or B. The most frequently occurring grade was 3.25 or B.

Attitudes Compared With Intelligence.— The attitudes of the fifty-two students were examined by means of oral and written questionnaire and through indirect interview technique. The intelligence scores of the students were secured by means of the California Short Form Test of Mental Maturity.

Here, the general attitudes will be considered in the light of the category into which they fall in intelligence (very superior, superior,
### TABLE 5

CLASSIFICATION OF INTELLIGENCE FOR FIFTY-TWO MOREHOUSE COLLEGE STUDENTS ACCORDING TO THE NEW CALIFORNIA SHORT FORM TEST OF MENTAL MATURITY DESCRIPTIVE CHART

<table>
<thead>
<tr>
<th>I. Q.</th>
<th>Descriptive Classification</th>
<th>Number of Students</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 and Above</td>
<td>Very Superior</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>115 - 129</td>
<td>Superior</td>
<td>18</td>
<td>35</td>
</tr>
<tr>
<td>100 - 114</td>
<td>High Average</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>85 - 99</td>
<td>Low Average</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>70 - 84</td>
<td>Inferior</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Below 70</td>
<td>Very Inferior</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>
high average, low average, inferior).

1. Very Superior Intelligence

In this group we find one student. This student was interviewed by a manner suggested by the indirect interview technique as well as by oral questioning. The results of the oral questionnaire as well as the recorded interview seem to indicate generally unfavorable attitudes toward the class.

2. Superior Intelligence

There were eighteen students in this category of intelligence. Three of the students in this group were classified in the "favorable" attitude group; the attitudes of ten, as "slightly favorable," of one as "slightly unfavorable," of four as "unfavorable."

3. High Average Intelligence

Of the twenty-one students in this group, the attitudes of five were classified as "favorable," eight as "slightly favorable," seven as "slightly unfavorable," one as "unfavorable."

4. Low Average Intelligence

There were ten students in this category of intelligence. The attitude of one student was "unfavorable," of five, "slightly favorable," of three, "slightly unfavorable," of one, favorable.

5. Inferior Intelligence

There were two students found in this category of intelligence. One showed "slightly favorable" attitudes and the other "favorable" attitudes.

In general, there did not seem to be a favorable comparison between I. Q. and attitudes.
### TABLE 6

**Scores Made on the California Test of Mental Maturity by Fifty-Two General Psychology Students at Morehouse College**

<table>
<thead>
<tr>
<th>I. Q.</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>135 - 139</td>
<td>1</td>
</tr>
<tr>
<td>130 - 134</td>
<td>0</td>
</tr>
<tr>
<td>125 - 129</td>
<td>1</td>
</tr>
<tr>
<td>120 - 124</td>
<td>6</td>
</tr>
<tr>
<td>115 - 119</td>
<td>11</td>
</tr>
<tr>
<td>110 - 114</td>
<td>6</td>
</tr>
<tr>
<td>105 - 109</td>
<td>5</td>
</tr>
<tr>
<td>100 - 104</td>
<td>10</td>
</tr>
<tr>
<td>95 - 99</td>
<td>9</td>
</tr>
<tr>
<td>90 - 94</td>
<td>1</td>
</tr>
<tr>
<td>85 - 89</td>
<td>0</td>
</tr>
<tr>
<td>80 - 84</td>
<td>1</td>
</tr>
<tr>
<td>75 - 79</td>
<td>1</td>
</tr>
</tbody>
</table>

| N        | 52        |
| Mean     | 108.8     |
| Median   | 109       |
| Mode     | 117.5     |
| S. D.    | 11.35     |
A comparison of the attitudes of the five categories of intelligence may be found in table 8.

It can be seen that within each intelligence group, with the exception of the "very superior" group, and the Inferior group, the largest number of attitudes found were "slightly favorable." There were also more "slightly favorable" attitudes found for all intelligence groups combined. The following was found within each intelligence group.

The "Very Superior" group contained one hundred per cent unfavorable attitudes.

