

CONSTRUCTION OF AN ATTITUDE SCALE  
TO IDENTIFY POTENTIAL  
HIGH SCHOOL DROPOUTS

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A Thesis

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of the Requirements for the Degree  
Master of Science

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by  
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S.L.C.

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## CHAPTER I

### DEFINITION OF THE PROBLEM

#### Introduction

Educators are aware of the dropout problem and have been working toward its solution since compulsory education laws went into effect. The problem will, in all likelihood, continue to confront public schools in the United States for many years. The schools might well increase their holding power by devising and using some instrument which would predict potential dropouts. Early identification of potential dropouts will give schools an opportunity to assist these people so that they do not drop out of school prior to high school graduation.

#### Statement of the Problem

The purpose of this study was to investigate the indicated factors related to early withdrawal from public secondary schools and to use these findings as a basis for selection of scale items. More specifically, the problem was to construct a Likert-type attitude scale which might identify potential high school dropouts.

#### Related Research

Review of research. The secondary schools of the United States are attracting and holding more students than

ever before. Since 1890 each decade has boasted of a substantial increase in the percentage of young people attending school. Whereas in 1889, 7 per cent attended school, in 1950, 77 per cent were attending.<sup>1</sup> The number of pupils graduating from high school is also much improved from what it was. However, evidence tends to indicate that while the percentage of high school graduates is steadily improving, the dilemma of the dropout is worsening rapidly.

The dropout is not the only one who suffers. Each member of society, either directly or indirectly, is affected by the pupil's decision to leave school prematurely.<sup>2</sup> The following information is relevant: (1) One of every three students in school today will leave before graduation from high school; (2) 7.5 million youths will drop out within the current decade; (3) Only 5 per cent of the working force will be unskilled by 1970; (4) The rate of unemployment among male dropouts is three times higher than among high school graduates.<sup>3</sup> Of the 7.5 million youths who will drop out during the next decade about 61 per cent, or approximately 4.5 million, will have less than a junior

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<sup>1</sup>United States Office of Education, Biennial Survey of Education in the United States, 1948-50. (Washington: Government Printing Office, 1953), 15.

<sup>2</sup>Ibid.

<sup>3</sup>Ibid.

have less than a junior high school education when they leave school. The problems which these people create for "self" and society are going to be indeed costly and difficult to overcome.<sup>4</sup>

The importance of the problems dropouts cause for society was further implied by Barclay:

There is mounting pressure on the school today to do something about the school dropout. Much of this has come from the crisis orientation of governmental agencies. As a result, a good deal of research has been directed towards a search for some environmental factors which may identify potential dropouts.<sup>5</sup>

The following citations provide a summary of the findings of some major studies concerning causes of dropping out.

Porter, in attempting to distinguish the potential dropouts, listed several characteristics which he believed would apply to dropouts generally. Among these characteristics were: (1) rejection of school, self, and competitive situations; (2) socially withdrawn and aggressive; (3) feels that leaving school is the lesser of two evils; (4) parental

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<sup>4</sup>Donald Clark, "Too Little and Too Late," School and Community, LI (November, 1965), 31.

<sup>5</sup>James R. Barclay, "Sociometric Choices and Teacher Ratings as Predictors of School Dropouts," Journal of School Psychology, IV, No. 2 (Winter, 1966), 40.



indifference concerning child's persistence in school; (5) often times poor readers and truants; (6) early marriage; (7) socially immature, irresponsible, defensive, and pessimistic about vocational future; (8) exhibits a dislike for the school situation; (9) low socio-economic status.<sup>6</sup>

A study which was conducted in California in an effort to find the causes for dropping out produced the following findings: (1) lack of emotional maturity due to starting school early; (2) bad first grade experiences caused by moving, long absence, and traumatic experiences; (3) obvious differences in standardized test results particularly between language and non-language intelligence scores, between test scores and actual classroom achievement, and between actual grade placement and average anticipated grade placement (nine months or more); (4) frequent changing of schools; (5) tense overachievers who tend to "burn out" or become negative toward academic achievement; (6) obvious bad attitude toward teachers (authority in general); (7) unexplained absences; (8) marked differences from school-mates, such as interests, physique, social class, nationality, dress, or personality development; (9) marked

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<sup>6</sup>John W. Porter, "Some Identifying Characteristics of Dropouts," Minnesota Journal of Education, XLIV (September, 1963), 15.

with feeling of "not belonging;" (10) negative attitude of parents toward formal education.<sup>7</sup>

Research on possible reasons for students dropping out of school in the state of Minnesota revealed the following causes: (1) low intelligence in approximately 50 per cent of the cases; (2) inability to adjust socially in school; (3) disciplinary reasons; (4) parental attitudes (disinterest in child and little appreciation of education in general); (5) marriage and pregnancy; (6) "problem children" and retarded readers.<sup>8</sup>

Dropouts in the state of Maryland were asked why they withdrew from school. The dropouts interviewed gave the following reasons for leaving school: (1) lack of participation in meaningful activities; (2) low educational and aspirational level of parents; (3) broken homes coupled with low incomes; (4) scholastic factors--mental ability, failures and retention, and reading level; (5) feelings of being left out by many who listed lack of success as a reason for dropping out.<sup>9</sup>

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<sup>7</sup>"Identifying Potential Dropouts," California Education, III (September, 1965), 31.

<sup>8</sup>June Otterness, "Dropouts in Your School," Minnesota Journal of Education, XLIII (May, 1963), 28.

<sup>9</sup>Percy V. Williams, "School Dropouts," NEA Journal, LII (February, 1963), 11.



The various research studies concerning dropouts have focused attention on describing the dropout and conditions which contribute to withdrawal from school.

It should be noted that the factors contributing to the students' final withdrawal are as dissimilar as are the members of this heterogeneous group. However, it may be stated with assurance that if a sufficient number of the enumerated conditions prevail they will constitute an insurmountable situation to the potential dropout, which he proceeds to solve by withdrawing from school.<sup>10</sup>

Strem arrived at a similar conclusion.

The dropout displays no pathological symptoms. Diagnosis of the potential dropout is dependent upon the identification of various symptoms or clusters of indicators. Researchers have reported that the dropout is generally lower in intelligence than the stay-in. This can be argued, in that the very tests by which he is evaluated demand unlearned [learned] skills. Correspondingly, the dropout does not usually achieve academically at the average level for his class; may well be retarded one or more grades; and is usually a social misfit. Thus, through lack of success and rejection by peers, the dropout is forced into an unremitting isolation. This discernment provides important clues for further investigation.<sup>11</sup>

In examining these research findings, it can be seen that the causal factors for dropping out fall within one or the other of the following categories: "intellectual" and "non-intellectual". The intellectual factors can be assessed

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<sup>10</sup>Oscar Hoch, "The Dropout Syndrome," High School Journal, XLIX (November, 1965), 103.

<sup>11</sup>Bruce E. Strem, "An Attitude Survey of High School Dropouts by Means of the Semantic Differential Process," (unpublished Doctoral dissertation, The University of Southern California, Los Angeles, 1966), p. 34.

through the use of a battery of intelligence, aptitude, and achievement tests. A closer look at the non-intellectual category reveals that the majority of the characteristics are of a social-psychological nature. With consideration to the complexity of the information needed for the detection of the potential dropout, the case study method seemed desirable.

