

P ~~11~~ 053

JUN 07 1999

~~3122~~

NOV 10 1955

~~AUG 1 1955~~

DEC - 6 1955

~~JUL 24 1956~~

~~12.3~~

~~12.3~~

~~12.3~~

~~NOV 20 11 2000~~

~~12-074~~

~~12-074~~

~~12-145~~

~~12-145~~

~~12-272~~

~~12-272~~

~~12-272~~

~~12-272~~

## ABSTRACT

### A STUDY OF SELECTED PERSONALITY FACTORS ASSOCIATED WITH HIGH SCHOOL DROPOUT

by Roland Sigward Larson

The main purpose of this study was to identify certain personality characteristics which were common to pupils who dropped out of school but differed from those of pupils who graduated from high school. A further purpose was to determine whether certain items in the Minnesota Counseling Inventory would be useful in identifying high school students who would later drop out of school.

Two hundred female and 200 male high school dropouts plus 200 female and 200 male high school graduates, all from Minnesota high schools in cities with populations of less than 50,000, served as the sample for this investigation. Criteria for inclusion were that the student must have taken the Minnesota Counseling Inventory in the first semester of his sophomore year and either have graduated or definitely dropped out of school. Equal numbers of dropouts and graduates were included from each of the 19 participating schools.

The following four groups were randomly constructed for comparison purposes: (1) 100 female dropouts versus 100 female graduates; (2) 100 female dropouts versus 100 female graduates; (3) 100 male dropouts versus 100 male graduates; (4) 100 male dropouts versus 100 male graduates. The significance of the difference between the number of "true" responses made by dropouts and by graduates to questions in the MCI was determined

Roland Sigward Larson

for each Inventory item in each comparison group. Using only significant items, a dropout scale was constructed from each comparison group. To determine whether these scales would continue to discriminate between dropouts and graduates, each scale was applied to MCI answer sheets of the opposite comparison group of the same sex. Thus, through a double cross-validation process, each paper was re-scored with a dropout scale scoring key constructed from significant items in a different group. Mean scores were calculated for each group of 100 students so that "t" tests could be applied to determine the significance of the difference between the two group mean scores within each of the four comparison groups. Reliability coefficients were calculated for each of the four dropout scales, using a split-half method.

One finding in this study was that the manner of responding to certain items in the MCI in the tenth grade was significantly different for high school dropouts than for high school graduates. This was particularly true for females. These differences in responses enabled the author to identify certain personality traits which were common to pupils who dropped out of school but differed from pupils who graduated from high school.

From the raw scores obtained when the dropout scales were applied to new groups of males and females, cumulative frequency per cent distributions were prepared. In each of the four comparison groups, it was found that dropouts generally obtained higher scores than did graduates. However, considerable overlap was present in these distributions, indicating that many dropouts and graduates had answered the items in a

Roland Sigward Larson

similar manner. The reverse was also true.

Tests of internal consistency of the four dropout scales yielded reliability coefficients of .92993 and .94050 for females and .85809 and .92890 for males, all of which are in the generally accepted range of .80 or above for group comparisons.

Comparisons of the two group mean scores within each of the four comparison groups showed that the "t" values for female groups (6.25 and 7.75) had greater uniformity than the "t" values for male groups (4.95 and 7.75). However, all four "t" values were statistically significant at the .001 level. Thus, the null hypothesis, that there is no difference between the responses of female dropouts and female graduates to questions in the Minnesota Counseling Inventory, was rejected. An identical null hypothesis for males was also rejected.

The most discriminating items from the two female scales were used to construct a new female dropout scale. In the same manner a male dropout scale was developed. These scales should be applied to new samples in future research to determine the extent of their value in identifying and understanding potential dropouts.



Copyright

by

Roland Sigward Larson

1965

A STUDY OF SELECTED PERSONALITY FACTORS  
ASSOCIATED WITH HIGH SCHOOL DROPOUT

by

Roland Sigward Larson

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF EDUCATION

College of Education

1964

To Doris Linell Larson

## ACKNOWLEDGMENTS

The author wishes to acknowledge with gratitude the interested cooperation and assistance of those who helped make this study possible:

To the chairman of my committee, Dr. James W. Costar, Professor, College of Education, Michigan State University, who made his invaluable help available to me at all times and was a constant source of encouragement.

To the other members of my committee who helped make this study a valuable learning experience: Dr. Walter F. Johnson, Dr. Ted Ward and Dr. Orden Smucker.

To Dr. Jack C. Merwin, University of Minnesota, for his suggestions and direction in the design and statistical treatment of the data.

To Dr. A. Conrad Posz for his willing spirit, enthusiasm and skill in editing the entire manuscript.

Especially, to my wife Doris, whose ceaseless encouragement and devoted assistance were always present. It would be impossible to assess the impact of her continuous inspiration or to enumerate the many contributions she made to this project.

To the many people who contributed to various facets of the study, and particularly to: Dr. Ralph F. Berdie, Dr. Edward O. Swanson and other members of the Student Counseling Bureau staff, University of Minnesota; Mr. Douglas H. Anderson; Mrs. Dorothy Mass-Protzen; Mr. Keith Dawson; Dr.. Donald H. Blocher; Mr. John M. Gordon; and counselors and administrators in the participating schools.



## TABLE OF CONTENTS

	PAGE
LIST OF TABLES . . . . .	viii
LIST OF FIGURES . . . . .	ix
LIST OF APPENDICES . . . . .	x
 CHAPTER	
I. THE PROBLEM . . . . .	1
Introduction . . . . .	1
Statement of the Problem . . . . .	3
Purpose of the Study . . . . .	4
Theory . . . . .	4
Delimitations of the Study . . . . .	8
Limitations of the Study . . . . .	9
Definition of Terms . . . . .	10
Outline of the Study . . . . .	12
II. REVIEW OF THE LITERATURE . . . . .	14
Studies Describing the Dropout . . . . .	17
Social Class and Family Status Factors . . . . .	19
Parental Background and Attitudinal Factors . . . . .	23
Ethnic Factors . . . . .	25
Neighborhood and Community Factors . . . . .	27
School Performance Factors . . . . .	29
Adolescent Subculture as a Factor . . . . .	31

CHAPTER	PAGE
Personality Factors - General . . . . .	33
Personality Factors - Social . . . . .	35
Personality Factors - Emotional . . . . .	38
Research on Dropouts Using the MCI . . . . .	45
Summary . . . . .	46
III. PROCEDURES AND DESIGN OF THE STUDY . . . . .	48
Selection of the Dropout Sample . . . . .	48
Selection of the Graduate Sample . . . . .	51
Null Hypotheses . . . . .	52
Statistical Design . . . . .	53
Double Cross-Validation . . . . .	53
Reliability Estimates of the Dropout Scales . . . . .	60
Distributions of Dropout Scale Scores . . . . .	62
Tentative Dropout Scales . . . . .	62
Minnesota Counseling Inventory . . . . .	62
Summary . . . . .	66
IV. SUMMARY AND ANALYSIS OF FINDINGS . . . . .	68
Statistical Significance of Test Items . . . . .	68
Overlap of Dropout and Graduate Scores on Dropout Scales . . . . .	75
Reliability of the Dropout Scales . . . . .	81
Comparisons of Group Means . . . . .	83
Summary . . . . .	85

CHAPTER	PAGE
V. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH . . . . .	87
Conclusions . . . . .	87
Recommendations for Further Research . . . . .	90
VI. POSSIBLE CLINICAL IMPLICATIONS OF THE DATA . . . . .	94
Limitations . . . . .	95
Categories Used in Describing Personality Characteristics .	96
Possible Dropout Personality Characteristics . . . . .	97
Joie de Vivre . . . . .	98
Sociability: Reactions to Interpersonal Relationships . .	99
Sociability: Group Behavior . . . . .	99
Sociability: General . . . . .	100
Family: Home . . . . .	100
Family: Parents . . . . .	101
Family: General . . . . .	102
Self-confidence . . . . .	103
Emotionality: Anxiety . . . . .	103
Emotionality: Mood and Morale . . . . .	104
Psychotic: Emotional Strain . . . . .	104
Psychotic: Paranoid Schizophrenia . . . . .	104
Psychotic: Mental Functioning . . . . .	105
Psychopathy: Hostility and Mistrust . . . . .	105
Psychopathy: Guilt . . . . .	106
Health: General Health Condition . . . . .	107



CHAPTER	PAGE
Health: Somatics, Specific Complaints . . . . .	107
Health: Head Troubles . . . . .	108
Summary of Possible Dropout Personality Characteristics . .	108
Boys and Girls . . . . .	108
Girls Only . . . . .	110
Girls to a Greater Extent than Boys . . . . .	110
Boys Only . . . . .	111
Summary . . . . .	111
BIBLIOGRAPHY . . . . .	113

# LIST OF TABLES

TABLE	PAGE
I. Personality Characteristics of School Dropouts from Selected References . . . . .	34
II. High Scores on MMPI Clinical Scales Made by Ninth Grade Pupils Who Later Dropped Out of School . . . . .	40
III. Sample Sizes of Dropouts and Graduates Included in the Study.	48
IV. Number of Statistically Significant MCI Items Found in Dropout-Graduate Comparison Groups . . . . .	69
V. Overlap of Female Dropout and Graduate Scores in the Cross- Validation of Dropout Scale F, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	77
VI. Overlap of Female Dropout and Graduate Scores in the Cross- Validation of Dropout Scale F, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	78
VII. Overlap of Male Dropout and Graduate Scores in the Cross- Validation of Dropout Scale M, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	79
VIII. Overlap of Male Dropout and Graduate Scores in the Cross- Validation of Dropout Scale M, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	80
IX. Reliability Estimates for Male and Female Dropout Scales . .	82
X. Range of Scores on Dropout Scales, Group Means, and Significance of Differences between Group Means When Dropout Scales Were Applied to Different Groups . . . . .	84

## LIST OF FIGURES

FIGURE		PAGE
1.	Design Showing How Significant MCI Item Responses from Comparison Groups I and II plus Comparison Groups III and IV Were Double Cross-Validated . . . . .	54
2.	Symbols Used in the Study to Describe the Dropout-Graduate Comparison Groups Shown in Figure 1 . . . . .	55
3.	Nomograph Used for Finding the Significance of the Difference between Two Percentages . . . . .	57
4.	Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Female Group Dr <sub>1</sub> - Gr <sub>3</sub> When Using the Dropout Scale Developed on Female Group Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	71
5.	Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Female Group Dr <sub>2</sub> - Gr <sub>4</sub> When Using the Dropout Scale Developed on Female Group Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	72
6.	Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Male Group Dr <sub>1</sub> - Gr <sub>3</sub> When Using the Dropout Scale Developed on Male Group Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	73
7.	Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Male Group Dr <sub>2</sub> - Gr <sub>4</sub> When Using the Dropout Scale Developed on Male Group Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	74

## LIST OF APPENDICES

APPENDIX	PAGE
A. Minnesota Counseling Inventory . . . . .	125
B. Summaries of Reports on Dropouts and Graduates from Participating Schools . . . . .	132
Part I - Females . . . . .	133
Part II - Males . . . . .	136
C. Letters and Forms Sent to Participating Schools . . . . .	139
D. Significance Levels of Selected MCI Items . . . . .	147
E. Scoring Keys for Dropout Scales . . . . .	156
Part I - Items from Group F, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	157
Part II - Items from Group F, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	158
Part III - Items from Group M, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	159
Part IV - Items from Group M, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	160
F. Raw Score Cumulative Frequencies for Females and Males on Dropout Scales Applied to New Subgroups in Cross-Validation .	161
Part I - Scores for Group F, Dr <sub>1</sub> - Gr <sub>3</sub> Using Keys Derived from Group F, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	162
Part II - Scores for Group F, Dr <sub>2</sub> - Gr <sub>4</sub> Using Keys Derived from Group F, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	164
Part III - Scores for Group M, Dr <sub>1</sub> - Gr <sub>3</sub> Using Keys Derived from Group M, Dr <sub>2</sub> - Gr <sub>4</sub> . . . . .	165
Part IV - Scores for Group M, Dr <sub>2</sub> - Gr <sub>4</sub> Using Keys Derived from Group M, Dr <sub>1</sub> - Gr <sub>3</sub> . . . . .	166

G. Sources of Variation in Reliability Estimates of the	
Dropout Scales . . . . .	167
Part I - Dropout Scale Constructed from F, Dr <sub>1</sub> - Gr <sub>3</sub> . . .	168
Part II - Dropout Scale Constructed from F, Dr <sub>2</sub> - Gr <sub>4</sub> . . .	169
Part III - Dropout Scale Constructed from M, Dr <sub>1</sub> - Gr <sub>3</sub> . .	170
Part IV - Dropout Scale Constructed from M, Dr <sub>2</sub> - Gr <sub>4</sub> . . .	171
H. MCI Items Contained in Categories Describing Personality	
Characteristics, Showing Significance of Differences of	
Responses for Dropout-Graduate Comparison Groups . . . . .	172
Part I - Joie de Vivre . . . . .	173
Part II - Sociability: Reactions to Interpersonal	
Relationships . . . . .	175
Part III - Sociability: Group Behavior . . . . .	177
Part IV - Sociability: General . . . . .	179
Part V - Family: Home . . . . .	181
Part VI - Family: Parents . . . . .	182
Part VII - Family: General . . . . .	185
Part VIII - Self-confidence . . . . .	186
Part IX - Emotionality: Anxiety . . . . .	188
Part X - Emotionality: Mood and Morale . . . . .	189
Part XI - Psychotic: Emotional Strain . . . . .	190
Part XII - Psychotic: Paranoid Schizophrenia . . . . .	191
Part XIII - Psychotic: Mental Functioning . . . . .	192

# APPENDIX

PAGE

Part XIV - Psychopathy: Hostility and Mistrust . . . . .	194
Part XV - Psychopathy: Guilt . . . . .	196
Part XVI - Health: General Health Conditions . . . . .	197
Part XVII - Health: Somatics, Specific Complaints . . . . .	198
Part XVIII - Health: Head Troubles . . . . .	200
I. Recommended Dropout Scale . . . . .	201
Part I - Females . . . . .	202
Part II - Males . . . . .	203



## CHAPTER I

### THE PROBLEM

#### I. INTRODUCTION

In order to have the free and enlightened citizenry essential to any democracy, education must be such that it will develop to the fullest the capabilities of all its citizens. The late President John F. Kennedy, in his State of the Union message to Congress on January 14, 1963, stated,

The future of any country which is dependent on the will and wisdom of its citizens is damaged, and irreparably damaged, whenever any of its children is not educated to the fullest extent of his capacity, from grade school through graduate school. Today, an estimated four out of ten students in the fifth grade will not even finish high school--and that is a waste we cannot afford.

One of the major problems which our schools face today is that of coping with pupils who drop out of high school before graduating and, in doing so, deprive themselves of many opportunities for self-development and self-fulfillment. The United States has made considerable progress in recent years with respect to school dropouts. There still remains much to be done before the problem is completely resolved.

At the turn of the century, approximately 85 to 95 per cent of the high school students in the nation dropped out of school before completing the twelfth grade. During the past fifty years this percentage has been cut in half through the efforts of the American educational system to provide programs which meet the needs of all children. Yet, today many boys and girls are still not staying in school





until they graduate. The United States Department of Labor estimates that seven and one-half million people in the labor force during the 1960's will not complete high school.<sup>1</sup> The cost to this nation in terms of unused potential is staggering.

At least two current trends in American society are adding to the complexity and seriousness of the dropout problem. One is the growing rate of urbanization. In 1900 over 60 percent of the population of the United States lived in rural farm areas. By 1960 this had been reduced to about 10 percent. Such change is meaningful to the present study because the family farm as a ready source of work for the non-graduate is rapidly becoming extinct.

A second important trend is the increasingly technical nature of work in the United States. The United States Department of Labor states that no increase in the percentage of unskilled employment is foreseen in the 1960's. At the same time, a 23 percent decrease in jobs for farm workers is forecast for the same period.<sup>2</sup> It is interesting to note that almost all other types of employment in the United States require high school graduation as the minimum level of educational preparation for entry into the field.

The school dropout problem in the United States is truly one of increasing magnitude, a problem which can no longer be ignored. As a

---

<sup>1</sup>U.S. Department of Labor, Manpower--Challenge of the 1960's (Washington, D.C.: Government Printing Office, 1960).

<sup>2</sup>Ibid.

result schools and communities are trying to discover new ways in which they can, at an early age, identify and assist young people who are potential school dropouts.

## II. STATEMENT OF THE PROBLEM

Many diverse and intricate factors underlie dropping out of school. Hence, the causes for failure to continue in school until graduation from the twelfth grade are difficult to fully understand.

Considerable effort has been made in recent years to identify potential dropouts. Studies have generally been concerned with such factors as the scholastic ability, age, grade in school, sex, and academic achievement of dropouts. Also basic to an understanding of a child's attitude toward learning and his drive to succeed in school is knowledge about the environment in which he lives his daily life. Hence, family and socioeconomic conditions such as father's occupation, parents' level of education, minority group membership, and similar factors have been studied in order to better understand the forces which seem to encourage a child to drop out of school.

Personality factors are another dimension of understanding the school dropout. Thus, this study centers around those aspects of personality which are characteristic of dropouts. Personality characteristics of school dropouts which have been found most often in previous research studies are their lack of: (1) skill in communicating with peers, (2) a feeling of security, (3) a feeling of belonging to the peer group, and (4) satisfactory personal adjustment to their own surroundings.

Because of the extensiveness of the dropout problem, this author decided to attempt to add to the growing body of knowledge about these and other personality characteristics of students who left high school prior to graduation.

### III. PURPOSE OF THE STUDY

The main purpose of the study was to identify certain personality factors which were common to pupils who dropped out of school but differed from those of pupils who stayed in school.

An additional purpose of the study was to add to existing knowledge regarding the Minnesota Counseling Inventory as a predictive instrument. It was thought that certain items in the Inventory would be useful in identifying those high school students who would later drop out of school. In this sense, this study was also an attempt to add to the validity of the Minnesota Counseling Inventory, and make it more useful to school counselors in identifying potential dropouts and bringing school resources to their assistance.

### IV. THEORY

In reviewing the literature related to school dropouts, no previous research studies were found which related sociological or psychological theory directly to the problem of school dropouts. The basic theory underlying this study is personality theory used in a rather broad sense, with particular emphasis on social psychological theories of human behavior.

Social psychological theories are, in a sense, a reaction against the instinctivist position of Freudian psychoanalysis. They emphasize the influence of social variables, rather than the biological variables, which go into the shaping of personality. Four theorists perhaps stand out in their recognition of the importance of social dimensions in personality. They are Harry Stack Sullivan, Alfred Adler, Karen Horney, and Erich Fromm. According to these theorists, man is chiefly a product of the society in which he lives. His personality is primarily social rather than biological.

Perhaps the strongest of these four proponents for the recognition of social influences on personality was Sullivan. He believed that personality is "the relatively enduring pattern of recurrent interpersonal situations which characterize a human life."<sup>3</sup> To Sullivan, personality is an entity which cannot be separated from interpersonal situations, and interpersonal behavior is all that can be observed as personality. The individual does not and cannot exist apart from his relations with other people. The interpersonal situation is more important than the person himself in determining the development of the person's personality characteristics. Human beings learn to behave in a particular way, not because they possess innate imperatives for certain kinds of action, but because of certain kinds of interactions they have experienced with other people.

---

<sup>3</sup> Harry Stack Sullivan, The Interpersonal Theory of Psychiatry (New York: W. W. Norton and Company, Inc., 1953), p. 111.

Alfred Adler also placed a great deal of importance on an individual's social relationships in his growth toward becoming a unique person. He felt that every man possesses a social interest which is inborn. Man is a social creature by nature and not by habit. The way in which man uses his social interest in his environmental setting helps to shape his own unique personality.

Heredity only endows him (man) with certain abilities. Environment only gives him certain impressions. These abilities and impressions, and the manner in which he 'experiences' them--that is to say, the interpretation he makes of these experiences--are the bricks which he uses in his own 'creative' way in building up his attitude toward life. It is his individual way of using these bricks, or in other words his attitude toward life, which determines this relationship to the outside world.<sup>4</sup>

Personality, then, is constructed out of the raw materials of heredity and experience. How the person himself feels about the adequacy of his social relationships is particularly important to the shaping of personality, according to Adler.

Horney showed particular concern for the intimate factors within the family setting which shape personality. Her primary concept relating to personality development is basic anxiety, which she describes as

the feeling a child has of being isolated and helpless in a potentially hostile world. A wide range of adverse factors in the environment can produce this insecurity in a child: direct or indirect domination, indifference, erratic behavior, lack of respect for the child's individual needs, lack of real guidance, disparaging attitudes, too much admiration or the absence of it, lack of reliable warmth, having to take sides in parental disagreements, too much or too little

---

<sup>4</sup> Alfred Adler, "The Fundamental Views of Individual Psychology," International Journal of Individual Psychology, 1935, 1, 5-8.

responsibility, overprotection, isolation from other children, injustice, discrimination, unkept promises, hostile atmosphere, and so on and so on.<sup>5</sup>

Horney felt, then, that anything which disrupts the child's security in relation to his parents produces basic anxiety. Children may develop various strategies in attempting to cope with anxiety produced within the family environment. These strategies may become more or less permanent parts of the personality. Thus, culturally determined childhood experiences are significant determinants of a person's lifetime personality characteristics.

Erich Fromm has written a great deal about the society in which a person lives and the ways in which its structure and dynamics mold the individual so that his social character fits the common values and needs of that society. He wrote

...society can exist only by operating within the framework of its particular structure. The members of the society and/or the various classes or status groups within it have to behave in such a way as to be able to function in the sense required by the social system. It is the function of the social character to shape the energies of the members of society in such a way that their behavior is not a matter of conscious decision as to whether or not to follow the social pattern, but one of wanting to act as they have to act and at the same time finding gratification in acting according to the requirements of the culture. In other words, it is the social character's function to mold and channel human energy within a given society for the purpose of the continued functioning of this society.<sup>6</sup>

---

<sup>5</sup> Karen Horney, Our Inner Conflicts (New York: W. W. Norton and Company, Inc., 1945), p. 41.

<sup>6</sup> Erich Fromm, The Sane Society (New York: Rinehart and Company, Inc., 1955), p. 79.

These theorists stress the importance of a person's environment in the development of his personality. An important part of the environment of today's youngster is the school setting. Thus, the capacity of a child to interact effectively with his school surroundings is a vital influence on the shaping of his personality.

The position taken in this study was that dropping out of school may be a symptom of the inability of the student to adjust to life situations at school and away from school, and that these deeper social and emotional difficulties must be explored in order to fully understand the dropout. It was felt that the total pattern of personality development and character formation of the student are significantly involved in the decision to leave school before graduation.

## V. DELIMITATIONS OF THE STUDY

1. A school dropout has been variously defined. Although a workable definition can be devised for use in a study of this type, it is questionable whether dropouts and stay-ins are as dichotomous as any definition would make them appear to be. This investigation included only those students who could be classified as dropouts by using a single definition of the term given later in this chapter.

2. Test scores of certain dropouts in the sample were invalidated for various reasons, and the responses could not be used in the study. Thus, the sample includes only those dropouts who submitted valid and useable test responses.



3. The sample included only boys and girls from cities with a population less than 50,000.

4. Only students from schools in the State of Minnesota were used in the study.

5. In studying students having school adjustment difficulties, only sophomores (tenth graders) were included in the sample.

#### VI. LIMITATIONS OF THE STUDY

Certain variations among schools in the sample have had a bearing on whether a student graduated from his particular school. It is quite possible that a student who dropped out in one school would have graduated if he had attended another. This fact limits the degree to which any means can be devised for predicting which students will drop out of school. Some of the probable varying factors in participating schools were:

1. Standards for graduation.
2. Breadth of curricular offerings.
3. Facilities and equipment available in the school's educational program.
4. Size of school and organizational structure.
5. Difficulty of the curriculum.
6. Characteristics of the school such as prevailing values and attitudes toward achievement and graduation from high school.
7. Characteristics of the student body such as levels of interests, aptitudes, scholastic abilities and aspirations.

8. Faculty awareness and sensitivity to the needs of children.
9. Student-teacher ratio.
10. Quality of teachers and administrators.
11. Type and quality of special services available to children, parents, and faculty (i.e., counselors, psychologists, and school social workers).

Age differences of the children who were administered the MCI is a further limitation in this study. Other investigations show that high school dropouts tend to be considerably older than their peers at the same grade level in school. Therefore, the dropout responses in this study were probably the responses of students who were older than those in the same class who remained to graduate, even though the MCI was administered at the same time and at the same grade level in all schools.

Some variability may also have existed in the accuracy of record-keeping among the schools. It appeared from the study that some schools had more explicit information than others regarding the disposition of students who failed to graduate.

## VII. DEFINITION OF TERMS

The following terms were used in this study:

Dropout - The definition of a dropout in this study was that agreed upon by the Cooperative Project on Pupil Accounting for Local and State School Systems and supported by the U. S. Office of Education. It is as follows: "A dropout is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies

and without transferring to another school."<sup>7</sup> In elaborating further on this definition, the originating group stated that

The term 'dropout' is used most often to designate those elementary and secondary-school pupils who have been in membership during the regular school term and who withdraw from membership before graduating from secondary school (grade 12) or before completing their programs of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work.<sup>8</sup>

Personality Characteristics - This term encompasses the many personal or individual traits which make people think, believe, and act differently from one another.

Minnesota Counseling Inventory - The MCI is a structured paper-and-pencil inventory composed of 355 items in statement form. The student responds "true" or "false" as the item pertains to him. The MCI is based upon two previously developed personality inventories, the Minnesota Personality Scale and the Minnesota Multiphasic Personality Inventory. The MCI contains eight scales, three taken from the Minnesota Personality Scale and five from the MMPI.

The MCI was designed to provide information regarding non-intellectual aspects of an individual's personality structure, personality dynamics and personality problems. Hereafter the title Minnesota

---

<sup>7</sup> John F. Putnam, "Information about Dropouts: Terms and Computations," School Life, 45:27, May, 1963.

<sup>8</sup> Ibid.

Counseling Inventory will often be abbreviated as MCI. A copy of the MCI is found in Appendix A.

Dropout scales - This term is used in the study to denote the regrouping of selected MCI items into new tests. A statistical analysis for each of four comparison groups of dropouts and graduates yielded certain statistically significant items. Such items became part of new subtests (dropout scales) used in further validation of the items on student dropouts and graduates.

#### VIII. OUTLINE OF THE STUDY

Chapter I has discussed the nature of the problem and the purpose of the study along with the psychological theories underlying the investigation.

Chapter II is devoted to a review of the literature related to the problem under study. Attention is given to research dealing with personality factors of the dropout, along with other psychological and sociological factors associated with the development of these personality factors.

In Chapter III, the methodology and procedures used in conducting the study are presented. The statistical design is outlined. It also includes a description of the basic instruments used in securing the data for this study.

Chapter IV contains the analysis of data along with a summary of the significant findings.

The conclusions and suggestions for additional research are presented in Chapter V.

A discussion of the findings, along with impressions gained from the data are found in Chapter VI.

## CHAPTER II

### REVIEW OF THE LITERATURE

The complexity and seriousness of the school dropout problem has prompted the writing of as many articles on this subject as almost any other single topic. The interest in the subject is so widespread that popular weekly and monthly magazines, as well as sophisticated journals dedicated to research in human behavior, have contained numerous articles on school dropouts. Newspapers, television and radio have also brought the problem to the attention of the American public.

The late President Kennedy, in the summer of 1963, made a direct appeal by letter to local school boards throughout the United States asking that they do whatever possible to keep young people in school. These letters were widely publicized in local newspapers, and have contributed to the general interest in the dropout problem.

This author has been working in the counseling and guidance field in the public schools for many years. As a result he has been concerned about the dropout problem that has existed in those school systems with which he is acquainted. His personal interest led to this study which is an attempt to identify the personality characteristics of the dropout. As a result this review of literature has been concerned with those studies relating specifically to personality characteristics of dropouts and the social and psychological forces which may influence the development of these characteristics.

Early studies of dropouts began with cataloging the characteristics of dropouts from a particular school population, including lists of reasons given by the boys and girls for leaving school and recommendations to school authorities for changes to be made in order to reduce the dropout rate. Most of these studies recommended curriculum changes that would more effectively meet individual needs, plus increased vocational counseling services so that school counselors might influence potential dropouts to stay in school.

A "psycho-social approach" to the dropout problem has been gathering momentum since the 1951 National Conference on Life Adjustment Education and the subsequent publication of the proceedings of the Conference. A broader understanding of underlying personality factors associated with unsatisfactory school adjustment has resulted. Attention was directed to important variables in the life of the dropout which originate outside of the school's academic program but which directly affect his school adjustment and progress. These variables include: his status among his peers in the school's social hierarchy; his value system regarding the relative worth of education and a job; his attitudes toward authority figures and toward people with backgrounds different from his own; his vocational level of aspiration, his opportunity to obtain the training necessary for entry into a vocation, and his chances of being hired after acquiring the necessary training; his skill in appraising his educational, vocational and personal problems realistically, and his skill at solving such problems in ways that make him a more effective person.

The variables mentioned above are, in turn, related to the kind of family into which the dropout was born; the socioeconomic status of the family; the type of neighborhood in which he lives; the membership he holds in a group which is racially or culturally in the minority; the availability of good schools; the selection practices of employers, unions and training institutions; the level of unemployment and industry's manpower needs; the abilities and skills the student possesses; and the availability of services to help him adjust to problems he cannot cope with alone. As Cohen<sup>1</sup> has observed, the dropout is at the vortex of strong currents having their sources in economic, social, cultural, and psychological problems.

This broad approach to the dropout problem was emphasized by the Golden Anniversary White House Conference on Children and Youth in its Reference Papers<sup>2</sup> and Recommendations,<sup>3</sup> and received further impetus from the National Conference on Unemployment and Out of School Youth in Urban Areas held in 1961 to implement the White House Conference recommendations.

---

<sup>1</sup> Eli E. Cohen, How School People Can Help the Dropout (New York: National Committee on Employment of Children and Youth, 1960), p. 3.

<sup>2</sup> Golden Anniversary White House Conference on Children and Youth, Reference Papers on Children and Youth (Washington, D.C.: Government Printing Office, 1960).

<sup>3</sup> Golden Anniversary White House Conference on Children and Youth, Recommendations--composite report of forum findings, March 27-April 2 (Washington, D.C.: Government Printing Office, 1960).