The "Superior" group contained seventeen per cent "favorable," fifty-six per cent "slightly favorable," five per cent "slightly unfavorable," twenty-two per cent "unfavorable" attitudes.

The "High Average" group contained twenty-four per cent "favorable" attitudes, thirty-eight per cent "slightly favorable," thirty-three per cent "slightly unfavorable," five per cent "unfavorable."

The "Low Average" group contained ten per cent "favorable," fifty per cent "slightly favorable," thirty per cent "slightly unfavorable," ten per cent "unfavorable."

The students in the "Inferior" group showed fifty per cent "favorable" attitudes and fifty per cent "slightly favorable" attitudes. These percentages are taken on the basis of the number of students found in each intelligence category rather than the whole group of fifty-two students. These data are found in table 9.

The students in the "Inferior" group showed the greatest percentage of "favorable" attitudes within their group. The students in the "very Superior" group showed the greatest percentage of "unfavorable" attitudes.
### TABLE 7

GENERAL PSYCHOLOGY GRADES OF FIFTY-TWO MOREHOUSE COLLEGE STUDENTS

<table>
<thead>
<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>B</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>38</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>99</td>
</tr>
</tbody>
</table>

within their group.

The data concerning the percentage rank on the basis of the attitudes of the fifty-two students is found in table 10.

It can be seen that although the "Inferior" group contains the greatest percentage of "favorable" attitudes within their group, the high average group contains the greatest percentage of "favorable" attitudes on the basis of the ten favorable attitudes held by the fifty-two students, and the "Superior" group, the greatest percentage of "unfavorable" attitudes.

**Attitudes Compared With Grades.**—The attitudes which were attained through questionnaires and interviews have already been grouped as to generally "favorable," "slightly favorable," "slightly unfavorable," and "unfavorable," the grades as they apply to these groupings will be
examined:

(1) Favorable Attitudes

There were nine grades of "A" made in the General Psychology class. The greatest per cent of the attitudes were "favorable" and the smallest per cent "slightly unfavorable" and "unfavorable."

(2) Slightly Favorable Attitudes

This attitude group contains a lesser percentage of "A's" than does the "favorable" attitudes group, but a greater percentage of the twenty-one "B's" made by the students.

(3) Slightly Unfavorable

The greatest per cent grade for this attitude grouping is "C."

(4) Unfavorable Attitudes

This group contains the greatest per cent of D's.

These data are found in table 11. Viewing the same data presented in table 11 from a different viewpoint, the above conclusion is also reached here. These data are found in table 12.

The favorable attitude group made more A's and the most A's for the whole group irrespective of attitude grouping. The "slightly favorable" attitude group made more B's than any other grade, and the most B's irrespective of attitude grouping. Those who held "slightly unfavorable" attitudes made more C's and the most C's irrespective of attitude grouping. Those who held "unfavorable" attitudes made more B's and C's than any other grade, but not the most number of B's and C's irrespective of attitude grouping. The "slightly unfavorable" attitude group was the only group in which the grade D was found.
TABLE 8

ATTITUDES OF FIVE CATEGORIES OF INTELLIGENCE COMPARED FOR FIFTY-TWO MOREHOUSE GENERAL PSYCHOLOGY STUDENTS

<table>
<thead>
<tr>
<th>Category of Intelligence</th>
<th>Favorable Attitude</th>
<th>Slightly Favorable Attitude</th>
<th>Slightly Unfavorable Attitude</th>
<th>Unfavorable Attitude</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Superior</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Superior</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>High Average</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Low Average</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Inferior</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>24</strong></td>
<td><strong>11</strong></td>
<td><strong>7</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>
# TABLE 9

**ATTITUDE DISTRIBUTION WITHIN THE FIVE CATEGORIES OF INTELLIGENCE FOR FIFTY-TWO MOREHOUSE GENERAL PSYCHOLOGY STUDENTS**

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Very Superior Group</th>
<th>Superior Group</th>
<th>High Average Group</th>
<th>Low Average Group</th>
<th>Inferior Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent of Total</td>
<td>Number of Students</td>
<td>Per Cent of Total</td>
<td>Number of Students</td>
<td>Per Cent of Total</td>
</tr>
<tr>
<td>Favorable</td>
<td>17</td>
<td>3</td>
<td>24</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Slightly Favorable</td>
<td>56</td>
<td>10</td>
<td>38</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>Slightly Unfavorable</td>
<td>5</td>
<td>1</td>
<td>33</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>100</td>
<td>1</td>
<td>22</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

| Total             | 100                 | 1              | 100                | 18               | 100           | 21               | 100                | 10               | 100             | 2               |
These data indicate that the percentage of favorable attitudes decrease as the grades become lower.