Prediction of dropouts from data other than that available from school and community records is indicated. Case study and interview techniques are perhaps the most valuable; however, the expense in time and personnel renders these approaches impractical for the study of large groups.<sup>12</sup>

Inasmuch as the majority of the studies of dropouts have dealt with contributing factors as perceived by school leavers at the time of their exit from school, or in follow-up studies after they have left school, a need for early identification is indicated. As Livingston stated:

The importance of the elementary school in early identification of potential dropouts is paramount!... Undoubtedly we have the major reasons that contribute to early withdrawal. Still we have not developed indices that would allow the school to identify the potential dropout.... Many forces that contribute to early withdrawals presumably are felt during the elementary-school years, although they may not be clearly perceived there. Preventative programs must begin in the elementary school as early as danger signs are perceptible.<sup>13</sup>

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<sup>12</sup>Ibid., p. 10.

<sup>13</sup>Hugh Livingston, "Key to the Dropout Problem: The Elementary School," Elementary School Journal, LIX (February, 1959), 267.

Other authors contribute to this request for a means of identification. Hoch has suggested that one of the main problems in dealing with the dropout is the early identification of such a person.<sup>14</sup> In the words of Thompson and Nelson:

For years we have known the statistics. For years we have been aware of the reasons. The question arises, therefore, what can and should be done to alleviate this educational cancer?...Treating the symptoms never removes the cause. Therefore, a concrete approach is definitely needed if the dropout is ever going to become extinct. For this program to be successful, it is necessary to spot the potential dropout as early as possible and apply the eventual cure.<sup>15</sup>

Summarizing an array of reports on dropouts, Strem further clarified the need for early identification.

The early identification of potential dropouts has been emphasized throughout research literature. Two objectives would be accomplished through early recognition: the classroom teacher would have an opportunity for individual student contact, and the change of attitude-value systems would be begun at a more favorable time in the personality development of the pupil.<sup>16</sup>

From an extensive study of scholastic success, which is one of the indices for discriminating potential dropouts, Herriott asserted:

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<sup>14</sup>Hoch, op. cit., p. 103.

<sup>15</sup>Robert H. Nelson and Michael L. Thompson, "Twelve Approaches to Remedy the Dropout Problem," The Clearing House, XLI (December, 1966), 238.

<sup>16</sup>Strem, op. cit., p. 126.



. . . there is good reason for concluding from the facts presented that prediction of scholastic success can never be highly satisfactory as long as there is no adequate measure of "non-intellectual" factors such as study-habits and attitudes.<sup>17</sup>

Consideration of the overlapping of intellectual and non-intellectual factors led one researcher to two postulates necessary for prediction. First, clusters or patterns of variables should be evolved within definable domains of assessment, so that diagnostic factors of one kind do not become obscured by those of another. Second, in evaluating the efficacy of prediction from each such domain, one must anticipate modest results, for no single domain (e.g. intellectual, economic, personsological) will determine the total population of dropouts.<sup>18</sup>

To meet these demands placed on the non-intellectual or social-psychological factors attributed to dropouts, the concept of attitude measurement has been adopted. Moreover:

. . . the basic value of the concept lies in the fact that it provides much help in understanding the

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<sup>17</sup>M. E. Herriott, Attitudes as Factors of Scholastic Success, Bureau of Educational Research, College of Education, University of Illinois, Bulletin No. 47 (Urbana, Illinois: University of Illinois Press, 1929), 44.

<sup>18</sup>Harrison G. Gough, "Graduation from High School as Predicted from the California Psychological Inventory," Psychology in the Schools, III No. 3 (July, 1966), 210.

individual's social behavior, and serves as the best basis for the prediction of social behavior thus far devised.<sup>19</sup>

For a brief indication of theory behind attitude measurement, Sherif and Cantril stated:

. . . attitudes are inferred from the reactions (verbal or non-verbal) of man. When an individual reacts repeatedly in a characteristic way (positive or negative) in relation to a certain stimulus objective, we infer that he has an established attitude toward that stimulus.<sup>20</sup>

Attitude measurement has been successful in the prediction of various types of social behavior.

But, by and large, because of the relativity of values and norms in a given milieu at a given time, it is feasible to construct scales that deal, for example, with attitudes toward different races, government regulations, religion, and occupational prestige. Likewise, everyday life judgements such as predictions made concerning the outcome of social conflicts are generally found to be made within a limited scaleable range.<sup>21</sup>

As an example of this type of research, many studies have been conducted using the E-F Scale to measure authoritarianism and prejudice. The "E" stands for "ethnocentrism" and "F" stands for "antidemocratic trends" or "Fascism". The

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<sup>19</sup>Joseph B. Cooper and James L. McGaugh, Integrating Principles of Social Psychology (Cambridge, Massachusetts: Schenkman Publishing Company, Inc., 1963), 234.

<sup>20</sup>Mazafar Sherif and Hadley Cantril, The Psychology of Ego Involvements (New York: John Wiley and Sons, Inc., 1947), 29.

<sup>21</sup>Ibid., p. 61.

scale consists of thirty statements which relate to the core characteristics of the authoritarian personality and the subject responds by indicating his degree of agreement or disagreement with each statement.<sup>22</sup>

Statistical studies of the E-F Scale reveal a high level of reliability, high enough, in fact, to convince some that the authoritarian syndrome is an indivisible organization. While this is an overstatement of the case, there is no doubt that authoritarianism can be measured, even though not perfectly.<sup>23</sup>

The importance of student attitudes has not been neglected. The Minnesota Student Attitude Inventory (M.S.A.I.) was constructed for a study of teacher influence, pupil attitudes, and achievement. It required the student to respond on a five-point scale to sixty-two items that could be grouped into a priori scales or clusters.<sup>24</sup>

Reliability of the M.S.A.I. long form varies from class to class and with the sample chosen; the range is from 0.68 to 0.93 with the median reliability at 0.85...the validity [predictive] of these scales [was also] clearly established.<sup>25</sup>

In a recent survey of the attitudes of high school dropouts, it was concluded that "... dropouts and stay-ins

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<sup>22</sup>Cooper and McGaugh, op. cit., p. 279.

<sup>23</sup>Ibid., p. 280.

<sup>24</sup>Ned A. Flanders, "Teacher Influence, Pupil Attitudes, and Achievement," Cooperative Research, United States Department of Health, Education and Welfare, Monograph No. 12 (Washington: Government Printing Office, 1965), 45-46.

<sup>25</sup>Ibid.



can be differentiated by a group test based on the semantic differential procedure."<sup>26</sup> The attitude concepts used in the study were school experience, family relations, social interaction, self concept, authority relationships, goal orientations, and moral and social values. Strem's interpretation of the dropout's reaction to these concepts was:

. . . in general, dropouts perceived the concepts of the seven areas of investigation unfavorably, and considered the concepts ineffective and lacking in vitality. They expressed sullen, rejecting, and at times withdrawn attitudes more often than did stay-ins. The dropout was concerned with school avoidance and favored immediate gratification rather than long-term goals.<sup>27</sup>

Some writers have indicated that the potential dropout is not too difficult to identify because such a student does not attempt to mask his attitude concerning withdrawal from school. ". . . the consensus of most writers on this subject seems to be that the dropout is neither adept nor inclined to conceal his true intentions." Most writers also agree that the potential dropout's leaving has its genesis in the elementary school.<sup>28</sup>

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<sup>26</sup> Bruce E. Strem, "An Attitude Survey of High School Dropouts by Means of the Semantic Differential Process," Dissertation Abstracts, 27 (5-A) (Ann Arbor, Michigan: University Microfilms, Inc., 1966), 1273.

<sup>27</sup> Ibid., p. 1274.

