

DIFFERENTIAL GAIN IN GRADE POINT AVERAGE IN  
RESPONSE TO STRUCTURED GROUP COUNSELING AS A  
FUNCTION OF PERSONALITY TRAITS

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## CHAPTER I

### INTRODUCTION

#### Preliminary Considerations

It is estimated that 1,894,000 freshmen entered degree-credit colleges and universities in the fall of 1971. This constitutes roughly 61% of 1971 high school graduates. It has been projected that 959,000 bachelor's and first professional degrees will be granted four years later, in 1975. The projected number of degrees granted in 1975 is equal to 50.6% of the estimated number of first time degree-credit enrollees of 1971. From past records and future projections we see that this is the usual situation. See Appendix A for past records and future projections of enrollments, numbers of degrees granted, and percentages graduating.

It appears that approximately one-half of those who attempt college earn a bachelor's or first professional degree. Some will earn the degree in four years, while others will take longer than four years. There are always those who delay their education and/or transfer from one college to another, but over an extended period of time this does not seem to effect the percentages of students who eventually graduate.

Different people have reacted in different ways to the fifty percent attrition rate. One of the reactions has been that the attrition rate should be lower, and the way to accomplish this is to raise admissions standards. This approach to the attrition problem may



have merit, but the discussions of this approach to the attrition problem have serious flaws. The people who seemingly object to a fifty percent attrition rate fail to specify a rate which would be acceptable and those who recommend higher admissions standards neglect to say how high these standards should be or how low the attrition rate should be. It would appear that, if admissions standards are to be raised, a decision must be made as to how high to raise them. It would also appear that, if the reason for raising admissions standards is to lower the attrition rate, a decision needs to be made as to how low the attrition rate should be.

In the absence of discussions of acceptable attrition rates, the author searched the literature for material which considered attrition rates other than the 50% attrition rate previously mentioned. A study by Astin (1964) was found. This study is cited to provide empirical data, not to suggest an acceptable attrition rate. Astin's longitudinal study reports the selection process and the attrition rate for 6,660 high aptitude students. These students were either merit scholars, certificate of merit winners, or recipients of the letter of commendation from the National Merit Scholarship Competition. This select group had an attrition rate of 10.4% or a graduation rate of 89.6%.

Those who want to lower the attrition rate by raising admissions standards presuppose that there is a relationship between these two variables. If we accept this presupposition and arbitrarily designate 90% as the desired graduation rate and 10% as an acceptable attrition rate, the Astin study provides useful information about the kind of admissions standards which are going to be necessary to achieve these

rates by means of selective admissions standards because these graduation and attrition rates are approximately the same as those reported by the Astin study.

Speculation about the effects of raising admission standards at all colleges to the level of ability demonstrated by these 6,660 students suggests at least two very important results: it would constrict the number of students to the extent of creating a surplus of buildings and faculty, and it would exclude from college thousands of young people who otherwise would earn degrees and find employment as college graduates. The author makes these generalizations because Astin's study reports a 90% graduation rate for young people who had demonstrated a very high level of ability in the National Merit Scholarship Competition.

College officials have repeatedly encountered situations in which students with low entrance test scores and/or poor high school transcripts have graduated from college. Conversely, college officials have encountered situations in which students with high entrance test scores and/or good high school transcripts did not graduate from college. Taking these two observations into consideration, it would appear that the use of academically selective admissions standards is not the complete answer to the attrition problem.

A vast amount of work has been done to describe statistically the college dropout phenomenon and much has been learned as a result of these efforts. Panos and Astin (1967) did a major longitudinal study involving 30,405 students in 246 four year colleges and universities. The sampling design employed to select these 246 colleges and universities was a modified stratified random sample design. This study can contribute substantially to our understanding of the dropout

phenomenon, therefore the findings of this study are presented in table form in Table I.

TABLE I  
REASONS FOR LEAVING COLLEGE  
Panos and Astin, 1967

Male			Female	
Major Reason Percentage	Minor Reason Percentage		Major Reason Percentage	Minor Reason Percentage
26.7	22.3	(1) Dissatisfied with college environment.	27.0	19.7
26.4	22.4	(2) Wanted time to reconsider interest and goals.	17.7	16.2
23.6	15.6	(3) Could not afford cost.	17.8	12.7
22.1	15.4	(4) Changed career plans	20.7	13.6
15.5	20.8	(5) Academic record unsatisfactory.	5.8	11.1
11.3	16.3	(6) Tired of being a student.	6.0	14.0
7.8	3.1	(7) Marriage	29.0	6.1
2.8	3.1	(8) Scholarship terminated.	1.4	2.5
1.4	0.9	(9) Drafted	0.0	0.1
1.1	0.6	(10) Pregnancy	8.2	1.4

Davis (1970) listed six reasons given by junior college students for withdrawal from college. These six reasons are: (1) finances, (2) irrelevancy of college education, (3) discouragement with meeting academic standards, (4) marriage, (5) health, and (6) family problems. Blai (1971) reported that 83% of those students who withdrew from Harcum Junior College during the spring of 1970 were included in one of four groups. The four groups from which the Harcum Junior

College withdrawals came are: (1) First year students requesting a transcript be sent to another college; (2) Those students in potential academic jeopardy, as revealed by their mid-term record of very low or failing grades; (3) Those students earning "Incomplete" grades at mid-term; and (4) All provisionally-accepted freshmen.

Two of these three studies explored the reasons given by students for withdrawal from college. Blai's study does not consider reasons given by students for withdrawal but attempts to provide insight into this problem by considering the groups from which these students come. A careful examination of these three studies will reveal similarities as well as differences. When the reasons for withdrawal given by the students are considered, it is not difficult to see how a problem in one area could contribute to increased difficulties in another area. Without discussing each of the ten reasons listed by Panos and Astin and their possible relationship to each other, two illustrations of this relationship are suggested. If a student begins to sense that his academic record is unsatisfactory, he may change his career plans. The second illustration of this interrelatedness can be seen in the termination of a scholarship making the cost of a college education more than the student could afford. Some of the reasons given for withdrawal are not related to academic performance. From Davis' list, marriage, family problems, health, and finances may be unrelated to academic performance. There may be a negative correlation between high levels of feelings of irrelevancy and academic performance. Considering Panos' and Astin's list, perhaps marriage, pregnancy, and finances are unrelated to academic performance. It would appear that the other reasons listed are related to academic performance in some degree. It

is impossible to determine from the information available in Blai's study what percent of the total number of students who withdrew from Harcum Junior College did so because of unsatisfactory academic performance. It can be observed however that three of the four reasons cited for withdrawal are in one way or another related to unsatisfactory academic performance.

The point of the proceeding discussion is to suggest that some students withdraw from college for reasons which are clearly other than because of unsatisfactory academic performance, that many students do indeed withdraw from college because of unsatisfactory academic performance, and that, when interrelationships between reasons for withdrawing are considered, assignment of specific percentages to reasons given by students for this course of action should be done with reservations. That Panos and Astin included both major and minor reasons for withdrawal in their study is a tacit admission that this area is not clearly delineated by sharp boundaries, but rather that it is an area in which shades of gray predominate.

If we conclude that there are several reasons for the present attrition rate, it is appropriate that we approach the dropout phenomenon with the idea that there may be several different things that can be done to lower the attrition rate. The idea that there is one single thing which can be done to drastically lower the attrition rate has been explored in the discussion of raising admissions standards. That admissions standards have not been universally and drastically raised does not necessarily mean that there is no one single course of action which could be the ultimate panacea. There does seem to be however, a growing reticence on the part of many to

discuss such a panacea. Many of the efforts to lower the attrition rate are being directed toward the kinds of things students are listing as reasons for dropping out of college. Davis (1970) lists finance as the reason most frequently given by students for withdrawing from college. Student loan programs, among other things, are an attempt to make it possible for students to remain in college who otherwise would be forced to drop out.