**Intelligence and Grades**— The intelligence of the students was found by use of the California Test of Mental Maturity and the grades were secured from the registrar. The intelligence of the students has already been grouped as to very superior, superior, high average, low average, and inferior.

1. **Very Superior Intelligence**

The one student found in the intelligence group with an I.Q. of 135 made a grade of "A" which indicates perfect relationship between grades and intelligence for this group.

2. **Superior Intelligence**

In this intelligence group, the I.Q. scores ranged from 119 to 129, a range of 9. In this group, there were 6 or 3% A's, 9 B's or 50%, 3 or 17% C's, and no D's or F's. The student with the highest I.Q. in this group (129) made a grade of B while the six A's made were made by students with I.Q.'s from 118 to 121. The B's in this group were made by students whose I.Q. scores ranged from 115 to 122, a point higher than for the students making A's. The C's in this group were made by students whose I.Q. scores ranged from 116 to 121, the 116 being two points lower than the lowest I.Q. held by those making A's and one point higher than the I.Q. scores held by those making B. The highest I.Q. for those making C (121) is the same as for those making A and one point lower than those making B.

3. **High Average Intelligence**
<table>
<thead>
<tr>
<th>Intelligence</th>
<th>Favorable Attitude</th>
<th>Slightly Favorable Attitude</th>
<th>Slightly Unfavorable Attitude</th>
<th>Unfavorable Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
</tr>
<tr>
<td></td>
<td>Number of Students</td>
<td>Number of Students</td>
<td>Number of Students</td>
<td>Number of Students</td>
</tr>
<tr>
<td>Very Superior</td>
<td>30</td>
<td>42</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Superior</td>
<td>30</td>
<td>42</td>
<td>9</td>
<td>58</td>
</tr>
<tr>
<td>High Average</td>
<td>50</td>
<td>33</td>
<td>64</td>
<td>14</td>
</tr>
<tr>
<td>Low Average</td>
<td>10</td>
<td>21</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Inferior</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

TABLE 10
ATTITUDE DISTRIBUTION FOR FIFTY-TWO GENERAL PSYCHOLOGY STUDENTS AT MOREHOUSE COLLEGE
TABLE 11
DISTRIBUTION OF ATTITUDES THROUGHOUT THE FOUR GRADES OF FIFTY-TWO MOREHOUSE COLLEGE GENERAL PSYCHOLOGY STUDENTS

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent of Total</td>
<td>Number of Attitudes</td>
<td>Per Cent of Total</td>
<td>Number of Attitudes</td>
</tr>
<tr>
<td>Favorable</td>
<td>45</td>
<td>4</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Slightly Favorable</td>
<td>33</td>
<td>3</td>
<td>62</td>
<td>3</td>
</tr>
<tr>
<td>Slightly Unfavorable</td>
<td>11</td>
<td>1</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>11</td>
<td>1</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>9</td>
<td>100</td>
<td>11</td>
</tr>
</tbody>
</table>
In this intelligence group the twenty-one students made one A, seven (33%) B's (33%), twelve C's, (57%) and one D, (5%). The I. Q. scores ranged from 100 to 112. The one student making "A" had an I. Q. of 110 which is two points lower than the highest I. Q. in this group. For the group making B, the lowest I. Q. was 100 and the highest, 110. The lowest I. Q. in the group of those making a grade of B is also the lowest I. Q. for this "high average" intelligence group. The highest I. Q. in the B group (110) is the same as the I. Q. of the students who made A. In the C group, the I. Q.'s ranged from 100 to 112. The I. Q. of 100 is the lowest I. Q. for this intelligence group but the highest I. Q. (112) for those making C is also the highest I. Q. for this intelligence group. The student making D had an I. Q. of 102 which is two points above the lowest I. Q. in this "high average" intelligence group.