<sup>28</sup> Hoch, op. cit., p. 99.

The various social-psychological factors surrounding the dropout, as shown by the above studies, indicated a relatively consistent cluster. In order to construct scale items, the following attitude concepts were used in this study: (1) authority relationships; (2) self-concepts; (3) social relations; (4) family's concept of education; (5) economic goals versus educational goals; (6) education in general; and (7) special aspects of education: extra-curricular activities and verbal ability. Attitudes on these seven basic concepts were measured in this study by a Likert-type scale.

Briefly, a Likert-type scale is constructed as follows:

. . . many statements pertaining to a given stimulus object are assembled and administered to a group of subjects who designate strong approval, approval, indecision, disapproval, or strong disapproval to each. These are assigned numerical values of 5, 4, 3, 2, and 1, respectively. Each subject's scale is scored and a correlation for each item with the total score is computed. Those items which have high correlation are retained.<sup>29</sup>

The actual items that make up the scale or content validity are important in the construction of a Likert-type scale. Regarding measurement, Green stated:

. . . in this forest of methods, the investigator should not lose sight of the fact that a scale is made from items. The initial and basic problem of attitude

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<sup>29</sup>Cooper and McGaugh, op. cit., p. 255.



measurement is to assemble a set of carefully worded, insightful items that cover the area in question.<sup>30</sup>

Murphy and Likert listed the following five rules as a guide in the selection of scale items: (1) It is essential that all statements be expressions of desired behavior and not statements of fact; (2) Each proposition should be stated in clear, concise, straightforward statements to avoid ambiguity; (3) In general, it would seem desirable to have each statement so worded that the modal reaction to it is approximately in the middle of the possible responses; (4) To avoid stereotyped responses, it is desirable to word the statements so that half of them will end at each end of the attitude continuum; (5) If multiple choice statements are used, the different alternatives should involve only a single attitude variable and not several.<sup>31</sup>

One further point to consider in the construction of a Likert-type scale is whether or not the persons to whom it is given can read it. According to the Texas Outlook the average reading level of the dropout is low. More precisely,

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<sup>30</sup>Bert F. Green, Attitude Measurement (Vol. 1 of Handbook of Social Psychology, ed. Gardner Lindzey. 4 vols.; Reading, Massachusetts: Addison-Wesley Publishing Company, Inc., 1954), 365.

<sup>31</sup>Gardener Murphy and Rensis Likert, Public Opinion and the Individual (New York: Harper and Brothers Publishers, 1938), 282.

the dropout is about three grade levels lower than would be expected.<sup>32</sup>

Relation of the proposed study to the previous research. The related research gave an understanding of the dropout's psychological make-up at the time he withdrew from school. Factors which possibly led to his dropping out were delineated. Also given was an idea of the impact of the dropout on society. The need for procedures which could assist in preventing students from dropping out of school was made evident.

Many appeals were made for some method of identifying these people. These appeals provided the impetus for this study.

Many academic factors contributing to withdrawal from school have been identified and are measured by established methods. Attitudes also are measureable. However, the researchers mentioned the fact that they could find no generally accepted instrument which has been developed for the specific purpose of predicting the potential dropout.

Therefore, an attitude scale was constructed. This attitude scale was of the Likert-type because the research

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<sup>32</sup>W. W. Farrar, "Can You Pick the Dropout?." Texas Outlook, XLIX (January, 1965), 255.

indicated that such a scale lends itself to the task of securing responses on a continuum.

Educational researchers who have studied dropouts have determined many of the reasons for dropping out of school. From their research this paper has derived seven major areas within which the dropout may have attitudes different from those of students who stay in school until graduation. These seven areas are; authority, self-concept, social relations, family's concept of education, economic goals versus educational goals, education in general, education as related to verbal ability and extra-curricular activities. The scale contains items designed to determine a student's attitude toward these areas.

The present predictive instrument will be beneficial if it can be used in conjunction with existing information and procedures to assist the potential dropout to successfully remain in school.

#### Analysis of the Problem

The first hypothesis of this study was that pre-high school students will approach a normal distribution in their responses on an attitude scale dealing with the various social-psychological factors associated with dropouts. The relationship between the Statement of the Problem and



Hypothesis I was a sequential relationship. The relationship begun with the causes for students' dropping out of school. From these causes came the scale items. From the responses to the scale items came differences in attitudes between potential dropouts and potential non-dropouts. From these differences came the basis for prediction of the potential dropouts. The entire problem rested on these differences. If the differences in responses do approach a normal distribution, the attitudes dealing with the various social-psychological factors associated with dropouts must apparently be an integral part as to why some students remain in school and others elect to drop out before graduation.

The second hypothesis to be tested in this study was that the student scores on the attitude scale would correlate significantly with various "intellectual" factors ascribed to dropouts. The relationship between the Statement of the Problem and Hypothesis II was one of correlation. In an attempt to say that the attitude scale is of value in predicting potential dropouts, the scale scores should be correlated significantly with other factors which are related to students dropping out of school. These other factors are usually academic factors which have consistently proven to be some of the empirical reasons students leave school. The academic factors are also factors which have proven useful in predicting dropouts on the basis of success

in doing school work. The established predictive ability of academic factors lends itself to be correlated with the predictive ability of the social-psychological factors.

### Assumptions

It was assumed that social-psychological factors are as important as academic ability factors in causing students to withdraw from school. The review of the research has fairly well indicated the importance of academic ability in causing students to drop out of school. However, little research could be found which definitely showed the degree to which social-psychological factors contributed to a student's withdrawal from school. Consequently, this paper considered academic and social-psychological factors as being equal in importance and overlapping in contributing to the student's final decision to leave school early.

It was assumed that this scale could be read by the students to whom it was administered. Studies have shown that the average dropout reads approximately two to three years below his expected reading level. Though an effort was made to present the scale in such a manner that students with reading difficulties could read and understand the statements, there was assurance that they would be successful in all circumstances.

It was also assumed that the salient non-intellectual factors were social-psychological factors. The research

referred to academic factors as being intellectual factors in many cases. However, the non-intellectual factors were not categorized in such a manner. Since the non-intellectual or non-academic factors seemed to function as social-psychological factors, this paper assumed that those factors which were not intellectual must be social-psychological for purposes of measurement.

### Limitations

This study had the following limitations: (1) The study was limited to students who were still in school; (2) The attitude scale was designed to measure only the social-psychological characteristics attributed to dropouts; (3) The attitude scale was designed for purposes of identification of potential high school dropouts; (4) The mean intelligence quotient score from the Kuhlman-Finch Group Intelligence Test of the sample used was 115.50. According to Garrett's review of this test, the sample's mean intelligence quotient fell approximately one standard deviation above the standardized mean of 100.<sup>33</sup> Thus, the sample appeared to be highly biased with regard to intellectual ability indicating that it contained relatively few dropouts.

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<sup>33</sup>Henry E. Garrett, "Tests and Reviews: Intelligence-Group" (The Fifth Mental Measurements Yearbook, ed. Oscar K. Buros. Highland Park, New Jersey: The Gryphon Press, 1959), 349.



Definition of Terms

Potential Dropout. For purposes of this study the potential dropout was considered to be any pupil who was physically and intellectually capable of completing high school, who will leave school of his own volition and will not transfer to or attend any other school whatsoever to complete some form of vocational or academic curriculum. Also, he must persist beyond one semester after the legal age of leaving school in order to eliminate those students who have been merely "marking time" because of intellectual or physical inabilities.