## I. STUDIES DESCRIBING THE DROPOUT

Much material has been published which attempts to describe the dropout. Bowman and Matthews reviewed the data gathered in Evansville, Louisville, St. Paul, and Tacoma. From these and other studies they drew up the following list of dropout characteristics:

- Dropouts were more often boys.
- Dropouts were more often from the lower class.
- Dropouts were more often from minority groups.
- Dropouts came more often from broken homes, but the percentage difference was not pronounced.
- Dropouts' parents had little education.
- Dropouts had below-average intellectual potential as measured by IQ tests.
- Dropouts were usually retarded in reading and other skill areas.
- Dropouts were usually overage for their grade as a result of being retained in one or more grades.
- Dropouts (particularly boys) usually failed several courses in the year prior to leaving school.
- Dropouts had frequently moved from school to school.
- Dropouts showed a marked regression in attendance in junior and senior high.
- Dropouts usually were not active in the extra-curricular life of the school.
- Dropouts usually had enough money to continue in school. Although lack of money was not usually a major factor in early school leaving, indirectly it had an influence.
- Dropouts often had difficulty in getting and keeping a job.
- Dropouts came from families in which parents less strongly support the schools' and their children's interest in education.
- Dropouts placed little value on education as a help to themselves, and consequently had little further interest in school even though the adjustment to adult life had not been easy.
- Dropouts felt that their education should have been more practical; it should have prepared them for a vocation.
- Dropouts felt insecure and lacked a feeling of belonging in school.
- Dropouts felt poorly treated by their teachers and were fearful of asking for help.
- Dropouts were often dissatisfied with their social relationships in school, and they lacked friends.<sup>4</sup>

---

<sup>4</sup> Paul H. Bowman and Charles V. Matthews, Motivations of Youth for Leaving School (Quincy, Ill.: University of Chicago, Quincy Youth Development Project, September, 1960).

The literature contains a number of other excellent summaries on school dropouts which the interested reader may want to further pursue. Sando<sup>5</sup> reviewed about fifty studies of early school leavers, dating back as far as 1872. He grouped the findings of these studies into four general categories: (1) Grade and Age Placement of Dropouts, (2) Economic Characteristics of Dropouts, (3) Sociological Characteristics of Dropouts, and (4) School Characteristics of Dropouts. Fink<sup>6</sup> summarized significant information from studies which described dropouts and those which weighed the importance of motivation and aspiration in the development of educational and occupational plans.

The Michigan Committee on School Holding Power<sup>7</sup> listed factors which identify potential dropouts and factors which are related to prolonged school attendance, based on studies available up to 1963. Another excellent review of the literature covering all aspects of school dropouts through May, 1963 was carried out by the National Education Association.<sup>8</sup> These four major reviews provide additional information on school dropouts.

---

<sup>5</sup> Rudolph F. Sando, "A Comparative Study of Early School Leavers" Unpublished doctoral dissertation, University of California, Berkeley, 1952.

<sup>6</sup> Donald D. Fink, "The Efficiency of Certain Criteria in Predicting School Dropout" Unpublished dissertation for Ed.D., Michigan State University, 1962.

<sup>7</sup> Michigan Department of Public Instruction, Michigan Committee on School Holding Power, "Quickie Kit" on School Holding Power, Publication No. 507 (Lansing: Michigan Department of Public Instruction, 1963, revised).

<sup>8</sup> National Education Association, Project: School Dropouts (Washington, D.C.: The Association, 1963).



Some researchers have been concerned with the psychological make-up of a school dropout and, particularly, with identifiable personality traits. This study was concerned with the identification of those personality patterns or traits which might be common to pupils who drop out of school but differ from those of pupils who stay in school. Therefore, the major emphases in this review of literature were personality characteristics and the social and psychological forces which may influence the development of these characteristics.

The literature which was reviewed for the purposes of this study identified certain social and psychological factors as being associated with dropping out of school: social class and family status factors, parental background and attitudinal factors, ethnic factors, neighborhood and community factors, school performance factors, the adolescent sub-culture factor, and personality factors.

## II. SOCIAL CLASS AND FAMILY STATUS FACTORS

A good deal of literature dealt with the effects of middle class values surrounding the culturally deprived child in his school setting, and which were probably related to poor adjustment and subsequent dropping out of school. Conflicting values were often present. Barber<sup>9</sup> pointed out that the child who has not learned in his family setting that reading is important, or that high achievement is valued, begins his school

---

<sup>9</sup> Bernard Barber, Social Stratification: A Comparative Analysis of Structure and Process (New York: Harcourt, Brace and Company, 1957).

career with a distinct disadvantage. Children from middle class families learn at home that achievement in school is important and are more likely to be motivated to achieve. In addition, the child-rearing practices employed by middle class parents develop certain habits and routines that form a good foundation for the regimented school program. Barber felt that talented lower class students who engage in middle class practices atypical for their social class are recognized and encouraged by their teachers. He believed that public schools train some students for social mobility, but that they train the larger proportion of students to keep the same class position as that of their parents. In an earlier article, Becker<sup>10</sup> recognized that problems sometimes arise when a teacher of one social class group, with its values, norms, and emotions, is expected to teach pupils from another social class group encompassing a different set of values, norms, and emotions. Bettelheim stated,

Sometimes the teacher who wishes the child to achieve middle class standards asks him to adopt principles of behavior that are above those of one or both of his parents. Such a child may, unbeknown to parents and teacher, express his deep loyalty to his parents by rejecting all that the school and learning stand for because they seem to belittle his parents or their way of life.<sup>11</sup>

Bettelheim felt that many such failures are due to laudable motives. A child may be set against the school, not because he wishes to protect a parent's pride or be loyal to his way of life, but simply because he does not wish to acquire a different set of values.

---

<sup>10</sup> Howard S. Becker, "Social Class Variation in the Teacher-Pupil Relationship," Journal of Educational Sociology, 25:451-65, 1952.

<sup>11</sup> Bruno Bettelheim, "Roadblocks to Learning," NEA Journal, 52:23-25, March, 1963.

Warner, Havighurst and Loeb<sup>12</sup> pointed out that the schools tend to perpetuate the class system, thereby retarding the growth of real democracy within the schools. They contended that, although the schools do facilitate the rise of a few people from lower to higher levels, they foster class system by holding down many people who attempt to move upward. School administrators, teachers, school boards, and students themselves play a part in maintaining the status quo of the social structure, according to the authors.

In 1941-1942, Hollingshead<sup>13</sup> made an extensive study of the impact of social class on adolescents in a midwest town. One phase of the study concerned the relationship between social class and the age at which dropouts left school. Hollingshead established five social classes with I at the top and V at the bottom. He found that children from lower class families (his classes IV and V) dropped out at younger ages than did middle class youngsters (class III). Seventy-five per cent of the lowest social group (class V) dropped out of school before they were sixteen years of age. Eight out of nine dropouts were from this group. The middle class child generally did not drop out until his junior or senior year. All upper class youth of high school age were in school.

---

<sup>12</sup> W. Lloyd Warner, R. J. Havighurst, and M. B. Loeb, Who Shall Be Educated? (New York: Harper Brothers, 1944).

<sup>13</sup> August Hollingshead, "Leaving School," Elmtown's Youth (New York: John Wiley and Sons, 1949), pp. 329-359.

More recent studies also found high percentages of dropouts in the lower class. Bowman and Matthews<sup>14</sup> found that 87.7 per cent of the dropouts were in the lower class while only 1.4 per cent were in the upper and upper-middle classes.

Hathaway and Monachesi<sup>15</sup> found that the highest dropout rates in Minnesota occurred among children of day-laborer families and broken families. Their study showed that 38 per cent of the boys and 32 per cent of the girls from day-laborer families dropped out of school, compared with five per cent of the boys and girls from professional families. These same studies also showed that boys from farming families tended to drop out of school earlier in their school experience than children from other residential areas.

Other studies confirmed the findings that children from every socioeconomic level dropped out of school, but the rates varied inversely with the socioeconomic level of the family: the highest dropout rate was found in families on relief, a lower rate was usual for the middle class, and the lowest rate existed among children of professional people. Three dropout studies, made by Bell,<sup>16</sup> Hollingshead,<sup>17</sup> and Sorenson,<sup>18</sup>

---

<sup>14</sup> Paul Bowman and Charles Matthews, op. cit.

<sup>15</sup> Starke R. Hathaway and Elio D. Monachesi, Adolescent Personality and Behavior (Minneapolis: University of Minnesota Press, 1963), p. 93.

<sup>16</sup> Howard Bell, Youth Tell Their Story (Washington, D.C.: American Council on Education, 1938), p. 58.

<sup>17</sup> August Hollingshead, op. cit., p. 340.

<sup>18</sup> Mouritz A. Sorenson, "Low Ability Dropouts Versus Low Ability Graduates," Personnel and Guidance Journal, 39:144, October, 1960.

singled out the father's occupation as the most potent determiner of a child's likelihood to attain a high school diploma.

### III. PARENTAL BACKGROUND AND ATTITUDINAL FACTORS

A factor which has received frequent attention in studies during the last few years is parental indifference toward education. Studies citing such indifference were made by Evraiff,<sup>19</sup> Livingston,<sup>20</sup> Nelson,<sup>21</sup> and Swan.<sup>22</sup> Harris<sup>23</sup> in describing how children learn attitudes from their parents, pointed out that attitudes held by parents and children are more alike in lower socioeconomic groups than in other social classes. It is possible, therefore, that the lower class child holds his negative attitude toward education more intensely than the middle class child holds his positive attitude. Mannino<sup>24</sup> studied families with similar

---

<sup>19</sup> William Evraiff, "How 'Difficult' Are Our Dropouts?" Bulletin of National Association of Secondary-School Principals, 41:212-218, February, 1957.

<sup>20</sup> A. Hugh Livingston, "Key to the Dropout Problem: The Elementary School," Elementary School Journal, 59:267-70, February, 1959.

<sup>21</sup> L. W. Nelson, P. R. Hunt, and E. E. Cohen, "Dropout Problem: A Growing Educational Concern Today," Bulletin of National Association of Secondary-School Principals, 45:275-280, April, 1961.

<sup>22</sup> Lloyd Swan, "Early Recognition of Potential Dropouts Helps Canton," School Management, 5:77-80, November, 1961.

<sup>23</sup> Dale B. Harris, "How Children Learn Interests, Motives, Attitudes," Learning and Instruction, Part I. Nelson B. Henry, (ed.), 49th Yearbook of the National Society for the Study of Education, 1950, pp. 129-155.

<sup>24</sup> Fortune V. Mannino, "Family Factors Related to School Persistence," Journal of Educational Sociology, 35:193-202, January, 1962.





economic backgrounds whose children either stayed in school or dropped out. He found significant differences between the two groups as to two factors: the mother's interest in, and encouragement of, the children's schooling; and the family's acquaintance with other families having children in college. Fink<sup>25</sup> also found that parental educational aspirations were significant in keeping the children in school.

Dropouts tended to come from families where the level of education was low and where it was acceptable to quit school before completing twelve grades. As noted by Kvaraceus,<sup>26</sup> parents of dropouts often had less than an eighth grade education according to the New York State checklist of dropout characteristics. Hollingshead<sup>27</sup> noted the low educational level of the parents of dropouts. Schreiber<sup>28</sup> cited a Maryland study which found that 70 per cent of the mothers and 80 per cent of the fathers of dropouts had not completed high school themselves. Twenty-five per cent of the mothers and 30 per cent of the fathers had not gone beyond the sixth grade. Bolmeier<sup>29</sup> found that 65 per cent of

---

<sup>25</sup> Donald D. Fink, op. cit.

<sup>26</sup> William C. Kvaraceus and W. E. Ulrich, "Providing Help through Curriculum Adjustments," Delinquent Behavior--Principles and Practices, Vol. II (Washington, D.C.: NEA, 1959), p. 101.

<sup>27</sup> August Hollingshead, op. cit., p. 340.

<sup>28</sup> Daniel Schreiber, "The Dropout and the Delinquent: Promising Practices Gleaned from a Year of Study," Phi Delta Kappan, 44:217, February, 1963.

<sup>29</sup> Gerald Bolmeier, Some Sociological Factors Related to Educational Progress and Personality Development. Paper presented to Administrative Council, Minnetonka Public Schools, Minnesota, June 12, 1962.

the fathers of dropouts had less than 12 years of education as compared to 16 per cent for fathers of all students. Schreiber<sup>30</sup> referred to studies from New York State and Louisiana which found that two-thirds of dropouts' parents held negative or indifferent attitudes toward the value of education. Oftentimes the influence was felt throughout the entire family. Hollingshead<sup>31</sup> and Penty<sup>32</sup> noted that brothers and sisters from the same families tended to drop out of school.

#### IV. ETHNIC FACTORS

In cities where large populations of underprivileged and ethnic subgroups were present or where large groups had recently migrated to the metropolis from rural areas, membership in these groups was linked with dropping out of school. In New York City, for example, Negro and Puerto Rican youths had high dropout rates.

There was general agreement among studies that the dropout rate for Negroes was twice as great as for the population in general. This was true over twenty-five years ago when Bell<sup>33</sup> made his study in Maryland, in which he included Negroes in the same proportion as they appeared in the U. S. census for that time. He found that 68 per cent of the Negroes and 33 per cent of the whites did not go beyond the eighth grade.

---

<sup>30</sup> Daniel Schreiber, op. cit.

<sup>31</sup> August Hollingshead, op. cit., p. 335.

<sup>32</sup> Ruth C. Penty, Reading Ability and High School Dropouts (New York: Teachers College, Columbia University, 1956), p. 58.

<sup>33</sup> Howard Bell, op. cit., p. 58.

A recent study by the Department of Labor<sup>34</sup> reported that 67 per cent of the Negroes and 33 per cent of the whites did not graduate. Stetler<sup>35</sup> found that Negro pupils dropped out of school at a 60 per cent greater rate than white pupils. He also found that characteristics associated with withdrawal from school were more prevalent among Negroes than whites.

McCreary and Kitch<sup>36</sup> and Young<sup>37</sup> also reported that the majority of dropouts belonged to racial minority groups. They often came from low income families who lived in substandard housing, and whose attitudes toward education were hostile or indifferent.

Eli Cohen,<sup>38</sup> Executive Secretary of the National Committee on the Employment of Youth, reported that the increase in the number of youth who are in school has been twice as great for Negro youth as for whites. He reported that 64 per cent of the Negroes, fourteen to fifteen years of age, were in school in 1958 as compared with 80 per cent of

---

<sup>34</sup> Margaret Plunkett, School and Early Employment Experiences of Youth: A Report on Seven Communities, 1952-1957 (Washington, D.C.: Government Printing Office, 1960), p. 22.

<sup>35</sup> Henry G. Stetler, Comparative Study of Negro and White Dropouts in Selected Connecticut High Schools (Hartford: Connecticut Commission on Civil Rights, 1959).

<sup>36</sup> William McCreary and Donald E. Kitch, Now Hear Youth (Sacramento: State Department of Education, 1953).

<sup>37</sup> J. M. Young, "Lost, Strayed or Stolen," Clearing House, 29:89, October, 1954.

<sup>38</sup> Eli Cohen, op. cit., p. 4.

whites. This represented a growth over the 1940 figures of 36 per cent for Negroes and 19 per cent for whites. The gap is narrowing.

It should be noted that Negroes and other underprivileged and culturally different groups typically work in low level occupations, live at low socioeconomic levels, and often bear the scars of broken homes. Therefore, their environment fits the same general pattern previously described as typical for dropouts.

#### V. NEIGHBORHOOD AND COMMUNITY FACTORS

Investigations have shown that dropout rates were related to the economic level of the neighborhood. Sexton<sup>39</sup> found that schools in lowest income-level areas had dropout rates twenty times higher than schools in highest income-level areas. As America has become more highly industrialized, new ecological patterns have been developing in urban regions. Resulting social and cultural changes have often affected the quality of education, school retention, and other facets of the school's program. Ecological changes have often brought valuational changes, which were positively related to successful school experiences in some areas, but negatively related in others. Conditions which are more conducive to dropping out of school are building up in large cities. For example, cultural deprivation is growing in these large centers.

---

<sup>39</sup> Patricia Cayo Sexton, "Social Class and Pupil Turn-over Rates," Journal of Educational Psychology, 33:133, November, 1959.

Riessman<sup>40</sup> noted that in 1950 one child in ten in the fourteen largest cities in the United States was culturally deprived. By 1960 this had jumped to one in every three. Reissman believed that by 1970 one of every two children in the largest cities will be culturally deprived.

Inequality of educational opportunity contributes to this deprivation. Sexton<sup>41</sup> wrote that equality of educational opportunity does not really exist in the United States, because of failure to provide children from low income families with as good an elementary and secondary school education as is made available for the children of middle and high income groups. She pointed out that low income students are short-changed by getting the oldest buildings, fewest supplies and equipment, least experienced and lowest paid teachers, and the narrowest school programs. Riessman<sup>42</sup> added to this list of subtle but pervasive discriminations against the disadvantaged child. He mentioned that material in reading texts is less attuned to the interests of the disadvantaged; P.T.A.'s often ignore the underprivileged child's parents; intelligence tests are used whose applicability to lower socioeconomic children is increasingly questioned; psychologists and counselors often underestimate the possibility of the economically underprivileged going to college; there are friendship clubs and cliques which tend to exclude the child

---

<sup>40</sup> Frank Riessman, The Culturally Deprived Child (New York: Harper and Brothers, 1962).

<sup>41</sup> Patricia Cayo Sexton, Education and Income (New York: The Viking Press, 1961).

<sup>42</sup> Frank Riessman, op. cit., p. 17.

from the poor area; and teachers' unfavorable images and expectations militate against the respect and encouragement so needed by the underprivileged child.

Conant stressed the importance of neighborhood and community as determiners of what goes on in the schools. He stated, "To attempt to divorce the school from the community is to engage in unrealistic thinking, which might lead to policies that could wreak havoc with the school and the lives of the children. The community and the school are inseparable."<sup>43</sup> He felt that, to a considerable degree, what a school should and can do is determined by the status and ambitions of the families being served. In noting the poor school conditions in Negro slum areas, Conant believed that the socioeconomic situation was a major factor, not the color of the children's skin. He wrote that the real issue in equality of educational opportunity is not racial integration but socioeconomic integration.

## VI. SCHOOL PERFORMANCE FACTORS

Numerous studies showed a strong relationship between inadequate school performance and dropping out of school. Dropouts were usually far behind other students of their age in reading. Penty<sup>44</sup> found that 50 per cent of those in the lowest quarter of their class in reading

---

<sup>43</sup> James B. Conant, Slums and Suburbs (New York: McGraw-Hill, 1961), p. 20.

<sup>44</sup> Ruth C. Penty, op. cit., p. 51.

achievement later dropped out of school, while only 15 per cent in the top quarter dropped out. Conant also emphasized the significance of reading. He wrote, "I am convinced that the common denominator among unsuccessful school children who later become dropouts and perhaps juvenile delinquents is the failure to develop reading skills."<sup>45</sup> A number of writings noted that the average dropout was two years or more retarded in reading. Schreiber<sup>46</sup> suggested that educators re-examine methods and materials used in teaching reading to the culturally disadvantaged. He suggested that perhaps the "Dicks and Janes" living in newly painted houses in suburbia, along with their white collar professional fathers, do not appear as real persons to many children who fail in reading.

Educators are beginning to recognize the fact that language and cultural factors are built into many of the standardized tests used in schools. Hoffmann<sup>47</sup> contended that these tests tend to preserve existing social structures in the schools. He pointed out that of the 5,000 National Merit Scholarship winners in 1956, not one Negro was selected. This was not because of direct bias, but because the present instruments do not measure potentialities of persons from certain kinds of backgrounds.

---

<sup>45</sup> James B. Conant, op. cit., pp. 56-57.

<sup>46</sup> Daniel Schreiber, "The School Dropout--Fugitive from Failure," Bulletin of the National Association of Secondary-School Principals, 46, May, 1962.

<sup>47</sup> Banesh Hoffmann, The Tyranny of Testing (New York: Thomas V. Crowell Company, 1962).



A person with verbal insufficiencies would have great difficulty scoring high on the tests. Thus the tests discriminate, and talents are masked because of social, economic, and regional deprivation. Hoffmann made a plea for finding new ways to uncover the unmined "gold" existing among laborers, farmers, and submerged racial castes in this country. The New York City Higher Horizons project gives some hope for this kind of progress. In a program designed to enrich the educational and cultural experiences of children, it was found that the measured intelligence test scores went up markedly for most children after the enriching experiences. Pre and post-tests recorded an average gain of thirteen IQ points, with an average gain of seventeen points for boys and eleven for girls.

#### VII. ADOLESCENT SUBCULTURE AS A FACTOR

Coleman<sup>48</sup> has written a good deal about the subculture in which the adolescent finds himself in today's schools. In his study of high school social climates he found that value systems have powerful influences on youngsters. He found that adolescents look to each other rather than to adults for their social rewards. Although parents are important to these children, the adolescent looks more to his peers for approval, admiration, and respect. He attempts to win these in everyday activities, in school and out. This means that approval or disapproval of parents

---

<sup>48</sup> James S. Coleman, The Adolescent Society (New York: The Free Press of Glencoe, 1961).

and teachers may be less meaningful than the opinions of other children in motivating learning.

In Coleman's study, high school boys and girls were asked how they would want to be remembered in school: as a brilliant student, most popular, or as an athletic star (boys) or leader in activities (girls). The results showed that boys wanted athletic excellence and girls wanted popularity and activities leadership.

Sexton noted that the culture within the school is essentially female. She felt that this is a factor in dropping out of school, since subcultural femininity is not attractive to the predominantly masculine values of the underprivileged boy. She stated,

It has been observed that the school culture is typically polite, prissy, and puritanical and that there is little place in this female culture for some of the high-ranking values of boy-culture--courage, loyalty, independence--or the high-ranking interests of boys, as sports (except in gym class), outdoor life, popular music, adventure, sex, action.<sup>49</sup>

Coleman advocated separate schools for boys and girls. In a coeducational school, he believed the girls are conditioned not to excel in academics for fear of frightening the boys away.

Riessman<sup>50</sup> put the major focus on the school culture and the total school climate in understanding the culturally deprived and alienated child. He felt that discrimination, frequently unintentional, is found in the classroom, PTA, guidance office, and psychological testing

---

<sup>49</sup> Patricia Cayo Sexton, Education and Income, op. cit., p. 278.

<sup>50</sup> Frank Riessman, op. cit.

program, which alienates the child and his family from the school. The culturally deprived child is often ambivalent toward education, not necessarily rejecting it. He lacks know-how, test-taking skills, and information concerning college, and is probably anti-intellectual. The school's culture often overlooks and underestimates the particular skills and modes of intellectual functioning that are part of the lower class child's culture and way of life.

#### VIII. PERSONALITY FACTORS - GENERAL

Of great importance to a study of the dropout problem is the social and emotional development of the students who drop out of school. A number of studies referred to the personality characteristics of dropouts. The traits were not discreet; they overlapped each other, and were given various names by different authors. In general the most commonly mentioned characteristics were the dropout's (1) lack of close friendships combined with lack of skill in communicating with peers, (2) little or no feeling of security and "belonging," and (3) unsatisfactory personal adjustment. Some studies reported that many dropouts were discipline problems when they were in school, giving the impression that they resent controls. Others mentioned the tendency of dropouts to react in a manner that is withdrawn or aggressive. A source of these writings is shown in Table I.

Table I illustrates that the findings in a number of studies agreed regarding personality characteristics of dropouts. According to this composite picture, the school dropout was often an insecure person

					Source
Personality Characteristics					Allen '56 Bowman, Matthews '60 Cook '56 Dillon '49 Hathaway, Monachesi '63 Hedrich '60 Jennings '58 Kvaraceus '59 Layton '52 Lichter '62 Livingston '59 McCreary, Kitch '53 Nat. C. Life Ad. '50 NEA '59 Penty '56 Science Res. Assoc. '57 Snepp '53 Tessner '58 White Hse Conf. '60
Lacks friends; poor peer communication		x	x		
Insecure: lacks belongingness		x		x	
Poor personal adjustment: social and emotional			x	x	
Lacks good teacher pupil relationships		x			
Discipline: resents controls				x	
Withdrawn or aggressive	x				

who lacked satisfactory social and emotional adjustment. At school he lacked good relationships with both peers and teachers. He resented controls, and his behavior was characterized by aggressive acts. On the other hand, he was often uncommunicative and withdrawn.

A study in the Minneapolis Public Schools<sup>51</sup> indicated that school personnel rated dropouts as being less stable emotionally, less reliable, less cooperative, and less personable. The dropouts also demonstrated less initiative, industry, and leadership at school than did the graduates.

#### IX. PERSONALITY FACTORS - SOCIAL

In high school, adolescents normally continue building effective peer relationships, a project begun in childhood. For teenagers this project takes on new excitement and seriousness as boys and girls learn to get along with peers of the opposite sex. A number of observations in the literature suggested that dropouts were social failures among their peers at school.

Sociometric ratings indicated that dropouts were not liked or admired by their fellow students. Kuhlen and Collister<sup>52</sup> found that dropouts were less popular among their peers than other students. Among the dropouts, boys were rated as unpopular, sad appearing, not good-looking,

---

<sup>51</sup> Minneapolis Public Schools, Progress Report on Minneapolis School Dropout Study (Minneapolis, November, 1962).

<sup>52</sup> Raymond G. Kuhlen and E. Gordon Collister, "Sociometric Status of Sixth and Ninth Graders Who Failed to Finish High School," Educational and Psychological Measurement, 12:633, 1952.

listless, unfriendly, unable to enjoy jokes on themselves or on others, unkempt, enjoying a fight, and unattractive physically. Girls were rated as appearing and acting older than they should, quiet, unkempt, unpopular, sad, unattractive and listless.

Dropouts are often overaged, and being overage was associated with the lowest acceptance scores in peer ratings in a study by Bedoian.<sup>53</sup> Dropouts usually had school histories of low marks, course failures and grade repetitions. This did not make them esteemed in the eyes of more successful students. Since a large number of dropouts came from families in the lower socioeconomic classes, they had less money for teenage clothes, fads, fancy hairdos, and the usual high school social activities generally associated with popularity.

As previously noted, dropout rates were especially high among minority groups. Prejudice operated to isolate minority group children from the general school population.

The entire school environment may become unbearable when failure as a student is accompanied by failure socially at school. The Reference Papers of the White House Conference described the situation in these words:

The early school leavers (dropouts) are usually those who have faced so much failure in school over so many years that they find some excuse, imagined or real, to get out of an untenable situation as

---

<sup>53</sup> Vagharsh H. Bedoian, "Social Acceptability and Social Rejection of the Underage, at-age, and Overage Pupils in Sixth Grade," Journal of Educational Research, 47:513-520, March, 1954.

soon as they can do so legally. Having been able to find adequate success neither academically nor with their peer group, they reject the situation which they feel has long rejected them.<sup>54</sup>

Moving from elementary school to secondary school may intensify the feeling of rejection and lack of belonging for a dropout-prone child. Since elementary schools tend to draw their students from a small geographical area, the population is relatively homogeneous in regard to socioeconomic class as well as racial and cultural minority group membership. When schools from many different neighborhoods feed into large secondary schools, the social problems become more acute for the potential dropouts. Students become more aware of their social disadvantages and inability to compete academically. Segel<sup>55</sup> discussed this problem in his study of frustration in adolescent youth. Bowman and Matthews studied elementary school students attending neighborhood schools where classmates had similar social status and value systems. Sixth graders who later became dropouts usually were not identified as potential dropouts through personal characteristics. However, several years later in a school which drew its population from the whole city the dropouts had developed characteristics of being withdrawn and "not a person to choose as a friend."<sup>56</sup>

---

<sup>54</sup> Golden Anniversary White House Conference on Children and Youth, Reference Papers, op. cit., p. 136.

<sup>55</sup> Davis Segel, Frustration in Adolescent Youth: Its Development and Implications for the School Program (Washington, D.C.: Government Printing Office, 1951).

<sup>56</sup> Paul Bowman and Charles Matthews, op. cit., pp. 90-91.

The evidence appears conclusive that dropouts tended to be unsuccessful in establishing satisfying peer relationships with the general school population. They often found more acceptance and fellowship among others who shared their social disadvantages. In that case they formed cliques of outcasts.

#### X. PERSONALITY FACTORS - EMOTIONAL

Investigations showed that dropouts were often emotionally immature. The literature frequently described them as insecure pupils who lacked the ability to form friendships based on common interests and mutual regard. They did not involve themselves in school studies but were content to "just sit," year after year. They did not become involved in sports, school social activities, or hobby groups, and were apathetic about vocational plans. Some dropouts were characterized by hostile attitudes.

Secondary schools generally did not offer intensive therapy for students. Consequently, dropout studies undertaken by educators lacked information about emotional and personality disturbances among students who dropped out of school.

Hathaway and Monachesi<sup>57</sup> made intensive studies of personality and behavior traits in ninth grade pupils. They found that dropouts generally lacked interest in school and were unhappy with school discipline, school values and the kind of work that was required at school. They

---

<sup>57</sup> Starke Hathaway and Elio Monachesi, op. cit.



suggested that dropping out of school was closely related to rejection of school activities.

Hathaway and Monachesi found that dropouts tended to be high in several of the clinical scales on the Minnesota Multiphasic Personality Inventory. Table II shows the clinical scale and personality descriptions for which there was a high correlation with dropping out of school.

Lichter described a social agency's study of potential dropouts in the Chicago Public Schools. Seventy potential dropouts having adequate mental ability for high school work were referred to the social agency for treatment. The agency was surprised by the magnitude, severity, and intensity of the disturbances found among these students.<sup>58</sup> Sixteen were diagnosed as suffering from a neurosis. These responded rather quickly to treatment. Fifty-two others had character disturbances involving maladaptations of the entire personality which were widespread, rigid and entrenched.<sup>59</sup>

This study emphasized the need for special therapy for potential dropouts. There was almost a note of alarm in their deductions:

That we had so few neurotics and so many character disturbances shows that for the greater number of our students difficulty in school was not a simple problem. It was not a matter of laziness, poor study habits, inadequate parental control, faulty teacher discipline, poor school curricula, or even a specific neurosis like learning impotence. Rather, the problems were entrenched in the entire character formation and were related to the total personality development. Such problems do not respond to the usual inducements

---

<sup>58</sup> Solomon Lichter and others, The Drop-Outs (Glencoe, Ill.: Free Press of Glencoe, 1962), pp. 83, 249.

<sup>59</sup> Ibid., pp. 13, 249.

Table II

High Scores on MMPI Clinical Scales Made by Ninth Grade Pupils  
Who Later Dropped Out of School<sup>a</sup>

Sex	Scale Number	Scale Name	Clinical Expression	Personality Description	
Boys and Girls	4	Pd	Psychopathic Deviation	Rebellious; cynical; disregards rules; socially aggressive; selfish	
Boys and Girls	8	Sc	Schizophrenia	Negative; difficult; odd; apathetic; lacks social grace	50
Boys	9	Ma	Hypomania	Expansive; optimistic; decisive; not bound by custom	
Girls	0	Si	Social Introversion	Unassertive; self-conscious; shy	

<sup>a</sup> From Studies by S. R. Hathaway and E. D. Monachesi.

of the school nor to the efforts of parents to correct them. Moreover, they do not respond quickly, if at all, to therapeutic counseling.