(4) Low Average Intelligence Group

In the "Low Average" intelligence group the I. Q. scores range from 91 to 99. There were five B's 50% four C's or 40% and one D or 10% found in this group. For those making B, the I. Q. ranges from 95 to 99, for those making C, the I. Q. ranges from 96 to 99, the lowest I. Q. for those making a grade of C being one point higher than the I. Q. scores of those making B and the highest I. Q. score (99) being the same as for those making B. The grade of C was made by the student with an I. Q. of 91, the lowest I. Q. for the "Low Average" intelligence group.

(5) Inferior Intelligence
<table>
<thead>
<tr>
<th>Grade</th>
<th>Favorable Attitude</th>
<th>Slightly Favorable Attitude</th>
<th>Slightly Unfavorable Attitude</th>
<th>Unfavorable Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
<td>Per Cent of Total</td>
</tr>
<tr>
<td>A</td>
<td>40</td>
<td>13</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>B</td>
<td>20</td>
<td>54</td>
<td>27</td>
<td>43</td>
</tr>
<tr>
<td>C</td>
<td>40</td>
<td>33</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>
The I. Q. scores for the two students found in the "inferior" intelligence group were 77 and 84. The student with an I. Q. of 77 made a grade of A; the student with an I. Q. of 84 made a grade of C.

Within the five groups of intelligence the very superior group showed the greatest percentage of A's. The superior group showed a greater per cent of B's than any other grade. The "high average" group contained a greater percentage of C's than any other grade. The low average group contained a greater percentage of B's than any other grade. The "inferior group" showed an equal percentage of A's and C's.

These data are found in table 13.

The data presented in table 13 indicate some comparison between grades and intelligence for the fifty-two General Psychology students in that the Very Superior group contains a greater per cent of A's than any other grade; the Superior group, a greater number of B's than any other grade; the High Average group, a greater number of C's than any other grade. The positive relationship, however, is somewhat distorted in the "Low Average" and "Inferior" group in that the Low Average group contains a greater per cent of B's than any other grade; and the Inferior group, an equal percentage of A's and C's.

Considering the group as a whole, the greatest percentage of the nine A's made in the General Psychology class was found in the Superior intelligence group; the greatest percentage of the twenty-one B's in the Superior group; the greatest percentage of the twenty
C's in the high average group; an equal percentage of D's in the High Average and Low Average groups. These data are found and presented in table 14.

Examination of the above table indicates some relationship between intelligence and grades, but not a high relationship in that the greatest percentage of A's are found in the Superior group while the Very Superior, High Average, and Inferior groups contain the same percentage of A's (eleven per cent). All the D's were found in the High Average and Low Average intelligence groups instead of in the Inferior group as would be the case if there were a perfect positive comparison between grades and intelligence for the group.

Attitudes and Intelligence in Their Effect on Grades.--- In our consideration of attitudes and grades we found that in general, the more favorable the attitude, the better the grade; or, that for those making "A", the greater per cent of the students have attitudes classified as favorable and for those making "D", the greater per cent of the students have attitudes classified as slightly unfavorable. We conclude that there is a positive comparison between attitudes and grades.

In our consideration of intelligence and grades we found that the greatest per cent of A's are found in the "Superior" intelligence group and the greatest per cent of D's in the High Average and Low Average intelligence group. Here we do not find quite so positive a comparison as was the case with attitudes and grades but we do find a positive comparison between grades and intelligence.