Two of the studies which have been cited report an unsatisfactory academic record (Panos and Astin, 1967) or discouragement with meeting academic standards (Davis, 1970) as reasons given by some students for withdrawing from college. Blai (1971) reports that three of the four groups that account for 83% of withdrawals from Harcum Junior College are composed of students who are having academic difficulties of one kind or another. Apparently the difficulty some students have in making passing grades is a significant factor in the dropout phenomenon.

Referring again to the Panos and Astin study, note is made of the fact that two of the reasons frequently given by students for withdrawing from college appear to be related to each other. The major reason given by 26.4% of the men for leaving college was their need to reconsider their interest and goals while 22.1% of the men gave as their major reason for leaving college their changed career plans. These two are frequently related to each other in this way. Entry into a career IS their goal, and therefore a change in career plans would be a change in the goal, or vice versa. This would be true of many male college students. As has been previously noted, there can also be a relationship between academic performance and a change in career plans.

Attempts to help students who are having academic difficulties have

been many and varied. Attempts to help students who are exploring their interests, considering what their goals will be and struggling with career decisions have also been many and varied. Group counseling is one of the techniques that has been utilized to help students who are facing either of these problems. While group counseling has not been universally successful, enough success has been achieved to merit further consideration of this means of helping students.

#### Purpose of the Investigation

The difficulties encountered in attempting to understand why students withdraw from college has not diminished the amount of work being done in this area. As this material continues to accumulate, the manner in which much of it is presented suggests that a fifty percent attrition rate is unacceptable. Every journal article and every research project that attempts to suggest ways of lowering the attrition rate is testimony to the fact that someone decided that something should be done to help the potential college dropout.

This study concedes that the present fifty percent attrition rate is unacceptable. This concession is made because a substantial number of the students who withdraw from college because their academic record is unsatisfactory do not want to withdraw from college. For them, withdrawal from college means that their ambitions have been thwarted and their hopes extinguished. It would be extremely difficult to determine how many students there are who fit this classification, but by whatever this number, by that number the attrition totals are too high.

This study acknowledges that there are several factors which

contribute to the attrition rate. Without minimizing any of the other factors which contribute to attrition, this study will concern itself with those factors which are related to maintaining a satisfactory academic record and with meeting academic standards. The course of action selected to assist students in attaining these objectives is structured group counseling.

That structured group counseling as a technique can be used to assist students in raising their G.P.A. has been demonstrated. In the review of the literature studies are cited to support this statement. Other studies report no improvement in G.P.A. after students have participated in structured group counseling. It would appear therefore that a refinement or an improvement in the use of this technique is in order.

Extensive work has been done to isolate those personality traits which contribute most to academic achievement. Much of this work has been done with students who have high grades. A definite relationship has been shown to exist between certain personality traits and academic success.

#### Statement of the Problem

This study will seek to determine if there is a differential response in terms of grade point average to structured group counseling that can be associated with differences in personality. Stated in another way, in the form of a question, the problem is, which personality traits of students participating in structured group counseling correlate with their grade point averages?



### Statement of the Hypothesis

This study attempts to discover whether or not there is a relationship between personality traits and improvement of academic functioning when the improvement occurs during a period of time in which students are participating in structured group counseling. The author designated one group of students a control group, another group of students an experimental group, measured selected personality traits of students in the experimental group, and then provided structured group counseling for students in the experimental group. Because this investigation is concerned with a possible relationship that may exist within the confines of specified conditions, (those conditions being the improvement of academic functioning during a period of time in which students are participating in structured group counseling) the purpose of the first hypothesis was to establish that students in the experimental group did improve their grade point average during the semester they participated in structured group counseling. The first hypothesis is therefore stated as follows:

The mean Grade Point Average of students in the experimental group will not be significantly different for the semester during which they participated in structured group counseling from the mean Grade Point Average of students in the control group for the semester during which they served as the control group.

The purpose of the second hypothesis is to discover if there is a relationship between personality traits and improvement of academic functioning within the confines of specified conditions previously mentioned. The second hypothesis is stated as follows:

No significant correlations between the Grade Point Averages of students in the experimental group and their scores on any of the scales of the *California Psychological Inventory* or the *Tennessee Self Concept Scale* will be found.

### Significance of the Study

Many different things are being done for people having academic difficulty. Usually, attempts are made to assess the effectiveness of these efforts, but these assessments seldom consider personality variables. Of those assessments which do consider personality variables, many utilize a method of assessment which involves the computation of means of an experimental group and a control group and the testing for a significant difference between these means. Thus a procedure that is unusually helpful to some people is considered not to be helpful at all because it is not helpful to other people. The computation of the mean minimizes the benefits gained by some and at the same time makes a treatment appear to be helpful to others when it has not been helpful at all. The computation of the mean has eliminated the peaks and valleys, and presents one number which represents everyone in the experimental group. If, at this point, the test for significance proves the means are not significantly different, this particular treatment is regarded as having no value. This study attempts to overcome the above described weakness.

It is the author's contention that variation of response to treatment is a function of the various personalities of the subjects. This investigation hopes to identify personality traits which are associated with differential response to structured group counseling.

If this investigation supports the idea that there is a differential response to group counseling, in terms of grade point averages, it will be possible to use personality instruments in making decisions having to do with the formation of group counseling groups of

academic under-achievers. The personality instruments would be used to identify from among the total number of academic under-achievers those students possessing personality traits shown to be related to academic achievement when the students possessing those traits participate in structured group counseling. Hopefully, this refinement in the procedure for selecting participants for academic achievement group counseling will improve the effectiveness of this method. While it is impossible to make predictions about the response of a single individual to group counseling, it is logical to assume that a group composed primarily of students having the personality traits identified by this investigation will improve their mean grade point average if placed in a structured group counseling group,

Perhaps the day will come when it will be possible to predict who will benefit most from any one of several different ways of helping students improve their academic performance. This scientific pairing of people and treatment on an actuarial basis is desirable. The author does not expect this study to yield all the information necessary to make possible the scientific pairing of people and treatment. The author would hope instead to provide information which would improve the effectiveness of one particular kind of treatment by discovering what kind of person is most apt to respond favorably to this particular treatment.

#### Definitions of Terms

The following terms and their definitions have been included in this section of the study to aid the reader in understanding the concepts being presented. These terms will have these meanings

throughout the dissertation.

*G.P.A.:* This is an abbreviation for grade point average. In this study it is based on the 4.0 system used at Oklahoma State University.

*Structured Group Counseling:* A dynamic interpersonal process in which the members of the group mutually explore, with the counselor, their problems and feelings in an attempt to modify their attitudes and behaviors. The counselor provides structure and support for the participants as they deal with their developmental and educational situations.

*Personality Trait:* The *California Psychological Inventory (CPI)* and the *Tennessee Self Concept Scale (TSCS)* were used as assessment instruments. The term personality trait, when used in this dissertation refers to the traits of personality measured by these two instruments and defined in their respective manuals. These personality traits and their definitions are included in the appendices as Appendix B (*CPI*) and Appendix C (*TSCS*).

#### Limitations of the Study

The subjects of this study were full-time sophomore, junior, and senior students in the College of Arts and Sciences at Oklahoma State University who met the criteria of the control and experimental groups as will be defined in Chapter Three. Caution should be exercised if the results of this study are generalized to a different population.

Students in the experimental group were required to participate in structured group counseling as a condition for re-admission to the University, therefore any findings of this investigation should be restricted to situations which involve compulsory attendance of students

at group counseling sessions.

Because the students who were in the control group had completed their semester of academic work before they were designated as the control group, it was impossible to control for variables not discussed in Chapter III.

In order to utilize one facilitator for all group counseling groups, it was necessary to restrict the number of group counseling groups to six. This restriction on the number of group counseling groups placed a restriction on the total number of students who could be accommodated in the experimental groups. A larger N would have made possible more stable statistics, but the use of one facilitator placed a limit on the total number of participants.