Likert-type attitude scale. This scale is properly thought of as an internal consistency technique, rather than strictly an equal-appearing interval scale. The subjects responded by indicating their agreement or disagreement on a five-point continuum toward an attitude object.

Attitude. An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.<sup>34</sup>

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<sup>34</sup>Cooper and McGaugh, op. cit., p. 236.

Social-psychological factors. In this study, social-psychological factors referred to that cluster of personality traits and attitudes toward people or objects, which has been established through the individual's interaction with his social environment. Specifically, it encompassed those indices other than those measured by intelligence, achievement, or aptitude tests, which have been found to be characteristic of the high school dropout.

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## CHAPTER II

### DESIGN OF THE STUDY

#### Introduction

This study was based on the probable causes for students' dropping out of school. The Related Research section of this paper mentioned seven major areas of causation which were derived from the review of literature concerning dropouts. The seven major areas are areas toward which the potential dropout may have attitudes differing in degree from those of students who remain in high school and graduate. The scale contained statements under each of the seven category headings. These statements were designed to assess the individual student's attitude toward each particular area. The student indicated his degree of agreement to each item by responding on a Likert-type scale which lists the following choices: strongly disagree, disagree, indifferent, agree, and strongly agree.

#### Subjects

Those to whom the findings of this study were generalized are junior high school students in Emporia, Kansas. The scale was given to approximately 100 eighth grade students in Lowther Junior High School, Unified School District No. 253, Emporia, Kansas. Three homerooms, to which

these students have been alphabetically assigned, were randomly selected by the principal of the school. Group test scores were available to be used as measures of intellectual factors.

### Instrumentation

In designing the scale to be used in obtaining data, Likert's suggestions for attitude scale formulation were followed with some modifications, hereafter discussed.

In actually developing the scale, it was necessary to formulate a number of scale items which were directly concerned with the seven categories of social-psychological factors which research has shown to be characteristic of dropouts. As was noted in the Related Research, the categories are as follows: authority, self-concept, social relations, family's concept of education, economic goals versus educational goals, education in general, and special aspects of education, which includes verbal ability and extra-curricular activities. Ten statements were devised for each area on the assumption that an adequate sampling of attitude can be obtained to yield a comprehensive covering of each area. Five verification and correction statements, which had obvious responses, were incorporated to assure that the subjects were reading the scale items. The final selection of scale items was facilitated by the consensus of three professionals in school psychology. Special

attention was given to each item so that it could be read and understood by most of the eighth grade students.

Approximately seventy per cent of the scale items were of a positive nature, which means that the "strongly agree" response had the highest value and "strongly disagree" the lowest. The remaining statements were negatively oriented, thus, the scoring was reversed.

The subject marked his particular response to each statement separately. He was instructed to mark only one response per item. The possible responses were arranged in the following manner: (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, (5) strongly agree. For scoring purposes the responses were given values. These values ranged from one to five points, with "strongly disagree" having the value of one and "strongly agree" having the value of five for the positive statements. The scoring order was reversed for the negatively oriented statements.

The statements were randomly placed in the questionnaire so that the seven categories could not be identified by the subjects. The questionnaire was printed in inventory form.

Content and construct validity were considered to be of major importance in the development of this scale. Due to the fact that the scale items pertained to isolated



non-intellectual characteristics ascribed to dropouts, the content validity was established. Construct validity would have evolved from a correlation of the attitude scale scores and the intellectual factor scores since both of these attributes appeared to be specific variables associated with dropouts. A more comprehensive analysis of this relationship appears in Analysis of Data, page 26. If the construct validity of the scale had been established, a prediction as to which students would drop out could have been made from their attitude scale scores. Specifically, those individuals who received the lowest Total scores would have been labeled potential dropouts. Since the sample chosen has five years to graduate from high school or to drop out, establishment of predictive validity is beyond the scope of this paper.

### Procedures

After the scale was printed and was ready to administer, a number of procedures were followed. First, attention was given to removing any threat of grades associated with the responses which students made. Students were made to feel that there were no "right" or "wrong" answers, rather that this was merely a survey of their opinions. Assurance was given to the students that the responses would be kept strictly confidential in order that they would more nearly indicate their "true" feelings. Marking of the responses was carefully explained.

The testing period was of sufficient length so that each student could work at his own comfortable rate. The subjects marked their responses on the printed scale sheet.

After the scales were completed by the students and collected, each scale was totaled using the values as assigned in the section on Instrumentation. In addition, the scores for each of the seven areas were obtained by summing the values of the responses given to items pertaining to each. This was facilitated by scoring keys which indicated which items pertained to each area. None of the scores included the values for the five verification statements. Thus, the lowest possible total score and the highest possible total score were assigned precise numerical values.

Scores were then obtained from cumulative records of students' intelligence quotient, achievement level, and reading level as shown by recorded scores from the Kuhlman-Finch Group Intelligence Test, The Differential Aptitude Test, and the Iowa Silent Reading Test.

#### Analysis of Data

For each student the following information was available: attitude scale Total score, seven attitude scale Sub-scores, intelligence quotient, reading level, and achievement level. A Pearson "r" was used to compare

academic factors with attitude factors and attitude Sub-scores with Total attitude scores. A correlation coefficient was found for the following: (1) Sub-score of each attitude scale with each of the academic scores; (2) Total scores of the attitude scales with each of the academic scores; and (3) each Sub-score of the attitude scale with the Total attitude scale score.

To determine whether to accept or reject the hypothesis that the attitude scale scores approached a normal distribution, a test for skewness was calculated using the method of Garrett.<sup>1</sup> The closer to zero this index the more a distribution approaches normality. To supplement this index the Chi-Square Test for a normal distribution, as presented by Guilford,<sup>2</sup> was calculated.

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<sup>1</sup>Henry E. Garrett, Statistics in Psychology and Education (New York: David McKay Company, Inc., 1965), p. 100.

<sup>2</sup>Joy P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1950), p. 284.



## VN CHAPTER III

### ANALYSIS OF DATA

#### THE SAMPLE

The complete attitude scale was administered to eighty-one eighth grade students by the method described in the section of this thesis devoted to the Design of the Study. Eight of the attitude scale scores could not be used due to a lack of data in the cumulative records of these eight subjects. Usable attitude scale scores of the remaining seventy-three subjects were employed in the computation and analysis of the data. The subjects whose attitude scale scores were used consisted of thirty-five females and thirty-eight males. No significant difference was found between the mean scores of the males and females.<sup>1</sup> Consequently, no further differentiation between sexes was made in the analysis of data.

The data taken from the cumulative records of the students showed the mean intelligence quotient, as measured by the Kuhlman-Finch Group Intelligence Test, to be 115.50. The mean Median Standard Score, a median score of all the scales, of the Iowa Silent Reading Test was 160.45, or equivalent to the fifty-seventh percentile. Incorporated in the study from the Differential Aptitude Test were the VN

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<sup>1</sup> $t = 0.56, p > 0.10.$

scale scores. The VN scale is a combined score of the students' verbal and numerical aptitude. The mean VN scale standard score of the sample used was 40.05, or equivalent to the sixtieth percentile.

#### DATA RELEVANT TO HYPOTHESIS I

In the Analysis of the Problem, Hypothesis I was stated as: Pre-high school students will approach a normal distribution in their responses on an attitude scale dealing with the various social-psychological factors associated with dropouts.