For the whole group, the greatest percentage of attitudes found were "slightly favorable" attitudes; and for the whole group, the greatest
<table>
<thead>
<tr>
<th>Grade</th>
<th>Very Superior Intelligence</th>
<th>Superior Intelligence</th>
<th>High Average Intelligence</th>
<th>Low Average Intelligence</th>
<th>Inferior Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent of Total</td>
<td>Number of Students</td>
<td>Per Cent of Total</td>
<td>Number of Students</td>
<td>Per Cent of Total</td>
</tr>
<tr>
<td>A</td>
<td>100</td>
<td>1</td>
<td>33</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>50</td>
<td>9</td>
<td>33</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>3</td>
<td>57</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>D</td>
<td>17</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>10</td>
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<tr>
<td></td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>18</td>
<td>100</td>
</tr>
</tbody>
</table>

TABLE 13

GRADES FOUND WITHIN EACH INTELLIGENCE GROUP FOR FIFTY-TWO MOREHOUSE COLLEGE GENERAL PSYCHOLOGY STUDENTS


<table>
<thead>
<tr>
<th>Intelligence Group</th>
<th>Grade A</th>
<th>Grade B</th>
<th>Grade C</th>
<th>Grade D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per Cent</td>
<td>Number</td>
<td>Per Cent</td>
<td>Number</td>
</tr>
<tr>
<td>Very Superior</td>
<td>11</td>
<td>1</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>Superior</td>
<td>67</td>
<td>6</td>
<td>33</td>
<td>7</td>
</tr>
<tr>
<td>High Average</td>
<td>11</td>
<td>1</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>Low Average</td>
<td>11</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inferior</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>9</td>
<td>100</td>
<td>21</td>
</tr>
</tbody>
</table>
percentage of the intelligence scores fell in the "high average" category.

The two variables, intelligence and attitudes were found to bear a positive comparison to grades. Of the two, however, attitudes were slightly more important in their effect on grades.

**Oral Questionnaire and Recorded Interview.**-- The oral questioning was a better means of investigating attitudes toward the class than was the written questionnaire in that information concerning the basic questions (questions on questionnaire) was got as well as other information, rendering a clearer picture of the attitudes. Summarizing statements will be made here concerning the detailed answers given by the ten students questioned orally. The actual answers of the ten students may be found in the appendix.

The trend of the findings for the ten students interviewed orally follows the same general trend as that of the whole group (fifty-two students). Most of the students in this group were found to have "slightly favorable" attitudes and in general, the more favorable the attitude the better the grade, regardless of intelligence. The grades for the group were A's, B's, and C's. For this group, it was noticed that in general, the higher the intelligence, the greater the severity of criticism toward the class.

Most revealing was a glimpse at the attitudes of the top and bottom two students in intelligence. The interview technique attempted here was that of recorded oral statements. Here the interviewer was permitted to talk with little prompting or directing from the interviewer. The interviews were recorded.

The trend of the findings here followed those for the whole group
in general. The two students with the highest I. Q. scores for the fifty-two students had more severe criticisms of the class than did those with low I. Q.'s. Although the student with the highest I. Q. score made "A", his attitude was definitely unfavorable. At the same time, however, the student with the lowest I. Q. made A. His attitude was definitely favorable. The student with the next highest I. Q. made a grade of "F". His attitude was slightly unfavorable. The student with the next lowest I. Q. made a grade of C. His attitude was slightly favorable. Here we see that there was no relationship between the grade earned and the attitude for the student with the highest I. Q., but as the I. Q. decreases we have a definite comparison.

Implication of Data for Education.—These data presented herein have indicated the importance of both variables, attitudes and intelligence in their effect on grades. However, intelligence and its relationship to grades has been more thoroughly explored than has the attitude and its relation to grades. Intelligence is native ability and only in rare instances is it altered to any considerable degree, but the attitude may be dealt with to some extent.

In that it has been shown that the attitude has some effect on these particular grades, it might be probable that they will have an effect generally speaking. In that attitudes may be dealt with, it would seem to follow that more and more attention should be given to the development of favorable attitudes toward school and school work. The development of favorable attitudes toward the school situation might result in a better grade for each student. Counselors and those trained for such work should more and more come to be a regular part of the school staff. The individual should be aided in discovering what his attitudes are and
how they help or hinder him in the school situation.