The limitations inherent in the measurement of personality will apply to this study. Instead of a simple and direct measurement of personality, there are of necessity measures of second or third order criteria from which assumptions and inferences are made. It is impossible to obtain an accurate and precise measure of personality traits when you cannot measure them directly, but must instead measure something else which you assume to be equal to or at least closely related to them. The difficulty involved in the measurement of a subjective psychological state is not peculiar to this study alone, it is a problem with which all behavioral science research must struggle. That we measure second and third order criteria in order to quantify first order variables is simply a reflection of the present state of the art of behavioral science research.

### Assumptions of the Study

Because the same criteria was used for selection of students to be included in both the control and experimental groups, it is assumed that the uncontrolled variables are randomly distributed.

This experimental group was divided into six counseling groups. Because the same person served as facilitator for all six groups, and made a conscientious effort to maintain constant conditions, it is assumed that group counseling was the same for all.

With the measurement of personality traits, certain assumptions must be made. These include the assumption that personality traits can be measured, that personality traits do and can be found to vary along a linear continuum, and finally, that the instruments used will measure accurately these personality traits.

### Organization of the Study

Chapter I has introduced the problem studied. This chapter has included the statement of the problem, the hypotheses, the significance of the study, the definitions of terms, and the delimitations of the study.

Chapter II will review the literature which relates to the problem presented in Chapter I. Attention will be centered on the effect of group counseling on academic achievement.

Chapter III will describe the design of the study, the selection of the sample, a description of the structured group counseling used, and the instruments used to measure the personality traits.

Chapter IV will contain a statistical analysis of the data. It

will indicate the degree to which the hypotheses are to be accepted or rejected.

Chapter V will present a discussion of the results of this study and recommendations regarding future studies in this area.

## CHAPTER II

### THE REVIEW OF THE LITERATURE

#### Introduction

In this chapter consideration will be given to a review of the literature which relates to the problem being investigated by this dissertation. This dissertation seeks to determine whether or not there is a differential response in terms of grade point averages to structured group counseling that can be associated with differences in personality, therefore attention will be centered on the effect of group counseling on academic achievement, the relation of personality traits to academic achievement, and the relation of self concept to academic success.

#### Part A

##### Group Counseling and Academic Achievement

Many statistical studies have sought to determine precisely what the college attrition rate really is. Information from tables found in *Projections of Educational Statistics to 1979-80*, (Simon, 1970) a publication of the U. S. Department of Health, Education, and Welfare, has been used to indicate that only about one half of those who attempt college eventually graduate. Another very recent Health, Education, and Welfare publication gives an even lower graduation rate. A direct quote



from the March, 1971 *Report on Higher Education* (Newman, 1971) says:  
". . .of the more than one million young people who enter college each year, fewer than half will complete two years of study, and only about one-third will ever complete a four year course of study." These two publications, both from the U. S. Department of Health, Education, and Welfare, do not agree in their estimate of the attrition rate. The author does not know whether both of these estimates are incorrect, or, if one of them is correct, which one it is. From the tone of much that has been written relative to the attrition rate, it would appear that the attrition rate is too high, whatever it is,

If the attrition rate is as high as the Department of Health, Education, and Welfare purports it to be, that many and various programs have been implemented to lower the attrition rate should come as no surprise. It is beyond the scope of this investigation to discuss all the causes of attrition or the different approaches that have been made to this problem. Some attention has already been given to the causes of attrition from college in Chapter I. One of the causes for attrition from college previously mentioned was an unsatisfactory academic record. As would be expected, a number of different kinds of programs have been utilized in attempting to help students whose academic record has been unsatisfactory.

This study will concern itself with the contribution group counseling can make to academic achievement. The studies found by the author have not been universally successful, but enough of them have been successful to merit consideration of group counseling as a means of helping students improve their G.P.A.

Chestnut (1965) states,

"Of 15 investigations (Anderson, 1956; Baymur and Patterson, 1960; Broedel, et.al., 1960; Caplan, 1957; Clements, 1963; DeWeese, 1959; Duncan, 1962; Hart, 1963; Maroney, 1962; Marx, 1959; McCarthy, 1959; Sheldon and Landsman, 1950; Speegle, 1962; Spielberger, et.al., 1962; and Winborn and Schmidt, 1965) of the hypothesis that group counseling has a measurable effect on scholastic achievement, only two experiments (Spielberger, et.al., 1962; and Hart, 1963) have clearly indicated that group counseling can facilitate academic achievement."

This statement, made in 1965, suggests that group counseling does not facilitate academic achievement. The author however would call attention to the fact that six of the studies were done before 1960, two in 1960, five in 1962, and two in 1963. Of the two studies showing positive results, one was done in 1962, and the other in 1963. With the passage of time more is known about group counseling and it is possible for the practitioners of group counseling to develop greater skill.

Chestnut (1965), from whose article this information has been drawn, reported in the same article an investigation involving a counselor structured group, a group structured group, and a control group. The counselor structured group discussed topics selected by the counselor. These topics were selected to facilitate the improvement of the G.P.A. of the participants. The group structured group emphasized material which originated spontaneously from within the group. The purpose of both groups was to improve the G.P.A. of the participants. At the end of treatment, the counselor structured group and the group structured group had a mean G.P.A. which was over 2.00, while the control group was below this critical point.

Ofman (1964) concluded that a study habits seminar was as effective as a group counseling technique for improving scholastic performance of college students.

Abel (1967) formed a control group and an experimental group of 6 probationary transfer students each when these students were admitted to Transylvania in the spring quarter of 1962-63. This experimental group participated in group counseling. The mean G.P.A. for students in the experimental group for the spring quarter was significantly higher at the .05 level than the mean G.P.A. for students in the control group for the same period.

Bates (1968) obtained an experimental group and a control group by assigning one student to the experimental group and the other student to the control group from each of several matched pairs of tenth, eleventh, and twelfth grade students. The experimental group met in weekly class period meetings for group counseling for 13 weeks. He found that the experimental group made significant gains in G.P.A., *Tyler Vocational Card* scores, and the *Bill's Self-Acceptance* score when compared to the matched control group.

These studies quoted are examples of studies which indicate that group counseling can facilitate academic achievement. There are many different kinds of group counseling. Chestnut (1965), previously mentioned, used two different kinds of group counseling in the same investigation, and obtained different results for the two kinds of group counseling used. This experience of Chestnut appears to be typical of the experiences of other investigators as reported in the journals.

Group counseling with students having academic difficulty has been used with attendance being both on a voluntary basis and on an involuntary basis. Roth, Mauksch and Peiser (1967), Sheldon and Landsman (1965), Benson and Blocker (1967), and Abel (1967) demonstrated that group counseling can facilitate academic achievement when

attendance at the group sessions is compulsory.

The number of sessions or the length of time in terms of weeks seems to be an important element in obtaining the desired results from group counseling. Short periods of time have been used for group counseling with various populations. Gilbreath (1967) studied male under-achievers and found that after 8 sessions of one and one half to two hours each there were no significant differences in Grade Point Average for the leader structured group, group structured group, and the control group. Winborn and Schmidt (1965) used 68 second semester freshmen at Indiana University and found, after six group counseling sessions of about an hour each, that the control group had significantly better grades than the experimental group. Broedel, Ohlsen, Proff and Southard (1965) met weekly with two groups of 9th grade students for 8 weeks and ". . .failed to produce evidence that group counseling will improve under-achievers academic performance." Johnson and Leonard (1970) randomly assigned 78 student nurses to either group counseling or a control group. There were seven group counseling sessions. After group counseling the experimental group members received better grades in the practice part of the course but there was no significant difference in theory grades or the final grades for the course. Light and Alexakos (1970) worked with high school sophomores in a group counseling situation that involved two groups of five students each meeting for 30 minutes once each week for five weeks. The grades of the group counseling group were better than the grades of the control group in geometry, and ratings by the geometry and English teachers were better, significant at the .05 level, but other comparisons of the experimental and control groups did not reach significance. Chestnut

(1965) found after eight group counseling sessions of an hour and a half each that the mean G.P.A. of students in both a counselor structured group and a group structured group was over 2.00 while the control group was below this critical point.