Figure I, page 30, shows the distribution of the attitude scale Total scores with respect to their frequency of occurrence within class intervals. The mean of the Total scores of the attitude scale was 260.54, the standard deviation was 25.35, and the range was from 184 to 330. The possible range of scores for the attitude scale Total scores was 70 to 350.

As shown in Figure I, the distribution is bimodal, having equal response frequencies for the 240-249 and 250-259 score intervals. The large gaps in score frequency for the 260-269 and 270-279 score intervals strongly jeopardized the possibility of normality.

For the seventy-three subjects the median attitude scale Total score was 251.66. Thus, the distribution of



FREQUENCY OF TOTAL SCORE OCCURRENCE

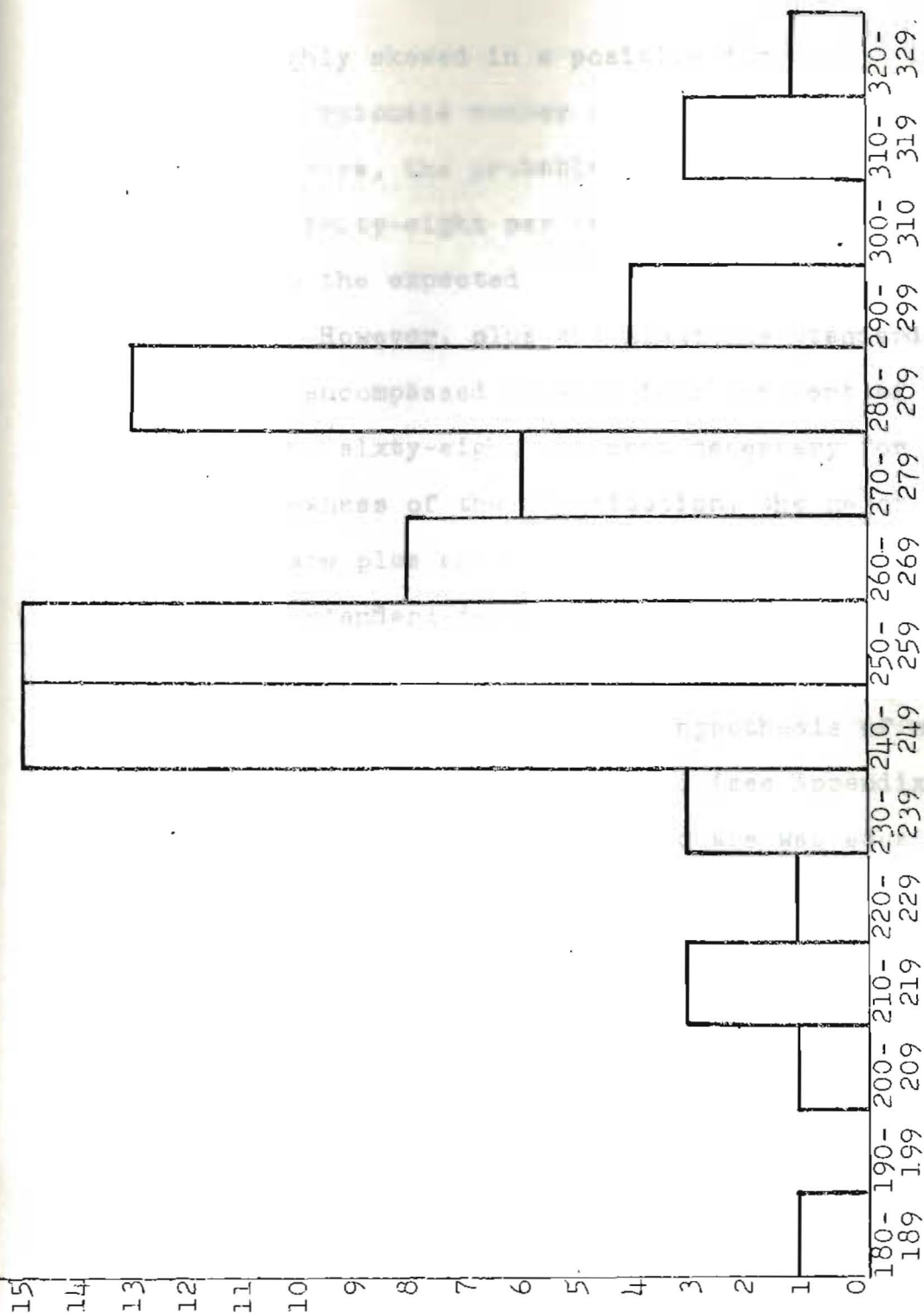


FIGURE I  
DISTRIBUTION OF ATTITUDE SCALE TOTAL SCORES  
AND THEIR FREQUENCY OF OCCURRENCE

scores was highly skewed in a positive direction<sup>2</sup> indicating that a disproportionate number of subjects scored below the mean. Furthermore, the probable error for the distribution<sup>3</sup> accounted for forty-eight per cent of the subjects, one subject less than the expected fifty per cent found in a normal distribution. However, plus and minus one standard deviation from the mean encompassed seventy-four per cent of the scores rather than the sixty-eight per cent necessary for normality. Due to the skewness of the distribution, the majority of the scores which are plus and minus one probable error and plus and minus one standard deviation from the mean lie to the left of the mean.

In order to further test the hypothesis of normality the chi square statistic was employed (see Appendix A, page 44, for Table of Chi-Square). Chi-square was equal to 14.195 which was significant at less than the .02 level of confidence. Thus, the distribution of the attitude scale Total scores diverged significantly from what would have been expected for a normal distribution. Specifically, less than two per cent of data such as these would fit a normal curve.

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<sup>2</sup>Skewness = 1.05877

<sup>3</sup>Probable Error = 16.98458

The attitude scale Total scores did not approach a normal distribution, therefore, Hypothesis I is rejected.

#### DATA RELEVANT TO HYPOTHESIS II

The second hypothesis of this study was stated as follows: Student scores on the attitude scale will correlate significantly with various "intellectual" factors ascribed to dropouts.

The correlation coefficients between the attitude scale Total scores and the intelligence quotients, the reading level scores, and the aptitude scores are presented in Table I, page 33. The correlation coefficients between each of the seven attitude Sub-scales and the three previously mentioned intellectual factor scores are also given in Table I.

The correlation coefficients for the attitude scale Total scores and the intellectual factor scores ranged from -0.03 to +0.08. A relationship for these data is practically non-existent. The same interpretation is given to the seven Sub-scale scores' relationships with intellectual factor scores. However, the range of the correlation coefficients was considerably larger, -0.12 to +0.18. The strongest relationship, though far from significant, was found between the Sub-scale, economic goals versus educational goals and reading level ( $r = +0.18$ ).

TABLE I

CORRELATIONS OF ATTITUDE SCALE TOTAL SCORES AND SUB-SCALE  
SCORES WITH INTELLIGENT QUOTIENTS, READING  
LEVEL SCORES, AND APTITUDE SCORES

	Total Scale	Sub-scale Scores*						
		SC	SR	A	PA	GE	SE	EE
Intelligent Quotient	0.08	-0.08	0.04	0.06	0.07	0.04	0.08	0.13
Reading Level	0.08	0.06	0.01	0.11	-0.06	0.05	-0.04	0.18
Aptitude Level	-0.03	0.00	-0.08	0.05	-0.12	-0.06	-0.01	0.04

NOTE: All correlations are positive unless preceded by a minus sign.

\*The seven sub-scale abbreviations are for the following:

SC - Self-concept.

SR - Social relations.

A - Authority.

PA - Parents attitude toward education.

GE - General education.