Prognosis is poor for three reasons: (1) dropouts have serious and multiple problems (emotional, familial, educational); (2) the problems have existed for a long time and are chronic; and (3) the emotional problem is most frequently a character disturbance which by itself has a poor prognosis.<sup>60</sup>

Lichter generalized that emotional problems were universal among students of normal intelligence who were not achieving in school (with the exception of those subgroups where education was not an important value). It was found that more than half of the potential dropouts were immature:

Many adolescents with pervasive character difficulties were immature in their general personality formation and were still struggling with issues of the early developmental periods. About two-thirds of the boys and one-half of the girls were dependent children who were unwilling to assume any self-responsibility. The boys generally expressed their dependency in open helplessness and the girls by angry demands for gratification.<sup>61</sup>

The Lichter study "found no special school dynamic, personality problem, character formation, or specific external factor that could be considered primarily or uniquely related to dropping out of school."<sup>62</sup> But "the basic, the predominant factor behind the school difficulty was the emotional problem."<sup>63</sup> The reactions of the dropouts to their problems were either of an active, aggressive type or of a passive,

---

<sup>60</sup> Ibid., pp. 73, 256.

<sup>61</sup> Ibid., p. 249.

<sup>62</sup> Ibid., p. 94.

<sup>63</sup> Ibid., p. 248.

withdrawing type. These two types of behavior were mentioned by investigators who wrote about the dropout problem referred to in Table I, page 34. The girls most often responded to their problems with aggressive, defiant, and truant behavior. The boys, on the other hand, were often passive or withdrawn in Lichter's study. The girls' school history was usually conforming and achieving during the elementary school years for this group of intellectually capable students, but the pattern changed abruptly with the onset of puberty. The boys often had a record of chronic school underachievement and troublemaking from early in the elementary school years.<sup>64</sup>

By the time the typical dropout reached high school, he had suffered much humiliation and defeat. Dropouts usually were overage as a result of repeating one or more grade levels. Generally they were not as smart as other students. Often they were subject to social discrimination when they were from lower socioeconomic classes and/or minority racial and ethnic groups. They were often retarded in the basic educational skills and as a result they had difficulty keeping up with the assignments for high school classes. Either through default or snobbishness of other students, they had been eliminated from the school's extracurricular activity program.

Penty<sup>65</sup> in her study of dropouts who were poor readers, found the lack of a sense of self-worth expressed in feelings of inferiority,

---

<sup>64</sup> Ibid., pp. 62-64, 252.

<sup>65</sup> Ruth Penty, op. cit., pp. 37, 56.

shame, and disgust with self. These emotional reactions had resulted from constant exposure to academic and social failure at school. Lichter found a similar result in his Chicago study of intellectually able dropouts. Others in the class knew that the dropouts received low grades. "Unlike some symptoms, educational problems stand out in plain view; they cannot be concealed. Children thus exposed feel resentment and shame, and lose self-esteem."<sup>66</sup>

Such failures had a crushing effect on the dropout's personality. He felt timid, self-conscious, and apprehensive of being ridiculed. Tryon<sup>67</sup> and Harris<sup>68</sup> noted that the dropout feared the prospect of further humiliating experiences, and this fear generalized into an avoidance of any new school activity.

Failure in school has been found to be a major cause of the dropout's disinterested attitude toward school and studies. This lack of interest in school was recorded by Dillon,<sup>69</sup> Jennings,<sup>70</sup> Kvaraceus,<sup>71</sup>

---

<sup>66</sup> Solomon Lichter, et al, op. cit., p. 247.

<sup>67</sup> Caroline Tryon and William E. Henry, "How Children Learn Personal and Social Adjustment," Learning and Instruction. Nelson B. Henry (ed.). 49th Yearbook of National Society for the Study of Education, Part I, 1950, pp. 169-170.

<sup>68</sup> Dale Harris, op. cit., p. 139.

<sup>69</sup> Harold J. Dillon, Early School Leavers: A Major Educational Problem (New York: National Child Labor Committee, 1949).

<sup>70</sup> Jeannette Jennings, "Dropouts in High School," National Association Women Deans and Counselors Journal, 22:37-40, October, 1958.

<sup>71</sup> William C. Kvaraceus and W. E. Ulrich, op. cit.

Layton,<sup>72</sup> McCreary and Kitch,<sup>73</sup> the National Conference on Life Adjustment Education,<sup>74</sup> Nelson,<sup>75</sup> Penty,<sup>76</sup> and Science Research Associates.<sup>77</sup>

Harris<sup>78</sup> noted that a child who failed again and again when attempting a particular activity tended to withdraw from that activity. Psychologists have also observed that in groups where all were doing a similar task, a child who participated at a much lower level of skill than the others in the group tended to withdraw from the activity. In his description of how children learn interests, motives and attitudes, Harris stated that a child "tends to be uninterested in activities in which his performance is particularly poor."<sup>79</sup>

The potential dropout who has failed in one subject after another and whose reading ability and other academic skills are years behind the

---

<sup>72</sup> Warren K. Layton, Special Services for the Dropout and the Potential Dropout (New York: National Child Labor Committee, 1952).

<sup>73</sup> William McCreary and Donald Kitch, op. cit.

<sup>74</sup> National Conference on Life Adjustment Education, Improving School Holding Power (Washington, D.C.: Government Printing Office, 1951).

<sup>75</sup> L. W. Nelson, P. R. Hunt, and E. E. Cohen, op. cit.

<sup>76</sup> Ruth Penty, op. cit.

<sup>77</sup> Science Research Associates, "The Potential Dropout: How Schools Can Help Him," Guidance Newsletter, (Chicago: SRA, 1957).

<sup>78</sup> Dale Harris, op. cit., p. 138.

<sup>79</sup> Ibid., p. 78.

average of his classmates tends to lose interest in school and in all forms of study. Harris<sup>80</sup> found that interest in studies and attitude toward school suffer when the desires for status and recognition cannot be achieved through the channels available at school.

The individual adjustment of the dropout is an impressive failure. Berston summed up the situation in these words: "The dropout is a socially maladjusted child and is profoundly discouraged. This child is actively rebelling against society and is trying to make a place for himself somewhere."<sup>81</sup>

#### XI. RESEARCH ON DROPOUTS USING THE MCI

Using a small sample of dropouts and controls, Korner<sup>82</sup> used MCI subscales for comparison purposes. She found no significant differences between dropouts and students in general in emotional stability, adjustment to reality, and mood. On the Conformity Scale of the MCI she found significant differences between the scores of male dropouts and male students in general. There were no significant differences for girls on this scale. On the Social Relationships Scale she found significant differences for girls but not for boys. On the Family Relationships

---

<sup>80</sup> Ibid., p. 154.

<sup>81</sup> H. M. Berston, "The School Dropout Problem," Clearing House, 35:208, December, 1960.

<sup>82</sup> Georgia M. Korner, "A Study of Dropouts from the Class of 1960 at St. Louis Park High School." Unpublished Master's thesis, University of Minnesota, 1962.

Scale there were significant differences between male dropouts and male students in general. Korner stressed that these differences should be interpreted with extreme caution because of uncontrolled variables and the small sample used in her study.

Brown<sup>83</sup> used the MCI in a study of college students to determine the relationship of personality factors to dropping out of college. He found a great deal of overlap between the distributions of MCI scores of college dropouts and students who remained in college. He found that male dropouts tended to be irresponsible and non-conforming while female dropouts tended to be withdrawn and depressed.

## XII. SUMMARY

Widespread interest in the dropout problem has prompted many articles on the subject. Early studies usually dealt with students' stated reasons for leaving school before graduation, and with the cataloging of various characteristics which described the dropout.

Concerns for sociological and psychological factors are more recent. In the literature reviewed, some of the social and psychological factors associated with dropping out of school were: social class and family status factors, parental background and attitudinal factors, ethnic factors, neighborhood and community factors, school performance factors, and the adolescent subculture factor.

---

<sup>83</sup> F. G. Brown, "Measured Personality Characteristics of Liberal Arts College Freshmen," Unpublished doctoral dissertation, University of Minnesota, 1958.



Also reviewed were studies relating to social and emotional development and to personality characteristics of dropouts. Each study reviewed as a result of the search of literature was selected on the basis of its relationship to the major purpose of this study: to identify certain personality factors which were common to pupils who dropped out of school but differed from those of pupils who graduated from high school.

## CHAPTER III

### PROCEDURES AND DESIGN OF THE STUDY

The procedures used in gathering and analyzing the data for the investigation are described in this chapter. The methods used to select the sample of dropouts and the sample of graduates, the statistical design, and the basic instruments used in the study are discussed.

#### I. SELECTION OF THE DROPOUT SAMPLE

Two hundred female and 200 male high school dropouts plus 200 female and 200 male high school graduates constituted the sample for this study. Table III shows that each of these four groups was further subdivided into subgroups of 100 students each.

Table III

Sample Sizes of Dropouts and Graduates Included in the Study

Sample		Total Number	Subgroups
Females	Dropouts	200	100 and 100
	Graduates	200	100 and 100
Males	Dropouts	200	100 and 100
	Graduates	200	100 and 100

The dropouts were 200 boys and 200 girls who had taken the Minnesota Counseling Inventory as tenth graders during the first semester

of the years 1956 through 1959 and subsequently dropped out of school before graduating. These students were selected from 19 of the Minnesota schools which had administered the MCI to at least one tenth grade class during the period from 1956-1959.

Twenty-two schools which met the above criteria were selected as the schools from which the sample would be drawn. Letters were written to officials in each school explaining the study and enlisting their cooperation. Twenty-one of these officials replied affirmatively. It was later decided to exclude two of the twenty-one schools from the study because their testing was done in the month of February. The nineteen remaining schools had given the test during the first half of the school year.

The nineteen schools in the study reported follow-up data for 4,592 of their former students. From these names the sample groups of dropouts and graduates were subsequently drawn. Summaries of data on students from the nineteen schools are shown in Appendix B. The schools are not mentioned by name since participating schools were assured that they would not be compared in regard to the number of dropouts in their system.

Most of the participating schools tested in the early fall, but several schools tested in November and December. Where it could be determined that certain individuals were not given the MCI in the first semester of the school year, those individuals' test items were not included in the study. One ~~female~~ and five male dropouts were excluded on this basis.

Also dropped from the study were students who were still in school at the time of the study. Obviously these could be classified neither as dropouts nor as graduates.

Records in a few schools were incomplete and the school was unable to identify with certainty what had happened to a particular student. In these few cases the students' names were dropped from the study.

MCI answer sheets for all students tested in participating schools were obtained from the University of Minnesota Student Counseling Bureau files. The names of former students for whom MCI answer sheets were available were sent to the counselor in each school or to the principal in schools where there was no counselor. The school official was asked to indicate whether each child dropped out or graduated from school. Examples of the letters and forms sent to each school are contained in Appendix C.

Graduation from high school was the controlling factor in determining whether a person was a dropout. Students who dropped out temporarily but later returned to graduate were recorded as graduates. Students expelled from school and those who withdrew from school for various reasons and did not graduate were classed as dropouts. Those who transferred to another school or institution and could not be classified as either a graduate or dropout were excluded from the study.

All MCI answer sheets were then pulled for students who were designated as dropouts according to the above criteria. Students with questionable validity scores were dropped from the study. A V score was considered questionable when it was more than two standard deviations

above the mean for ninth and tenth graders in the original validation group. There were 12 such rejects, five females and seven males. Students who had submitted incomplete answer sheets were also dropped. Answer sheets with more than 25 of the 355 items unanswered were not included in the study, since these are considered invalid by the test authors.

Occasionally two answer sheets were found for the same student. Some students took the MCI as tenth graders, failed the grade, and took the test again the following year with the tenth grade. In such instances only the earlier, or first test, was used.

After the above exclusions, the total number of identified dropouts was 262 males and 201 females. One female was dropped at random in order to have equal numbers at the time the groups would be divided. Sixty-two males were also dropped at random in order to have the same number of males and females. The first answer sheet in the male group to be discarded was selected by using a table of random numbers. Every fifth paper was then removed until a total of 62 males had been excluded. The remaining 200 male dropouts and 200 female dropouts composed the sample of dropouts used in this study.

## II. SELECTION OF THE GRADUATE SAMPLE

Two hundred boy and two hundred girl graduates were then selected for comparison with the sample of dropouts. They were randomly chosen from the total group of graduates of the same schools the dropouts had attended. The graduates had been administered the MCI at the same time

as the dropouts. After assigning each graduate of a school a number, the study sample was then randomly selected. The number of graduates selected from each school was equal to the number of dropouts selected from that school. A small number of students had received attendance certificates rather than diplomas, but none of these was selected in the graduate random sample process.

The graduate group included some students who had dropped out of school at one time but later returned to graduate. Three such students, one male and two females, were selected at random as part of the graduate group.

### III. NULL HYPOTHESES

In general, the purpose of this study was to identify certain personality factors which were common to pupils who dropped out of school but differed from those of pupils who stayed in school. An analysis of responses of male and female dropouts and graduates to the individual items of the Minnesota Counseling Inventory provided the data for the study. Two null hypotheses were tested. They were the following:

- $H_0$  1: There is no difference between the responses of female dropouts and female graduates to questions in the Minnesota Counseling Inventory.
- $H_0$  2: There is no difference between the responses of male dropouts and male graduates to questions in the Minnesota Counseling Inventory.

## IV. STATISTICAL DESIGN

Double Cross-Validation

An item analysis was used to compare the responses of dropouts and graduates. Double cross-validation of the data was carried out, a technique which enhances the reliability of findings through the replication of experiments. In order to double cross-validate, the group of 200 male dropouts was divided into two subgroups of equal size as was the group of female dropouts. The group of male graduates and the group of female graduates were similarly divided into subgroups of 100 students each. The division of each of the four basic groups was accomplished by successively placing randomly arranged answer sheets into two alternate piles. Figure 1 illustrates the design.

Hereafter the designations shown in Figure 2 will be used in discussing the four comparison groups shown in Figure 1.

The design of double cross-validation as applied to this study is seen in Figure 1, with subgroup designations shown in Figure 2. Significance levels for test items in Groups F, Dr<sub>1</sub> - Gr<sub>3</sub> and F, Dr<sub>2</sub> - Gr<sub>4</sub> were determined separately. Items found significant in each pair of subgroups were later tested on the second pair of subgroups to see if the items still discriminated between dropouts and graduates. For example, items found significant in Comparison Group F, Dr<sub>2</sub> - Gr<sub>4</sub> were tested on Comparison Group F, Dr<sub>1</sub> - Gr<sub>3</sub>, while significant items from Comparison Group F, Dr<sub>1</sub> - Gr<sub>3</sub> were tested on Comparison Group F, Dr<sub>2</sub> - Gr<sub>4</sub>. Male subgroup samples were handled similarly. This design is

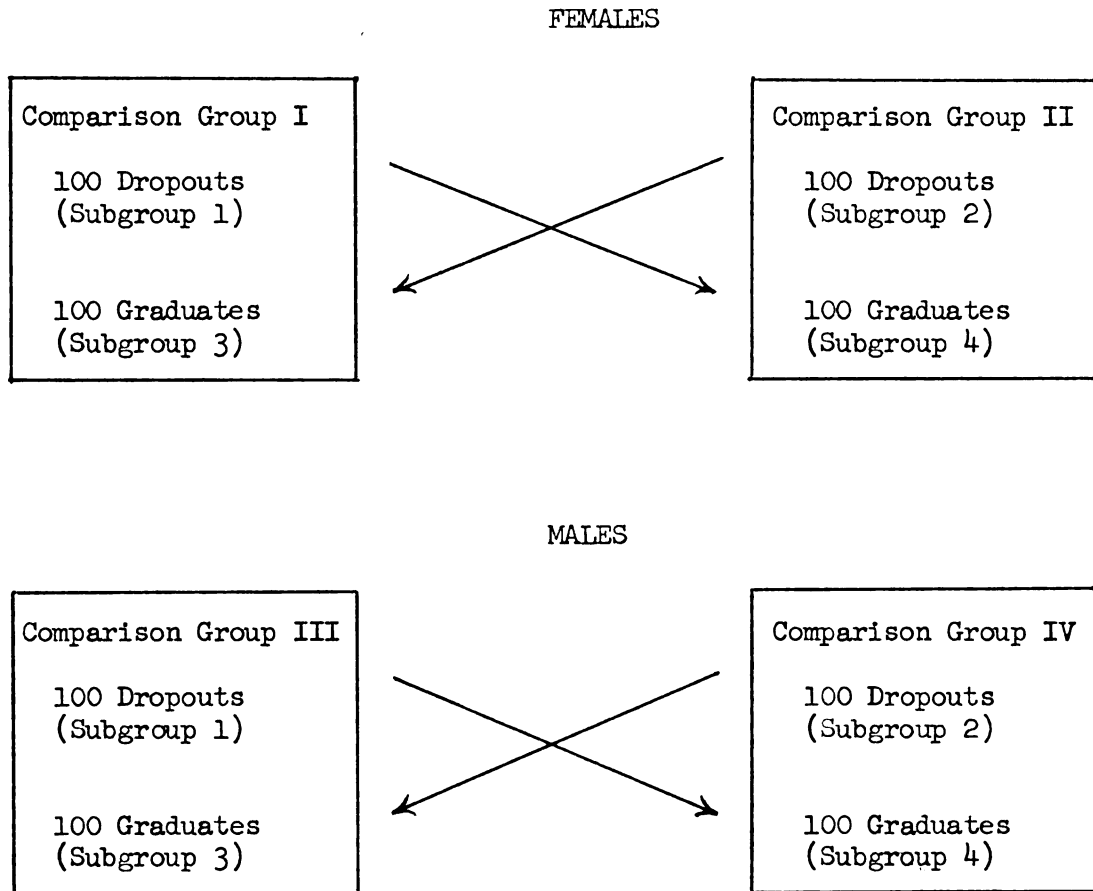
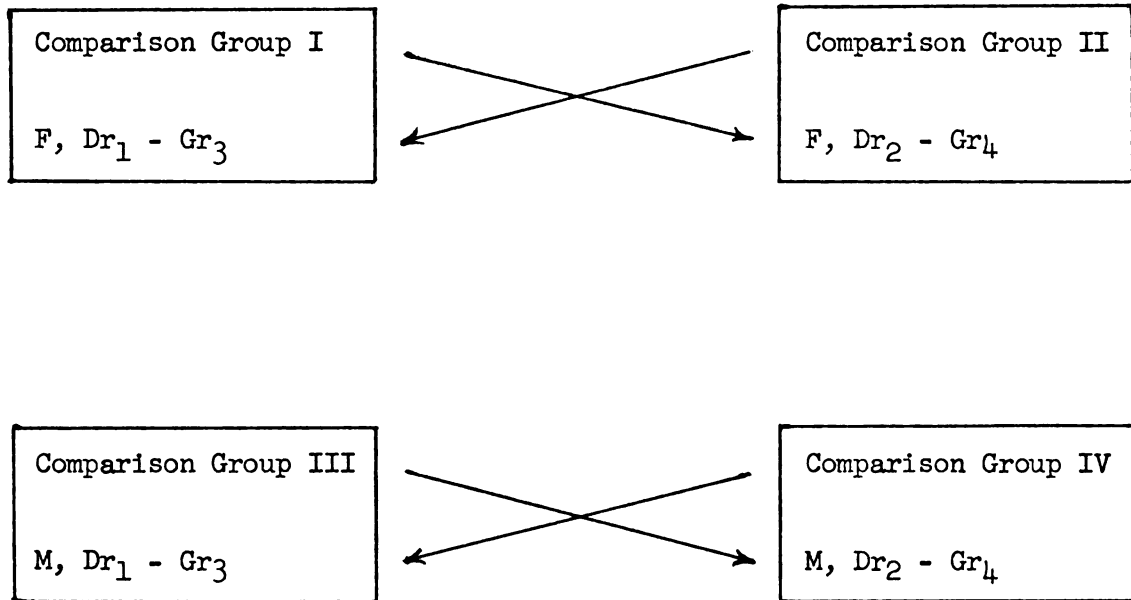


Figure 1. Design Showing How Significant MCI Item Responses from Comparison Groups I and II plus Comparison Groups III and IV Were Double Cross-Validated.





Legend:

F = Female

M = Male

Dr = Dropout Subgroup

Gr = Graduate Subgroup

F, Dr<sub>1</sub> - Gr<sub>3</sub> = Comparison Group made up of Subgroup 1 for female dropouts and subgroup 3 for female graduates.

Figure 2. Symbols Used in the Study to Describe the Dropout-Graduate Comparison Groups Shown in Figure 1.

based on proposals made by Mosier<sup>1</sup> and Katzell<sup>2</sup>

Because most of the student answers were on older-type Hanes answer sheets, new IBM answer sheets had to be prepared for the vast majority of the subjects. This was necessary in order to use the International Business Machines equipment which greatly facilitates item analysis.

An item count was then made for each of the 355 items on the test for each of the 8 subgroups. Item counts for both "true" responses and "false" responses were obtained; thus, the number of omissions for each item was also available.

The significance of the difference between the "true" responses of each comparison group of dropouts and graduates was then determined for each item in the MCI. In order to keep calculations to a minimum, a time saving nomograph developed by Lawshe and Baker<sup>3</sup> was used. The nomograph is shown in Figure 3.

The nomograph yields information ordinarily given by a critical ratio formula, without necessitating a separate calculation each time by formula. The critical ratio of the difference between two percentages

---

<sup>1</sup> Charles L. Mosier, "Problems and Designs of Cross-Validation," Educational and Psychological Measurement, 11:5-11, 1951.

<sup>2</sup> Raymond A. Katzell, "Cross-Validation of Item Analysis," Educational and Psychological Measurement, 11:16-22, 1951.

<sup>3</sup> C. H. Lawshe and P. C. Baker, "Three Aids in the Evaluation of the Significance of the Difference between Percentages," Educational and Psychological Measurement, 10:263-269, 1950.

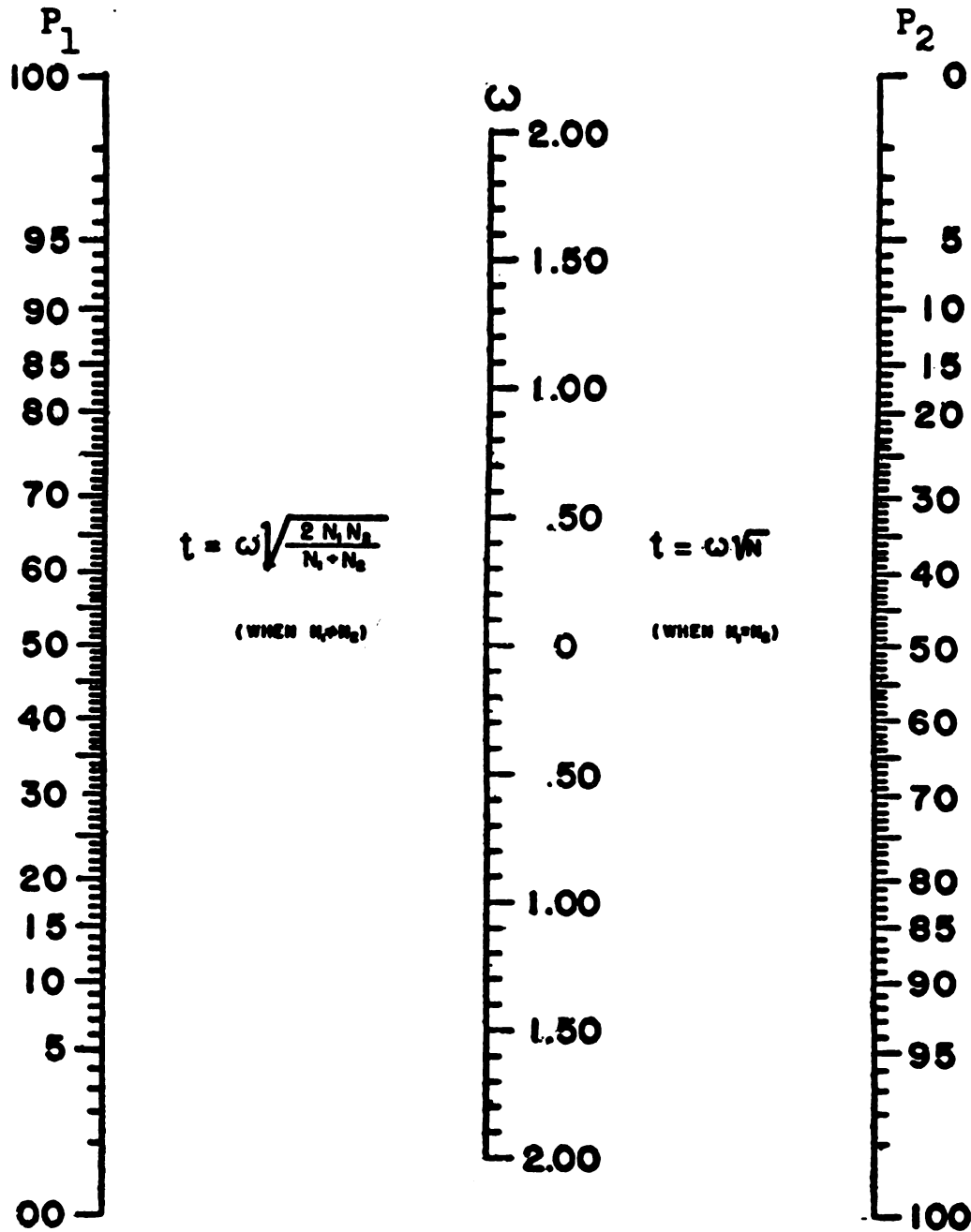


Figure 3. Nomograph Used for Finding the Significance of the Difference between Two Percentages (by C. H. Lawshe and P. C. Baker).

can thus be determined directly from the nomograph, which is based on the following critical ratio formula:

$$t = \frac{p_1 - p_2}{\sqrt{\frac{p_1 q_1}{N} + \frac{p_2 q_2}{N}}}$$

Following the authors' suggestions, a nomograph was prepared for use in this particular study by plotting points representing the .01, .05, .10, and .20 confidence levels on the center scale of the nomograph. A point representing the percentage of "true" responses of a subgroup to a particular item was located on scale  $P_1$ . Using a straightedge, this point was then joined with a point on scale  $P_2$  representing the percentage of "true" responses made to the same item by a second subgroup. The point at which the straightedge crossed the center line indicated the significance of the difference between the two percentages. This procedure was followed for each item on the **NCI** with each of the four comparison groups shown in Figure 1 and Figure 2 to determine whether the observed differences in percentages were significant at the desired levels of confidence.

Many items were significant at the .20 level of confidence or better. For females there were 201 such items found when comparing the two subgroups in comparison group F,  $Dr_1 - Gr_3$  and 221 items in group F,  $Dr_2 - Gr_4$ . For males 121 items were significant at .20 or better in group M,  $Dr_1 - Gr_3$  and 164 items in group M,  $Dr_2 - Gr_4$ .

It had been decided to include only those items at the .05 significance level or higher for building keys. It was necessary to use only those items at the .01 level or above for females. This yielded 73 items in group F, Dr<sub>1</sub> - Gr<sub>3</sub> and 96 items in group F, Dr<sub>2</sub> - Gr<sub>4</sub>. For males a significance level of .05 was used in order to obtain 66 items for group M, Dr<sub>1</sub> - Gr<sub>3</sub> and 101 items for group M, Dr<sub>2</sub> - Gr<sub>4</sub>. Separate keys were then constructed for each of these four comparison groups.

IBM scoring keys were punched on the basis of these significant items. Each individual answer sheet was then rescored with a new key. Answer sheets from female group F, Dr<sub>2</sub> - Gr<sub>4</sub> were scored using the key developed from group F, Dr<sub>1</sub> - Gr<sub>3</sub>. Similarly, answer sheets from group F, Dr<sub>1</sub> - Gr<sub>3</sub> were scored on the key developed from group F, Dr<sub>2</sub> - Gr<sub>4</sub>. Similar cross-validation was done for the male groups.

The reason all 800 papers were rescored was to see whether the items on the newly constructed dropout scales would continue to discriminate when the new scales were applied to different groups. High scores on these scales were more often made by students who later dropped out of school than by students who remained to graduate.

Application of the newly developed dropout scales to new subgroups in double cross-validation yielded new dropout scale scores for these subgroups. At this point it was important to determine whether the new scores of the dropouts and graduates were significantly different, and at what level of confidence. The best way to determine this was by comparing mean scores for dropout and graduate subgroups. Therefore,

the mean for each of the eight subgroups was calculated. Four separate "t" tests were then run to test the significance of the differences between mean scores for subgroups within each comparison (100 dropouts and 100 graduates). Because the samples were drawn from the same population with respect to variance, it was possible to use the "t" test rather than the Behrens-Fisher d-test or Chi-square.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}$$

Results of the "t" tests showed that in all four comparison groups the mean scores for subgroups of dropouts and graduates were significantly different at the .001 level.

Having found that the new dropout scales produced significantly different scores for dropouts and graduates, it was important to learn about the reliability of the scales.

#### Reliability Estimates of the Dropout Scales

To determine reliability, estimates of internal consistency were obtained for all four dropout scales.

Both scales for males and both scales for females were made up of items which were statistically significant. However, the items on the two male scales were not always the same, nor were the items on the two female scales. Therefore, it was not possible to choose one male scale or one female scale over the other on which to run a reliability study. It was decided to run a reliability study on each of the four scales.

The reason for this part of the study was to ascertain whether these scales provided consistent measurements in the identification of the dropout personality characteristics presented later in this study. In addition, if these dropout scales were shown to have a high degree of internal consistency, this might add to their possible future use in identifying potential dropouts.

The reliability estimates of internal consistency were obtained by using Hoyt's<sup>4</sup> analysis of variance technique. Since it was impossible to use the test-retest method of reliability in this particular study, the split-half technique was used. Hoyt's method was selected because this author was familiar with it, and it is considered to be as accurate as other split-half methods of obtaining internal consistency estimates.

In order to run the tests of reliability, each of the four dropout scales was divided in half by alternately placing consecutive items into two separate groups. Where there was an odd number of items, the last item was dropped. Otherwise all items were used. Each group then had an equal number of items. Scoring keys were then prepared for each of these eight groups of items, and scoring was done using IBM equipment.

Hoyt's analysis of variance technique was then used to determine these variances: (1) among students, (2) between halves and (3) error. The internal consistency reliability coefficients were determined for the four dropout scales using the following formula:

---

<sup>4</sup> C. J. Hoyt, "Test Reliability Estimated by Analysis of Variance," Psychometrika, 3:153-160, 1941.

$$r_{11} = \frac{MS_I - MS_e}{MS_I}$$

$MS_I$  and  $MS_e$  designate the mean square for individuals and for error, respectively. This formula gives the reliability for the full-length test directly.