Of six studies cited, three (Gilbreath, 1967; Winborn and Schmidt, 1965; and Broedel, et.al., 1965) failed to support group counseling as a technique for helping students having academic difficulty. Two studies, (Johnson and Leonard, 1970; and Light and Alexakos, 1970) showed that group counseling can be of some benefit. Only one (Chestnut, 1965) showed the experimental group performing at an acceptable level and the control group performing below a critical point.

The one thing which these studies have in common which needs to be mentioned at this point is the similarity in the number of sessions. The smallest number of sessions was five, the largest eight. Of the six studies, the author accepts only one as accomplishing what it set out to accomplish.

When consideration is given to the results obtained when there is a greater number of sessions, different results are obtained.

Sheldon and Landsman (1965) divided 28 students into two Academic Methods Classes. With one class they used the traditional lecture discussion method. The other class was the experimental group. The experimental group had a lecture-discussion session on Monday, and two additional sessions each week that were nondirective group counseling. Both groups continued for a semester. At the end of the semester, the students in the experimental group had significantly better grades than the students in the control group. Benson and Blocher (1967) studied

low achievers in a high school setting. Two groups of six students each met for one 55 minute period per week during the second semester. The difference between the G.P.A. for the experimental group and a control group was significant at the .02 level. Roth, Mauksch, and Peiser (1967) used group therapy with non-achievers. The group facilitators met for two one hour sessions per week for a semester with groups ranging in size from 7 to 12 members. Attendance was compulsory. The G.P.A. for students in the experimental group was better than the G.P.A. of students in the control group. The difference was significant at the .01 level. The results of a study by Brown (1969) were that students who were on academic probation went to a G.P.A. of 2.04 the semester they participated in structured group counseling for twelve weeks.

Leib and Snyder (1967) conducted an investigation in which there were five students in two groups and four students in one group for a total of 14 students in the experimental group. Group meetings one hour in length were held two days per week for nine weeks. These authors reported ". . .grades of all subjects improved significantly as compared to their past academic records."

The G.P.A. of the students in the experimental groups of these five studies improved. Treatment (group counseling) in four of the studies continued for either twelve weeks or a semester. The study by Leib and Snyder (1967) continued for only nine weeks, but because there were two sessions per week for a total of 18 sessions it was included with this group. These studies of group counseling are accepted as having accomplished the desired result.

Part B  
Selected Personality Characteristics  
And Academic Achievement

The relationship of personality to academic achievement has long been the subject of discussion. Miner (1910) studied college freshmen at the University of Minnesota who had been excluded for academic reasons. His analysis of 86 questionnaires completed by excluded students or their high school principal showed,

". . .the cause of failure in 14 cases might be assigned to influences extrinsic to this problem such as health and necessary outside work; in 15 cases to intellectual incapacity, and in 57 to moral reasons such as lack of purpose, laziness, and inability to resist social, fraternity and other temptations which interfered with work. In other words, four times as many failures seemed to be referable to moral as intellectual factors."

The summary of Miner's investigation makes the succinct and cogent statement: "The personality of the student plays a more important role in scholarship than does the college environment. Moral traits, . . . , seem more important than intellectual incapacity in explaining failure."

Miner's contribution to our present discussion is the fact that as early as 1909 there was beginning to be an awareness of the relationship between personality and academic success or failure. Later, when attempts were made to verify that there is a relationship between personality and academic success, and to identify their personality traits which are associated with success or failure, investigators were disappointed with the results which they obtained. Four reviews of the literature (Stagner, 1933; Wolf, 1938; Harris, 1940; Garrett, H. F., 1949) summarize the results of 135 studies. The disappointment which these investigators experienced may have been caused, at least in part

by limitations of the personality inventories then available. The instruments used by these early investigators were frequently devised at the time of the investigation by the people who were conducting the investigation. Validity was a problem and populations for establishing norms were usually small.

More recent attempts to discover a relationship between personality and academic achievement were more successful than the first attempts. A number of personality characteristics have been selected and their relation to academic achievement is discussed. These personality traits were selected because it would appear that these are the traits which have received the most attention.

#### Single Dimensions of Personality

The first personality characteristic which will be discussed is achievement motivation. The need of an individual to consistently maintain high levels of performance is achievement motivation. Five studies (McClelland, et.al., 1953; Burgess, 1956; Chahbazi, 1956; Weiss, et.al., 1959; Pierce, 1961) indicate that motivation to achieve correlated significantly with G.P.A. Achievement motivation was measured by projective techniques in these five studies. Two additional studies (Parrish and Rethlingshafer, 1954; Mitchell, 1961) used a projective technique method, the *Thematic Apperception Test*, to measure achievement motivation. Parrish and Rethlingshafer were not able to differentiate between males who were achieving at different levels. Mitchell found the TAT to be unrelated to grades of students in a teacher training program. However, the author questions the conclusions of this study because the design of the study did not include adequate



controls for the different levels of ability of the subjects.

Four studies (Bendig, 1958; Gebhart and Hoyt, 1958; Krug, 1959; Weiss, et.al., 1959) which used the *Edwards Personal Preference Schedule* to measure achievement motivation found a significant correlation between achievement motivation and G.P.A. The Weiss, et.al. study, in addition to using the *Thematic Apperception Test*, also used the *Edwards Personal Preference Schedule* and found a correlation of +.42, significant at the .05 level, between the *Edwards Personal Preference Schedule*, achievement motivation scores and G.P.A.

Two studies (Cooper, 1956; Worell, 1959) accepted the level of aspiration as an index of achievement motivation and found a positive relationship between academic performance and achievement motivation.

From the preceding studies the author concludes that there is a relationship between achievement motivation and academic performance.

Achievement motivation is a multidimensional construct (Mitchell, 1961). This fact may account for some of the studies which are inconsistent with the above conclusion. When the dimensions of A.M. (achievement motivation) most relevant to academic performance are specified, it should be possible to arrive at a better understanding of the relationship between achievement motivation and academic performance.

The need to solve personal problems without consulting others or the need to weigh alternatives and plan a course of action without asking for advice has been variously labeled "autonomy," "independence," and "self-sufficiency." The continuum "conformity-nonconformity" is a measure of the concept of autonomy in that a conforming student is not autonomous and a nonconforming student is autonomous.

The following studies indicate that the effect of conformity upon academic achievement was determined by the thing with which the student conformed. It would appear that conformity contributes to academic success when students conform to an educational environment. When conformity is considered apart from conformity to an educational environment, nonconforming autonomous students are more successful academically.

Weigand (1957) used a semi-structured interview technique to compare 41 successful students with 40 unsuccessful students. The successful students' attitudes were congruent with the attitudes of the educational environment. Erb (1961) used a Q-sort to differentiate between high and low conforming subjects. Conformity was not related to performance for male subjects. Conformity was related to performance however for females. Erb found that women high on conformity had a higher G.P.A. than women low on conformity. This is contrary to other findings. "A possible interpretation is that female conformity includes academic school achievement as a culturally desirable symbol, . . ."

Ringness (1965) compared 30 successful and 30 unsuccessful junior high school boys and found that successful boys want teachers to think well of them and that they think of themselves as being like their perception of the teacher's ideal student. Unsuccessful students did not conform to the educational environment, they conformed to their peer group, which was oriented toward athletics and social life. Academic school achievement as a culturally desirable symbol was not a part of their value system.