SE - Special aspects of education; extra-curricular activities and reading.

EE - Economic goals versus educational goals.



Due to the lack of any significant relationship between attitude scale scores and intellectual factor scores, Hypothesis II is rejected.

presented  
VALIDITY  
of the scale

Content validity of the attitude scale was established by designing the statements so that they related to factors characteristic of dropouts. Furthermore, the statements used on the scale (See Appendix B, page 47, for The Attitude Scale.) were selected from a consensus of three professionals in school psychology. However, the degree of content validity which each item attained was impossible to calculate as there were no substantial indices for comparison. The one exception was

Essential to the attitude scale for use as a predictive instrument was the establishment of construct validity. This was to evolve from a relationship between attitude scale scores and other facets of the students' personalities, specifically, the "intellectual" factor test results. Since Hypothesis II is rejected, the attitude scale lacks construct validity.

#### RELATIONSHIPS WITHIN THE ATTITUDE SCALE

To determine the extent of relationships between the attitude scale Total scores and the seven Sub-scale scores,

further correlation coefficients were calculated. The degree of relationship was also found for each Sub-scale score and the six other Sub-scale scores. The coefficients of correlation are presented in Table II, page 36.

The range of the correlation coefficients between the attitude scale Total scores and the Sub-scale scores was +0.44 to +0.81. The highest relationship existed for the Total scores and the Sub-scale "general education". The lowest relationship was found to occur between Sub-scale "social relations" and Total score ( $r = +0.44$ ).

As was exhibited in Table II, the correlation coefficients between each Sub-scale and the six other Sub-scales were considerably less than their correlation coefficients with the Total scale. The one exception was the relationship found between "economic goals versus educational goals" and "general education". These two attitude concepts appeared to be highly related. The remaining Sub-scale scores were interrelated by a range of coefficients of correlation of +0.05 to +0.56. The Sub-scale "social relations" was least related to the other Sub-scales.

## DISCUSSION

Rejection of Hypothesis I and Hypothesis II made it impossible to establish the validity necessary to use the

TABLE II

COEFFICIENTS OF CORRELATION OF THE ATTITUDE SCALE TOTAL SCORES WITH  
THE SEVEN SUB-SCALE SCORES AND EACH SUB-SCALE SCORE WITH THE  
OTHER SIX SUB-SCALE SCORES

Sub- scale Scores	Sub-scale Scores*					
	Total Scores	SC	SR	A	PA	GE SE EE
SC	0.67					
SR	0.44	0.30				
A	0.71	0.58	0.05			
PA	0.76	0.39	0.38	0.56		
GE	0.81	0.41	0.11	0.52	0.51	
SE	0.64	0.29	0.15	0.18	0.46	0.56
EE	0.77	0.27	0.24	0.43	0.43	0.74 0.51

\*The Sub-scale abbreviations are for the following:

SC - Self-concept.

SR - Social relations.

A - Authority

PA - Parents attitude toward education

GE - General attitude toward education

SE - Special aspects of education-extra curricular activities and reading ability.

EE - Economic goals versus educational goals.

attitude scale as a predictive instrument. However, before discarding the instrument entirely, a few factors should be considered.

The sample used might represent a strong possibility as to why the hypotheses were rejected. Although randomly selected, the students seem atypical for a population that should have contained approximately thirty per cent potential high school dropouts. The mean intelligence quotient for the sample was 115.50 with only five subjects scoring below 100 on the Kuhlman-Finch Group Intelligence Test. In addition, the sample's mean scores on the Iowa Silent Reading Test and the Differential Aptitude Test were substantially above the fiftieth percentile.

Moreover, the sample was chosen from a small city which houses two colleges. This might have influenced the general attitude of the population which the sample represented to be biased with respect to the attitude concepts normally related to high school dropouts.

It was anticipated that several of the attitude Sub-scales would be more highly related to the intellectual factors than others. The data demonstrated differences among the scores, but none that could be considered significant. Consequently, there is no reason to believe that any Sub-scale index is more valuable for the prediction of potential high school dropouts than the others.



## (b) CHAPTER IV

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### SUMMARY

The problem of the student who drops out of school before formal completion of instruction is one of great concern and needs the attention of every administrator and teacher. The schools would be in a better position to increase their holding power if there was an accurate, efficient, and economical method of predicting the potential high school dropout.

The problem of this research project was to categorize the known attributes, other than intellectual factors, characteristic of the dropout, and to use these findings as the basis for construction of an instrument that would be useful in predicting potential high school dropouts before they have entered high school. Since the non-intellectual characteristics of high school dropouts were of a social-psychological nature, a Likert-type attitude scale was constructed. There were seven categories of attitude concepts on which the dropouts were found to differ from high school graduates. These categories are as follows: (1) Self-concept; (2) Social relations; (3) Authority; (4) Parents attitude toward education; (5) General attitude

toward education; (6) Economic goals versus educational goals; and (7) Special aspects of education--extra-curricular activities and reading ability.

The attitude scale consisted of seventy-five statements, five of which were verification statements. Three professionals in school psychology chose ten statements for each of the seven attitude categories. The consensus of their choices, plus five verification statements, was then randomly placed in an inventory form.

In an attempt to validate the attitude scale, it was administered to eighty-one eighth grade students from Lowther Junior High School, School District No. 253, Emporia, Kansas. Seventy-three usable responses were obtained from the group to whom the scale was administered. These students' cumulative records contained their Kuhlman-Finch Group Intelligence Test scores, Iowa Silent Reading Test scores, and Differential Aptitude Test scores.

Construct validity would have evolved had the attitude scale scores been highly correlated with the data acquired from the students' cumulative records. No such relationship was found. Thus, no argument could be issued in favor of the attitude scale's construct validity.

An effort was made to determine if the attitude continuum differentiated meaningfully among those who responded to it. As a criterion, it was hypothesized that the attitude scale scores would approach a normal distribution. An

analysis of data refuted such a dispersion of scores; less than two per cent of the attitude scale scores fit a normal distribution. Consequently, it was impossible to ascertain if the attitude scale stratified the subjects in any meaningful manner.

The study is felt to be of importance in that it may challenge future researchers to use different approaches to this problem. As was noted in a review of literature, the most successful procedure of predicting high school dropouts is the case study method.

### CONCLUSIONS

In view of the summary as presented in this chapter it is relevant to this study to draw certain conclusions from the information presented.

1. A method of early identification must be devised if the problems of the dropout are to be alleviated.
2. Such a method must be valid, efficient, and economical if it is to be successful.
3. Although the attitudes of the high school dropout appear to differ from those of the high school graduate, a Likert-type attitude scale pertaining to the seven attitude areas used in this study, does not give a valid index of such differences.

## RECOMMENDATIONS

As an outcome of the research project the following statements are presented for consideration.

1. The attitude scale devised for this study should be given to a sample of students who represent a population which contains the average percentage of high school dropouts.
2. Other methods of attitude measurement should be constructed, tested, or modified so that prediction of high school dropouts would be possible.
3. An attitude scale which identified potential high school dropouts should be used in conjunction with other relevant information and not used as an end to the problem, but as a means of achieving this end.
4. School personnel should be informed of the divergent attitudes dropouts possess so that they might remedy their interaction with students even without knowing who the potential dropouts are.
5. An attempt should be made to alert the parents of children who indicate that they may prematurely drop out of school.
6. School programs should be developed in order to identify and work with students who possess the characteristics of a dropout.
7. More research should be undertaken, especially in the lower grades, relevant to attitudinal characteristics of the potential dropout.