It is suggested that further studies be made along this line.
CHAPTER III

SUMMARY AND CONCLUSIONS

Summary.—Fifty-two General Psychology students at Morehouse College served as subjects for this study.

An intelligence test was administered to the group and the I. Q. scores derived. The scores were found to range from 77-135. The intelligence test scores were grouped as to "very superior", "superior", "high average," "low average," and "inferior" intelligence. The greatest percentage of the scores fell into the high average intelligence group.

Attitudes were investigated through oral and written questionnaire and in a manner suggested by indirect interview technique. The attitudes of each student were examined and classified as either "favorable," "slightly favorable," "slightly unfavorable," "unfavorable," the greatest percentage of the attitudes of the students were "slightly favorable."

The General Psychology grades were secured from the Registrar. The greatest percentage of the grades was B.

The attitudes of the students were compared with their intelligence, the data being presented in tabular form. The "high average" group in intelligence contained the greatest percentage of "unfavorable attitudes."

Attitudes of the group were compared with grades, the data being presented in tabular form. It was found that in general, the more favorable the attitude, the better the grade.

The attitudes and the intelligence of the group were weighed as to their effect on grades. Both were found to bear a positive comparison to grades. Attitudes were a little more important in their effect on
Conclusion.— The conclusion is presented in the form of answers to the nine questions proposed under "purpose."

1) The greatest per cent of the attitudes found were "slightly favorable."

2) The greatest per cent of the I. Q. scores fell in the "high average" intelligence group (100-114). The average score was 108.6.

3) The greatest per cent of the grades made was B.

4) The "high average" group in intelligence contained the greatest per cent of "favorable" attitudes. The "superior" intelligence group contained the greatest percentage of "unfavorable" attitudes.

5) In general, the more favorable the attitude, the better the grade.

6) The "Superior" intelligence group contained the greatest percentage of A's; the High average and Low average, the greatest per cent of D's.

7) The variables intelligence and attitudes were important in their relationship to grades. Attitudes were found to be slightly more important than intelligence.

8) This study implies that both intelligence and attitudes should be considered in their effect on grades.

9) The trend of the findings from those interviewed orally followed the same trend as that of the whole group (fifty-two students). The majority of the attitudes were grouped as "slightly favorable." The more "favorable" the attitude, the better the grade.
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APPENDIX A

QUESTIONNAIRE

*1. Do you like the study of Psychology? ——
   Why or why not? ———

*2. Have you ever had a course in Psychology before? ———

*3. Do you read books on Psychology other than the text? ———

*4. Did you think you would like Psychology before you took this course? ———

*5. Do you like this class in Psychology? ———

*6. Are you of strong, average, little interest in this course? ———

*7. Do you do your best work in Psychology? ———
   Why or why not? ———

*8. Do you do your best work in your other classes? ———

*9. Has this class been challenging enough for you? ———

*10. Are you planning to take anymore Psychology? ———

11. Would you have taken this course had it not been required? ———

12. Is this course stimulating and broadening? ———

*13. Has the instructors presentation of the course been effective in so far as you are concerned? ———

*14. Do you like your instructor? ———
   Think him capable? ———
   Think him fair? ———

*15. Do you think you are of low, average, high intelligence? ———

*Key Questions
16. Is your mastery or comprehension of this course very thorough, reasonably thorough rather unsatisfactory, little or none? ————

17. What grade do you think you should get in this course? ————

18. What grade do you think you will get in this course? ————

19. Is this course easy, average, hard, in comparison with other courses taken at Morehouse? ————

20. How much time do you give to the study of Psychology? ————

*Key Questions.*
APPENDIX B

(1) Do you like the study of Psychology? Why or why not?

1. "Yes, I like the study of Psychology because it gives a better view of individual differences."
2. "Yes, I like the study of Psychology."
3. "It's funny to me; I like it all right; somethings don't make sense to me. I guess it's because of the way things are presented in here."
4. "I like it all right but I'm just taking it because it's required."
5. "Yes."
6. "I like Psychology fairly well."
7. "I like Psychology all right but I'm not crazy about it."
8. "I like Psychology."
9. "Psychology is interesting to me."
10. "I like Psychology. I like it because it studies the mind and gives reasons for why people do things."