#### Distributions of Dropout Scale Scores

After double cross-validation, distributions of dropout scale scores were prepared for pupils in each of the four comparison groups so that overlap of scores for dropouts and graduates could be studied. This overlap is demonstrated in Figures 4, 5, 6, and 7 in Chapter IV, and is discussed in that chapter.

#### V. TENTATIVE DROPOUT SCALES

Finally, tentative dropout scales for males and females were constructed. The items were selected on the basis of their level of significance in the original item validation of this study. It was recognized that these scales must be applied to new samples in future research to determine the value of these MCI items in identifying potential dropouts.

#### VI. MINNESOTA COUNSELING INVENTORY

The basic instrument used in the study was the Minnesota Counseling Inventory, an empirically constructed inventory based on items taken from the Minnesota Personality Inventory and the Minnesota Multiphasic



Personality Inventory. It was designed so as to provide information which might be useful to the secondary school counselor in working with students, particularly in understanding the way students feel about themselves. In broad terms the Inventory helps the counselor obtain some understanding of the child's personal and emotional adjustment, social adjustment, and family relationships.

The MCI is a structured, paper-and-pencil inventory composed of 355 items in statement form. The student responds "true" or "false" as the item pertains to him. Nine scores are obtained from the Inventory. These are briefly described below; a more complete description is found in the manual.<sup>5</sup>

The first two scores relate to the validity of the individual test profile under consideration. These two scores were derived from similar ones on the MMPI.

The Question (?) Scale. This is simply the number of omitted items. The authors suggest that omitting more than 25 items invalidates the test.

The Validity (V) Scale. The V scale was derived from the L scale of the MMPI and is interpreted by the authors as a measure of defensiveness. High scores are obtained by students who attempt to choose socially acceptable responses. The authors feel that a raw score of more than two standard deviations above the

---

<sup>5</sup> R. F. Berdie and W. L. Layton, Manual for the Minnesota Counseling Inventory (New York: Psychological Association, 1957).

mean for the validating norm group invalidates the test profile. Fourteen items are scored on this scale.

In addition to the validity indices, the MCI contains seven diagnostic scales. The first three are based on scales from the Minnesota Personality Scale. These three scales indicate areas of maladjustment but do not give any indication of the specific dynamics involved.

Family Relationships (FR) Scale. High scores are indicative of conflicts between the student and his parents or siblings. Low scores indicate friendly, healthy relations with parents and siblings. There are 36 items on the FR scale.

Social Relationships (SR) Scale. This scale measures the adequacy of the student's relations with other people. High scores are characteristic of socially inept or under-socialized students. Low scores are usually obtained by gregarious, socially mature students--ones who are well liked, at ease in social situations, and in possession of good social skills. The SR scale is comprised of 61 items.

Emotional Stability (ES) Scale. High scores indicate students who are frequently unhappy and moody, over-react emotionally, and generally appear to be emotionally unstable. Low scores are characteristic of relaxed, calm, self-confident, emotionally stable individuals. Forty-three items are scored on this scale.

The remaining four scales relate to means that students use in making adjustments, i.e., to the dynamics of adjustment that are manifested in several areas or situations. All four were derived from MMPI scales.

Mood (M) Scale. The M scale measures the student's customary mood. Students who obtain high scores are frequently depressed, are pessimistic, and lack self-confidence. Low scores are obtained by students who show appropriate morale--ones who are generally cheerful and optimistic and recover quickly when discouraged or depressed. The M scale is based on the Depression (D) scale of the MMPI and contains 46 items.

Conformity (C) Scale. Scores on the C scale reflect the student's adjustment in situations requiring responsible or conforming behavior. High scoring students are likely to be rebellious, impulsive, irresponsible, superficial and self-centered, and are frequently in trouble. Low scores characterize students who are reliable and responsible. They conform to rules and respect authority. There are 35 items on the scale which was derived from the Psychopathic deviate (Pd) scale of the MMPI.

Reality (R) Scale. Students obtaining high scores often have trouble making friends and fitting in with groups. They are shy, sensitive, and withdrawn. Those with low scores have satisfactory relationships with other individuals and deal effectively with reality. The scale is based on the Schizophrenia (Sc) scale of the MMPI and contains 55 items.

Leadership (Le) Scale. Low scores indicate leadership skills and the ability to work well with others. Persons obtaining low scores often hold responsible positions, assume extra duties, and participate in more activities than the average student. Those with high scores lack leadership skills but are not necessarily good followers. There are 35 items on the Le scale which is taken from Drake's Social Introversion-extraversion (Sie) scale for the MMPI.

## VII. SUMMARY

Two hundred female and 200 male high school dropouts plus 200 female and 200 male high school graduates served as the sample for this study. These four groups were each divided into two equal subgroups. All students were selected from Minnesota high schools in cities with populations of less than 50,000. Criteria for inclusion were that the student must have taken the MCI in the first semester of his sophomore year and either have graduated or definitely dropped out of school. Equal numbers of dropouts and graduates were included from each of the 19 participating schools.

An item analysis was used to compare the responses of dropouts and graduates. The double cross-validation method was chosen in order to be sure that the descriptions of male dropouts and female dropouts, given in Chapter VI, were as accurate as possible. Such accurate descriptions are necessary as a basis for later interpretation of their significance to high school counselors, teachers, and administrators.

The development of possible dropout scales using MCI items was also a consideration in the selection of the double cross-validation method.

Appropriate statistical methods were used to test the significance of the differences found between dropouts and graduates, and to test the internal consistency of the four dropout scales which were developed.

## CHAPTER IV

### SUMMARY AND ANALYSIS OF FINDINGS

The scope of the problem was outlined in Chapter I, the research that has been conducted in this area was reviewed in Chapter II and the methodology of gathering and analyzing the data was discussed in Chapter III. This chapter is devoted to a summary and analysis of the findings.

#### I. STATISTICAL SIGNIFICANCE OF TEST ITEMS

The MCI contains 355 items. A "true" and "false" item count was made for each item for each of the eight subgroups. For each dropout-graduate comparison group, the significance of the differences between the percentage of "true" responses to each item by the dropout group and the percentage of "true" responses by the graduate group were calculated.

The total number of items which showed significance at .05 or better in each of the four dropout-graduate comparison groups are shown in Table IV. A complete listing of the significant items is found in Appendix D.

Four separate dropout scales were constructed using items significant at the .05 level and above. Since there were a large number of items on the female scales at the .01 level of significance, it was felt that satisfactory scales could be developed using only those items. This resulted in female scales containing 73 items in group F, Dr<sub>1</sub> - Gr<sub>3</sub> and

Table IV

Number of Statistically Significant MCI Items Found in Dropout-Graduate Comparison Groups

Significance Level	Female		Number of Same Items Significant in both Groups (F, Dr1 - Gr3; F, Dr2 - Gr4)
	Group F, Dr1-Gr3	Group F, Dr2-Gr4	
.01	73	96	40
.05	138	157	89

Significance Level	Male		Number of Same Items Significant in both Groups (M, Dr1 - Gr3; M, Dr2 - Gr4)
	Group M, Dr1-Gr3	Group M, Dr2-Gr4	
.01	31	62	15
.05	66	101	33

96 items in group F, Dr<sub>2</sub> - Gr<sub>4</sub>. For males, the .05 level was used in accordance with the original design of the study. The dropout scales for males contained 66 items from group M, Dr<sub>1</sub> - Gr<sub>3</sub> and 101 items from group M, Dr<sub>2</sub> - Gr<sub>4</sub> which were significant at the .05 level and above.

Scoring keys were then constructed for use with International Business Machines equipment. These scoring keys, used with the dropout scales, are shown in Appendix E. To construct the scoring keys, each item was punched "true" or "false" depending upon how dropouts tended to answer the item.

To see if the items on these new scales would continue to discriminate between dropouts and graduates, the following procedure was used: using the new keys for cross-validation, female group F, Dr<sub>2</sub> - Gr<sub>4</sub> was scored using the key derived from female group F, Dr<sub>1</sub> - Gr<sub>3</sub>, as shown in Figure 1 of Chapter III. Likewise, female group F, Dr<sub>1</sub> - Gr<sub>3</sub> was scored using the key developed from group F, Dr<sub>2</sub> - Gr<sub>4</sub>. Similar cross-validation was done for the male groups.

Figures 4, 5, 6 and 7 show the cumulative percentages of raw scores on the dropout scales when each scale was applied to a new group in the cross-validation process. These figures were constructed from data found in Appendix F.

It can be seen from Figures 4, 5, 6 and 7 that the dropout groups obtained higher scores on the dropout scales than did the graduate groups. However, there was a great deal of similarity between the scores of the dropout and graduate groups on each of the tests. This similarity is discussed in the next section of this chapter.





Figure 4. Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Female Group Dr1-Gr3 when Using the Dropout Scale Developed on Female Group Dr2-Gr4

a Cumulative frequency per cent is the percentage of each group receiving a particular raw score or less on the scale.

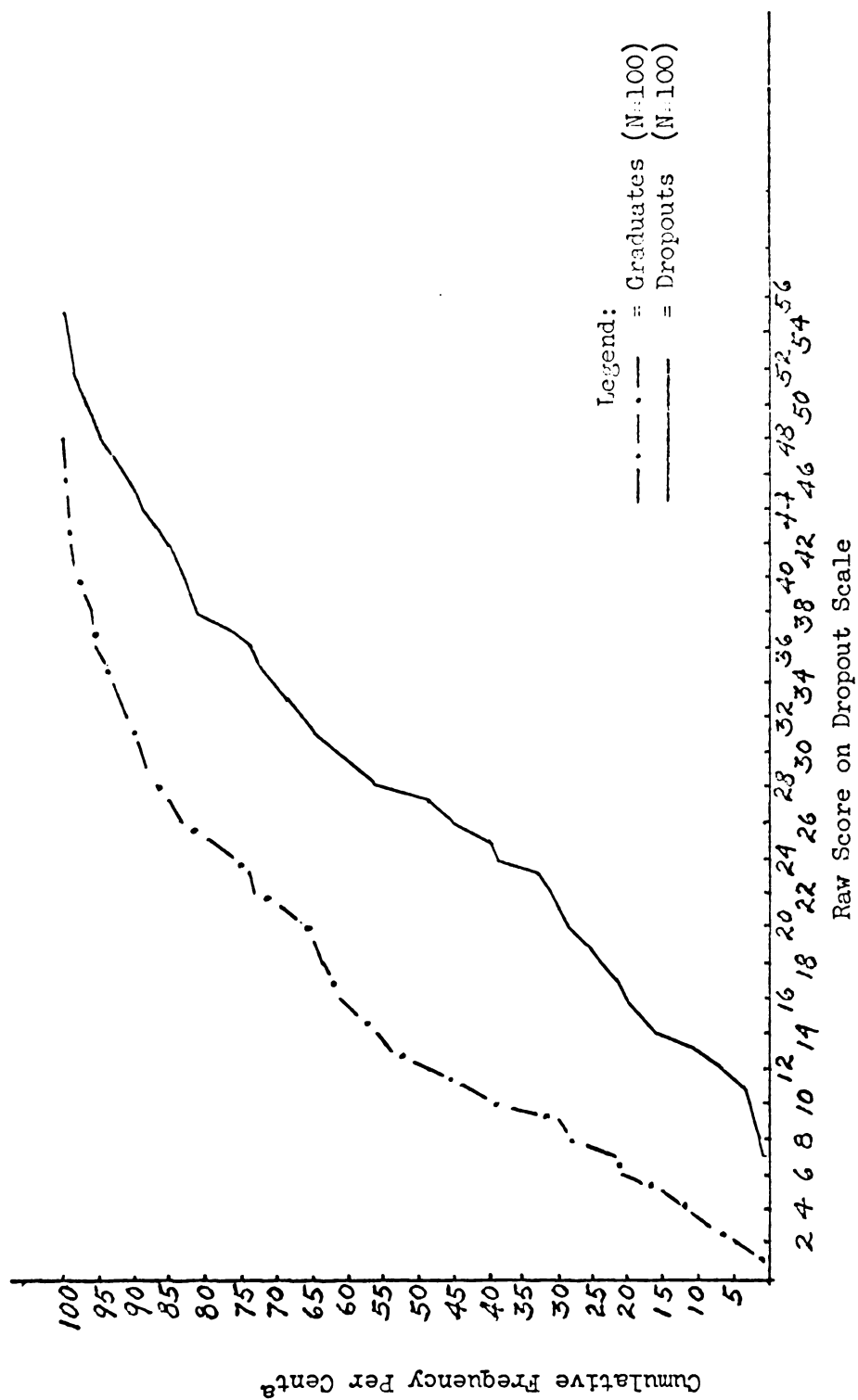


Figure 5. Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Female Group Dr2-Gr4 when Using Dropout Scale Developed on Female Group Dr1-Gr3

a Cumulative frequency per cent is the percentage of each group receiving a particular raw score or less on the scale.



Figure 6. Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Male Group Dr1-Gr3 when Using the Dropout Scale Developed on Male Group Dr2-Gr4

a Cumulative frequency per cent is the percentage of each group receiving a particular raw score or less on the scale.

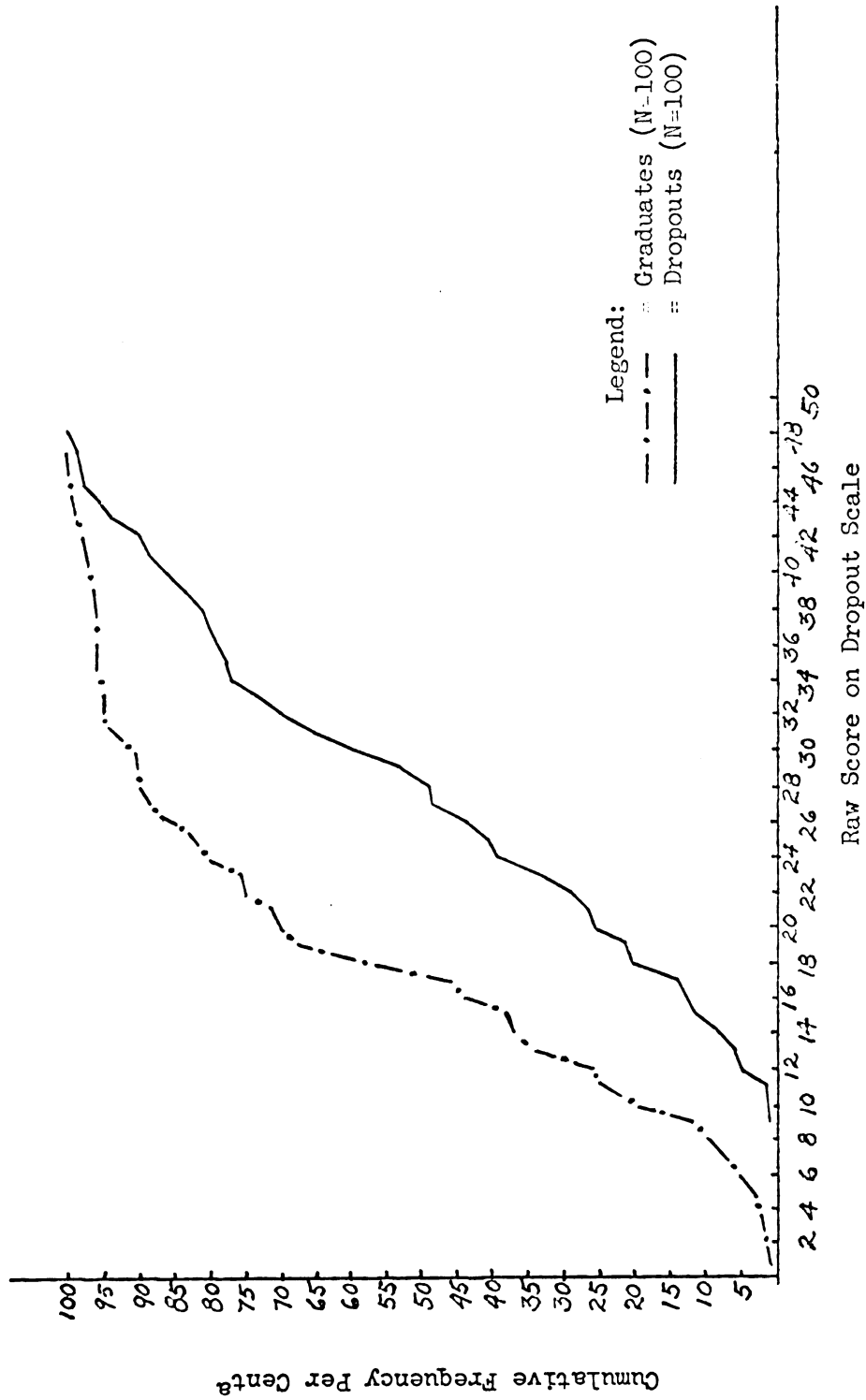


Figure 7. Cumulative Per Cent Curves for Scores of Dropouts and Graduates in Male Group Dr2-Gr4 when Using the Dropout Scale Developed on Male Group Dr1-Gr3

a Cumulative frequency per cent is the percentage of each group receiving a particular raw score or less on the scale.

## II. OVERLAP OF DROPOUT AND GRADUATE SCORES ON DROPOUT SCALES

As one might expect, some personality characteristics common to dropouts were also found in many graduates in this study. This was shown in Figures 4, 5, 6 and 7 where the similarity of dropout scale scores for many dropouts and graduates was demonstrated. This similarity can be described as overlap of test scores. If no overlap of scores were present for dropouts and graduates, excellent predictions might be possible in forecasting which pupils would subsequently drop out of high school and which pupils would graduate.

In the ideal situation there would be no overlap of the two curves. This ideal, however, is not likely to be found in predicting school dropouts with the use of any single criterion. In most cases, results such as shown in Figures 4, 5, 6 and 7 are more likely to appear.

Each point on a curve in Figures 4, 5, 6 and 7 shows the per cent of that group with scores at or below the corresponding raw score on the dropout scale. By subtracting the per cent shown at a particular point from 100 per cent, the percentage of pupils who surpassed that score can be easily determined. For example, in Figure 4, it can be determined that a score of 36 was surpassed by 54 per cent (100 per cent minus 46 per cent) of the female dropouts and by 19 per cent (100 per cent minus 81 per cent) of the female graduates.

The two curves shown in Figures 4, 5, 6 and 7 reveal some important characteristics of the relationship between scores on the dropout scales and the act of dropping out of school. No cut-off score could be used

to include only dropouts without simultaneously including some graduates. Furthermore, the consequences vary when different cut-off scores for a dropout scale are used. In Figure 4, for example, if the decision were made to "select only girls who score above a raw score of 22 as potential high school dropouts," 78 per cent (100 per cent minus 22 per cent) of the dropouts would be included. However, 45 per cent (100 per cent minus 55 per cent) of the female graduates would also be included. Similarly, if a raw score of 30 were used in predicting dropouts, 63 per cent of the dropouts scored higher and they would be included, but so would 33 per cent of the graduates.

Tables V, VI, VII and VIII give similar information on overlap for each of the dropout-graduate comparison groups represented in Figures 4, 5, 6 and 7. These tables show that considerable overlap is present in dropout and graduate responses whenever cut-off scores are established.

Even though the dropout scale scores cannot be used alone with great confidence, it was thought that such data would add a new dimension to existing knowledge about potential dropouts. Selected MCI items contribute something to a more accurate description of personality characteristics of potential dropouts. Further, when used together with many other kinds of pupil data, the scales may contribute to the accuracy of identifying potential dropouts.

Table V

Overlap of Female Dropout and Graduate Scores  
in the Cross-Validation of Dropout Scale F, Dr<sub>2</sub>-Gr<sub>4</sub>

---



---

Females, Group F, Dr <sub>1</sub> -Gr <sub>3</sub> (Scored on 96 Item Key from Group F, Dr <sub>2</sub> -Gr <sub>4</sub> )		
Cut-Off Raw Score on Dropout Scale	Per Cent of Dropouts Scoring Above	Per Cent of Graduates Scoring Above
7	100	91
8	97	90
12	92	76
18	84	58
22	78	45
30	63	33
36	53	19
44	33	13
50	23	5
57	15	1
62	12	0

---

Table VI

Overlap of Female Dropout and Graduate Scores  
in the Cross-Validation of Dropout Scale F, Dr<sub>1</sub>-Gr<sub>3</sub>

Females, Group F, Dr <sub>2</sub> -Gr <sub>4</sub> (Scored on 73 Item Key from Group F, Dr <sub>1</sub> -Gr <sub>3</sub> )		
Cut-Off Raw Score on Dropout Scale	Per Cent of Dropouts Scoring Above	Per Cent of Graduates Scoring Above
7	100	78
10	97	61
12	93	52
16	80	38
22	68	27
28	44	13
32	33	9
38	19	4
41	16	2
44	11	1
48	5	0



Table VII

Overlap of Male Dropout and Graduate Scores  
in the Cross-Validation of Dropout Scale M, Dr<sub>2</sub>-Gr<sub>4</sub>

---



---

Males, Group M, Dr <sub>1</sub> -Gr <sub>3</sub> (Scored on 101 Item Key from Group M, Dr <sub>2</sub> -Gr <sub>4</sub> )		
Cut-Off Raw Score on Dropout Scale	Per Cent of Dropouts Scoring Above	Per Cent of Graduates Scoring Above
3	100	100
8	96	94
11	95	84
14	93	78
20	79	51
26	67	33
30	58	25
36	43	19
42	32	13
47	17	8
52	9	2
58	7	1
63	3	1

---



Table VIII

Overlap of Male Dropout and Graduate Scores  
in the Cross-Validation of Dropout Scale M, Dr<sub>1</sub>-Gr<sub>3</sub>

---

---

Males, Group M, Dr <sub>2</sub> -Gr <sub>4</sub> (Scored on 66 Item Key from Group M, Dr <sub>1</sub> -Gr <sub>3</sub> )		
Cut-Off Raw Score on Dropout Scale	Per Cent of Dropouts Scoring Above	Per Cent of Graduates Scoring Above
9	100	88
11	98	75
16	87	56
19	79	38
22	71	25
28	51	10
32	30	6
38	19	3
42	10	2
47	1	0

---

## III. RELIABILITY OF THE DROPOUT SCALES

This study was primarily concerned with those personality traits which were common to pupils who dropped out of school but differed from those of pupils who stayed in school. It was deemed necessary to run estimates of reliability for each of the four dropout scales in order to determine whether each of these scales would provide similar descriptions of such traits if the scale were administered to the same group again.

This author rejected the idea of selecting one female and one male dropout scale upon which to run estimates of reliability. There were two reasons for this rejection. First, it was not feasible to select one male scale or one female scale over the other male or female scale because each scale discriminated at statistically significant levels. Second, although there were items in common to the two male and the two female dropout scales, each scale contained items not found in the scale of its comparison group.

Although there are a number of split-half methods of obtaining internal consistency estimates, Hoyt's<sup>1</sup> method was selected because this author was familiar with it, and it is considered to be as accurate as other split-half methods. The reliability estimates found in this study are shown in Table IX. Tables showing variance among individuals, between groups, and error variance are found in Appendix G.

---

<sup>1</sup> C. J. Hoyt, "Test Reliability Estimated by Analysis of Variance," op. cit.

Table IX

Reliability Estimates for Male and Female Dropout Scales<sup>a</sup>

Group from Which Dropout Scale Was Constructed	Group on Which Cross- Validated	Number of MCI Items in Dropout Scale	Reliability Coefficient
Female (p = .01)			
Scale I F, Dr <sub>1</sub> - Gr <sub>3</sub>	F, Dr <sub>2</sub> - Gr <sub>4</sub>	73	.92993
Scale II F, Dr <sub>2</sub> - Gr <sub>4</sub>	F, Dr <sub>1</sub> - Gr <sub>3</sub>	96	.94050
Male (p = .05)			
Scale I M, Dr <sub>1</sub> - Gr <sub>3</sub>	M, Dr <sub>2</sub> - Gr <sub>4</sub>	66	.85809
Scale II M, Dr <sub>2</sub> - Gr <sub>4</sub>	M, Dr <sub>1</sub> - Gr <sub>3</sub>	101	.92890

<sup>a</sup> Using C. J. Hoyt's Analysis of Variance Split-Half Method.

The reliability coefficients of the dropout scales in this study, as shown in Table IX, were .92993 and .94050 for females, and .85809 and .92890 for males. All of these coefficients are in the generally accepted range of .80 or above for group comparisons. This means that the scale developed to provide a description of dropouts in each comparison group would probably produce similar results if the scale were administered to the same group again.

#### IV. COMPARISONS OF GROUP MEANS

After re-scoring the answer sheets of each comparison group of dropouts and graduates with the new dropout scale scoring keys, it was important to determine whether the new scores for dropouts and graduates continued to show differences which were statistically significant and at what level of confidence. The best way to determine this was by comparing mean scores for dropout and graduate subgroups, and the "t" test was used because of its appropriateness for comparisons of group means where there is homogeneity of variance.

Comparisons were made between the group mean scores of dropouts and graduates after dropout scales had been applied to new groups. Table X shows that differences between responses of dropouts and graduates to MCI items continued to exist when originally significant items were applied to new groups. Results of the "t" tests show that the differences between the mean scores for dropouts and graduates were significant at the .001 level in all four cases. Therefore, the null hypothesis that there is no difference between the responses of female dropouts and

Table X  
Range of Scores on Dropout Scales, Group Means, and Significance of Differences  
between Group Means when Dropout Scales Were Applied to Different Groups

Group on Which Scale Was Cross-Validated	No. MCI Items in Dropout Scale	Dropouts		Graduates		"t" Test
		Group Range (Items)	Group Mean	Group Range (Items)	Group Mean	
F, Dr <sub>1</sub> - Gr <sub>3</sub>	96	(F, Dr <sub>1</sub> ) 7-76	38.18	(F, Gr <sub>3</sub> ) 5-61	24.67	***6.25
F, Dr <sub>2</sub> - Gr <sub>4</sub>	73	(F, Dr <sub>2</sub> ) 7-55	28.30	(F, Gr <sub>4</sub> ) 1-48	16.06	***7.75
M, Dr <sub>1</sub> - Gr <sub>3</sub>	101	(M, Dr <sub>1</sub> ) 5-65	34.08	(M, Gr <sub>3</sub> ) 3-55	24.43	***4.95
M, Dr <sub>2</sub> - Gr <sub>4</sub>	66	(M, Dr <sub>2</sub> ) 9-48	28.14	(M, Gr <sub>4</sub> ) 4-47	18.25	***7.75

\*\*\* Significant at the .001 level.

female graduates to questions in the MCI was rejected. The null hypothesis that there is no difference between the responses of male dropouts and male graduates to questions in the MCI was also rejected.

## V. SUMMARY

In Chapter IV data gathered in this study was reported and analyzed.

It was found that the manner of responding to certain items in the Minnesota Counseling Inventory in the tenth grade was significantly different for high school dropouts and high school graduates. This was particularly true for females, as was shown in Table IV.

Because of the relative abundance of items showing statistically significant differences for females, it was possible to use a more stringent significance level for females (.01) than for males (.05) in building dropout scales which were subsequently cross-validated.

Because the primary purpose of this study was to arrive at a personality description of high school dropouts, the newly developed dropout scales were applied to new groups, using a double cross-validation process. This procedure assured that the personality descriptions given later in this study were as accurate as possible. Thus, new dropout scale scores were obtained for each pupil in each of the eight subgroups.

Figures 4, 5, 6 and 7 were prepared to demonstrate graphically the cumulative per cent distribution of the raw scores on the dropout scales for females and males. Subgroups of dropouts obtained higher





scores than subgroups of graduates. However, considerable overlap was present in these distributions. Many individuals who went on to graduate answered the items in a manner similar to the way in which pupils who later dropped out of school answered them. The reverse was also true. Many individuals who subsequently dropped out of school responded in a manner more similar to graduates than to dropouts.

Internal consistency studies of the four dropout scales showed that these scales yielded reliability coefficients of .92993 and .94050 for females and .85809 and .92890 for males. These are above the generally accepted level of .80 for group comparisons.

The results of cross-validation in female dropout-graduate groups and male dropout-graduate groups showed that the "t" values for female groups (6.25 and 7.75) had greater uniformity than the "t" values for male groups (4.95 and 7.75). However, all four "t" values were statistically significant at the .001 level. Thus, the null hypothesis, that there is no difference between the responses of female dropouts and female graduates to questions in the Minnesota Counseling Inventory, was rejected. Similarly, the null hypothesis, that there is no difference between the responses of male dropouts and male graduates to questions in the Minnesota Counseling Inventory, was also rejected.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

The present chapter presents conclusions that were framed as a result of the investigations made in this study and implications for further related research.

The main purpose of this study was to identify certain personality characteristics which were common to pupils who dropped out of school but differed from those of pupils who stayed in school. A further purpose of the study was to add to existing knowledge regarding the Minnesota Counseling Inventory as a predictive instrument in identifying potential dropouts.

#### I. CONCLUSIONS

On the basis of the findings in this investigation, the following conclusions have been drawn:

1. It was found that tenth grade females who subsequently dropped out of school responded differently to the dropout scales than did girls who remained to graduate. This led the writer to conclude that high school personnel can use the Minnesota Counseling Inventory as one method of identifying potential female dropouts.

It was also concluded that a study of the personality descriptions arrived at from items answered differently by female dropouts and female graduates should help high school personnel single out certain female students as being in need of particular assistance.

2. It was found that tenth grade males who subsequently dropped out of school answered certain MCI items differently from tenth grade boys who later graduated from school. This finding led this author to conclude that the MCI can be useful in identifying potential male dropouts.

It is also concluded that personality descriptions derived from a study of MCI items answered differently by male dropouts and male graduates will also help high school personnel identify potential dropouts. These students should be called to the attention of pupil personnel workers so that the full resources of the school might be brought to bear while these pupils are yet in attendance.

3. In an analysis of the data, it was found that a larger number of female than male students' responses to MCI items showed statistically significant differences between dropouts and graduates at the .01 level of confidence. The conclusion is reached that it is easier to identify potential female dropouts with MCI items than it is to identify potential male dropouts with items from the same Inventory. More pupil data will probably have to be amassed for male students than for female students in order to ascertain whether certain boys should be referred for intensive counseling.

This might seem contrary to the experience of high school counselors who voice the feeling that it is easier to spot potential dropouts among boys than among girls from certain obvious behavioral and attitudinal patterns. However, this apparent contradiction might be due to lack of recognition of deep-seated emotional problems which may more often be masked by girls. Because of this, the MCI may have more utility for spotting potential dropouts among girls than among boys.