Four studies (Weigand, 1953; Gilmore, 1951; Burgess, 1956; and Merrill and Murphy, 1959) support the conclusion that autonomous

students are more successful academically. Weignad, (1953) found that more students who had been performing poorly were influenced by their families in making their occupational choice than were students who were more independent of their families in this matter. This study is included in this paragraph because the terms "autonomy" and "independence" are used as synonyms in this discussion. Gilmore, (1951) in a study which did not control for aptitude, found approximately the same thing, that high performing students were more independent than low performing students. Burgess's (1956) study supports the findings of Gilmore. She found underachieving engineering students more dependent, or they were not as autonomous, as the more successful engineering students. Merrill and Murphy (1959) used the autonomy scale of the *Edwards Personal Preference Schedule* with low-ability college students. These students were divided into two groups on the basis of whether they failed as expected or did better than they were expected to do and thus remained in college. Students who were able to remain in college scored higher on autonomy than students who failed and left college.

English and English (1958) define extraversion-introversion as an hypothesized dimension for the description of personality. This dimension is probably not a continuous unitary dimension but a collection of loosely related variables: i.e., a person may become more introverted without thereby being less extraverted. Three aspects are commonly distinguished: direction of attention, i.e., outward or inward, ease or difficulty of social adjustment, and tendency to open or secretive behavior.

Two studies published in 1932 (Flemming, 1932; White, 1932) suggest a small positive relationship between academic success and the

degree of introversion. Bloomberg (1955) administered a questionnaire to a sample of first semester freshmen and analyzed 31 items that correlated with the achievement criterion at the .05 level of significance in an effort to characterize the typical achieving college student. He found, among other things, that the achieving college student is likely to be somewhat introverted. Kerns (1957) found that students with low G.P.A. derive satisfaction from college social activities. Deriving satisfaction from social activities is characteristic of an extravert because the direction of their attention is outward, social adjustment is easy for them, and they have a tendency to be open. These things make it easy for them to get caught up in social activities, and thus the time needed for academic achievement is not available. Students with high G.P.A. obtain their satisfaction from academic activities. The characteristics of an introvert do not distract him from academic pursuits, and so he tends to be more successful in this area.

Three additional studies are included in the discussion on extraversion-introversion. These three studies utilized the Affiliation scale of the *Edwards Personal Preference Schedule*. A careful study of the description of the Affiliation scale found in the *Edwards Personal Preference Schedule Manual* and the definitions of the terms extraversion, introversion, and extraversion-introversion found in the *English and English Comprehensive Dictionary of Psychological and Psychoanalytical Terms* will reveal a marked similarity between these two concepts. The description of the Affiliation scale and the definitions of these terms will be found in Appendix D.

Because these concepts are closely related to each other, these

three studies are included in this discussion. Gebhart and Hoyt, (1958) used 240 freshman students from an original pool of 740 freshmen. These 240 subjects were the students whose obtained G.P.A. was most discrepant from a predicted G.P.A. Gebhart and Hoyt found that overachievers scored significantly lower on the affiliation scale than underachievers. Krug (1959), replicated the Gebhart-Hoyt study, using 411 freshmen in his original pool, and obtained the same results with the affiliation scale, i.e., overachievers scored significantly lower on the affiliation scale than underachievers. Merrill and Murphy (1959) administered the *Edwards Personal Preference Schedule* to 49 freshmen whose obtained G.P.A. was 2.00 or above (passing) but whose predicted G.P.A. was 1.50 and to 52 freshmen whose obtained G.P.A. was 1.00 or below (failing) but whose predicted G.P.A. was 1.50. They found that low ability students who obtained a 2.00 or above G.P.A. and thus remained in college scored lower on the need for affiliation than those students who failed and left college.

All seven of these studies used college students as subjects. They consistently point to a positive relationship between introversion and academic success for college students.

Spielberger and Katzenmeyer (1959) divided a sample of males into three groups according to ability. They then correlated the *Taylor Manifest Anxiety Scale* scores with grades for each group and found a low (-.18) negative correlation for subjects in the medium ability group. Grades of subjects in the high and low ability groups did not correlate with the anxiety scores. Klugh and Bendig (1955) were unsuccessful in their attempt to correlate *Taylor Manifest Anxiety Scale* scores with grades and with a measure of ability. They did find

however, that the anxiety scores, when included in a predictive battery, added significantly to the multiple correlation. Grooms and Endler (1960) predicted grades from a knowledge of ability and found this prediction to be more accurate for their high anxiety subjects than it was for the total sample, while the prediction for medium anxiety subjects and low anxiety subjects was not as good as was the prediction for the total sample. Stix (1966) investigated the relationship between anxiety and overachievement for males and females and found a significant relationship for females but not for males. These four studies do not prove conclusively that there is a relationship between anxiety and G.P.A., neither do they prove conclusively that there is no relationship between anxiety and G.P.A.

Shepler (1956) used the *Terman-McNemar Test of Mental Ability*, *The Harry-Durost Essential High School Content Battery*, and the *Scholastic Preference Interview* and found a positive relationship between interest in science and academic performance in science courses when the experimental subjects were homogeneous as to mental ability and heterogeneous as to the level of preference for studying science. Two studies (Melton, 1955, and Hewer, 1957) compared scores obtained by using the physician key of the *Strong Vocational Interest Blank* with grades of premedical students and found these two criteria to be uncorrelated. Burgess (1956) found interest test scores uncorrelated with academic performance of engineering students. From these four studies the writer would hypothesize that interest in a particular subject matter is related to academic performance in an heterogeneous population, but that when the range is truncated by universally high levels of preference for a given curriculum because of commitment to a

vocation, interest inventories will not explain why one person fails and another person succeeds.

The results of several single-variable studies have been reviewed. These studies indicate that differences in personality are related to the level of academic performance of students. These studies seem to suggest that the student most apt to be successful will have a high level of achievement motivation; he will conform to the educational environment but will be nonconforming otherwise; and he will tend to be introverted rather than extroverted. It would also appear that a student will achieve more in a curriculum in which he has a high level of interest than he will in a curriculum in which he has little interest.

#### Multiple Dimensions of Personality

In addition to the studies which considered a single dimension of personality, a number of studies have been conducted which have utilized personality instruments. The *California Psychological Inventory* scales are given in Appendix B.

These studies approach the problem of identifying personality traits that are related to academic success in two ways. One of the methods used is a correlation of *California Psychological Inventory* scale scores with G.P.A. The other method compares the mean scale scores of the *California Psychological Inventory* of one group with the mean scale scores of another group to see if there are significant differences between the two groups on any of the scales.

Table Number II presents the correlational studies.

In addition to studies which correlate personality traits with

G.P.A., a number of studies have attempted to discover whether or not there are differences in the personality trait scores between groups which are different in terms of G.P.A. Table III presents the findings of nine of these studies.

The *Edwards Personal Preference Schedule* has been used to identify personality traits which are related to academic success. To facilitate the consideration of this material, it is being presented in Table IV. Some of these studies do not consider all of the scales of this instrument. The descriptions of the *Edwards Personal Preference Schedule* are given in Appendix D.

Three studies considered deviant achievement and EPPS scores. Four hundred high school students from one class were obtained by Klett (1957) for her comparison of overachievers EPPS scores with underachievers EPPS scores. The overachievers had significantly higher scores on the achievement, dominance, and endurance scales and significantly lower scores on the heterosexuality, autonomy, and aggression scales.

Gebhart and Hoyt (1958) used male freshmen engineering and architecture students in their study. They found the overachievers to be significantly higher on the achievement, order, introversion and consistency scales and significantly lower on the nurturance, affiliation, and change scales.

Merrill and Murphy (1959) administered the EPPS to low ability freshmen who were expected to fail. The scores of those who failed as expected were compared with the scores of those who did not fail as expected. Those who were successful scored significantly higher on the deference, dominance, and endurance scales. Students who were



TABLE II  
STUDIES WHICH CORRELATE C.P.I. SCORES WITH G.P.A.