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## BIBLIOGRAPHY

1. CONCLUSION

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# BIBLIOGRAPHY

- Barclay, James R. "Sociometric Choices and Teacher Ratings as Predictors of School Dropouts," Journal of School Psychology, IV, No. 2 (Winter, 1966), pp. 40-44.
- Clark, Donald. "Too Little and Too Late," School and Community, LI (November, 1965), p. 31.
- Cooper, Joseph B., and McGaugh, James L. Integrating Principles of Social Psychology. Cambridge, Massachusetts: Schenkman Publishing Company, 1963.
- Farrar, W. W. "Can You Pick the Dropout?" Texas Outlook, XLIX (January, 1965), pp. 34-35.
- Flanders, Ned A. "Teacher Influence, Pupil Attitudes, and Achievement," Cooperative Research, United States Department of Health, Education and Welfare, Monograph No. 12 (Washington: Government Printing Office, 1965).
- Garrett, Henry E. Statistics in Psychology and Education. New York: David McKay Company, Inc., 1965.
- Garrett, Henry E. "Tests and Reviews: Intelligence-Group," The Fifth Mental Measurements Yearbook. Edited by Oscar K. Buros. Highland Park, New Jersey: The Gryphon Press, 1959.
- Gough, Harrison G. "Graduation from High School as Predicted from the California Psychological Inventory," Psychology in the Schools, III, No. 3 (July, 1966), pp. 208-216.
- Green, Bert F. Attitude Measurement. Reading, Massachusetts: Addison-Wesley Publishing Company, 1954.
- Guilford, Joy P. Fundamental Statistics in Psychology and Education. Second edition. New York: McGraw-Hill Book Company, 1950.
- Herriott, M. E. Attitudes as Factors of Scholastic Success. Urbana, Illinois: University of Illinois Press, 1929.
- Hoch, Oscar. "The Dropout Syndrome," High School Journal, XLIX (November, 1965), pp. 98-106.

"Identifying Potential Dropouts," California Education,  
III (December, 1966), p. 31.

Livingston, A. Hugh. "Key to the Dropout Problem: The  
Elementary School," Elementary School Journal, LIX  
(February, 1959), pp. 267-270.

Murphy, Gardener, and Likert, Rensis. Public Opinion and  
the Individual. New York: Harper and Brothers  
Publishers, 1950.

Nelson, Robert H., and Thompson, Michael L. "Twelve  
Approaches to Remedy the Dropout Problem," The  
Clearing House, XLI (December, 1966), pp. 238-242.

Otterness, June. "Dropouts in Your School," Minnesota  
Journal of Education, XLIII (May, 1963), pp. 27-30.

Porter, John W. "Some Identifying Characteristics of  
Dropouts," Minnesota Journal of Education, XLIV  
(September, 1963), p. 15.

Sherif, Muzafer, and Cantril, Hadley. The Psychology of  
Ego Involvements. New York: John Wiley and Sons,  
1947.

Strem, Bruce E. "An Attitude Survey of High School Dropouts  
by Means of the Semantic Differential Process,"  
Dissertation Abstracts. Ann Arbor, Michigan: University  
Microfilms, Inc., 1966.

Strem, Bruce E. "An Attitude Survey of High School Dropouts  
by Means of the Semantic Differential Process,"  
Unpublished Doctoral dissertation, The University of  
Southern California, Los Angeles, 1966.

United States Office of Education. Biennial Survey of  
Education in the United States, 1948-50. Washington:  
Government Printing Office, 1953.

Williams, Percy V. "School Dropouts," NEA Journal, LII  
(February, 1963), pp. 10-12.



APPENDIX A





TABLE OF CHI-SQUARE TEST OF NORMALITY FOR  
THE ATTITUDE SCALE TOTAL SCORES

Scores	Original Grouping		Regrouped frequencies		Cell discrepancies fo - fe	Cell discrepancies (fo - fe) <sup>2</sup>	Cell square contingencies $\frac{(fo - fe)^2}{fe}$
	fo	fe	fo	fe			
320-329	1	0.5					
310-319	2	1.2					
300-309	0	2.5					
290-299	4	4.6	7.0	8.8	-1.8	3.24	0.368
280-289	13	7.4	13	7.4	+5.6	31.36	4.238
270-279	6	9.9	6	9.9	-3.9	15.21	1.536
260-269	8	11.4	8	11.4	-3.4	11.56	1.014
250-259	15	11.2	15	11.2	+3.8	14.44	1.289
240-249	15	9.5	15	9.5	+5.5	30.25	3.184
230-239	3	6.8	3	6.8	-3.8	14.44	2.109
220-229	1	4.2					
210-219	3	2.2	6.0	7.9	-1.9	3.61	0.457
200-209	1	1.0					
190-199	0	0.4					
180-189	1	0.1					
	73	72.7	73	72.7	+0.1		$\chi^2 = 14.195$

NOTE:  $\chi^2 = 14.195$ ,  $P < .02$ ,  $Df = 5$ .

THE APPENDIX

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APPENDIX B

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## THE ATTITUDE SCALE

As presented to the subjects, the attitude scale was entitled as follows: JUNIOR HIGH SCHOOL STUDENT OPINIONAIRE. Directly beneath the title was a box for the students to complete the following information about themselves; date of birth, age, grade, sex, occupation of parent, number of brothers and sisters, and date. They were specifically told not to write their names on the scale booklet.

The following directions appeared on the cover of the scale booklet:

In this booklet are 75 statements. Beside each statement there are five blanks. Read each statement and check ( ) how you feel (Strongly Disagree, Disagree, Uncertain, Agree, or Strongly Agree) about each one. Put only one check ( ) for each statement and then go on to the next one. You will be given time to finish.

The seventy-five statements were presented in the following manner:

	STRONGLY DISAGREE	DISAGREE	UNCERTAIN	AGREE	STRONGLY AGREE	
STATEMENT	( )	( )	( )	( )	( )	ac

The letters on the far right side are for the attitude category to which each statement belongs. An "n" in front of the attitude category indicates that the continuum is reversed for scoring. The statement categories are as follows: sc - Self-concept; sr - Social relations; a - Authority; pa - Parents attitude toward education; ge -

General education; se - Special aspects of education;  
 ee - Economic goals versus educational goals; and v -  
 Verification statement.

The statements and the order in which they were  
 presented are as follows:

1. I LIKE MOST OF THE PEOPLE I KNCW. sr
2. PARENTS ENCOURAGE THEIR CHILDREN TO GO TO  
SCHOOL. pa
3. I FEEL THAT I HAVE SOMETHING TO  
CONTRIBUTE TO THE WORLD. sc
4. THE AMOUNT OF MONEY A PERSON WILL EARN  
DOESN'T DEPEND UPON THE AMOUNT OF  
EDUCATION HE HAS. nee
5. I PLAN TO USE WHAT I HAVE LEARNED IN  
SCHOOL TO EARN A LIVING. ee
6. TO BE ABLE TO READ WELL IS OF GREAT  
VALUE. se
7. PARENTS SHOULD HELP THEIR CHILDREN WITH  
THEIR HOMEWORK WHEN THERE IS A NEED. pa
8. I HAVE RESPECT FOR THOSE WHO ARE IN  
CHARGE. e
9. I GET ENCOURAGEMENT FROM HOME TO  
PARTICIPATE IN SCHOOL ACTIVITIES. pa
10. THE WORTH OF A SCHOOL IS DETERMINED IN  
PART, BY ITS EXTRA-CURRICULAR ACTIVITIES. se
11. MY PARENTS WANT ME TO SUCCEED IN SCHOOL. pa
12. MONEY SPENT ON EDUCATION IS WISELY  
INVESTED. ee
13. MOST SCHOOL SUBJECTS ARE NEITHER  
INTERESTING NOR USEFUL nge