4. In the analysis of cumulative per cent curves for raw scores of dropouts and graduates on the dropout scales, it was shown that some overlap was present. However, the scales have utility for the selection of groups of students who would possibly drop out of school. For example, it was shown that a cut-off raw score of 22 on the dropout scale developed from group F,  $Dr_1 - Gr_3$  was surpassed by 68 per cent of the female dropouts and 27 per cent of the female graduates. Similarly, for males it was shown that a cut-off raw score of 28 on the scale developed from group M,  $Dr_1 - Gr_3$  was surpassed by 51 per cent of the male dropouts and 10 per cent of the male graduates. Using this technique, groups of potential dropouts could be identified by selecting certain cut-off raw scores. While such cut-off scores would include some students who might normally go on and graduate, still the fact that such a high ratio of likely dropouts is included would justify the expense of additional counseling for all individuals in a group selected on this basis. In addition, those students who might be expected to graduate possibly have personal adjustment and/or emotional problems, and would be assisted toward the accomplishment of their life's goals by the counseling provided. To illustrate this point, Brown's study<sup>1</sup> is cited. He found that female college dropouts tended to be withdrawn and depressed, characteristics also common to female dropouts in the present

---

<sup>1</sup> F. G. Brown, "Measured Personality Characteristics of Liberal Arts College Freshmen," op. cit.

study. Had these characteristics been identified early enough, and proper steps taken, these girls might have graduated from college.

5. It was found that each of the dropout scales had an acceptable degree of reliability. As a result, a fairly high degree of confidence can be placed in the consistency of responses made by dropouts. This led to the conclusion that if the dropouts and graduates had been given the same Inventory again as first semester tenth graders, they would have responded in much the same fashion. Therefore, it is also concluded that the personality characteristics presented and discussed in Chapter VI are similar to those which would have been obtained had this Inventory been administered to the same group again at approximately the same time as the first testing.

## II. RECOMMENDATIONS FOR FURTHER RESEARCH

Much has been written about various kinds of characteristics which describe typical high school dropouts. This study focused primarily on the identification of those personality characteristics which were common to pupils who dropped out of school but differed from those of pupils who stayed in school.

This investigation should serve as a basis for other studies which attempt to identify and understand personality traits of boys and girls who drop out of school. This study should also serve as a stepping-stone for further investigations of the Minnesota Counseling Inventory as a predictive instrument.

Studies which might be undertaken to complement the findings of this investigation are listed below:

1. Four dropout scales were developed in this study, and these have been discussed. The most discriminating items from the four scales were then used to construct two new dropout scales, one for males and one for females. The new scales are shown in Appendix I. These scales should be applied to new groups to determine whether the items continue to discriminate between responses of male and female dropouts and graduates. Care should be taken to apply the scales to students from schools and communities of various sizes and geographic locations.

2. A study using the dropout scales should also be undertaken to determine whether personality characteristics of dropouts in large cities are the same as the personality characteristics of dropouts in rural areas.

3. The MCI has two validity indices and seven diagnostic scales, which are described in detail in Chapter III and in the MCI Manual.<sup>2</sup> Each of the seven scales yields one score, and these seven scores are normally provided on each answer sheet after scoring.

The seven scores should be studied to determine whether these scores identify school dropouts. Such a study might show if dropout scales, such as those developed in this study, would prove useful. Perhaps the original seven scores, either singly or in patterns, will be as good as, or even superior to, new dropout scales in predicting future dropouts.

---

<sup>2</sup> R. F. Berdie and W. L. Layton, Manual for the Minnesota Counseling Inventory, op. cit.

4. Longitudinal studies should be made in order to gather evidence on the predictive validity of the MCI. On the basis of students' scores on a dropout scale of the MCI, predictions should be made as to whether certain individuals will drop out of high school or remain to graduate. A close follow-up of what happens to these students would reveal the accuracy of these predictions.

5. The effect of intervening variables, such as counseling some potential dropouts and not counseling others, should be studied at such time as the MCI can be used as a predictive instrument.

6. To further ~~add~~ to the reliability of the dropout scales used in this study, it would seem logical to administer the MCI to tenth graders at the beginning of the school year and again later in the fall of the same year. Dropout scale scoring keys would then be applied to both sets of answers in order to obtain test-retest reliability estimates.

7. It appears from the data gathered in this study that an important task for the school in the prevention of dropout is the encouragement of a sense of personal worth and a sense of "belonging" in children. Studies should be undertaken to investigate the effectiveness of various methods for providing meaningful interpersonal contacts between students and teachers, counselors and others who might be in a position to give this kind of positive assistance. Similar studies should be undertaken to find effective methods of helping students with other problems identified in this study.

8. Further studies should investigate the possibility of identifying potential dropouts through a combination of pupil data such as: grade



point average, intelligence quotient, type of courses selected, success or failure in certain courses, participation in extracurricular activities, part-time work, sociometric ratings, teacher ratings, socioeconomic level and extent of parents' education.

9. Research studies should be undertaken to attempt to identify potential dropouts at an earlier grade level. Ideally such identification would take place in the elementary grades so that a greater opportunity would be available for working with these children.

10. Research is needed which attempts to discover the relative effectiveness of various in-service training procedures which might be instituted to develop appropriate attitudes and "know how" among teachers, counselors and others who might be in a position to influence the day-to-day climate in which the potential dropout lives while he is at school.

## CHAPTER VI

### POSSIBLE CLINICAL IMPLICATIONS OF THE DATA

The primary purpose of this study was to identify certain personality factors which were common to pupils who dropped out of school but differed from those of pupils who stayed in school.

Chapter IV was devoted to a summary and analysis of the statistical findings. Chapter V contained conclusions based on these findings and presented suggestions for additional research. This chapter contains a discussion of some possible implications arising from the findings in Chapter IV that could provide a more complete understanding of the high school dropout than is possible at the present time.

Many impressions of the dropout's personality have been gained from this study of the differences in responses to certain Minnesota Counseling Inventory items by groups of dropouts and graduates. In order to present these impressions in a meaningful way, it was necessary to have some method of organizing different personality characteristics covered in the MCI. For this purpose, categories of items developed by Berdie and Layton<sup>1</sup> were used. These are based on a similarity of individual item content, and are unpublished at the present time. The

---

<sup>1</sup> Dr. Ralph F. Berdie, Director, Student Counseling Bureau, University of Minnesota, Minneapolis, Minnesota; and Dr. Wilbur L. Layton, Head of the Psychology Department, Iowa State University, Ames, Iowa; Co-authors of the Minnesota Counseling Inventory.

individual MCI items feed into these major categories, thus providing a descriptive picture of certain categories of people who have taken the Inventory.

## I. LIMITATIONS

There are certain limitations which must accompany a discussion of this type. The discussions in the chapter should not be construed by the reader to be conclusions drawn strictly from the data. Those are found in Chapter V.

Generally speaking, the following interpretations result from regrouping of the responses of high school dropouts to items on the Minnesota Counseling Inventory. The reader can see that the categories often leave too few items for assurance of adequate reliability. Nevertheless, when one examines the regrouped items, he gains certain impressions about the personality characteristics of dropouts. This author's impressions are the substance of this chapter.

Although some general indications of the dropout personality may be gleaned from the grouping of responses in this chapter, some pitfalls are present in applying this information to a particular child. Such an application of these descriptions could be very misleading in terms of the complexity of personality structure for any one individual.

A further caution in describing dropouts is that the MCI item responses are not necessarily descriptive of dropout personality as such. They may indicate, instead, merely how the dropout tends to react to the questions rather than how he reacts to real life situations.

## II. CATEGORIES USED IN DESCRIBING PERSONALITY CHARACTERISTICS

Categories proposed by Berdie and Layton which regroup MCI items on the basis of item content are the basis for this discussion of possible dropout personality characteristics. The categories suggested by the MCI authors are the following:

1. Task Orientation - 5 items
2. Sex and Love - 6 items
3. Joie de Vivre - 14 items
4. Family: Home - 13 items
5. Family: Parents - 25 items
6. Family: General - 11 items
7. Sociability: Reactions to Interpersonal Relationships - 21 items
8. Sociability: Group Behavior - 18 items
9. Sociability: Party Behavior - 13 items
10. Sociability: General - 17 items
11. Sociability: General Behavior - 25 items
12. Health: General Health Condition - 11 items
13. Health: Somatics, Specific Complaints - 28 items
14. Health: Sleep Problems - 5 items
15. Health: Fatigue, Listlessness and Appetite - 6 items
16. Health: Head Troubles - 6 items
17. Self-confidence - 19 items
18. Psychotic: Emotional Strain - 8 items
19. Psychotic: Paranoid Schizophrenia - 8 items

- 20. Psychotic: Mental Functioning - 14 items
- 21. Emotionality: Anxiety - 11 items
- 22. Emotionality: Mood and Morale - 13 items
- 23. Emotionality: Excitability and Instability - 13 items
- 24. Psychopathy: Guilt - 5 items
- 25. Psychopathy: Mores and Moral Behavior - 13 items
- 26. Psychopathy: Hostility and Mistrust - 19 items
- 27. Psychopathy: Non-conforming Behavior - 8 items

### III. POSSIBLE DROPOUT PERSONALITY CHARACTERISTICS

In the following discussion, responses of dropouts are compared with expected or typical responses for the category indicated. The reader should be aware that some categories are expressed in a positive direction, such as the category "Self-Confidence," while others are expressed in a negative direction, such as the category "Family." The former, then, contains expected category responses which indicate possession of self-confidence, while expected responses for the latter indicate family discord and disharmony.

Not all of the 27 categories have been included for discussion. The 18 categories discussed here are those describing personality characteristics more frequently found in the dropouts than in the graduates. It should be emphasized that no statistical interpretations are being applied to the Berdie and Layton categories. The groups of items chosen for discussion are those which appeared to have a preponderance of items to which dropouts responded differently than did graduates.

Tables were prepared listing each item in each of the 18 categories under discussion. These tables show the statistical significance of response differences made between dropouts and graduates. They are found in Appendix H. These tables give an "expected response" of "true" or "false" to each item, along with responses more often made by dropouts than by graduates in this study.

#### Joie de Vivre (Appendix H, Part I)

Persons whose responses fit this category tend to experience real joy in living. They give the impression that life is worthwhile, that life is interesting and that they find happiness in living. Such persons probably have a good deal of energy, and experience a zest for living.

Items in the category Joie de Vivre were often answered differently by dropouts and graduates. The responses made by dropouts were more often opposite to the expression of "joy for life and living." This was particularly true for females, but also for males to some extent. Dropouts, particularly girls, appeared to view life as less worthwhile and less of a happy experience from day to day than did graduates. They seemed to find life less interesting, challenging, and rewarding. Dropouts appeared to question the real concern that other people had for them. Item No. 175 ("I get all the sympathy I should" - False) brought out rather strongly the dropout's feeling that others did not show enough concern for him.

The dropout's lack of zest for living may be related to the area of sociability, which is the next area for discussion. Three of the five

categories relating to sociability will be discussed. Each of these categories is keyed in a positive direction so that scores agreeing with category responses indicate favorable relationships with other people in a variety of settings.

Sociability: Reactions to Interpersonal Relationships (Appendix H, Part II)

Expected category responses tend to describe people who are confident and well-poised in their relationships with other people, and who seem to enjoy such interpersonal relationships.

The responses from this study seemed to indicate that the items in this category differentiated between female groups but not between male groups. Compared with girl graduates, girl dropouts more often appeared ill at ease in meeting other people, and less poised in these situations.

Sociability: Group Behavior (Appendix H, Part III)

Persons whose responses agree with expected category responses tend to be sure of themselves, and may find it pleasant and easy to be in group situations. These people tend to feel self-assured and are less apt to be afraid of group situations where they are the center of attention.

It appeared from item responses that both male and female dropouts tended to feel more uneasy and unsure of themselves in groups than did graduates. Dropouts appeared to experience more difficulty and tension when with groups of people. A number of items referred to specific school and classroom situations. Items 115, 154, 293 and 353 bring out

rather clearly that dropouts more often appeared to experience self-consciousness, embarrassment and a general feeling of fear and insecurity when in group situations.

Sociability: General (Appendix H, Part IV)

This category reflects feelings and attitudes toward social activities and social gatherings. People whose scores are in agreement with expected category responses enjoy social activities and social contacts with other people. They enjoy visiting, entertaining, and mixing with others.

For boys there were few differences between dropouts and graduates in this category. However, some clues were present as to how girls tended to feel about themselves as participants in social life and social affairs. Girl dropouts, more frequently than girl graduates, indicated that they did not enjoy being in groups nor did they enjoy taking part in social affairs involving many people. Items 212, 344, and 354 particularly represent this feeling on the part of girl dropouts.

In summary, when looking over the three categories on sociability, this writer got the impression that girl dropouts, when compared with girl graduates, were less interested in social activities, perhaps because they experienced more discomfort and insecurity when with other people in social situations.

Family: Home (Appendix H, Part V)

The person whose answers are in agreement with expected category responses views his home as a stressful, unhappy place where there is often lack of real understanding and affection.



Dropouts, more than graduates, often saw their homes in this light. Both boy and girl dropouts, more than graduates, seemed to view their homes as unpleasant places which lack love and affection, and lack concern for and understanding of the child. The pronounced differences in typical graduates and dropout responses gave the impression that the feeling of dissatisfaction was quite pronounced for dropouts. The desire to leave home or to run away was brought out forcefully in Items 148, 155 and 327. Other individual items which highlighted the dropout's unhappiness and discontent with his home were Items 128, 231, 294, 309 and 316.

Family: Parents (Appendix H, Part VI)

Responses which are in agreement with the expected category response express dissatisfaction and disappointment with parents. Much of this dissatisfaction centers around the parents' expectations and ideas which are in conflict with the child's.

The responses suggested that both boy and girl dropouts looked upon their parents with some negative feelings. Experiences in the home also tended to be negative. One gets the impression that dropouts often lived in homes where a good deal of friction existed between parents and children, as was particularly brought out in Items 94, 118, 326, 341 and 351. There were more frequent conflicts of ideals and values, and the children resented the parents' interferences in their lives. Some of this resentment may have stemmed from parents' interfering with the children's selection of friends (Items 19 and 218).

There appeared to be a more frequent lack of real understanding and communication between the parent and the child in the dropout's home, as was evidenced in Items 69, 270 and 332.

Family: General (Appendix H, Part VII)

While the preceding section dealt with reactions to parents, this category deals with feelings toward all members of the family. Feelings about parents are also included here, but the total family situation is the focal point. Students whose scores are in agreement with the expected category response have negative feelings toward members of their families. Companionship, trust and mutual feeling for one another as members of family units are often lacking.

Although female dropouts expressed greater conflicts in this category of the family than did males, both sexes expressed ambivalent and negative feelings toward the family. Trust, love and companionship were not as prevalent as in other families (Items 189 and 288). Family obligations were looked upon as a handicap (Item 331).

In summarizing the three categories relating to the family, it would appear that the feeling content of these three categories reinforced each other. The dropout often tended to see his home as a place where much disagreement and friction existed and where understanding on the part of parents and other family members was lacking. Throughout these categories there was a tone of general disappointment and unhappiness, with the feeling that smooth communications did not exist between parent and child. Some of this stemmed from the expectations of parents.

Self-confidence (Appendix H, Part VIII)

Persons whose responses fit this category generally experience a rather strong positive feeling about themselves as persons. They meet difficulties, discouragements and crises as challenges. They tend not to view failure as a threat. They are more confident of their own ability to do things, and are willing to try without giving up quickly.

Both male and female dropouts, when compared with graduates, tended to be more uncertain of themselves and of their own abilities to do things. They tended to be hesitant and unsure of self. They often experienced difficulty facing up to situations which looked difficult. These characteristics were brought out most strongly in Items 70, 109, and 280.

Emotionality: Anxiety (Appendix H, Part IX)

This category describes people who are generally tense and worried. They feel fearful and insecure, and lose their limited self-confidence quite easily. Their worrying tends to be generalized into many areas of their lives and frequently interferes with normal relationships they would like to experience.

Male dropouts did not seem to experience undue anxiety. Female dropouts, however, appeared to fit the category to a degree. They saw themselves as more tense and brooding than their peers. They probably worried about many things in life and experienced a good deal of fear and uneasiness in their day-to-day contacts.

Emotionality: Mood and Morale (Appendix H, Part X)

This category describes persons who frequently are depressed and "blue." Such persons often feel miserable, useless, alone, unhappy and discouraged.

Dropouts seemed to fit this description--girls more than boys. School dropouts, when compared with graduates, were more easily discouraged and depressed, as indicated in Items 40, 54 and 77. They tended to be lonesome, alone and unhappy much of the time (Items 58, 117, 162 and 269).

Psychotic: Emotional Strain (Appendix H, Part XI)

The expected category responses in this section reflect a feeling of overriding futility about life and the future. A person who meets this description frequently feels that life is such a strain that he feels like giving up.

In this study, the descriptions relating to emotional stress seemed especially applicable to girl dropouts, but also to boys in a lesser degree. Perhaps there was some of the same feeling of emotionality expressed in the two preceding categories. In addition, the general impression gained was that dropouts experienced a feeling of futility and often felt like giving up (Items 153, 180 and 220).

Psychotic: Paranoid Schizophrenia (Appendix H, Part XII)

The eight items in this category describe the person who has experiences which are out of the ordinary, such as having peculiar thoughts, hearing strange things, and having other peculiar experiences which he

finds difficult to explain. He may have some suspicion about his relationships with other people.

Dropouts' answers to the items appeared to correspond to the expected category responses. Suspicion, strange experiences, the presence of strange and peculiar thoughts, and hearing strange things seemed to be more frequently mentioned by dropouts than graduates (Items 216, 229, 245, 249, 262 and 298). These responses appeared to be more closely associated with girl dropouts than boy dropouts.

#### Psychotic: Mental Functioning (Appendix A, Part XIII)

Respondents who fit this category feel they have a hard time concentrating on a task. They often have concerns about the mind, wondering if it is functioning as it should. Not only do they have trouble keeping their minds on a task, but at times they are concerned about losing their minds.

Dropout boys and girls seemed to show more concerns about the functioning of the mind than did the graduates. They were bothered by difficulties with concentration and keeping their minds on a task at hand, as was expressed in Items 8, 45, 261 and 285. They tended to see themselves as daydreamers. Item 125 showed the dropout's concern for not being able to understand reading material as well as he formerly did.

#### Psychopathy: Hostility and Mistrust (Appendix H, Part XIV)

People whose responses fit this category experience considerable frustration in their lives. This frustration is usually brought about by outside influences which prevent attainment of some needed gratification,

or which restrict free activity, or which cause painful injury either to the body or to the self-esteem. There is generally a feeling of aggressiveness with accompanying feelings of hostility toward other people. In this category the feeling of wanting to hurt, smash or destroy is often felt. Mistrust of others is often present.

Greater hostility and mistrust among male and female dropouts than among graduates seemed to be indicated in the responses. Dropouts tended to have stronger urges to violate codes and conventions of society through aggressive acts. Items 135, 210, 219 and 258 indicate that this may have taken the form of wanting to hurt someone, break things or do other harmful acts. Dropouts did not necessarily do these things, but seemed to have the urge to do them. Suspicion and a lack of faith and trust in other people appeared to be present, as expressed in Items 96, 116, 227, 266, 325 and 346.

Psychopathy: Guilt (Appendix H, Part XV)

In this category the feeling of self-contempt is prominent. Persons who score high on this group of items feel that they have done wrong things and have not lived the right kind of life. For this they are remorseful and tend to blame themselves.

Even from the small number of items in this category it would appear that dropout males and females had more concerns relating to guilt than was true for graduates. The dropouts seemed to be more concerned about having done wrong things and felt remorse because of the kind of life they had been living. Item 253 is particularly prominent in this regard.



Health: General Health Condition (Appendix H, Part XVI)

Students who score high in this category show considerable concern about their health. They often feel that their health has not been as good as that of people in general, and they are quite concerned about illness and disease.

Female dropouts and male dropouts varied considerably in their responses to category items. Whereas the male dropouts tended to answer these items much the same as graduates, female dropouts tended to show greater concerns for health than did male dropouts and male and female graduates. Female dropouts appeared to have had experiences which indicated to them that their health was questionable. As various items indicated, they did not as frequently see themselves as possessing a healthy body, and they expressed some concerns about future illness.

Health: Somatics, Specific Complaints (Appendix H, Part XVII)

Expected category responses describe persons who are able to identify more frequent, specific experiences which result in doubts about their health. Complaints related to many different parts of the body are included in this category. Particular sensitivities, pain, feelings of weakness and experiences of poor body or muscular control are often involved.

Health complaints seemed to be more characteristic of female than male dropouts, although they appeared to be somewhat associated with dropouts generally. Items 173, 244, 248, 265 and 305 identified some health complaints as being more common to dropouts than graduates:



malfunctions of the body, nervousness, feelings of weakness and dizziness, sensitivity to light and sound, and poor body and muscle control.

Health: Head Troubles (Appendix H, Part XVIII)

While the preceding category dealt with various kinds of health complaints, this one deals specifically with problems or complaints which involve the head. There are relatively few items in the category, but all of them deal with headaches or unusual feelings in the throat or head.

In this study it appeared that male and female dropouts, more than graduates, experienced pains described as headaches and shooting pains in the head.

IV. SUMMARY OF POSSIBLE DROPOUT PERSONALITY CHARACTERISTICS

In applying Berdie and Layton's categories to the study it was seen that more categories seemed to be descriptive of dropout girls than of dropout boys. Thus, more of the personality characteristics are descriptive of girl dropouts than boy dropouts.

Although there were some differences between the personality characteristics of male dropouts and female dropouts, some of the characteristics described both sexes.

In the following paragraphs possible personality characteristics are summarized.

Boys and Girls

Perhaps the most pronounced differences in dropouts and graduates

were seen through the test items in categories dealing with the family. Male and female dropouts more often described their homes as unpleasant, and lacking in understanding, love and affection. Friction frequently existed between the dropouts and their parents and other family members. Lines of communication had often broken down. The dropout appeared to resent his parents. From the study one gets the feeling that a strong under-current of dissatisfaction existed relative to home and family relationships.

The categories dealing with social life and social affairs appeared to be particularly descriptive of girl dropouts. Both boys and girls, however, appeared insecure and experienced considerable tension in group situations. Responses to a number of MCI items referring specifically to school and classroom situations conveyed a feeling of uneasiness and "not fitting in."

Boy and girl dropouts appeared to lack self-confidence in many life situations. They seemed concerned about their lack of ability to concentrate. Feelings of guilt were more frequently present in dropouts than in graduates. There were stronger feelings of hostility and mistrust, with more frequent feelings of wanting to violate society's codes through aggressive acts such as breaking things or hurting someone.

Specific health complaints such as nervousness, dizziness, weakness, and head pains were more common among the dropouts. Both boy and girl dropouts described these complaints, but the boys did not seem as deeply concerned about the fact that they had these symptoms.



Girls Only

Some characteristics appeared to be present in girl dropouts but not in boys. Feelings and attitudes towards social life and social affairs were especially noticeable. Girl dropouts appeared to be ill at ease in social situations and perceived themselves as shy, withdrawn and lacking poise. They appeared uninterested in social life and social affairs and did not seem to enjoy such activities. A good deal of discomfort seemed to be associated with social affairs.

Another difference between boy and girl dropouts was the degree to which they experienced anxiety. Girls more frequently described themselves as tense, anxious, brooding and worrying.

In the area of health, girl dropouts tended to be somewhat more concerned about their health than were the boy dropouts or the boy and girl graduates.

Girls to a Greater Extent than Boys

A number of characteristics seemed to apply to both boy and girl dropouts, but applied more to the girls than to the boys. One such characteristic was that girl dropouts appeared to show little zest for living, with general feelings of unhappiness in their lives. This characteristic also appeared to be true for boy dropouts but was not as pronounced.

Boy dropouts showed some concerns for their feelings of moodiness, low morale and emotional strain. However, girl dropouts appeared to have even stronger feelings and concerns in these areas. They appeared

to be more easily discouraged and depressed, and felt more alone and useless than boy dropouts or boy and girl graduates. Girl dropouts tended to be suspicious of others, suspected that they were being talked about, and felt that they had strange experiences and thoughts. These feelings were also present in boy dropouts, but to a lesser extent than in girl dropouts.

#### Boys Only

In this study there were no categories which seemed to describe boy dropouts exclusively. As previously stated, boy dropouts tended to show many of the same characteristics as girl dropouts, but often to a lesser degree. These characteristics have been discussed under other headings in this section.

### V. SUMMARY

Chapter VI has discussed some possible personality characteristics of male and female dropouts derived from this study.

Berdie and Layton's categories of MCI items were used for grouping related item content. This enabled the writer to provide a more comprehensive discussion of the personality characteristics of dropouts, as interpreted through their MCI item responses.

It was pointed out that there are certain serious limitations to a discussion such as the one presented in this chapter. This author stressed that the intent of Chapter VI was to present possible interpretations and implications arising from the data, which were not

statistical findings or conclusions as such. It is hoped that these impressions will help high school personnel identify and better understand potential dropouts, and also make it possible for others to more easily identify those aspects of the school dropout problem which are worthy of further study and research.

## BIBLIOGRAPHY

.

- Adler, Alfred. "The Fundamental Views of Individual Psychology," International Journal of Individual Psychology, 1935, 1, 5-8.
- Allen, Charles M. Combating the Dropout Problem. Chicago: Science Research Associates, 1956. 47 pp.
- Arnholter, Ethelwyne G. "School Persistence and Personality Factors," Personnel and Guidance Journal, 35:107-109, October, 1956.
- Barber, Bernard. Social Stratification: A Comparative Analysis of Structure and Process. New York: Harcourt, Brace and Company, 1957.
- Barko, Naomi. "Dropouts to Nowhere," Reporter, 26:34-36, March 29, 1962.
- Becker, Howard S. "Social Class Variation in the Teacher-Pupil Relationship," Journal of Educational Sociology, 25:451-65, 1952.
- Bedoian, Vagharsh H. "Social Acceptability and Social Rejection of the Underage, At-age, and Overage Pupils in Sixth Grade," Journal of Educational Research, 47:513-520, March, 1954.
- Bell, Howard. Youth Tell Their Story. Washington, D.C.: American Council on Education, 1938. 273 pp.
- Berdie, Ralph F. and Layton, Wilbur L. Minnesota Counseling Inventory. New York: The Psychological Corporation, 1953.
- \_\_\_\_\_. Manual for the Minnesota Counseling Inventory. New York: Psychological Association, 1957.
- \_\_\_\_\_. "Research on the Minnesota Counseling Inventory," Journal of Counseling Psychology, Volume 7, No. 3, 1960.
- Berston, H. M. "The School Dropout Problem," Clearing House, 35:207-10, December, 1960.
- Bettelheim, Bruno. "Roadblocks to Learning," NEA Journal, 52:23-25, March, 1963.
- Bledsoe, Joseph C. "An Investigation of Six Correlates of Student Withdrawal from High School," Journal of Educational Research, 53:3-6, September, 1959.
- Bolmeier, Gerald. Some Sociological Factors Related to Educational Progress and Personality Development. Paper presented to Administrative Council, Minnetonka Public Schools, Minnesota, June 12, 1962.



- Bond, T. J. "The School Dropout Problem," Bulletin of the National Association of Secondary-School Principals, 46:180-184, September, 1962.
- Bowman, Paul H., and Matthews, Charles V. Motivations of Youth for Leaving School. U. S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Program, Project No. 200. Quincy, Ill.: University of Chicago, Quincy Youth Development Project, September, 1960. 137 pp.
- Brown, F. G. "Measured Personality Characteristics of Liberal Arts College Freshmen." Unpublished doctoral dissertation, University of Minnesota, 1958.
- . "Identifying College Dropouts with the Minnesota Counseling Inventory," Personnel and Guidance Journal, 39:280-282, December, 1960.
- Cassel, Russell N., and Coleman, Jack C. "A Critical Examination of the School Dropout, Reluctant Learner, and Abler Non-College Student Problem," Bulletin of the National Association of Secondary-School Principals, 26:60-65, November, 1962.
- Cattell, R. J. Personality and Motivation Structure and Measurement. Yonkers-on-Hudson: World Book, 1957.
- Chapple, Dorothy S. The School Dropout: An American Calamity. New York: Birk and Company, 1963.
- Checketts, Keith T. A Comparison of Low Achieving and High Achieving Students on the Minnesota Counseling Inventory. Mimeograph
- Cohen, Eli E. How School People Can Help the Dropout. New York: National Committee on Employment of Children and Youth, 1960. A speech delivered on August 26, 1960 before a meeting of the St. Louis Board of Education. Mimeograph
- Coleman, James S. The Adolescent Society. New York: The Free Press of Glencoe, 1961.
- Conant, James B. Slums and Suburbs. New York: McGraw-Hill, 1961. Conant is chairman of the Conference on Unemployed and Out-of-School Youth in Urban Areas, National Committee for Children and Youth, Washington, D.C.
- Cook, Edward S., Jr. "An Analysis of Factors Related to Withdrawal from High School Prior to Graduation," Journal of Educational Research, 50:191-196, November, 1956.

- Davis, Allison. Social-Class Influences on Learning. Cambridge: Harvard University Press, 1948. 100 pp.
- Davis, Donald A. "An Experimental Study of Potential Dropouts," Personnel and Guidance Journal, 40:799-802, May, 1962.
- Dillon, Harold J. Early School Leavers: A Major Educational Problem. New York: National Child Labor Committee, 1949. 94 pp. A study of dropouts in five midwestern cities: Jackson and Lansing in Michigan, Cleveland and Cincinnati in Ohio and Indianapolis, Indiana.
- Dresher, Richard H. "Factors in Voluntary Drop-Outs," Personnel and Guidance Journal, 32:287-89, January, 1954.
- Edberg, George. A Guide for the Study of Holding Power in Minnesota Secondary Schools, Bulletin No. 21. St. Paul: State Department of Education, 1952.
- Edwards, A. L. Edwards Personal Preference Schedule. New York: Psychological Corporation, 1957.
- Epps, Margaret W., and Cottle, William C. "Further Validation of a Dropout Scale," Vocational Guidance Quarterly, 7:90-93, Winter, 1958-59.
- Evraiff, William. "How 'Difficult' Are our Drop-outs?" Bulletin of the National Association of Secondary-School Principals, 41:212-218, February, 1957. Dropouts in Fresno and Stockton, California.
- Fine, Thomas W. "Student Retention in the Junior High School," Bulletin of the National Association of Secondary-School Principals, 45:84-85, November, 1961.
- Fink, Donald D. "The Efficiency of Certain Criteria in Predicting School Dropout," Unpublished dissertation for Ed.D., Michigan State University, 1962.
- First, Joan M. "Dropouts," Michigan Education Journal, 38:250-253, November 1, 1960.
- Fromm, Erich. The Sane Society. New York: Rinehart and Company, Inc., 1955.
- Giese, Donald J. "I Was a High School Dropout," Reader's Digest, 79:203-207, December, 1961.