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe	
Griffin and Flaherty 1964	.01	.01	.01		.01		.01			.01			.01	.01	.01			.01	
Demos and Weijola 1966 C.P.I. used with High School G.P.A. Improved Predict.							*	*			*		*	*	*				
Gough 1964 Girls C.P.I. with Psychology grades	.05	.01				.05	.01	.05	.01	.01			.01	.01	.01	.01	.01		
Gough 1964 Boys C.P.I. with Psychology grades						.05	.01			.01			.01	.01	.01	.01	.01		
Holland 1959 Male: Standard Cross-validation		.01 .05	.01 .01	.01 .01	.01 .01		.01 .01	.01 .01	.01 .01				.01					.05 .01	.01 .01
Holland 1959 Female: Standard Cross-validation		.05		.01 .01	.05		.01	.01 .01	.01				.01	.05				.01	.01

TABLE II (Continued)

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Holland 1959 (Continued)																		
Male:																		
C.I.T.							.05	.01	.01		.05		.01					
Harvard		.01		.01	.01		.01	.01	.05				.05					.01
M.I.T.						.05	.05	.05	.05		.01		.01					
Princeton							.05	.05								.01		.01
Stanford				.05					.05					.05				.01
Yale							.05		.05		.05							.05
Female:																		
Radcliffe																.05		.05
Wellesley	.05																	
Male:																		
Standard																		
Science	.05	.01	.01	.01	.01		.05	.01	.01									.01
Non-science		.01		.01		.01	.05	.01	.01									.01
Cross-validation																		
Science			.05	.01		.05	.01	.01	.01		.01		.01			.05	.05	.01
Non-science		.01	.05	.05	.01		.05	.01	.05				.05					
Female:																		
Standard																		
Science							.05	.05					.01					
Non-science								.05						.05				
Cross-validation																		
Science								.01					.05				.05	
Non-science				.01				.01									.05	

TABLE II (Continued)

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Rosenberg, et.al., 1962																		
C.P.I. with 8 week Army Course G.P.A.	.05	.01		.01	.01	.05	.05			.01		.05		.01	.01	.05	.01	
4 week Army Course G.P.A.	.05	.01								.05				.01	.05		.01	
Gough and Hall, 1964																		
C.P.I. with 4 yr. Medical Training			.05							.05					.05			
Gough and Fink, 1964	.01	.01				.01	.01	.01	.01	.01	.05	.01	.01	.01	.01	.05		.01
Lanier, 1963																		
C.P.I. Scales Contributed to Prediction.																		
Men	*							*	*					*				
Women											*			*				

TABLE II (Continued)

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Astin, 1964. Subjects were school dropouts, so study is inverted. (+ correlation were subtracted from totals, - correlations were added.)																		
Boys									-.01				-.05				+.01	-.05
Girls				+.05					-.01		-.05		-.05				+.01	

\* Denotes scale scores which have contributed to accuracy when included in prediction equations.

Note: Numbers (.01 or .05) which appear in this table indicate the level of significance of the correlation between the personality trait under which the number appears and G.P.A. of the subjects of the investigation identified on left side of the table.

TABLE III

## STUDIES IN WHICH C.P.I. SCALES DIFFERENTIATE BETWEEN GROUPS

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Rentzel and Flaherty, 1965. High and Low Achievers in College	.01	.05	.05		.01		.01			.05			.01	.05	.01		.01	.05
Norfleet, 1968. Achievers and Non-Achievers Achievers significant above Female Population				.10			.10	.10		.10			.10	.10	.10	.10		
Hunt, 1961. Over and Underachievers Men Women	.01						.05			.01	.05		.01	.05			.05	
Young, 1963. Achieving and Underachieving 9th and 10th Grade Boys	SD					SD	SD	SD	SD	SD		SD	SD	SD	SD			SD

TABLE III (Continued)

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Pierce, 1961. Difference between high and low achievers 10th grade boys							.01	.01	.05	.05			.05	.05	.05	.05		.05
12th grade boys		.01	.01				.01			.01		.05	.05	.01	.05			
Dauids, 1966. Between high and low achievers Boys	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01		.01	.01	.01	.01	.01		
Girls	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01		.01	.01	.01	.01	.01		.01
Swisdak and Flaherty, 1964. Between those who graduated and those who did not.		.10	.10										.10					
Keimowitz and Ansbacher, 1960. 56 8th grade boys between over and underachievers in math.		.005	.05	.01			.05	.025	.005	.01	.05	.025	.01	.025	.025	.005		

TABLE III (Continued)

Studies	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	Te	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
Gill and Spilka, 1962. Between Achievers and Underachievers, 60 High School Juniors and Seniors. G.P.A. the Criteria.								.05					.01		.05			

SD = Significant Difference with level of significance not given.

Note: Numbers (.01, .05, or .10) which appear in this table indicate the level of significance of the correlation between the personality trait under which the number appears and G.P.A. of the subjects of the investigation identified on the left side of the table.

TABLE IV

RESULTS OF SOME ACHIEVEMENT RESEARCH WITH EPPS SCALES

E.P.P.S. Scales	ach	def	ord	exh	aut	aff	int	suc	dom	aba	nur	chg	end	het	agg	con
Goodstein & Heilbrun, 1962																
Correlation with G.P.A.																
Male: Total Group	.01															NC
Low Ability					.05						.05					NC
Medium Ability						.05	.05				.05	.05	.01			NC
High Ability															.05	NC
Female: Total Group																NC
Low Ability										.01	.05					NC
Medium Ability																NC
High Ability							.05									NC
Hakel, 1966																
Correlation with G.P.A.																
Total Group Quarter G.P.A.	.01		.05				.01	.01			.01		.01			NC
Core G.P.A.			.05										.01			NC
Low Ability Quarter G.P.A.	.01							.01					.05	.05		NC
Core G.P.A.			.05	.05									.05			NC
Med. Ability Quarter G.P.A.													.05			NC
Core G.P.A.																NC
High Ability Quarter G.P.A.			.01				.01									NC
Core G.P.A.	.01														.05	NC
Randomly selected																
Core G.P.A. Group 1													.05			NC
Group 2							.01						.05			NC
Group 3			.05									.05				NC



TABLE IV (Continued)

EPPS Scales	ach	def	ord	exh	aut	aff	int	suc	dom	aba	nur	chg	end	het	agg	con
Hakel, 1966 (Continued)																
Randomly selected																
Out. G.P.A. Group 1								.05								NC
Group 2						.01							.05			NC
Group 3	.05		.05								.05					NC
Gebhart & Hoyt, 1958																
Difference between:																
Under- and Overachievers	.001					.05	.05			.001	.01					.05
High, Med., Low Ability	.001	.001	.05	.01	.05				.001	.01	.05					.01
Klett, 1957.																
Difference between																
Under- and Overachievers	.05				.05				.05				.05	.05	.05	
Merril and Murphy, 1959.																
Difference between																
Expected and Overachievers		.05		.05	.01	.05			.01			.05	.05			

NC = Not considered in the study.

unsuccessful, who failed as expected, scored significantly higher on the exhibition, autonomy, affiliation, and change scales.

When these three studies are considered together it is observed that there are no scales which show similar results for all three studies. Again, considering the three studies together there are six scales which show significant differences between deviant groups in only one of the studies. It would appear that there is more disagreement than there is agreement.

Goodstein and Heilbrun (1962) related the EPPS scales to achievement. They divided 357 students at Iowa State University who were enrolled in elementary psychology courses into low, medium, and high ability groups and administered the EPPS. The results which they obtained are shown in Table IV.

Hakel (1966) attempted to replicate the Goodstein and Heilbrun study. One hundred and two males in a large two-quarter introductory psychology class were the subjects of Hakel's study. "The results showed little agreement with those reported by Goodstein and Heilbrun." (Hakel, 1966).