- |     |  |     |
|-----|--|-----|
| 14. | THE COLORS OF THE AMERICAN FLAG ARE RED, WHITE, AND BLUE.                                  | v   |
| 15. | HOMEWORK COMES BEFORE RECREATION AT MY HOUSE.  | pa  |
| 16. | ABOUT EVERYTHING A PERSON LEARNS IN HIGH SCHOOL WILL HELP HIM IN LATER LIFE..              | ge  |
| 17. | I DON'T QUESTION MY WORTH AS A PERSON, EVEN IF I THINK OTHERS DO.                          | sc  |
| 18. | THOSE WHO BREAK THE RULES SHOULD BE PUNISHED.  | a   |
| 19. | MY FEELINGS ARE EASILY HURT.   | nsc |
| 20. | MY PARENTS ARE NOT INTERESTED IN MY GRADES.  | npe |
| 21. | PEOPLE WHO ARE PUNISHED USUALLY DESERVE IT.  | a   |
| 22. | I RUN AROUND WITH THE PEOPLE THAT I WANT TO RUN AROUND WITH.                               | sr  |
| 23. | EDUCATION IS MORE VALUABLE THAN MOST PEOPLE THINK.   | ge  |
| 24. | I LIKE MOST OF THE ACTIVITIES THAT THE PEOPLE OF MY CLASS ENGAGE IN.                       | sr  |
| 25. | I DON'T LIKE TO BE IN A POSITION SO THAT I HAVE TO TELL PEOPLE WHAT TO DO.                 | na  |
| 26. | I LOOK FORWARD TO EXTRA-CURRICULAR ACTIVITIES (SPORTS, PLAYS, CLUBS, ETC.) IN HIGH SCHOOL. | se  |
| 27. | THE BEATLES ARE ALL MEN.   | v   |
| 28. | I THINK THE FEELINGS AND IMPULSES I HAVE ARE NORMAL  | sc  |
| 29. | I THINK IT'S A PRIVILEGE TO ATTEND HIGH SCHOOL.  | ge  |

30. I PREFER BEING WITH OLDER OR YOUNGER  
PEOPLE THAN THOSE OF MY OWN AGE. nsr
31. I WOULD GO WITHOUT SOMETHINGS TO  
GRADUATE FROM HIGH SCHOOL. ee
32. AT LEAST ONE OF MY FRIENDS DEPENDS UPON  
ME FOR ADVICE AND DECISIONS HE HAS TO  
MAKE. sr
33. MOST OF MY FRIENDS ENJOY SCHOOL. ge
34. THE EFFECTS OF EXTRA-CURRICULAR  
ACTIVITIES ARE MORE OFTEN BAD THAN  
GOOD. nse
35. A HIGH SCHOOL EDUCATION ISN'T WORTH  
ALL THE TIME AND EFFORT IT REQUIRES. nge
36. EXTRA-CURRICULAR ACTIVITIES BUILD GOOD  
CHARACTER. se
37. POLICEMEN SHOULD BE RESPECTED. a
38. MY PARENTS THINK SCHOOL IS IMPORTANT. pa
39. IF I HAD MY WAY, I WOULD SEE TO IT THAT  
EVERYBODY COULD READ. se
40. ADVANCEMENT IN BUSINESS AND INDUSTRY DOES  
NOT DEPEND UPON THE AMOUNT OF EDUCATION  
A PERSON HAS. nee
41. ADULTS CAN BE TRUSTED. a
42. PEOPLE USUALLY LISTEN TO WHAT I HAVE TO  
SAY. sr
43. GEORGE WASHINGTON WAS THE FIRST  
PRESIDENT OF THE UNITED STATES. v
44. EDUCATION HELPS A PERSON SPEND HIS  
MONEY MORE WISELY. ee
45. I HAVE TO TRY EXTRA HARD TO IMPRESS OTHER  
PEOPLE. nsc
46. I ENJOY DOING LITTLE FAVORS FOR PEOPLE. sr

47. AT MY AGE IT IS MORE IMPORTANT TO COMPETE  
FOR GRADES THAN FOR MONEY. ee
48. TOPEKA IS THE CAPITAL OF KANSAS. v
49. ONE OF THE MAIN THINGS TO BE GAINED FROM  
SCHOOL IS THE ABILITY TO READ. se
50. I FIND THAT I USUALLY MAKE THE RIGHT  
DECISION. sc
51. I FEEL THAT I CAN'T ASK A GROWN-UP FOR  
ADVICE WHEN I HAVE PROBLEMS. na
52. PARENTS SHOULD TELL THEIR FRIENDS ABOUT  
THEIR CHILDREN'S SCHOOL ACTIVITIES. pa
53. PARTICIPATION IN SPORTS, PLAYS, OR CLUBS  
IS NOT IMPORTANT TO ME. nse
54. THE BEST INSURANCE FOR THE FUTURE IS A  
GOOD EDUCATION. ee
55. TEACHERS USUALLY DON'T KNOW WHAT THEY  
ARE TALKING ABOUT. na
56. AUTHORITIES TRY TO BE FAIR TO TEENAGERS. a
57. I USUALLY GET WHAT I DESERVE. sc
58. TO UNDERSTAND OUR MODERN WORLD, A  
PERSON DOES NOT HAVE TO BE ABLE TO READ. nse
59. IT IS IMPORTANT TO FINISH HIGH SCHOOL. ge
60. MOST OF THE PEOPLE I KNOW LIKE ME. sc
61. MOST OF THE TIME I PREFER TO BE ALONE  
THAN WITH OTHER PEOPLE. nsr
62. GOOD GRADES ARE IMPORTANT TO ME. ge
63. MY PARENTS WANT ME TO HAVE MORE EDUCATION  
THAN THEY HAVE. pa
64. IF I WERE OFFERED A GOOD PAYING FULL-TIME  
JOB BEFORE I GRADUATED FROM HIGH SCHOOL,  
I WOULD TAKE IT. nee

65. I LIKE TO TALK TO OTHER PEOPLE ABOUT  
THINGS I HAVE READ. se
66. TO GET AN EDUCATION IS MORE IMPORTANT  
THAN WORKING WHILE YOU ARE YOUNG. ee
67. I AM NOT A MEMBER OF THE GROUP THAT I  
RESPECT THE MOST. nsr
68. THE SCHOOL PRINCIPAL TREATS ALL STUDENTS  
EQUALLY a
69. I HAVE JUST READ THIS SENTENCE. v
70. THE MORE EDUCATION A PERSON HAS, THE  
BETTER HE IS ABLE TO ENJOY LIFE. ge
71. I DON'T MIND BEING TOLD WHEN I AM  
WRONG. sc
72. I CAN BE FRIENDLY WITH PEOPLE WHO DO  
THINGS I CONSIDER WRONG. sr
73. A HIGH SCHOOL EDUCATION DOES NOT MAKE  
A PERSON A BETTER CITIZEN. nge
74. MY PARENTS THINK MY TEACHERS KNOW WHAT  
THEY ARE TALKING ABOUT. pa
75. I DON'T FEEL THAT I CAN DO ANYTHING  
ABOUT THE PROBLEMS I MIGHT HAVE IN  
THE FUTURE. nsc