Here we get a clearer picture of the attitudes toward the class than was the case with the written questionnaire where the students could not go as much into detail concerning their answers as in this case.

2) Have you ever had a course in Psychology before?

This question required only a "yes" or "no" answer. All ten answers to this question were "no."

3) Do you read books on Psychology other than the text?

1. "Very seldom, I don't have time. If I had time I would."
2. "No."
3. "No."
4. "No."
5. "No."
6. "Often."
7. "No."
8. "Sometimes."
9. "No, if I had time I would."
10. "Yes."

4) Did you think you would like Psychology before you took the class?
   1. "Yes, I thought it would help."
   2. "I was undecided. I knew it was required, I like it now."
   3. "I wasn't certain."
   4. "I didn't think about it because I knew it was required."
   5. "I thought I would like it all right. Psychology is an immature science."
   6. "Yes."
   7. "I didn't think about it."
   8. "Yes."
   9. "Yes."
  10. "Yes."

5) Do you like this class in Psychology?
   1. "I like it all right but the way in which it is taught is my reason for being able to really like it. The class is not challenging enough and therefore does not require any studying. There are no textbooks, no goals set up or anything. The material presented is just meaningless."
2. "I like the class. I have no fault to find with it."
3. "I like the class."
4. "I like the class all right. I'm just taking it because it's required."
5. "I like this class okay."
6. "I like this class."
7. "Okay."
8. "Yes, I like this class."
9. "I like this class all right."
10. "I like this class. I don't think the tests we take such as intelligence tests, etc. determine people's reliabilities. I think we could get more out of the course if the students would cooperate."

6) Are you of strong, average, little interest in this course?
1. "I am of about average interest in this class. Maybe a little less."
2. "Average."
3. "Little interest; it's just another required course."
4. "Average interest I suppose. This is an immature science."
   (e.g. he is a science major - considers psychology as an immature science.)
5. "Strong interest. This is my minor."
6. "Average."
7. "Average - I have never had another course in Psychology but I think I could be more interested in it if it were more challenging and goals set up."
8. "Average."
9. "Average."

10. "Average - It would be more interesting if the students were more cooperative.

7) Do you do your best work in Psychology? Why or why not?

1. "I don't do my best work in here. I don't know why. Mainly because of a physical handicap."

2. "No. I don't know why. I guess I'm just lazy."

3. "No, I don't do my best work; I just don't."

4. "No, I don't do my best work in here. I don't put any time on it. I put more time on my major and minor, Biology and Chemistry."

5. "No, I don't do my best work in here because it's one of the courses where you can get the work with little effort."

6. "Yes."

7. "No, not all the time."

8. "No, some courses require more effort than others; Psychology requires no effort at all."

9. "No, I just don't."

10. "No, the minimum amount is enough. I'm satisfied as long as I'm doing a little better than the average person."

8) Do you do your best work in your other classes?

1. "In most other classes."

2. "At times."

3. "In some. I don't have good study habits."

4. "In most."

5. "According to the nature of the work, yes."
6. "Yes."
7. "Yes, if I'm interested."
8. "Yes, in most."
9. "No, I just don't."
10. "No, I'm satisfied as long as I'm doing a little better than the average person."

9) Has this class been challenging enough for you?
1. "In a way, yes. In so far as what we've had to do."
2. "Yes, but it isn't a difficult class."
3. "No."
4. "No, the work can be gotten with little effort."
5. "No."
6. "Yes."
7. "No."
8. "No, I think we should have a text. It just doesn't require studying."
9. "No."
10. "No."

10) Are you planning to take any more Psychology?
1. "I hadn't thought about it. I might take some more if I can get around to it."
2. "Yes."
3. "I'm not certain."
4. "No."
5. "No."
6. "Yes, Psychology is my minor."
7. "No."
8. "No."
9. "No."
10. "No."
8. "Yes, I suppose so."
9. "No."
10. "I don't see how I can get it in."