### Part C

#### Self Concept and Academic Success

The writings of Abraham Maslow, Gordon Allport, and Carl Rogers have emphasized the importance of the self. According to the phenomenological point of view, everything is observed, interpreted, and comprehended from this personal vantage point. From this personal vantage point there is the observation by the individual of what he as an individual does, there is also the interpretation by the individual

of what he as an individual has accomplished, and finally there is the comprehension by the individual of what he as an individual is. This comprehension of what the individual is can be equated with the concept that a person has of himself, or his self-concept.

For generations, many teachers have believed that there is a positive relationship between a student's self-concept and his performance in school. Whether or not such a relationship does in fact exist has been the concern of a number of researchers. The purpose of this section is to review the literature relative to this question.

There appeared in 1961 a book entitled *Self-Concept: A Critical Survey of Pertinent Research Literature* by Ruth C. Wylie. Wylie (1961) reviewed 493 articles and other references of various kinds. That she has completed a monumental task in her critical survey of pertinent research cannot be denied. There is however a limitation which should be mentioned. The studies which were being reported prior to 1960 in many, many instances utilized some variation of self-reporting. While Wylie is in no way responsible for the approach then in vogue, Combs' comment on the difference between self-concept and self-reporting should be considered. His comment follows: "Self theorists have defined the self-concept as what an individual believes he is. The self report, on the other hand, is what the subject is ready, willing, able or can be tricked to say he is. Clearly, these concepts are by no means the same." (Combs, 1962, page 53.) Combs' comment here is a simplification of an earlier discussion in an article which he co-authored with Soper (Combs and Soper, 1957). In this earlier article (Combs and Soper, 1957) the assertion was made that the degree to which one can rely on a self report will depend on (1) the clarity

of the subject's awareness, (2) the availability of adequate symbols of expression, (3) social expectancy, (4) the cooperation of the subject, and (5) the freedom from threat or the personal adequacy of the individual. To this list Shulman (1968) would add, (6) response set, or the particular pattern some individuals will utilize regardless of the type of question included in an inventory. It would appear that extreme caution should be exercised in the equating of the results of a self-report with the self-concept of the individual involved. Many of the investigations surveyed by Wylie were completed before the Combs and Soper article was published. Investigators who had not discovered for themselves the limitations of self-reports could very easily be misled by the results of their investigations. Wylie described the confusion she encountered in self-concept research prior to 1960 in the last chapter of her book. Part of her comment follows,

" . . . , there is a great deal of ambiguity in the results, considerable apparent contradiction among the findings of various studies, and a tendency for different methods to produce different results. In short, the total accumulation of substantive findings is disappointing, especially in proportion to the great amount of effort which obviously has been expended."

More recent research which utilizes a different method of assessing the self-concept will now be considered. The *Tennessee Self Concept Scale* (TSCS) was published in 1965 and has been used extensively in self concept research since then. The *Tennessee Self Concept Scale* is a multidimensional description of the self concept consisting of 100 statements which the subject uses to portray his own picture of himself. The gradation of responses from completely false to completely true makes possible a more precise delineation of the self concept.

In attempting to discover whether or not there is a relationship

between self concept and academic success consideration will be given to the self concept and level of education.

Do people with graduate degrees have better self concepts than do people with the bachelor's degree, or, on another level, do people with bachelor's degrees have better self concepts than high school graduates? Piety (1958), was unable to demonstrate a relationship between self concept and level of education when he correlated TSCS scores with years of education. He used an earlier form of the TSCS. Monson (1969) tested unemployed adults and found no significant difference between those who had graduated from high school and those who had not. Using 119 general hospital patients as subjects, Schwab, Clemmons, and Marder (1966) found no significant correlation between self concept scores and amount of education. Harrington (1971) divided 255 Air Force Officers into three groups on the basis of educational level attained and found no significant differences between groups on any of the 28 TSCS scales. Brooks (1970) found no significant relationship between self concept and years of formal education among teachers at community colleges. These five studies indicate that there is no relationship between years of formal education and scores on the TSCS.

These results may have been obtained because there is no relationship between self concept and education, or these results may have been obtained because of confounding variables such as age, intelligence, socio-economic level, race, and state of personal adjustment. In the five studies quoted, one or two of these variables mentioned were held constant, but not all five of them, and it may be possible that there are more confounding variables than these five listed.

Another approach to the problem has been made by using standardized achievement test scores and self concept scale scores. The achievement test scores are used as a measure of the level of education attained. If achievement test scores can be accepted as a measure of the level of education attained, the following studies should be considered. Gay (1966) administered the *Metropolitan Achievement Test* and the TSCS to 207 eighth grade Negro students in Texas. The correlation between these two instruments was significant at the .05 level of confidence.

Williams and Cole (1968) administered the *California Achievement Test* and the TSCS to 80 Georgia sixth graders. The total P score of the TSCS correlated .31 with the reading score and .33 with the arithmetic score.

These two studies would support the idea that there is a relationship between self concept and academic achievement. Different results however, were obtained by Blamick (1969) and Herskovitz (1969). Blamick tested 85 ninth grade students who were primarily white middle class students attending the P.K. Yonge Laboratory School in Florida. Nine TSCS scores were correlated with a critical thinking score, an aptitude score, and achievement scores in Social Studies, English, Mathematics, and Science. These last six scores were obtained from the administration of the Florida State-Wide Ninth Grade Testing Program. The correlation of the nine TSCS scores with 6 Florida Testing Program scores produced a total of 54 correlations. None of the correlations coefficients was significant. Herskovitz (1969) developed and implemented an educational-vocational rehabilitation program for disadvantaged Negro youth who had been identified as potential high school dropouts. There were 36 boys and 22 girls in the experimental

group. A comparable control group was selected. The TSCS was administered.

"The correlational analysis showed that the preprogram level of self-esteem was not related . . . to scores on the WAIS, or to reading and arithmetic achievement test scores. Likewise, postprogram level of self-esteem was not related to postprogram scores on the intelligence and achievement tests, . . ."

There was a positive relationship between the postprogram level of self-esteem and the amount of earnings.

Another approach to the problem under consideration has utilized course grades or grade point averages as the criteria for academic performance.

Three studies compare the G.P.A. of students with high levels of personality integration with students who have average levels of personality integration. Duncan (1966) defined the psychologically integrated person as one "who has a positive self concept, who perceives himself largely responsible for what happens to him, in whom the valuing process is internally generated, who has a wide range of interests and activities, and who is intellectually efficient." Duncan found the G.P.A. of male students with high levels of personality integration to be significantly different (higher) at the .05 level of confidence from male students with average levels of personality integration. Duncan administered the TSCS to 665 subjects in his study but did not include in any of his tables the comparative scores of his experimental and control groups. He did say that people with high levels of personality integration have positive self concepts. Seeman (1966) replicated Duncan's study, using females as subjects instead of males. Seeman used the *Duncan Reputation Test* (Duncan, 1966) to

identify his experimental group. The control group consisted of students randomly selected from the population from which the experimental group had been drawn. The TSCS was administered to both the experimental group and the control group. The Total Positive Score and the Personality Integration Score of the experimental group was found to be significantly different (higher) at the .01 level of confidence from the same scores of the control group. The G.P.A. of the experimental group was likewise found to be significantly different from the control group in the same direction and at the same level of confidence. Hughes (1967) randomly selected 51 sixth grade pupils from five Memphis, Tennessee Public Schools. These pupils were all from the middle range of the I.Q. distribution. The TSCS was used as the measure of self concept. A quote from Hughes contains his findings which are pertinent to our interest. "Children with more positive self-images tended to deal more effectively with the effects of distraction and to earn higher grades than children with negative self-images." Another series of studies compares self concept measures of students with different G.P.A. levels.