- Golden Anniversary White House Conference on Children and Youth.  
Recommendations--composite report of forum findings, March 27-  
April 2. Washington, D.C.: Government Printing Office, 1960.
- \_\_\_\_\_. Reference Papers on Children and Youth. Washington, D.C.:  
Government Printing Office, 1960.
- Gough, H. G. California Psychological Inventory. Palo Alto: Consulting  
Psychologists Press, 1957.
- Governor's Conference on Children and Youth, Minnesota. The Youth  
Employment Picture in Minnesota. Minneapolis: April 23-24, 1962.  
Mimeograph.
- Gragg, William Lee. "Factors Which Distinguish Dropouts from Graduates,"  
Occupations, 27:457-459, April, 1947. Dropouts in Ithaca,  
New York and New Haven, Connecticut.
- Grant, W. Vance. "Holding Power of U. S. Schools Rises," School Life,  
45:35, November-December, 1962.
- Greene, Bert I. "Dropouts and the Elementary School," National Elementary  
Principal, 42:52-54, November, 1962.
- Guilford, J. P. Fundamental Statistics in Psychology and Education.  
New York: McGraw-Hill Book Company, 1956.
- Haller, A. O. and Sewell, W. H. "Farm Residence and Levels of Educational  
and Occupational Aspiration," American Journal of Sociology,  
62:407, January, 1957.
- Harris, Dale B. "How Children Learn Interests, Motives, Attitudes,"  
Learning and Instruction. Nelson B. Henry, ed., 49th Yearbook  
of the National Society for the Study of Education, Part I.  
1950, pp. 129-155.
- Hathaway, Starke R. and Monachesi, Elio D. Adolescent Personality and  
Behavior. Minneapolis: University of Minnesota Press, 1963.
- Hedrich, Vivian. "The High School Dropout Problem is in the Spotlight  
as Seattle Schools Join in Major Effort to 'Conserve' our Human  
Resources," The Seattle Times, July 24, 1960, pp. 4-5 (Sunday  
Magazine Section).
- Hoffmann, Banesh. The Tyranny of Testing. New York: Thomas V. Crowell  
Company, 1962.

Hollingshead, August B. "Leaving School," Elmtown's Youth. New York: John Wiley and Sons, 1949, pp. 329-59.

Horney, Karen. Our Inner Conflicts. New York: W. W. Norton and Company, Inc., 1945.

Hoyt, C. J. "Test Reliability Estimated by Analysis of Variance," Psychometrika, 3:153-160, 1941.

\_\_\_\_\_. Relations of Certain Correlations to Variance Ratio Estimates of Test Reliability. Minneapolis: University of Minnesota. Mimeograph.

Hull, J. D. and Cummings. "Discovering the Extent to Which Youth Needs Are Being Met," National Society for the Study of Education Yearbook, 1:62, 1952.

Indianapolis Public Schools. "Why Indianapolis High School Students Leave High School," The Researcher, 4:1-12, November, 1959.

Jennings, Jeannette. "Dropouts in High School," National Association Women Deans and Counselors Journal, 22:37-40, October, 1958.

Katzell, Raymond A. "Cross-Validation of Item Analysis," Educational and Psychological Measurement, 11:16-22, 1951.

Kelley, Earl C. "The Dropout--Our Greatest Challenge," Educational Leadership, 20:294-296, 318, February, 1963.

Kohler, Mary C. "We Waste a Million Kids a Year," Saturday Evening Post, March 10, 17, 24, 1962.

Korner, Georgia M. "A Study of Dropouts from the Class of 1960 at St. Louis Park High School." Unpublished Master's thesis. University of Minnesota, 1962. 208 pp.

Kristan, Carl V. "Meeting the Needs of School Drop-Outs," Chicago Schools Journal, 44:119-122, December, 1962.

Kuhlen, Raymond G. and Collister, E. Gordon. "Sociometric Status of Sixth and Ninth Graders Who Failed to Finish High School," Educational and Psychological Measurement, 12:632-637, 1952.

Kvaraceus, William C. and Ulrich, W. E. "Providing Help through Curriculum Adjustments," Delinquent Behavior--Principles and Practices, Vol. II, pp. 84-133. Washington, D.C.: National Education Association, 1959.

- Lawshe, C. H. and Baker, P. C. "Three Aids in the Evaluation of the Significance of the Difference between Percentages," Educational and Psychological Measurement, 10:263-269, 1950.
- Layton, Warren K. Special Services for the Dropout and the Potential Dropout, Publ. No. 408. New York: National Child Labor Committee, 1952. 16 pp.
- Lichter, Solomon O., and others. The Drop-outs. Glencoe, Ill.: Free Press of Glencoe, 1962.
- Liddle, Gordon P. "Psychological Factors Involved in Dropping Out of School," High School Journal, 45:276-80, April, 1962.
- Lipset, Seymour M. and Bendix, Richard. Social Mobility in Industrial Society. Berkeley: University of California Press, 1959.
- Livingston, A. Hugh. "High School Graduates and Dropouts--A New Look at a Persistent Problem," School Review, 66:195-203, June, 1958. Dropouts from the class of 1956 of an Illinois city of 45,000.
- \_\_\_\_\_. "Key to the Dropout Problem: The Elementary School," Elementary School Journal, 59:267-70, February, 1959.
- Mannino, Fortune V. "Family Factors Related to School Persistence," Journal of Educational Sociology, 35:193-202, January, 1962.
- McConnell, T. R. "The Diversification of American Higher Education: A Research Program," Educational Recreation, 38:300-315, 1957.
- McCreary, William M. and Kitch, Donald E. Now Hear Youth. Bulletin of the California State Department of Education, Vol. 22. Sacramento: State Department of Education, 1953. 69 pp.
- McQueen, Mildred. Identifying and Helping Dropouts. Chicago: Science Research Associates, 1961.
- Merwin, Jack C. A Simple Graphic Procedure for Studying the Effectiveness of Predictors of College Success. Student Counseling Bureau, University of Minnesota. Mimeograph.
- \_\_\_\_\_. A Nomogram for Assessing Probability of Success. Student Counseling Bureau, University of Minnesota. Mimeograph.
- Michigan Department of Public Instruction, State Curriculum Committee on Holding Power. "Quickie Kit" on School Holding Power, Publication No. 507. Lansing: the Department, 1960.

- Michigan Department of Public Instruction, Michigan Committee on School Holding Power. "Quickie Kit" on School Holding Power, Publication No. 507. Lansing: Michigan Department of Public Instruction, 1963. Revised.
- Minneapolis Public Schools. Progress Report on Minneapolis School Drop-out Study. Minneapolis: Division of Secondary Education, Department of Counseling, November, 1962. Mimeograph.
- Minnesota Department of Education. The Teacher and Guidance in Minnesota. St. Paul, 1961.
- \_\_\_\_\_. The Counselor's Handbook. St. Paul, 1962.
- Mosier, Charles L. "Problems and Designs of Cross-Validation," Educational and Psychological Measurement, 11:5-11, 1951.
- National Committee for Children and Youth. Social Dynamite. (A report of the conference on unemployed and out-of-school youth in urban areas.) Washington, D.C.: National Committee on Children and Youth, 1961. 265 pp.
- National Conference on Life Adjustment Education. Why Do Boys and Girls Drop Out of School and What Can We Do about It? Circular No. 269 of the Federal Security Agency, U.S. Office of Education. Washington, D.C.: Government Printing Office, 1950.
- \_\_\_\_\_. Improving School Holding Power. Circular No. 291 of the Federal Security Agency, U.S. Office of Education (February 1951). Washington, D.C.: Government Printing Office, 1951.
- National Education Association. High School Dropouts. Washington, D.C.: National Education Association, 1959. 24 pp.
- \_\_\_\_\_. School Dropouts. Washington, D.C.: The Association, Research Division Bulletin, August, 1961.
- \_\_\_\_\_. Project: School Dropouts. Washington, D.C.: The Association, April, 1963.
- Nelson, L. W., Hunt, P. R. and Cohen, E. E. "Dropout Problem: A Growing Educational Concern Today," Bulletin of National Association of Secondary-School Principals, 45:275-280, April, 1961.
- Office of Education. National Stay-in-School Campaign: Handbook for Communities. Washington, D.C.: U.S. Government Printing Office, Revised 1958.

- Penty, Ruth C. Reading Ability and High School Drop-Outs. New York: Teachers College, Columbia University, 1956. 93 pp.
- Plunkett, Margaret. School and Early Employment experiences of Youth: A Report on Seven Communities, 1952-1957. Bulletin of U.S. Bureau of Labor Statistics, No. 1277, August 1960. Washington, D.C.: Government Printing Office, 1960.
- Popper, Samuel H. (ed.). Today's Challenge: Tomorrow's Citizen. St. Paul: Board of Education, 1959.
- Porter, John W. "The Heart of the Dropout Problem: Early Identification," Michigan Education Journal, 40:362-65, 397, January 1, 1963.
- Putnam, John F. "Information about Dropouts: Terms and Computations," School Life, 45:27, May, 1963.
- Riessman, Frank. The Culturally Deprived Child. New York: Harper and Brothers, 1962.
- Ryan, W. C. "Mental Health Problems of School Leaving," Understanding the Child, 25:98, October, 1956.
- St. Paul Public Schools. Second Dropout Study, Publications No. 259. St. Paul, Minnesota: August, 1961.
- Sando, Rudolph F. "A Comparative Study of Early School Leavers," Unpublished doctoral dissertation, University of California, Berkeley, 1952.
- Schreiber, Daniel. "Higher Horizons," American Child, 43:12-15, March, 1961.
- \_\_\_\_\_. "The School Dropout--Fugitive from Failure," Bulletin of National Association of Secondary-School Principals, 46: May, 1962.
- \_\_\_\_\_. "The Dropout and the Delinquent: Promising Practices Gleaned from a Year of Study," Phi Delta Kappan, 44:215-21, February, 1963.
- \_\_\_\_\_, (ed). Guidance and the School Dropout. Washington, D.C.: National Education Association and American Personnel and Guidance Association, 1964.

- Schroeder, Paul Charles. "An Investigation of the Characteristics of Dropouts from St. Louis Park High School with Recommendations for Identifying and Holding Potential Dropouts." Unpublished Master's thesis, College of Education, University of Minnesota, 1956. 93 pp.
- Science Research Associates. "The Potential Dropout: How Can Schools Help Him?" Guidance Newsletter, November, 1957. Chicago: SRA, 1957.
- Segel, Davis. Frustration in Adolescent Youth: Its Development and Implications for the School Program, Bulletin of the U.S. Office of Education 1951 No. 1. Washington, D.C.: Government Printing Office, 1951.
- Sexton, Patricia Cayo. "Social Class and Pupil Turn-over Rates," Journal of Educational Sociology, 33:131-134, November, 1959.
- \_\_\_\_\_. Education and Income. New York: The Viking Press, 1961.
- Shibler, Herman L. "Attacking the Dropout Problem," National Education Association Journal, 44:24, January, 1955.
- Snepp, Daniel W. "Why They Drop Out: 8 Clues to Greater Holding Power," Clearing House, 27:492-494, April, 1953.
- Sorenson, Mourits A. "Low Ability Dropouts Versus Low Ability Graduates," Personnel and Guidance Journal, 39:144, October, 1960.
- Stetler, Henry G. Comparative Study of Negro and White Dropouts in Selected Connecticut High Schools. Hartford: Connecticut Commission on Civil Rights, 1959.
- Sullivan, Harry Stack. The Interpersonal Theory of Psychiatry. New York: W. W. Norton and Company, Inc., 1953.
- Swan, Lloyd. "Early Recognition of Potential Dropouts Helps Canton," School Management, 5:77-80, November, 1961.
- Tesseneer, R. A. and L. M. Tesseneer. "Review of the Literature on School Dropouts," Bulletin of the National Association of Secondary School Principals, 42:141-153, May, 1958.
- Thomas, R. J. "An Empirical Study of High School Dropouts in Regard to Ten Possibly Related Factors," Journal of Educational Sociology, 28:11, September, 1954.





- Tryon, Caroline and Henry, William E. "How Children Learn Personal and Social Adjustment," Learning and Instruction. Nelson B. Henry, (ed.) 49th Yearbook of National Society for the Study of Education, Part I, 1950, pp. 156-182.
- Ullmann, Charles A. "Teachers, Peers and Tests as Predictors of Adjustment," Journal of Educational Psychology, 48:257-267, May, 1957.
- United States Department of Labor, Bureau of Employment Security. Job Guide for Young Workers. Washington, D.C.: Government Printing Office, 1958.
- United States Department of Labor. Manpower--Challenge of the 1960's. Washington, D.C.: Government Printing Office, 1960.
- United States Department of Labor; U.S. Department of Health, Education, and Welfare, Office of Education; and U.S. Department of Defense. National Stay-in-School Campaign. Washington, D.C.: Government Printing Office, 1957.
- United States Department of Health, Education, and Welfare. The Dropout. Washington, D.C.: Government Printing Office, 1963.
- United States Office of Education, Federal Security Agency. Why Do Boys and Girls Drop Out of School, and What Can We Do about It? Circular No. 269. Washington, D.C.: Government Printing Office, 1950.
- University of the State of New York. Reducing the School Dropout Rate. Albany: State Education Department Bureau of Guidance, 1963.
- Walker, Helen M. and Lev, Joseph. Statistical Inference. New York: Henry Holt and Company, 1953.
- Warner, W. Lloyd, Havighurst, R. J. and Loeb, M. B. Who Shall Be Educated? New York: Harper Brothers, 1944.
- Watley, Donovan J. "The Minnesota Counseling Inventory and Identification of Institute of Technology Dropouts," Bulletin and Occupational Newsletter, 16:1-2, April 15, 1964.
- Wolfbein, S. L. "Transition from School to Work: A Study of the School Leaver," Personnel and Guidance Journal, 38:98, October, 1959.

Woody, Wilford and Cushman, C. L. "A Study of Continuance and Discontinuance," Journal of Educational Research, 30:183, November, 1936.

Woollatt, Lorne H. "Why Capable Students Drop Out of High School," Bulletin of the National Association of Secondary-School Principals, 45:1-8, November, 1961.

Young, J. M. "Lost, Strayed or Stolen," Clearing House, 29:89, October, 1954.

\_\_\_\_\_. "Can Counseling Reduce Dropouts?" Clearing House, 30:22, September, 1956.

## APPENDIX A

### Minnesota Counseling Inventory

# **MINNESOTA COUNSELING INVENTORY**

**RALPH F. BERDIE  
WILBUR L. LAYTON  
UNIVERSITY OF MINNESOTA**



**COPYRIGHT 1953. THE UNIVERSITY OF MINNESOTA. ALL RIGHTS RESERVED.**

**Published by  
THE PSYCHOLOGICAL CORPORATION, NEW YORK, N. Y.**

# MINNESOTA COUNSELING INVENTORY

The purpose of this booklet is to help you learn more about yourself. As you become better acquainted with yourself as a person, you will be able to plan more wisely and learn more effectively. Your teachers and counselors will be able to provide you with better teaching and wiser counseling as a result of your taking this inventory.

The following pages contain statements that are true for some people but not for others. The way you reply to these statements will help you find out more about yourself. Therefore, it will be to your advantage to answer each question honestly and thoughtfully. There are no right or wrong answers.

## Directions:

Read the first statement in the booklet and decide whether you think it is or is not true about you, then mark your answer on the separate answer sheet. If the statement is true or mostly true as applied to you, blacken the space on the answer sheet **above** the number that agrees with the number of the item. If the statement is false, or not usually true as applied to you, blacken the space on the answer sheet **below** the number that agrees with the number of the item.

Below is an example of the answer sheet. Item 1 is marked to indicate it is true. Item 2 is marked to indicate it is false.

### Section of Answer Sheet

T	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8
F	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a statement does not apply to you or if you don't know about it, make no mark on the answer sheet. However, answer all the questions you can. Leave as few as possible blank.

*Remember, give your own opinion about yourself. Answer the questions quickly and do not spend too much time on any one question.*

When you mark your answers on the answer sheet, be sure the number of the statement agrees with the number on the answer sheet. Make a heavy black mark and erase completely answers you wish to change.

**TRY TO ANSWER EVERY QUESTION.**

**BE SURE YOUR NAME IS ON THE ANSWER SHEET.**

**DO NOT MAKE ANY MARKS IN THIS BOOKLET.**

**USE THE SPECIAL PENCIL.**

Now turn the page and go ahead.

1. During the past few years I have been well most of the time.
2. My home is a very pleasant place.
3. I seem to make friends about as quickly as others do.
4. I get excited easily.
5. I am well poised in social contacts.
6. I enjoy the excitement of a crowd.
7. I get angry sometimes.
8. I find it hard to keep my mind on a task or job.
9. I am in just as good physical health as most of my friends.
10. I worry over possible misfortunes.
11. I suffer discomfort from gas in the stomach or intestines.
12. I would rather win than lose in a game.
13. My memory seems to be all right.
14. I have never been in trouble with the law.
15. I easily become impatient with people.
16. I have difficulty in getting rid of a cold.
17. I have periods in which I feel unusually cheerful without any special reason.
18. I find it easy to be the life of the party.
19. My parents have often objected to the kind of people I go around with.
20. I gossip a little at times.
21. I am subject to eye strain.
22. I have spells of the "blues."
23. I like to know some important people because it makes me feel important.
24. If a party is dull, I take the lead in pepping it up.
25. I find it easy to express my ideas.
26. I am embarrassed when meeting new people.
27. I dislike having people about me.
28. I enjoy many different kinds of play and recreation.
29. I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.
30. I dream frequently about things that are best kept to myself.
31. I resent having anyone take me in so cleverly that I have to admit he put one over on me.
32. At times I am all full of energy.
33. I drink an unusually large amount of water every day.
34. I frequently find myself worrying about something.
35. I am easily awakened by noise.
36. I feel at ease with people.
37. I seek to meet the important person present at a reception or tea.
38. I have colds.
39. I hardly ever notice my heart pounding and I am seldom short of breath.
40. I have been depressed because of low marks in school.
41. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.
42. I cross the street to avoid meeting people I know.
43. I get angry easily.
44. The members of my family are too curious about my personal affairs.
45. I cannot keep my mind on one thing.

46. At times I feel like swearing.
47. I lose self-confidence easily.
48. I find it very difficult to speak in public.
49. I am sure I get a raw deal from life.
50. I have never had a fainting spell.
51. I am sorry for the things I do.
52. I frequently have to fight against showing that I am bashful.
53. I like to flirt.
54. I feel just miserable.
55. I have been responsible for making plans and directing the actions of other people.
56. If I could get into a movie without paying and be sure I was not seen I would probably do it.
57. I do not like everyone I know.
58. I feel lonesome, even when I am with people.
59. I prefer to limit my social life to members of my own family.
60. I believe I am no more nervous than most others.
61. I feel self-conscious when volunteering to take part in games or other organized activities.
62. It is hard for me to keep a pleasant disposition at home.
63. I usually feel that life is worthwhile.
64. I take cold rather easily from other people.
65. I am troubled with the idea that people are watching me on the street.
66. I feel very self-conscious if I have to say something to start a conversation among a group of people.
67. I am embarrassed because of my lack of experience in social situations.
68. My parents treat me more like a child than a grown-up.

Go on to the next column

69. I feel that my parents are disappointed in me.
70. I seem to be about as capable and smart as most others around me.
71. I shrink from facing a crisis or difficulty.
72. Even when I am with people I feel lonely much of the time.
73. I feel self-conscious because of my personal appearance.
74. I think nearly anyone would tell a lie to keep out of trouble.
75. I have never been paralyzed or had any unusual weakness of any of my muscles.
76. I have often found people jealous of my good ideas, just because they had not thought of them first.
77. I have sometimes felt that difficulties were piling up so high that I could not overcome them.
78. My eyes are very sensitive to light.
79. I get upset easily.
80. I often think, "I wish I were a small child again."
81. Once in a while I think of things too bad to talk about.
82. I feel self-conscious when reciting in class.
83. My table manners are not quite as good at home as when I am out in company.
84. It has been necessary for me to have medical attention.
85. I do not have spells of hay fever or asthma.
86. No one seems to understand me.
87. Almost every day something happens to frighten me.
88. My teeth seem to need dental attention.
89. The sight of blood neither frightens me nor makes me sick.
90. Whenever possible I avoid being in a crowd.

Go on to the next page



91. I feel self-conscious with strangers.
92. I have a fairly good time at parties.
93. I dislike social affairs.
94. My parents too often expect me to obey them, now that I am grown up.
95. I do not mind meeting strangers.
96. Someone has it in for me.
97. I feel that I have often been punished without cause.
98. I do not mind being made fun of.
99. Peculiar odors come to me at times.
100. I worry too long over humiliating experiences.
101. I feel weak all over much of the time.
102. I am unusually self-conscious.
103. At times my mind seems to work more slowly than usual.
104. My parents would keep faith in me even though I could not find work.
105. I feel fatigued when I get up in the morning.
106. I cry easily.
107. I have little or no trouble with my muscles twitching or jumping.
108. While in trains, buses, etc., I often talk to strangers.
109. I feel like giving up quickly when things go wrong.
110. Life is a strain for me much of the time.
111. I often feel as if things were not real.
112. I have had to keep quiet or leave the house to have peace at home.
113. I seldom worry about my health.
114. I have never felt better in my life than I do now.
115. I may know the answer to a question, but fail when called upon because of fear of speaking before the class.
116. People say insulting and vulgar things about me.
117. I am happy most of the time.
118. My parents and family find more fault with me than they should.
119. At times I hear so well it bothers me.
120. If given a chance I could do some things that would be of great benefit to the world.
121. I have often met people who were supposed to be experts who were no better than I.
122. I work under a great deal of tension.
123. I envy the happiness that others seem to enjoy.
124. I am very seldom troubled by constipation.
125. I cannot understand what I read as well as I used to.
126. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."
127. My hardest battles are with myself.
128. I become nervous at home.
129. I find it hard to do my best when people are watching.
130. Ideas run through my head so that I cannot sleep.
131. I come to my meals without being really hungry.
132. I am quite often not in on the gossip and talk of the group I belong to.
133. At times I have fits of laughing and crying that I cannot control.
134. I feel very tired towards the end of the day.
135. At times I feel like picking a fist fight with someone.

136. I am likely not to speak to people until they speak to me.
137. I try to remember good stories to pass them on to other people.
138. I get mad easily and then get over it soon.
139. I know who is responsible for most of my troubles.
140. I am troubled by attacks of nausea and vomiting.
141. I have not lived the right kind of life.
142. No one seems to understand me.
143. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."
144. One (or both) of my parents is very nervous.
145. Sometimes my voice leaves me even though I have no cold.
146. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.
147. I like to take the first step in making friends.
148. I have had a strong desire to run away from home.
149. Criticism disturbs me greatly.
150. I consider myself a rather nervous person.
151. I find it hard to set aside a task that I have undertaken, even for a short time.
152. I get discouraged easily.
153. Most of the time I wish I were dead.
154. I hesitate to volunteer in class recitation.
155. At times I have very much wanted to leave home.
156. I have difficulty in starting a conversation with a person who has just been introduced.
157. I have very few quarrels with members of my family.

Go on to the next column

158. I like to meet new people.
159. I do not read every editorial in the newspaper every day.
160. I am worried about sex matters.
161. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.
162. Most of the time I feel blue.
163. Once in a while I put off until tomorrow what I ought to do today.
164. I have difficulty in starting to do things.
165. When I leave home I do not worry about whether the door is locked and the windows are closed.
166. I love to go to dances.
167. Many of my dreams are about sex matters.
168. In school I sometimes have been sent to the principal for cutting up.
169. I was ill much of the time during my childhood.
170. I enjoy social gatherings just to be with people.
171. I enjoy speaking before groups of people.
172. Criticism or scolding hurts me terribly.
173. I have never had a fit or convulsion.
174. I am able to recover quickly from social blunders.
175. I get all the sympathy I should.
176. Some particular useless thought keeps coming into my mind to bother me.
177. If given a chance I would make a good leader of people.
178. I have been quite independent and free from family rule.
179. I brood a great deal.
180. I certainly feel useless at times.

Go on to the next page

181. My judgment is better than it ever was.
182. My feelings are easily hurt.
183. Things go wrong for me from no fault of my own.
184. I am indifferent to people.
185. My parents fail to recognize that I am a mature person and treat me as if I were still a child.
186. I have difficulty in talking to most people.
187. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.
188. In walking, I am very careful to step over sidewalk cracks.
189. There is very little love and companionship in my family as compared to other homes.
190. I wish I were not so shy.
191. Most nights I go to sleep without thoughts or ideas bothering me.
192. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.
193. My daily life is full of things that keep me interested.
194. I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others.
195. During one period when I was a youngster I stole things.
196. People often disappoint me.
197. My worries seem to disappear when I get into a crowd of lively friends.
198. I have had periods when I felt so full of pep that sleep did not seem necessary for days at a time.
199. I have had no difficulty in keeping my balance in walking.
200. My family does not like the work I have chosen or the work I intend to choose for my life work.
201. I like to let people know where I stand on things.
202. I feel that it is certainly best to keep my mouth shut when I'm in trouble.
203. At times I have enjoyed being hurt by someone I loved.
204. I have been afraid of things or people that I know could not hurt me.
205. My parents expect too much from me.
206. I am certainly lacking in self-confidence.
207. I daydream.
208. My way of doing things is apt to be misunderstood by others.
209. I enjoy trying to persuade people to do things.
210. At times I feel like smashing things.
211. I get along as well as the average person in social activities.
212. I prefer to participate in activities leading to friendships with many people.
213. I am against giving money to beggars.
214. Sometimes when I am not feeling well I am cross.
215. I am troubled with feelings of inferiority.
216. I am sure I am being talked about.
217. I am easily embarrassed.
218. My parents have objected to the kind of companions I go around with.
219. At times I have a strong urge to do something harmful or shocking.
220. I don't seem to care what happens to me.
221. I have much difficulty in thinking of an appropriate remark to make in group conversation.
222. I like to study and read about things that I am working at.
223. I feel I must have many social contacts to be happy.
224. I forget right away what people say to me.
225. I am at ease with older people.

226. I have been disappointed in love.
227. If people had not had it in for me I would have been much more successful.
228. I sometimes tease animals.
229. I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me.
230. I have a good appetite.
231. I find less understanding at home than elsewhere.
232. I have periods of such great restlessness that I cannot sit long in a chair.
233. My father is my ideal of manhood.
234. It makes me feel like a failure when I hear of the success of someone I know well.
235. My conduct is largely controlled by the customs of those about me.
236. I find it difficult to start a conversation with a stranger.
237. Neither of my parents gets angry easily.
238. I have been absent from school because of illness.
239. I have shooting pains in my head.
240. At parties I am more likely to sit by myself or with just one other person than to join in with the crowd.
241. I meet strangers easily.
242. Once in a while I feel hate towards members of my family whom I usually love.
243. Often I can't understand why I have been so cross and grouchy.
244. I am almost never bothered by pains over the heart or in my chest.
245. I have strange and peculiar thoughts.
246. My relatives are nearly all in sympathy with me.
247. I have no dread of going into a room by myself where other people have already gathered and are talking.
248. My hands have not become clumsy or awkward.
249. I hear strange things when I am alone.
250. Neither of my parents has insisted on obedience regardless of whether or not the request was reasonable.
251. My sleep is fitful and disturbed.
252. I have disagreed with my parents about my choice of a life work.
253. Much of the time I feel as if I have done something wrong or evil.
254. I do not worry about catching diseases.
255. I find it hard to make talk when I meet new people.
256. I am afraid of losing my mind.
257. I am easily downed in an argument.
258. Sometimes I enjoy hurting persons I love.
259. I do not always tell the truth.
260. There is something wrong with my mind.
261. I have more trouble concentrating than others seem to have.
262. I have had periods in which I carried on activities without knowing later what I had been doing.
263. I do not blame a person for taking advantage of someone who lays himself open to it.
264. I am bothered by the feeling that things are not real.
265. Once a week or oftener I feel suddenly hot all over, without apparent cause.
266. I am sure I get a raw deal from life.
267. I refuse to play some games because I am not good at them.
268. It frightens me when I have to see a doctor about some illness.
269. I wish I could be as happy as others seem to be.
270. My parents seem too old-fashioned in their ideas.

271. Once a week or oftener I become very excited.
272. One or both of my parents has certain personal habits which irritate me.
273. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.
274. I am so touchy on some subjects that I can't talk about them.
275. I enjoy small children.
276. I have difficulty getting to sleep even when there are no noises to disturb me.
277. I have ups and downs in mood without apparent cause.
278. The actions of one or the other of my parents have aroused great fear in me.
279. I have often lost out on things because I couldn't make up my mind soon enough.
280. I have several times given up doing a thing because I thought too little of my ability.
281. When in a group of people I have trouble thinking of the right things to talk about.
282. I have headaches.
283. The things that some of my family have done have frightened me.
284. I am a good mixer.
285. Most any time I would rather sit and day-dream than do anything else.
286. I enjoy gambling for small stakes.
287. I become self-conscious readily.
288. I can trust the people in my family.
289. I find it necessary to watch my health carefully.
290. I am embarrassed by dirty stories.
291. People generally demand more respect for their own rights than they are willing to allow for others.
292. My speech is the same as always (not faster or slower, or slurring; no hoarseness).
293. In school I find it very hard to talk before the class.
294. I believe that my home life is as pleasant as that of most people I know.
295. At an important dinner, I would do without something rather than ask to have it passed.
296. I am apt to pass up something I want to do when others feel that it isn't worth doing.
297. I like parties and socials.
298. I have had very peculiar and strange experiences.
299. I have the time of my life at social affairs.
300. I wish I were not bothered by thoughts of sex.
301. My hands and feet are usually warm enough.
302. Much of the time my head seems to hurt all over.
303. I am nervous and ill at ease with most people.
304. I feel most contented at home.
305. I seldom or never have dizzy spells.
306. I think most people would lie to get ahead.
307. Lack of money has tended to make home unhappy for me.
308. Neither of my parents finds fault with my conduct.
309. I have felt that my friends have had happier home lives than I.
310. I find it easy to make friendly contacts with members of the opposite sex.
311. I like to mix with people socially.
312. I have few or no pains.
313. My eyesight is as good as it has been for years.
314. I participate easily in ordinary conversation.
315. I can be friendly with people who do things which I consider wrong.