11) Would you have taken this course had it not been required?
1. "Yes."
2. "Yes."
3. "Yes."
4. "No."
5. "Yes."
6. "Yes."
7. "Yes."
8. "No."
9. "I don't know."
10. "Yes."

12) Is this course stimulating and broadening?
1. "Uncertain."
2. "Uncertain."
3. "No."
4. "No."
5. "Yes."
6. "No."
7. "No."
8. "Yes."
9. "Yes."
10. "Yes."

13) Has the instructor's presentation of the course been effective in so far as you are concerned?
1. "No."
2. "Yes."
3. "No."
4. "I don't know. I guess so."
5. "Fairly effective."
6. "Yes."
7. "No."
8. "No."
9. "I guess so."
10. "Yes."

14) Do you like your instructor? Think him capable? Think him fair?
1. "Yes, I like the teacher all right but I think he is impatient. I don't know whether he is capable or not, I think he's pretty fair in marking."
2. "All right; I think he's capable, I think he's fair."
3. "Yes, I like him, I think he needs to explain further; I think he's fair; I think he's fair as much as possible."

4. "Yes, I like him, I think he's capable but he hasn't put himself into it; I think his marking is a routine."

5. "I like him, I think he's capable, Yes, I think he's fair."

6. "I like him all right. I think he's capable. I think he's fair."

7. "Yes, I like him. I think he's capable. It's hard for me to say whether he's fair or not because I don't know his basis for grades."

8. "I like him. Yes, I think he's capable. I don't think he has any basis for his grades."

9. "I like him okay. Yes, he's capable. Yes, he's fair in so far as I know."


15) Do you think you are of low, average, high intelligence?

1. "Average."
2. "Average."
3. "High."
4. "Average."
5. "High."
6. "Average."
7. "Above average."
8. "Average."
9. "Average."
10. "Average but a little lower than it was in the Navy."

16) Is your mastery or comprehension of this course very thoroughly reasonably thorough, rather unsatisfactory, little or none?

Answers of "Very thorough," "reasonably thorough,"
"rather unsatisfactory," "little or none" were possible answers to this question. All ten of the students answered the question, "reasonably thorough."

17) What grade do you think you should get in this course?
   1. "B"
   2. "F" I don't think I'll get an "A" because I cut some
   3. "B" I cut so I don't think I'll get an "A".
   4. "C"
   5. "I don't know what system of marking he uses."
   6. "A"
   7. "It's hard to say because there is no criteria for marks. I can't understand what he wants me to do. There are no goals."
   8. "F"
   9. "F"
   10. "D"

18) What grade do you think you will get in this course?
   1. "C"
   2. "F"
   3. "C - There are no exams in the subject of Psychology so he can't really be marking objectively."
   4. "C"
   5. "I might get a "E."
   6. "A"
   7. "I've no idea."
   8. "B - if we had exams and quizzes I would get an "A" out of the course."
   9. "F"
10. "B or C."

19) Is this course easy, average, hard, in comparison with other courses than at Morehouse?
1. "Average."
2. "Not a difficult class."
3. "An easy class."
4. "Easy."
5. "This course requires little effort."
6. "Easy, I don't have to study for this class like I do for others."
7. "It doesn't require much effort."
8. "This is an easy course. Not enough is taught. I get nothing out of the course. This course does not require any effort."
9. "This isn't a difficult class."
10. "Easy."

20) How much time do you give to the study of Psychology?
1. "An hour every other day."
2. "I complete the work as it is assigned." I think the question should be restated in each instance.
3. "In the whole semester, only about four hours the time required to fix the note book to pass in."
4. "As little as possible."
5. "Before most class periods I read an experiment."
6. "I study regularly. I put enough time in it to prepare the experiments."
7. "Very little time."
8. "I don't spend any time on this course. It doesn't require any-
time."

9. "I spend little time preparing for the class."

10. "I read the experiments occasionally and prepare the work as it
is supposed to be passed in."