316. There has been a lack of real affection and love in my home.
317. I find it easy to act naturally at a party.
318. I can read a long while without tiring my eyes.
319. I am eager to make new friends.
320. I enjoy entertaining people.
321. I feel I owe my greatest obligation to my family.
322. I am rather shy in contacts with people.
323. I feel that social affairs are not serious enough for me to enjoy.
324. Neither of my parents is easily irritated.
325. It is safer to trust nobody.
326. My parents and I live in different worlds, so far as ideas are concerned.
327. I have had a strong desire to run away from home.
328. I avoid people when it is possible.
329. I stay in the background at parties or social gatherings.
330. I frequently notice my hand shakes when I try to do something.
331. I feel that my family obligations are a great handicap.
332. I have felt that neither of my parents understands me.
333. There seems to be a lump in my throat much of the time.
334. I enjoy detective or mystery stories.
335. I feel embarrassed when entering a public assembly after everyone else has been seated.
336. Often I feel as if there were a tight band about my head.
337. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right.
338. I am indifferent to ordinary social contacts.
339. I take an active part in the entertainment at parties.
340. I do not tire quickly.
341. My parents have been unduly strict with me.
342. There have been family quarrels among my near relatives.
343. I like to read newspaper articles on crime.
344. I am annoyed by social activities.
345. I have very few headaches.
346. I commonly wonder what hidden reason another person may have for doing something nice for me.
347. I feel embarrassed when I must ask permission to leave a group of people.
348. I have disagreed with my parents about the way in which work around the house should be done.
349. I find it easy to have a good time at a party.
350. I hesitate to enter a room by myself when a group of people are sitting around the room talking together.
351. Neither of my parents criticizes me unjustly.
352. I have difficulty saying the right thing at the right time.
353. I get upset when a teacher calls on me unexpectedly.
354. I like to participate in many social activities.
355. I readily become one hundred per cent sold on a good idea.

Go on to the next column

END

## APPENDIX B

Summaries of Reports on Dropouts and Graduates from Participating Schools

# Appendix B, Part I

## Females

School Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status: (Incomplete information)
A 1959-60	41	4		1	1		
1958-59	47	3			5		
1957-58	34	4			1		
1956-57	41	6		1	2		
B 1958-59	81	15		1	2		
1957-58	73	10			3		
1956-57	66	14			3		
C 1959-60							
1957-58	24	1			2		
1956-57	18	2			1		
D 1959-60	3	1		1	2		
1958-59	7	1					
1957-58	7	1					
E 1959-60	11						
1958-59	9						
1957-58	8						
F 1958-59	37	4			5	1 - D	
1957-58	26	3	1		3		
1956-57	25	3			2		



Females (continued)

School	Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status; (Incomplete information)
G	1959-60	18	2			1		
	1958-59	8	3			1		
	1957-58	15	2					
	1956-57	14	3			2		
H	1959-60	194	11			27		1
	1958-59	234	13			29		
	1957-58	230	20		2	32	2 - D	
	1956-57	150	14		1	21		134
I	1959-60	9	2					
	1958-59	7	5					
J	1959-60	9	3			2		
	1958-59	19	1					
K	1959-60	13	2			1		
L	1959-60	15	1					
	1958-59	11	1					
M	1957-58	21	1			4		
	1956-57	27	6			1		

Females (continued)

School Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status: (Incomplete information)
N 1957-58	23						
1956-57	14	1		2	3		
O 1959-60	33	7		2	5		
1958-59	38	6			2		
P 1957-58	27	3			5		
1956-57	28	1			3		
Q 1959-60	79	10		5	3	1 mental inst.	1
R 1956-57	63	5			13		1
S 1957-58	79	8			5		

# Appendix B, Part II

## Males

School	Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status: (Incomplete information)
A	1959-60	43	8			2		
	1958-59	54	6			4		
	1957-58	40	3			4		
	1956-57	22	1			6		
B	1958-59	68	14			3		
	1957-58	77	9			1		
	1956-57	85	14			1		
C	1959-60				Spring Testing	2		
	1957-58	16	5					
	1956-57	17	2					
D	1959-60	10	2					
	1958-59	10						
	1957-58	11	2			1		
E	1959-60	17	2		1	1		
	1958-59	7						
	1957-58	14	4					
F	1958-59	26	2	1		4		
	1957-58	27	4	3		1		
	1956-57	34	4			2		



Males (continued)

School	Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status: (Incomplete information)
G	1959-60	9	2			2		
	1958-59	10	1					
	1957-58	11						
	1956-57	10	1			1		
H	1959-60	192	25		1	21	1 - D	1
	1958-59	197	22		4	22		
	1957-58	197	33		1	23	1 - D	
	1956-57	148	21			20	1 - D	
I	1959-60	9	3					
	1958-59	7						
J	1959-60	11	1			1		
	1958-59	7						
K	1959-60	21	2	1		3		
L	1959-60	8	2			1		
	1958-59	14	1			1		

Males (continued)

School Year	Graduated from High School	Dropped out and did not graduate	Expelled from school	Dropped out tempor. but later ret'd to graduate	Trans. to another school or institution	Failed to graduate: prolonged illness; death (D)	Indeterminate status: (Incomplete information)
M 1957-58	24	10			2		
1956-57	17	6		1	1		
N 1957-58	19				1		
1956-57	8	1					
O 1959-60	44	4	1	2	5	1 - D	
1958-59	21	8			2		
P 1957-58	19	4			1		1
1956-57	12	6					
Q 1959-60	61	10	1	1	2		1
R 1956-57	61	8		1	11		4
S 1957-58	99	6			4		1

## APPENDIX C

Letters and Forms Sent to Participating Schools

ST. LOUIS PARK PUBLIC SCHOOLS  
August 22, 1963

Dear Sir:

One of the real problems educators face today is in knowing how to work with school dropouts. Related to this is the problem of identifying potential dropouts so that we can more effectively concentrate our efforts on them while they are in school.

I am in the process of undertaking a doctoral study which will investigate the relationship of personality factors to dropping out of school. The study will focus on students who took the Minnesota Counseling Inventory during the years 1956-1959 while in the 10th grade, and who subsequently dropped out of high school. In short, I will be trying to determine which items of the M.C.I. relate to persistence in school. This research is being undertaken with the support and help of Dr. Ralph Berdie at the University of Minnesota, one of the authors of the M.C.I.

Your school, along with St. Louis Park and seven others, are the only schools in the State which have given the M.C.I. in 10th grade during at least three of the four years included in the study. Therefore, it is of utmost importance that data from each of these schools be included. I sincerely hope that you will be able to take part in the study.

Individual schools will not be identified in reporting the results of the study. Dropout rates for a particular school system are not a concern of this study so that there will be no comparisons made. We are concerned only with the student's M.C.I. profile (which I will obtain directly from the University of Minnesota), regardless of which of the nine schools he happened to attend. Where I need your help is in designating which students actually dropped out. A list of names of former students from your school who took the M.C.I. will be sent to you. You will be asked to check whether the student graduated or dropped out (as per the definition which I will include with the list of names). This is all the information I need about your former students.

There is reason to believe that the M.C.I. has items which may help counselors identify the potential dropout. I know that you are interested in this problem, as I am too. We have used the M.C.I. at St. Louis Park through the years, and we are hoping to find more ways in which it can give additional information.

I will plan to report the results of the study to you when it is completed. If for some reason you find it impossible to take part, please let me know right away. Thanks much for your interest!

Sincerely,

Roland Larson  
Coordinator of Student Personnel Services



ST. LOUIS PARK PUBLIC SCHOOLS  
September 11, 1963

Dear Sir:

Some time ago I wrote you regarding the study I am undertaking which will investigate the relationship of Minnesota Counselor Inventory items with dropping out of school. It appears that all of the eight schools needed for the sample will take part in the study. I am very grateful for your interest and assistance in this most important phase of identifying those students who graduated and those who dropped out.

Enclosed are lists of boys and girls who actually took the M.C.I. as sophomores while attending your high school. Please check the appropriate column for each student. Perhaps most of these can be done quickly from your records. A smaller number may be more difficult to check. However, these may be some of the more important students in terms of the study; hence, I will be very appreciative of your careful attention to the disposition of each person. Occasionally, a name may be misspelled because the student's handwriting on his answer sheet was not clear. Please feel free to pencil in any such corrections.

It might be good to read all of the column headings before beginning. Differences, such as between Columns 2 and 4 should be noted. Please make a check for each student in one of the columns. If your records are incomplete, there is usually someone in the school who remembers the student. In the event that none of the six columns adequately explains a certain student's situation, please feel free to write on the back of the list.

The enclosed lists are the master lists for the study. Using them I will pull out the answer sheets for the dropouts and for the sample of graduates, so that item by item response comparisons can be made.

Thanks again for your interest and assistance. Without your help in this phase of the study I obviously wouldn't be able to proceed any further. If there are any questions or problems, please feel free to call me collect at my home any evening (Li 5 7517) or at my office during the day (929 2651) if that is more convenient.

Again I remind you that dropout rates of the various schools are not a concern of this study. I am only concerned with individual student responses of dropouts versus stay-ins.

Sincerely,

Roland S. Larson  
Coordinator of Student Personnel Services

10th Graders:

(Please check appropriate column)

STUDENT:	Graduated from High Sch'l	Dropped out and did not graduate	Ex-pelled from school	Dropped out temporarily, but later returned to graduate	Transferred to another school or institution	Failed to graduate: prolonged illness, death
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						

\_\_\_\_\_

\_\_\_\_\_

ST. LOUIS PARK PUBLIC SCHOOLS  
September 24, 1963

Dear Sir:

One of the real problems educators face today is in knowing how to work with school dropouts. Related to this is the problem of identifying potential dropouts so that we can more effectively concentrate our efforts on them while they are in school.

I am in the process of undertaking a doctoral study which will investigate the relationship of personality factors to dropping out of school. The study will focus on students who took the Minnesota Counseling Inventory during the years 1956-1959 while in the 10th grade, and who subsequently dropped out of high school. In short, I will be trying to determine which items of the M.C.I. relate to persistence in school. This research is being undertaken with the support and help of Dr. Ralph Berdie at the University of Minnesota, one of the authors of the M.C.I.

Your school, along with St. Louis Park and twenty other Minnesota High Schools which have given the M.C.I. in the 10th grade, have been selected for the sample. I sincerely hope that you will be able to take part in the study.

Individual schools will not be identified in reporting the results of the study. Dropout rates for a particular school system are not a concern of this study so there will be no comparisons made. We are concerned only with the student's M.C.I. profile (which I will obtain directly from the University of Minnesota), regardless of which of the schools he happened to attend. Where I need your help is in designating which students actually dropped out. A list of names of former students from your school who took the M.C.I. will be sent to you. You will be asked to check whether the student graduated or dropped out (as per the checklist which I will include with the list of names). This is all the information I need about your former students.

There is reason to believe that the M.C.I. has items which may help counselors identify the potential dropout. I know that you are interested in this problem, as I am too. We have used the M.C.I. at St. Louis Park through the years, and we are hoping to find more ways in which it can give additional information.

I will plan to report the results of the study to you when it is completed. If for some reason you find it impossible to take part, please let me know right away. Thanks much for your interest!

Sincerely,

Roland S. Larson  
Coordinator of Student Personnel Services

ST. LOUIS PARK PUBLIC SCHOOLS  
October 3, 1963

Dear Sir:

Some time ago I wrote you regarding the study I am undertaking which will investigate the relationship of Minnesota Counselor Inventory items with dropping out of school. It appears that all of the schools needed for the sample will take part in the study. I am very grateful for your interest and assistance in this most important phase of identifying those students who graduated and those who dropped out.

Enclosed are list of boys and girls who actually took the M.C.I. as sophomores while attending your high school. Please check the appropriate column for each student. Perhaps most of these can be done quickly from your records. A smaller number may be more difficult to check. However, these may be some of the more important students in terms of the study; hence, I will be very appreciative of your careful attention to the disposition of each person. Occasionally, a name may be misspelled because the student's handwriting on his answer sheet was not clear. Please feel free to pencil in any such corrections.

It might be good to read all of the column headings before beginning. Differences, such as between Columns 2 and 4 should be noted. Please make a check for each student in one of the columns. If your records are incomplete, there is usually someone in the school who remembers the student. In the event that none of the six columns adequately explains a certain student's situation, please feel free to write on the back side of the list.

The enclosed lists are the master lists for the study. Using them I will pull out the answer sheets for the dropouts and for the sample of graduates, so that item by item response comparisons can be made.

Thanks again for your interest and assistance. Without your help in this phase of the study I obviously wouldn't be able to proceed any further. If there are any questions or problems, please feel free to call me collect at my home any evening (Li 5 7517) or at my office during the day (929 2651) if that is more convenient.

Again I remind you that dropout rates of the various schools are not a concern of this study. I am only concerned with individual student responses of dropouts versus stay-ins.

Sincerely,

Roland S. Larson  
Coordinator of Student Personnel Services

ST. LOUIS PARK PUBLIC SCHOOLS  
October 23, 1963

Dear Sir:

I trust that you have received the list of students' names I sent you in connection with my study of dropouts. Almost all of the responses are now in, and I am hoping to begin the analysis of data soon.

If you can take the time to check the proper columns and return the material to me in care of St. Louis Park Schools, I will greatly appreciate it.

Thanks much!

Sincerely,

Roland S. Larson  
Coordinator of Student Personnel Services

2442 Gettysburg Ave. So.  
Minneapolis 26, Minnesota  
November 8, 1963

Dear Sir:

I certainly want to thank you for sending me the list of your graduates and dropouts in connection with my study. I have identified a rather large group of dropouts from the various schools and hope to begin an analysis of the data in the near future.

Your willingness to help has been most appreciated.  
Thanks again!

Sincerely,

Roland S. Larson  
St. Louis Park Schools

## APPENDIX D

### Significance Levels of Selected MCI Items





## Validation of MCI Items

Significance Levels for Dropout-Graduate Comparison Groups  
 (Using Lawshe and Baker Table for Finding  
 the Significance of the Difference between Two Percentages)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
1	False	.05	.20		
2	False	.05	.01		.01
3	False	.05	.01	.20	
4	False				.10
5	False	.05	.05		.10
7	False	.20			.10
8	True	.05	.20	.01	.20
9	False	.01	.01		
10	True		.20		
11	True		.20		
	False			.20	
12	False			.01	.10
13	False	.01			
14	False	.01		.05	.01
15	True		.20	.05	.10
16	True		.05		
17	False		.10		
18	True	.05			
19	True	.01	.01	.01	.01
22	True		.05		
	False				.20
24	True		.20		
25	False	.10		.10	
26	True				.05
27	True	.01			
28	False	.01	.20		.20
29	True	.05	.20		
31	True		.20		
32	False	.01	.10		
34	True		.10		
35	True	.10		.10	
39	False		.01		
40	True	.01	.01	.05	.01
41	True		.05		
42	True		.01		
43	True	.20	.01	.05	.20
44	True	.01	.05		.01

## Validation of MCI Items (Continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
45	True	.05		.20	.01
46	True		.01		
47	True	.10	.20		
48	True	.05		.20	
50	False				.20
51	True	.10			
52	True		.10		
53	True			.10	
54	True	.05	.05	.20	
55	False	.05		.05	
56	True	.05	.01	.20	.05
57	False	.20			
58	True	.20	.05	.05	.05
59	True	.01	.10	.01	.01
60	False		.20		
61	True	.01	.01	.20	
62	True	.10	.01		.20
63	False	.01	.20		.01
64	True	.05	.05		
65	True	.05	.01		
	False			.10	
66	True	.05	.05		
67	True	.10	.20		
68	True		.01		
69	True	.01	.01	.01	.01
70	False	.01	.01	.01	.01
71	True		.05	.05	.10
72	True	.05	.01		.20
74	True	.01	.05		
75	False		.20	.10	.01
76	True	.20	.10	.10	
77	True	.05	.05		.05
78	True	.20	.20		
79	True		.05		
80	True			.05	
81	True	.20	.05		
82	True	.05		.05	.05
83	False	.10			
85	True	.10			
86	True		.05		.10
87	True		.05		

## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
88	True		.01		.20
90	True	.20	.05		
91	True		.05		
93	True	.05	.05	.05	.01
94	True	.05	.01	.10	
95	False	.20	.20		
96	True		.01		.01
97	True	.05	.01	.05	
98	False	.05			
	True				.05
99	True	.20	.10		
100	True		.10		.20
101	True	.01	.05	.05	
102	True		.20	.10	
103	True		.10		
104	False	.05	.10	.20	.01
105	True		.10		
107	False	.01	.05		
108	True			.20	.10
109	True	.01	.05	.05	.05
110	True	.01	.01		
111	True		.05		.01
112	True	.20	.01		.01
113	False	.01			
114	False	.01	.20		
115	True	.01	.01	.10	.01
116	True	.01	.01	.05	.01
117	False	.05	.01		.10
118	True	.05	.05	.10	.01
119	True	.10	.10	.05	.10
120	True	.20			
121	True		.01		.05
122	True	.01	.05	.05	
123	True		.05	.20	
124	False	.01	.20	.01	.20
125	True	.05	.05	.05	.01
126	True	.05	.01		
128	True	.01	.01	.10	.10
131	True	.20	.10	.01	.05
132	True		.01		
135	True	.01	.05	.05	.01

## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
136	True		.01		
138	True			.01	
139	True	.01			.20
140	True	.05		.20	.20
141	True	.01	.10	.05	
142	True	.05	.05		.01
143	True				.01
144	True		.10		
145	True			.01	
146	True		.05		.20
148	True	.01	.01	.01	.01
149	True		.01		
150	True	.10			
	False				.20
152	True		.05		
153	True	.01	.05		.10
154	True		.01	.10	
155	True	.01	.01	.20	.01
156	False			.01	
157	False	.20	.05		
158	False	.10	.10		
159	False	.01	.05		
162	True	.01	.01		.20
164	True	.05	.05		.05
165	False	.10			
	True				.10
168	True	.01	.01	.01	.01
169	True	.05	.10		
170	False		.01		
171	False				.20
172	True	.05	.01		
173	False	.20	.10		
174	False		.20		
175	False	.10	.01	.01	.01
176	True	.20	.05		
178	True				.05
179	True	.05	.05		
180	True	.05	.05	.05	.10
181	False	.10			.05
182	True		.05		
183	True	.05	.10		



## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
184	True		.01		.05
185	True		.01		.05
186	True	.05	.20		.20
187	True	.05	.10	.20	.10
188	True				.05
189	True	.05	.01		.01
192	False	.01	.20	.20	
193	False	.01		.10	.10
195	True	.01	.20	.05	.01
196	True		.01		
197	False		.10		
198	True	.05			
199	False	.05			.01
200	True	.10	.01		.05
201	False	.20			
202	True	.01			
203	True	.01	.05	.01	.10
204	True			.01	
205	True	.01	.01		.01
206	True			.20	
208	True	.05	.01		
209	False	.20			
210	True	.01	.01		.20
211	False		.01		
212	False	.01	.01	.05	
214	True	.20			
215	True				.20
216	True	.01	.01	.20	.05
217	True	.10			
218	True	.01	.01	.01	.01
219	True	.01	.01	.20	.05
220	True	.01	.01	.01	.01
222	False	.05	.01	.01	
224	True	.20		.10	
226	True		.01	.10	.01
227	True	.05	.01	.05	.05
228	True	.01	.01		
229	True	.01	.20	.20	
230	False				.01
231	True	.01	.01	.01	.01
232	True		.10		

## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
234	True	.10	.05	.05	.05
235	False	.10		.01	
237	False		.01	.20	
238	True		.20		
239	True	.01	.05	.20	.10
240	True		.20	.20	
242	True		.05		
243	True			.05	
244	False	.01	.05		.05
245	True	.01	.01		
248	False		.10	.20	.05
249	True	.10	.10		
250	True	.05		.10	
251	True	.20	.01	.01	.20
252	True	.20	.01		.05
253	True	.01	.01	.01	.01
254	False		.20		
256	True	.05	.10		.01
258	True	.10	.01	.05	.05
259	True		.05		
260	True	.20			.01
261	True	.01	.05	.01	.01
262	True	.05	.01		.05
263	True	.10			
264	True	.10	.10	.01	.01
265	True	.10	.05		
266	True	.01	.01	.20	.10
267	True	.20			.05
269	True	.05	.05		.20
270	True	.10	.01		.05
272	True		.05		
273	True				.10
274	True		.05		.01
276	True		.01	.05	
277	True				.20
278	True	.01	.01		.01
279	True	.01	.01		.05
280	True		.05	.05	.01
281	True	.01	.01		
282	True	.05			.05
283	True	.01	.01	.05	





## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
285	True	.01	.01	.01	.05
286	True		.20	.05	.20
288	False	.05	.05		.01
289	True	.05	.01	.10	
290	False				.05
293	True	.05		.05	.01
294	False	.01	.01	.01	.01
295	True	.10	.05		.05
297	False	.20			.05
298	True	.01	.01	.01	.01
299	False	.10	.05		
300	True		.10		.20
301	False	.10			
302	True	.01		.05	.10
303	True	.05		.20	
304	False		.05	.20	.01
305	False	.05	.20	.20	.01
306	True	.05	.10	.01	.20
307	True	.20	.01		.01
308	False		.10		.10
309	True	.01	.01	.05	.05
310	True			.20	
311	False	.05			.20
312	False	.10	.01	.10	.20
314	False	.05	.10		.01
315	True			.20	
316	True	.05	.05	.10	.01
317	False	.20			.20
318	False	.20			.10
319	False	.01	.01		
320	False	.10			
321	False	.01	.20		.01
323	True	.05	.05	.10	.01
324	False		.01		.20
325	True	.05	.01	.01	.10
326	True	.01	.01	.10	.10
327	True	.01	.01	.10	.01
328	True		.01		.05
329	True			.05	
330	True	.05			.01
331	True	.01	.01		.01



## Validation of MCI Items (continued)

## Significance Levels

Item Number	Dropout Response	Females		Males	
		Groups F, Dr1-Gr3	Groups F, Dr2-Gr4	Groups M, Dr1-Gr3	Groups M, Dr2-Gr4
332	True	.05	.01	.01	.05
333	True	.01			
334	False			.10	.10
336	True	.10	.01	.10	.05
337	True				.20
338	True		.05	.10	.10
341	True	.10	.01	.20	.01
343	True		.10		
344	True	.05	.01		.05
345	False	.05	.10		.20
346	True	.20	.01		.01
347	True	.05	.05		
348	True	.10			
349	False			.20	
350	True		.01		
351	False	.01	.01	.20	.01
352	True	.20	.05	.05	.10
353	True	.20	.01	.01	.10
354	False	.01	.01		.05



## APPENDIX E

### Scoring Keys for Dropout Scales

Dr. Gr.

V

FR

SR

ES

C

R

M

L

NAME

LAST

FIRST

CITY AND

STATE

MIDDLE

SEX

GRADE

OR CLASS

AGE

M or F

Yrs.

Mo.

DATE

MINNESOTA COUNSELING INVENTORY

Copyright 1953. The University of Minnesota.

Appendix E, Part I

Appendix E, Part I																															
T	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195
F																F															
T	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	T	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210
F																F															
T																T															
F																F															
T	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	T	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
F																F															
T	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	T	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
F																F															
T	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	T	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255
F																F															
T																T	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270
F																F															
T	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	T	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285
F																F															
T																T															
F																F															
T	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	T	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
F																F															
T	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	T	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315
F																F															
T	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	T	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330
F																F															
T	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	T	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345
F																F															
T	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	T	346	347	348	349	350	351	352	353	354	355					
F																F															

PRINTED IN U.S.A.

The Psychological Corporation, New York, N.Y.

IBM FORM 11-5, 1000-A 5444

57-18245

Scoring Key for Female Dropout Scale Using MCI Items Taken from Group F, Dr1-Gr3 (73 items p.-01.)





	V	FR	SR	ES	C	R	M	L
7								

## NAME\_

1000

1

10

W

SEX

SEX \_\_\_\_\_ M or F \_\_\_\_\_

AGE \_\_\_\_\_ Yrs.

Year	Month
------	-------

ESOTA

ESOTA CC

JUNSELIN

## MINNESOTA COUNSELING INVENTORY

Copyright 1953 The University of Minnesota.

## Appendix E, Part III

T	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195		
F																F																	
T	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	T	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210		
F																F																	
T																T																	
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		211	212	213	214	215	216	217	218	219	220	221	222	223	224	225		
F																F																	
T	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	T	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240		
F																F																	
T	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	T	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255		
F																F																	
																	159																
T	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	T	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270		
F																F																	
T	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	T	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285		
F																F																	
T																T																	
	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120		286	287	288	289	290	291	292	293	294	295	296	297	298	299	300		
F																F																	
T																T	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315		
F	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	T																	
T																F																	
T	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	T	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330		
F																F																	
T	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	T	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345		
F																F																	
T	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	T	346	347	348	349	350	351	352	353	354	355							
F																F																	



NAME LAST FIRST MIDDLE SEX M or F AGE Yrs. Mon. ES SR FR V C R M L

SCHOOL STATE GRADE OR CLASS DATE

MINNESOTA COUNSELING INVENTORY  
Copyright 1953. The University of Minnesota.

Appendix E, Part IV

T	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	T	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	160
F																F																
T	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	T	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	
F																F																
T																T																
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	
F																F																
T	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	T	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	
F																F																
T	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	T	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	
F																F																
T	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	T	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	
F																F																
T	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	T	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	
F																F																
T																T																
F																F																
T	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120		286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	
F																F																
T	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	T	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	
F																F																
T	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	T	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	
F																F																
T																T																
F	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	T	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	
F																F																
T	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	T	346	347	348	349	350	351	352	353	354	355						
F																F																

## APPENDIX F

Raw Score Cumulative Frequencies for Females and Males  
on Dropout Scales Applied to New Subgroups in Cross-Validation

## Appendix F, Part I

**Raw Score Cumulative Frequencies For Females on Dropout Scale Applied to New Subgroups in Cross-Validation**(Scores for Group F, Dr<sub>1</sub>-Gr<sub>3</sub> Using Keys Derived from Group F, Dr<sub>2</sub>-Gr<sub>4</sub>)  
96 Item Test, p = .01

Raw Score	Dropouts F, Dr <sub>1</sub> Cum. Freq.	Graduates F, Gr <sub>3</sub> Cum. Freq.	Raw Score	Dropouts F, Dr <sub>1</sub> Cum. Freq.	Graduates F, Gr <sub>3</sub> Cum. Freq.
1			36	46	81
2			37	48	
3			38	49	
4			39	52	82
5		3	40	56	83
6		7	41	57	85
7	1	9	42	58	
8	3	10	43	63	86
9		14	44	67	87
10	5	16	45	68	
11	8	20	46	71	89
12		24	47	72	91
13		26	48		93
14	9	27	49	74	94
15	13	31	50	76	95
16	15	34	51		
17		39	52	78	96
18	16	42	53	79	
19	17	45	54	80	
20	19	46	55	84	97
21	22	51	56		98
22		55	57	85	99
23	23		58		
24		57	59	86	
25	24	59	60	87	
26	26	60	61		100
27	30	61	62	88	
28	34		63	89	
29	36	63	64	91	
30		67	65	93	
31	37	69	66	94	
32		74	67	95	
33	38	77	68		
34	41	78	69	96	
35	44	79	70	97	

## Appendix F, Part I (Continued)

(Scores for Group F, Dr1- Gr3 Using Keys Derived from Group F, Dr2-Gr4)

Raw Score	Dropouts F, Dr1 Cum. Freq.	Graduates F, Gr3 Cum. Freq.
71	98	
72		
73		
74		
75	99	
76	100	
Subgroup Means	38.18	24.67
Range (No. of Items)	7-76	5-61
N	100	100

## Appendix F, Part II

## Raw Score Cumulative Frequencies for Females on Dropout Scale Applied to New Subgroups in Cross-Validation

(Scores for Group F, Dr<sub>2</sub>-Gr<sub>4</sub> Using Keys Derived From Group F, Dr<sub>1</sub>-Gr<sub>3</sub>)  
73 Item Test,  $p = .01$

Raw Score	Dropouts F, Dr <sub>2</sub> Cum. Freq.	Graduates F, Gr <sub>4</sub> Cum. Freq.	Raw Score	Dropouts F, Dr <sub>2</sub> Cum. Freq.	Graduates F, Gr <sub>4</sub> Cum. Freq.
1		1	36	74	95
2		5	37	77	
3		9	38	81	96
4		11	39	82	97
5		15	40	83	
6		20	41	84	98
7	1	22	42	85	99
8	2	28	43	87	
9		30	44	89	
10		39	45	90	
11	4	44	46		
12	7	48	47	93	
13	11	54	48	95	100
14	16	56	49	96	
15	18	59	50	97	
16	20	61	51	98	
17	22	62	52	99	
18	24	64	53		
19	26	65	54		
20	29	66	55	100	
21	30	69			
22	32	73	Subgroup Means		28.30 16.06
23	33	74	Range (No. of Items)		7-55 1-48
24	39	76	N.		100 100
25	40	80			
26	45	83			
27	49	85			
28	56	87			
29	59	88			
30	62	89			
31	65	90			
32	67	91			
33	69				
34		93			
35	73	94			

## Appendix F, Part III

## Raw Score Cumulative Frequencies For Males on Dropout Scale Applied to New Subgroups in Cross-Validation

(Scores for Group M, Dr<sub>1</sub>-Gr<sub>3</sub> Using Keys Derived From Group M, Dr<sub>2</sub> Gr<sub>4</sub>)  
101 Item Test,  $p = .05$

Raw Score	Dropouts M, Dr <sub>1</sub> Cum. Freq.	Graduates M, Gr <sub>3</sub> Cum. Freq.	Raw Score	Dropouts M, Dr <sub>1</sub> Cum. Freq.	Graduates M, Gr <sub>3</sub> Cum. Freq.
1			39	62	84
2			40	64	85
3		1	41	67	86
4			42	68	87
5	1		43	70	88
6		2	44	74	89
7	3	4	45	78	90
8	4	6	46	82	
9		9	47	83	92
10		11	48		
11	5	16	49	85	94
12	6	18	50	87	96
13		21	51	90	
14	7	22	52	91	
15	10	29	53		
16	11	30	54		
17	14	32	55		99
18	16	37	56		
19	17	44	57		
20	21	49	58	93	
21	22	50	59	94	
22	24	53	60	95	
23	26	55	61	97	
24	28	59	62	99	
25	29	61	63		
26	33	67	64		
27	37	69	65	100	
28	38	73	66		
29	41	74	67		
30	42	75	68		100
31	46	77			
32			Subgroup Means		34.08 24.43
33	51	79	Range (No. of Items)		5-65 3-55
34	54		N		100 100
35	55	80			
36	57	81			
37	58	82			
38	60	83			



## Appendix F, Part IV

## Raw Score Cumulative Frequencies for Males on Dropout Scale Applied to New Subgroups in Cross-Validation

(Scores for Group M, Dr<sub>2</sub>-Gr<sub>4</sub> Using Keys Derived from Group M, Dr<sub>1</sub>-Gr<sub>3</sub>)  
66 Item Test, p = .05

Raw Score	Dropouts M, Dr <sub>2</sub> Cum. Freq.	Graduates M, Gr <sub>4</sub> Cum. Freq.	Raw Score	Dropouts M, Dr <sub>2</sub> Cum. Freq.	Graduates M, Gr <sub>4</sub> Cum. Freq.
1			36		
2			37	80	
3			38	81	
4		1	39	84	97
5		4	40	86	
6			41	89	98
7		7	42	90	
8			43	93	99
9	1	12	44	96	
10		19	45	98	
11	2	24	46		
12	5	26	47	99	100
13	6	33	48	100	
14	8	37			
15	12	38	Subgroup Means		28.14 19.25
16		44	Range (No. of Items)		9-48 4-47
17	14	46	N		100 100
18	20	57			
19	21	67			
20	26	70			
21	27	72			
22	29	75			
23	33	76			
24	39	80			
25	41	83			
26	43	86			
27	48	88			
28	49	90			
29	53				
30	59	91			
31	66	94			
32	70				
33	74	95			
34	77				
35	78	96			



## APPENDIX G

### Sources of Variation in Reliability Estimates of the Dropout Scales



## Appendix G, Part I

Sources of Variation in Reliability Estimate of Dropout Scale  
 Constructed from Female Group F, Dr<sub>1</sub> - Gr<sub>3</sub><sup>a</sup>

---

(73 Item Scale)			
Source of Variation	SS	df	MS
Among Individuals	15826	199	79.53
Between Halves	203.065	1	203.07
Error	<u>1108.935</u>	<u>199</u>	5.57
Total	17138	399	

---

$$r_{11} = \frac{MS_I - MS_e}{MS_I} = \frac{79.528 - 5.573}{79.528} = \frac{73.955}{79.529} = 92.993$$

Standard Deviation is 12.61

---

<sup>a</sup> Using C. J. Hoyt's Split-Half Analysis of Variance Method.



## Appendix G, Part II

Sources of Variation in Reliability Estimate of Dropout Scale  
Constructed from Female Group F, Dr<sub>2</sub> - Gr<sub>4</sub><sup>a</sup>


---



---

(96 Item Scale)			
Source of Variation	SS	df	MS
Among Individuals	29691	199	149.20
Between Halves	64.00	1	64.00
Error	<u>1766.50</u>	<u>199</u>	8.88
Total	31521.50	399	

---

$$r_{11} = \frac{MS_I - MS_e}{MS_I} = \frac{149.201 - 8.877}{149.201} = \frac{140.324}{149.201} = 94.050$$

Standard Deviation is 17.28

---

<sup>a</sup> Using C. J. Hoyt's Split-Half Analysis of Variance Method.

## Appendix G, Part III

Sources of Variation in Reliability Estimate of Dropout Scale  
Constructed from Male Group M, Dr<sub>1</sub> - Gr<sub>3</sub><sup>a</sup>

---



---

(66 Item Scale)			
Source of Variation	SS	df	MS
Among Individuals	10760	199	54.07
Between Halves	11.56	1	11.56
Error	<u>1527</u>	<u>199</u>	7.67
Total	12298.56	399	

---

$$r_{11} = \frac{MS_I - MS_e}{MS_I} = \frac{54.070 - 7.673}{54.070} = \frac{46.397}{54.070} = 85.809$$

Standard Deviation is 10.40

---

<sup>a</sup> Using C. J. Hoyt's Split-Half Analysis of Variance Method.



## Appendix G, Part IV

Sources of Variation in Reliability Estimate of Dropout Scale  
Constructed from Male Group M, Dr<sub>2</sub> - Gr<sub>4</sub><sup>a</sup>


---



---

(101 Item Scale)			
Source of Variation	SS	df	MS
Among Individuals	20864	199	104.84
Between Halves	43.56	1	43.56
Error	<u>1483.44</u>	<u>199</u>	7.45
Total	22391	399	

---

$$r_{11} = \frac{MS_I - MS_e}{MS_I} = \frac{104.84 - 7.454}{104.84} = \frac{97.386}{104.84} = 92.890$$

Standard Deviation is 14.48

---

<sup>a</sup> Using C. J. Hoyt's Split-Half Analysis of Variance Method.

## APPENDIX H

MCI Items Contained in Categories  
Describing Personality Characteristics,  
Showing Significance of Differences of Responses  
for Dropout-Graduate Comparison Groups



## Appendix H, Part I

MCI Items Contained in Categories Describing Personality Characteristics,  
 Showing Significance of Difference of Responses for Dropout-Graduate  
 Comparison Groups

---

 Joie De Vivre
 

---

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
28	I enjoy many different kinds of play and recreation.	T	F	.01	.20	NS	.20
32	At times I am all full of energy.	T	F	.01	.10	NS	NS
63	I usually feel that life is worthwhile.	T	F	.01	.20	NS	.01
120	If given a chance I could do some things that would be of great benefit to the world.	T	T	.20	NS	NS	NS
123	I envy the happiness that others seem to enjoy.	F	T	NS	.05	.20	NS
126	I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."	F	T	.05	.01	NS	NS
159	I do not read every editorial in the newspaper every day.	T	F	.01	.05	NS	NS
175	I get all the sympathy I should.	T	F	.10	.01	.01	.01
181	My judgment is better than it ever was.	T	F	.10	NS	NS	.05
193	My daily life is full of things that keep me interested.	T	F	.01	NS	.10	.10
196	People often disappoint me.	F	T	NS	.01	NS	NS

## Appendix H, Part I (Continued)

## Joie De Vivre

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
334	I enjoy detective or mystery stories.	T	F	NS	NS	.10	.10
213 355	(Category items which were not significant.)						

## Appendix H, Part II

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Sociability: Reactions To Interpersonal  
Relationships**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
5	I am well poised in social contacts.	T	F	.05	.05	NS	.10
26	I am embarrassed when meeting new people.	F	T	NS	NS	NS	.05
52	I frequently have to fight against showing that I am bashful.	F	T	NS	.10	NS	NS
57	I do not like everyone I know.	F	F	.20	NS	NS	NS
65	I am troubled with the idea that people are watching me on the street.	F	T-girls F-boys	.05	.01	.10	NS
67	I am embarrassed because of my lack of experience in social situations.	F	T	.10	.20	NS	NS
72	Even when I am with people I feel lonely much of the time.	F	T	.05	.01	NS	.20
86	No one seems to understand me.	F	T	NS	.05	NS	.10
91	I feel self-conscious with strangers.	F	T	NS	.05	NS	NS
95	I do not mind meeting strangers.	T	F	.20	.20	NS	NS
102	I am unusually self-conscious.	F	T	NS	.20	.10	NS
142	No one seems to understand me.	F	T	.05	.05	NS	.01

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

2. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

3. The second part of the document focuses on the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

4. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

5. The third part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

6. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

7. The fourth part of the document focuses on the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

8. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

9. The fifth part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

10. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

11. The sixth part of the document focuses on the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

12. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

13. The seventh part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

14. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

15. The eighth part of the document focuses on the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

16. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

17. The ninth part of the document discusses the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

18. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

19. The tenth part of the document focuses on the importance of maintaining accurate records of all transactions and the role of the accounting department in ensuring the integrity of the financial statements.

20. It also highlights the need for regular audits and the importance of having a clear understanding of the company's financial position at all times.

### Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
149	Criticism disturbs me greatly.	F	T	NS	.01	NS	NS
158	I like to meet new people.	T	F	.10	.10	NS	NS
209	I enjoy trying to persuade people to do things.	T	F	.20	NS	NS	NS
217	I am easily embarrassed.	F	T	.10	NS	NS	NS
303	I am nervous and ill at ease with most people.	F	T	.05	NS	.20	NS
36 190 275 287	(Category items which were not significant.)						



## Appendix H, Part III

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Sociability: Group Behavior**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
48	I find it very difficult to speak in public.	F	T	.05	NS	.20	NS
55	I have been responsible for making plans and directing the actions of other people.	T	F	.05	NS	.05	NS
82	I feel self-conscious when reciting in class.	F	T	.05	NS	.05	.05
115	I may know the answer to a question, but fail when called upon because of fear of speaking before the class.	F	T	.01	.01	.10	.01
154	I hesitate to volunteer in class recitation.	F	T	NS	.01	.10	NS
171	I enjoy speaking before groups of people.	T	F	NS	NS	NS	.20
192	In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.	T	F	.01	.20	.20	NS
281	When in a group of people I have trouble thinking of the right things to talk about.	F	T	.01	.01	NS	NS
293	In school I find it very hard to talk before the class.	F	T	.05	NS	.05	.01
295	At an important dinner, I would do without something rather than ask to have it passed.	F	T	.10	.05	NS	.05



## Appendix H, Part III (Continued)

Sociability: Group Behavior		Significance Levels					
Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
347	I feel embarrassed when I must ask permission to leave a group of people.	F	T	.05	.05	NS	NS
350	I hesitate to enter a room by myself when a group of people are sitting around the room talking together.	F	T	NS	.01	NS	NS
353	I get upset when a teacher calls on me unexpectedly.	F	T	.20	.01	.01	.10
37	(Category items which were not significant.)						
177							
221							
247							
335							

## Appendix H, Part IV

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate

## Comparison Groups

## Sociability: General

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
27	I dislike having people about me.	F	T	.01	NS	NS	NS
66	I feel very self-conscious if I have to say something to start a conversation among a group of people.	F	T	.05	.05	NS	NS
90	Whenever possible I avoid being in a crowd.	F	T	.20	.05	NS	NS
93	I dislike social affairs.	F	T	.05	.05	.05	.01
170	I enjoy social gatherings just to be with people.	T	F	NS	.01	NS	NS
211	I get along as well as the average person in social activities.	T	F	NS	.01	NS	NS
212	I prefer to participate in activities leading to friendships with many people.	T	F	.01	.01	.05	NS
299	I have the time of my life at social affairs.	T	F	.10	.05	NS	NS
311	I like to mix with people socially.	T	F	.05	NS	NS	.20
320	I enjoy entertaining people.	T	F	.10	NS	NS	NS
323	I feel that social affairs are not serious enough for me to enjoy.	F	T	.05	.05	.10	.01
344	I am annoyed by social activities.	F	T	.05	.01	NS	.05

## Appendix H, Part IV (Continued)

		Sociability: General		Significance Levels			
Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
354	I like to participate in many social activities.	T	F	.01	.01	NS	.05
6 129 223 284	(Category items which were not significant.)						

## Appendix H, Part V

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

Family: Home

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
2	My home is a very pleasant place.	F	F	.05	.01	NS	.01
62	It is hard for me to keep a pleasant disposition at home.	T	T	.10	.01	NS	.20
112	I have had to keep quiet or leave the house to have peace at home.	T	T	.20	.01	NS	.01
128	I become nervous at home.	T	T	.01	.01	.10	.10
148	I have had a strong desire to run away from home.	T	T	.01	.01	.01	.01
155	At times I have very much wanted to leave home.	T	T	.01	.01	.20	.01
231	I find less understanding at home than elsewhere.	T	T	.01	.01	.01	.01
294	I believe that my home life is as pleasant as that of most people I know.	F	F	.01	.01	.01	.01
304	I feel most contented at home.	F	F	NS	.05	.20	.01
307	Lack of money has tended to make home unhappy for me.	T	T	.20	.01	NS	.01
309	I have felt that my friends have had happier home lives than I.	T	T	.01	.01	.05	.05
316	There has been a lack of real affection and love in my home.	T	T	.05	.05	.10	.01
327	I have had a strong desire to run away from home.	T	T	.01	.01	.10	.01

1. 1. 1.

2. 2. 2.

3. 3. 3.

4. 4. 4.

5. 5. 5.

6. 6. 6.

7. 7. 7.

8. 8. 8.

9. 9. 9.

10. 10. 10.

11. 11. 11.

12. 12. 12.

13. 13. 13.

14. 14. 14.

## Appendix H, Part VI

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Family: Parents**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
19	My parents have often objected to the kind of people I go around with.	T	T	.01	.01	.01	.01
68	My parents treat me more like a child than a grown-up.	T	T	NS	.01	NS	NS
69	I feel that my parents are disappointed in me.	T	T	.01	.01	.01	.01
94	My parents too often expect me to obey them, now that I am grown up.	T	T	.05	.01	.10	NS
104	My parents would keep faith in me even though I could not find work.	F	F	.05	.10	.20	.01
118	My parents and family find more fault with me than they should.	T	T	.05	.05	.10	.01
144	One (or both) of my parents is very nervous.	T	T	NS	.10	NS	NS
178	I have been quite independent and free from family rule.	F	T	NS	NS	NS	.05
185	My parents fail to recognize that I am a mature person and treat me as if I were still a child.	T	T	NS	.01	NS	.05
205	My parents expect too much from me.	T	T	.01	.01	NS	.01
218	My parents have objected to the kind of companions I go around with.	T	T	.01	.01	.01	.01



## Appendix H, Part VI (Continued)

## Family: Parents

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
237	Neither of my parents gets angry easily.	F	F	NS	.01	.20	NS
250	Neither of my parents has insisted on obedience regardless of whether or not the request was reasonable.	F	T	.05	NS	.10	NS
252	I have disagreed with my parents about my choice of a life work.	T	T	.20	.01	NS	.05
270	My parents seem too old-fashioned in their ideas.	T	T	.10	.01	NS	.05
278	The actions of one or the other of my parents have aroused great fear in me.	T	T	.01	.01	NS	.01
308	Neither of my parents finds fault with my conduct.	F	F	NS	.10	NS	.10
324	Neither of my parents is easily irritated.	F	F	NS	.01	NS	.20
326	My parents and I live in different worlds, so far as ideas are concerned.	T	T	.01	.01	.10	.10
332	I have felt that neither of my parents understands me.	T	T	.05	.01	.01	.05
341	My parents have been unduly strict with me.	T	T	.10	.01	.20	.01
348	I have disagreed with my parents about the way in which work around the house should be done.	T	T	.10	NS	NS	NS

• •  
• •  
• • •  
• • •  
• • •  
• •  
• •  
• • • •  
• • • •  
• • • •

•

•

•

## Appendix H, Part VI (Continued)

		Family: Parents		Significance Levels			
Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
351	Neither of my parents criticizes me unjustly.	F	F	.01	.01	.20	.01
233 272	(Category items which were not significant.)						

## Appendix H, Part VII

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Family: General**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
144	The members of my family are too curious about my personal affairs.	T	T	.01	.05	NS	.01
157	I have very few quarrels with members of my family.	F	F	.20	.05	NS	NS
189	There is very little love and companionship in my family as compared to other homes.	T	T	.05	.01	NS	.01
200	My family does not like the work I have chosen or the work I intend to choose for my life work.	T	T	.10	.01	NS	.05
242	Once in awhile I feel hate towards members of my family whom I usually love.	T	T	NS	.05	NS	NS
283	The things that some of my family have done have frightened me.	T	T	.01	.01	NS	.05
288	I can trust the people in my family.	F	F	.05	.05	NS	.01
321	I feel I owe my greatest obligation to my family.	F	F	.01	.20	NS	.01
331	I feel that my family obligations are a great handicap.	T	T	.01	.01	NS	.01
246 342	(Category items which were not significant.)						

## Appendix H, Part VIII

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

Self-Confidence

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female Dr <sub>1</sub> Dr <sub>2</sub> Gr <sub>3</sub> Gr <sub>4</sub>		Male Dr <sub>1</sub> Dr <sub>2</sub> Gr <sub>3</sub> Gr <sub>4</sub>	
12	I would rather win than lose in a game.	T	F	NS	NS	.01	.10
25	I find it easy to express my ideas.	T	F	.10	NS	.10	NS
70	I seem to be about as capable and smart as most others around me.	T	F	.01	.01	.01	.01
71	I shrink from facing a crisis or difficulty.	F	T	NS	.05	.05	.10
98	I do not mind being made fun of.	T	F-girl T- boy	.05	NS	NS	.05
109	I feel like giving up quickly when things go wrong.	F	T	.01	.05	.05	.05
152	I get discouraged easily.	F	T	NS	.05	NS	NS
172	Criticism or scolding hurts me terribly.	F	T	.05	.01	NS	NS
206	I am certainly lacking in self-confidence.	F	T	NS	NS	.20	NS
208	My way of doing things is apt to be misunderstood by others.	F	T	.05	.01	NS	NS
215	I am troubled with feelings of inferiority.	F	T	NS	NS	NS	.20
234	It makes me feel like a failure when I hear of the success of someone I know well.	F	T	.10	.05	.05	.05
267	I refuse to play some games because I am not good at them.	F	T.	.20	NS	NS	.05

## Appendix H, Part VIII (Continued)

Self-Confidence		Significance Levels					
Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
279	I have often lost out on things because I couldn't make up my mind soon enough.	F	T	.01	.01	NS	.05
280	I have several times given up doing a thing because I thought too little of my ability.	F	T	NS	.05	.05	.01
23	(Category items which were not significant.)						
73							
257							
296							

## Appendix H, Part IX

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

---

Emotionality: Anxiety

---

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
10	I worry over possible misfortunes.	T	T	NS	.20	NS	NS
34	I frequently find myself worrying about something.	T	T	NS	.10	NS	NS
47	I lose self-confidence easily.	T	T	.10	.20	NS	NS
87	Almost every day something happens to frighten me.	T	T	NS	.05	NS	NS
100	I worry too long over humiliating experiences.	T	T	NS	.10	NS	.20
122	I work under a great deal of tension.	T	T	.01	.05	.05	NS
165	When I leave home I do not worry about whether the door is locked and the windows are closed.	F	F-girl T-boy	.10	NS	NS	.10
179	I brood a great deal.	T	T	.05	.05	NS	NS
204	I have been afraid of things or people that I know could not hurt me.	T	T	NS	NS	.01	NS
330	I frequently notice my hand shakes when I try to do something.	T	T	.05	NS	NS	.01
89	(Category item was not significant.)						

## Appendix H, Part X

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Emotionality: Mood and Morale**

**Legend:**

**T - True**

**F - False**

NS - Not significant

### Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
17	I have periods in which I feel unusually cheerful without any special reason.	F	F	NS	.10	NS	NS
22	I have spells of the "blues".	T	T-girl F-boy	NS	.05	NS	.20
40	I have been depressed because of low marks in school.	T	T	.01	.01	.05	.01
54	I feel just miserable.	T	T	.05	.05	.20	NS
58	I feel lonesome, even when I am with people.	T.	T	.20	.05	.05	.05
77	I have sometimes felt that difficulties were piling up so high that I could not overcome them.	T	T	.05	.05	NS	.05
117	I am happy most of the time.	F	F	.05	.01	NS	.10
162	Most of the time I feel blue.	T	T	.01	.01	NS	.20
214	Sometimes when I am not feeling well I am cross.	T	T	.20	NS	NS	NS
243	Often I can't understand why I have been so cross and grouchy.	T	T	NS	NS	.05	NS
269	I wish I could be as happy as others seem to be.	T	T	.05	.05	NS	.20
277	I have ups and downs in mood without apparent cause.	T	T	NS	NS	NS	.20
106	(Category item was not significant.)						



## Appendix H, Part XI

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

---

**Psychotic: Emotional Strain**

---

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
80	I often think, "I wish I were a small child again."	T	T	NS	NS	.05	NS
110	Life is a strain for me much of the time.	T	T	.01	.01	NS	NS
153	Most of the time I wish I were dead.	T	T	.01	.05	NS	.10
180	I certainly feel useless at times.	T	T	.05	.05	.05	.10
182	My feelings are easily hurt.	T	T	NS	.05	NS	NS
220	I don't seem to care what happens to me.	T	T	.01	.01	.01	.01
274	I am so touchy on some subjects that I can't talk about them.	T	T	NS	.05	NS	.01
30	(Category item was not significant.)						

## Appendix H, Part XII

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Psychotic: Paranoid Schizophrenia**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
146	I have had blank spells in which my activities were interrupted and I did not know what was going on around me.	T	T	NS	.05	NS	.20
188	In walking, I am very careful to step over sidewalk cracks.	T	T	NS	NS	NS	.05
216	I am sure I am being talked about.	T	T	.01	.01	.20	.05
229	I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me.	T	T	.01	.20	.20	NS
245	I have strange and peculiar thoughts.	T	T	.01	.01	NS	NS
249	I hear strange things when I am alone.	T	T	.10	.10	NS	NS
262	I have had periods in which I carried on activities without knowing later what I had been doing.	T	T	.05	.01	NS	.05
298	I have had very peculiar and strange experiences.	T	T	.01	.01	.01	.01

## Appendix H, Part XIII

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

---



---

Psychotic: Mental Functioning

---

## Legend:

T - True

F - False

NS - Not significant

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
8	I find it hard to keep my mind on a task or job.	T	T	.05	.20	.01	.20
13	My memory seems to be all right.	F	F	.01	NS	NS	NS
45	I cannot keep my mind on one thing.	T	T	.05	NS	.20	.01
103	At times my mind seems to work more slowly than usual.	T	T	NS	.10	NS	NS
111	I often feel as if things were not real.	T	T	NS	.05	NS	.01
125	I cannot understand what I read as well as I used to.	T	T	.05	.05	.05	.01
176	Some particular useless thought keeps coming into my mind to bother me.	T	T	.20	.05	NS	NS
224	I forget right away what people say to me.	T	T	.20	NS	.10	NS
256	I am afraid of losing my mind.	T	T	.05	.10	NS	.01
260	There is something wrong with my mind.	T	T	.20	NS	NS	.01
261	I have more trouble concentrating than others seem to have.	T	T	.01	.05	.01	.01
264	I am bothered by the feeling that things are not real.	T	T	.10	.10	.01	.01

## Appendix H, Part XIII (Continued)

## Psychotic: Mental Functioning

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female				Male	
				Dr <sub>1</sub>	Dr <sub>2</sub>	Gr <sub>3</sub>	Gr <sub>4</sub>	Dr <sub>1</sub>	Dr <sub>2</sub>
285	Most any time I would rather sit and daydream than do anything else.	T	T	.01	.01	.01	.05		
207	(Category item was not significant.)								

## Appendix H, Part XIV

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Psychopathy: Hostility and Mistrust**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
31	I resent having anyone take me in so cleverly that I have to admit he put one over on me.	T	T	NS	.20	NS	NS
46	At times I feel like swearing.	T	T	NS	.01	NS	NS
76	I have often found people jealous of my good ideas, just because they had not thought of them first.	T	T	.20	.10	.10	NS
81	Once in awhile I think of things too bad to talk about.	T	T	.20	.05	NS	NS
96	Someone has it in for me.	T	T	NS	.01	NS	.01
97	I feel that I have often been punished without cause.	T	T	.05	.01	.05	NS
116	People say insulting and vulgar things about me.	T	T	.01	.01	.05	.01
121	I have often met people who were supposed to be experts who were no better than I.	T	T	NS	.01	NS	.05
135	At times I feel like picking a fist fight with someone.	T	T	.01	.05	.05	.01
210	At times I feel like smashing things.	T	T	.01	.01	NS	.20
219	At times I have a strong urge to do something harmful or shocking.	T	T	.01	.01	.20	.05

## Appendix H, Part XIV (Continued)

**Psychopathy: Hostility and Mistrust**

## Significance Levels

Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
227	If people had not had it in for me, I would have been successful.	T	T	.05	.01	.05	.05
258	Sometimes I enjoy hurting persons I love.	T	T	.10	.01	.05	.05
266	I am sure I get a raw deal from life.	T	T	.01	.01	.20	.10
325	It is safer to trust nobody.	T	T	.05	.01	.01	.10
337	Some people are so bossy that I feel like doing the opposite of what they request, even though I know that they are right.	T	T	NS	NS	NS	.20
343	I like to read newspaper articles on crime.	T	T	NS	.10	NS	NS
346	I commonly wonder what hidden reason another person may have for doing something nice for me.	T	T	.20	.01	NS	.01
49	(Category item was not significant.)						

• • • •

• • • •

• • • •

• • • •

•

•

• • • •

## Appendix H, Part XV

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

---

Psychopathy: Guilt

---

## Legend:

T - True

F - False

NS - Not significant

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr1	Dr2	Dr1	Dr2
				Gr3	Gr4	Gr3	Gr4
51	I am sorry for the things I do.	T	T	.10	NS	NS	.10
139	I know who is responsible for most of my troubles.	T	T	.01	NS	NS	.20
141	I have not lived the right kind of life.	T	T	.01	.10	.05	NS
253	Much of the time I feel as if I have done something wrong or evil.	T	T	.01	.01	.01	.01
127	(Category item was not significant.)						



## Appendix H, Part XVI

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

---

**Health: General Health Condition**

---

**Legend:**

T - True

F - False

NS - Not significant

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub>	Dr <sub>2</sub>	Dr <sub>1</sub>	Dr <sub>2</sub>
				Gr <sub>3</sub>	Gr <sub>4</sub>	Gr <sub>3</sub>	Gr <sub>4</sub>
1	During the past few years I have been well most of the time.	F	F	.05	.20	NS	NS
9	I am in just as good physical health as most of my friends.	F	F	.01	.01	NS	NS
113	I seldom worry about my health.	F	F	.01	NS	NS	NS
114	I have never felt better in my life than I do now.	F	F	.01	.20	NS	NS
169	I was ill much of the time during my childhood.	T	T	.05	.10	NS	NS
238	I have been absent from school because of illness.	T	T	NS	.20	NS	NS
254	I do not worry about catching diseases.	F	F	NS	.20	NS	NS
289	I find it necessary to watch my health carefully.	T	T	.05	.01	.10	NS
312	I have few or no pains.	F	F	.10	.01	.10	.20
84 268	(Category items which had no significance.)						

## Appendix H, Part XVII

**MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups**

**Health: Somatics-Specific Complaints**

**Legend:**

T - True

F - False

NS - Not significant

**Significance Levels**

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
11	I suffer discomfort from gas in the stomach or intestines.	T	T-girl F-boy	NS	.20	.20	NS
16	I have difficulty in getting rid of a cold.	T	T	NS	.05	.NS	NS
39	I hardly ever notice my heart pounding and I am seldom short of breath.	F	F	NS	.01	NS	NS
50	I have never had a fainting spell.	F	F	NS	NS	NS	.20
64	I take cold rather easily from other people.	T	T	.05	.05	NS	NS
75	I have never been paralyzed or had any unusual weakness of any of my muscles.	F	F	NS	.20	.10	.01
78	My eyes are very sensitive to light.	T	T	.20	.20	NS	NS
85	I do not have spells of hay fever or asthma.	F	T	.10	NS	NS	NS
88	My teeth seem to need dental attention.	T	T	NS	.01	NS	.20
99	Peculiar odors come to me at times.	T	T	.20	.10	NS	NS
107	I have little or no trouble with my muscles twitching or jumping.	F	F	.01	.05	NS	NS
119	At times I hear so well it bothers me.	T	T	.10	.10	.05	.10

## Appendix H, Part XVII (Continued)

## Health: Somatics-Specific Complaints

Item Number	Item	Expected Category Response	Dropout Response	Significance Levels			
				Female		Male	
				Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>	Dr <sub>1</sub> Gr <sub>3</sub>	Dr <sub>2</sub> Gr <sub>4</sub>
124	I am very seldom troubled by constipation.	F	F	.01	.20	.01	.20
140	I am troubled by attacks of nausea and vomiting.	T	T	.05	NS	.20	.20
145	Sometimes my voice leaves me even though I have no colds.	T	T	NS	NS	.01	NS
173	I have never had a fit or convulsion.	F	F	.20	.10	NS	NS
199	I have had no difficulty in keeping my balance in walking.	F	F	.05	NS	NS	.01
244	I am almost never bothered by pains over the heart or in my chest.	F	F	.01	.05	NS	.05
248	My hands have not become clumsy or awkward.	F	F	NS	.10	.20	.05
265	Once a week or oftener I feel suddenly hot all over, without apparent cause.	T	T	.10	.05	NS	NS
301	My hands and feet are usually warm enough.	F	F	.10	NS	NS	NS
305	I seldom or never have dizzy spells.	F	F	.05	.20	.20	.01
318	I can read a long while without tiring my eyes.	F	F	.20	NS	NS	.10
21 33 38 292 313	(Category items which were not significant.)						

## Appendix H, Part XVIII

MCI Items Contained in Categories Describing Personality Characteristics,  
Showing Significance of Difference of Responses for Dropout-Graduate  
Comparison Groups

---

Health: Head Troubles

---

## Legend:

T - True

F - False

NS - Not significant

		Significance Levels					
Item Number	Item	Expected Category Response	Dropout Response	Female		Male	
				Dr1 Gr3	Dr2 Gr4	Dr1 Gr3	Dr2 Gr4
239	I have shooting pains in my head.	T	T	.01	.05	.20	.10
282	I have headaches.	T	T	.05	NS	NS	.05
302	Much of the time my head seems to hurt all over.	T	T	.01	NS	.05	.10
333	There seems to be a lump in my throat much of the time.	T	T	.01	NS	NS	NS
336	Often I feel as if there were a tight band about my head.	T	T	.10	.01	.10	.05
345	I have very few headaches.	F	F	.05	.10	NS	.20

## APPENDIX I

### Recommended Dropout Scales

## Appendix I, Part I

## MCI Items Recommended for Inclusion in Dropout Scale for Females

(Criteria for Inclusion: Significance Level of .05 or Better  
in Both Female Comparison Groups in the Original Item Validation;  
89 Items)

Item Number	Expected Dropout Response	Item Number	Expected Dropout Response	Item Number	Expected Dropout Response
2	False	148	True	283	True
3	False	153	True	285	True
5	False	155	True	288	False
9	False	159	False	289	True
19	True	162	True	294	False
40	True	164	True	298	True
44	True	168	True	309	True
54	True	172	True	316	True
56	True	179	True	319	False
61	True	180	True	323	True
64	True	189	True	325	True
65	True	203	True	326	True
66	True	205	True	327	True
69	True	208	True	331	True
70	False	210	True	332	True
72	True	212	False	344	True
74	True	216	True	347	True
77	True	218	True	351	False
93	True	219	True	354	False
94	True	220	True		
97	True	222	False		
101	True	227	True		
107	False	228	True		
109	True	231	True		
110	True	239	True		
115	True	244	False		
116	True	245	True		
117	False	253	True		
118	True	261	True		
122	True	262	True		
125	True	266	True		
126	True	269	True		
128	True	278	True		
135	True	279	True		
142	True	281	True		



## Appendix I, Part II

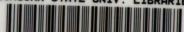
## MCI Items Recommended for Inclusion in Dropout Scale for Males

(Criteria for Inclusion: Significance Level of .10 or Better  
in Both Male Comparison Groups in the Original Item Validation;  
57 Items)

Item Number	Expected Dropout Response	Item Number	Expected Dropout Response
12	False	253	True
14	False	258	True
15	True	261	True
19	True	264	True
40	True	280	True
58	True	285	True
59	True	293	True
69	True	294	False
70	False	298	True
71	True	302	True
75	False	309	True
82	True	316	True
93	True	323	True
109	True	325	True
115	True	326	True
116	True	327	True
118	True	332	True
119	True	334	False
125	True	336	True
128	True	338	True
131	True	352	True
135	True	353	True
148	True		
168	True		
175	False		
180	True		
193	False		
195	True		
203	True		
218	True		
220	True		
226	True		
227	True		
231	True		
234	True		



MICHIGAN STATE UNIV. LIBRARIES



31293103559278