An alternative method groups students according to G.P.A. and then examines the self concept variable to see if there are differences between groups on this dimension. An early study which had a good design was executed by Reeder (1955). She designed a procedure for measuring the self concept which had test-retest reliability coefficients of .93 and .84 for an interval of two weeks, and .86 and .74 for an interval of three months. Using this procedure and while holding intelligence constant, she found that students who have poor self concepts do not achieve at a level which is commensurate with their



intelligence and that these students have poorer grades than students with good self concepts. Chickering (1958) compared actual self-perceptions with ideal self-perceptions of ninth grade students. While holding age and intelligence constant, he found an inverse relationship between academic achievement and the discrepancy between the actual and ideal self concept. Students who perceived themselves as being what they wanted to be did well, while students who perceived themselves as not being what they wanted to be did poorly. Shaw, Edson, and Bell (1960) compared the self concepts of achievers and underachievers. The mean I.Q. of the achievers was not significantly different from the mean I.Q. of the underachievers but the mean G.P.A. of the achievers was significantly different from the mean G.P.A. of the underachievers at the .01 level of confidence. The *Sarbin Adjective Checklist* (Sarbin and Rosenberg, 1955), consisting of 200 adjectives, was used as the measure of self concept. This investigation revealed that differences in self concept do exist between achievers and underachievers and that male underachievers have more negative feelings about themselves than do male achievers. Borislow (1962) used a modification of Fiedler's 24 item adjective scale (Fiedler, 1958) as a measure of self concept. From 197 University of Pennsylvania freshmen four experimental groups were formed. These four groups did not differ from each other in terms of scholastic aptitude or educational-vocational plans. The four groups were: achievers (N=84), and underachievers (N=21) both oriented toward academic attainment; and achievers (N=55) and underachievers (N=26) who were not oriented toward academic attainment. Borislow found that students who underachieve scholastically cannot be distinguished from those who achieve

scholastically on the basis of the general self-evaluation prior to or subsequent to their first semester in college.

Buchin (1966) obtained measures of academic potential and college achievement records for 175 newly-admitted freshmen and 167 seniors who had been randomly selected from their respective classes. These 342 students took the *Secord-Jourard Self Concept Test*. When Buchin analyzed this data, there was no significant relationship between achievement and self concept.

Walton (1965) matched an experimental and control group by using scores from the *Peabody Picture Vocabulary Test*. However, when the G.P.A. of these two groups are considered, a significant difference is found. After the TSCS had been administered to both groups, and the results analyzed, it was found that for twelve of fourteen TSCS scores, there were no apparent differences in the self concept of the two groups. Only the Net Conflict scores and the Total Conflict scores were significantly different.

Shaw and Alves (1963) found a significant difference at the .05 level in the self concept score of *Bill's Index of Adjustment and Values* between bright achievers and underachievers.

Iglinsky (1968) measured several variables of three groups of students entering the Stephen F. Austin State College in the fall of 1965 and 1966. Group I was composed of students not placed on scholastic probation. Group II was composed of students who were placed on scholastic probation at the end of their second semester. Group III was composed of students who were placed on scholastic probation at the end of their first semester and excluded from the college at the end of their second semester. The TSCS was used to

measure self concept. The three groups did not differ significantly on seven of the eight scales used.

Peters (1968) identified over-and-underachievers by comparing obtained grade with a grade predicted from the student's I.Q. Self concept, as measured by the TSCS, was not significantly related to over-and-under achievement.

Passmore (1970) investigated the relationship between self concept, certain personality traits, and success in elementary student teaching. She used the TSCS, *Bill's Index of Adjustment and Values*, and the *Omnibus Personality Inventory* as measuring instruments. In addition, cooperating teachers and the university supervisors rated their student teachers by means of the *Professional Judgement of Student Teacher Competence Scale*. Teaching effectiveness ratings were found to be significantly related at the .05 level of confidence to three of the scales of the TSCS.

The use of correlational statistics does not seem to be the popular way to determine the strength of the relationship between self concept and academic achievement. A few studies of this nature have been reported. These will be examined. Brim (1954) had students rank themselves on a scale extending from 1 to 100 on the basis of where they thought they would be if general intelligence tests were given to all the students of their complete college class and all the students were then ranked from 1 to 100. With this ranking as a measure of self concept, he correlated these rankings with the G.P.A. of the students involved, and with actual intelligence controlled (ACE percentile) obtained a correlation of +.20. Nichols and Holland (1963) found self ratings of scholarship correlated .20 with first year college grades for

men and .25 for women. Gay (1966) correlated TSCS scores with G.P.A. and obtained a correlation which was significant at the .05 level of confidence. This study was previously cited.

In Klahn's study (1966) a semantic differential method of using paired bipolar adjectives provided a measure of the self concept of 95 first year nursing students. This self concept measure did not correlate significantly with any of the other variables considered in the study.

In the preceding section the conclusions of individual studies frequently differ with the conclusions of other studies which have been cited. The relationship which exists between self concept and academic achievement is clouded at best. Perhaps part of the dilemma is caused by the fact that the measurement of self concept is accomplished by the measurement of second or third or perhaps even fourth order criterion. There is no first order index of one's self concept. There are theories about self concept. One such theory might be that a person's self concept effects that person's motivation. Then an attempt is made to measure motivation. Again, we find that there is no first order measure of motivation, so something which we theorize represents motivation is measured, and from this measurement we assert that we have measured self concept. It is possible that our assertion is more a matter of wistful thinking than it is reality. When we use these measurements, it is not surprising to the author that the results which we obtain are inconclusive.

## CHAPTER III

### METHODOLOGY AND DESIGN

A number of different things contribute to the attrition rate and a number of different things have been done to lower the attrition rate. This study concerns itself with that part of the attrition problem which occurs when students withdraw from college because their academic record has been unsatisfactory. It recognizes group counseling as a method which has shown promise as a way to deal with this problem. In an effort to improve the efficiency of this method, this study seeks to determine if there is a differential response in terms of grade point average to structured group counseling that can be associated with differences in personality. Stated in another way, which personality traits of students participating in structured group counseling correlate with their grade point averages?

#### Sample Selection and Procedure

Students at Oklahoma State University in the College of Arts and Sciences who had disqualified themselves by their low grades and had subsequently been suspended were used as subjects in this investigation. At the end of every semester a number of students are suspended from the University for academic deficiency. A student is suspended when his academic performance falls below the minimum level established by the University for continued enrollment. The minimum level of proficiency

established by the University for continued enrollment was exactly the same for students in both the control group and the experimental group. This minimum level of proficiency is defined in the 1970-1972 catalog on page 18, section 48, paragraph c and in the 1971-1973 catalog on page 39, section 35, paragraph c. Both definitions are exactly the same in every detail. This catalog definition of academic deficiency follows:

"c. Suspension from the university for academic deficiency. A student who consistently fails to make satisfactory progress toward his approved objective will be suspended from the university for academic reasons. A student will be suspended from the university under this provision when he achieves less than a 2.0 average for the Spring Semester unless his accumulative average over all hours attempted is equal to or above that stipulated in the schedule below.

Total hours attempted	Minimum grade point average required
less than 36	1.4
36 through 54	1.5
55 through 73	1.6
74 through 90	1.7
90 through 108	1.8
over 108	2.0

A student who makes less than 1.4 average for an academic year, and less than a 2.0 average his last semester, will be suspended regardless of his accumulative average."

Some of the students who are suspended from the University because of academic deficiency ask to be re-instated. Students in the College of Arts and Sciences who have been suspended and ask to be re-instated have a conference with Dr. Dan Wesley, Head of Student Personnel Services of this college. During this conference a decision is made as to whether or not this student will be re-instated. Approximately fifty students are re-instated at the beginning of the second semester each year. Students who were re-instated for the second semester of the 1970-1971 school year were utilized as the control group. Students who

were re-instated for the second semester of the 1971-1972 school year were utilized as the experimental group. None of the students in either the control group or the experimental group knew they were part of a study. Students in the experimental group were told that everything that was being done was for their benefit. It was not necessary to tell students in the control group anything.

When it was determined that this investigation would utilize re-instated students the criteria for re-instatement became the criteria for inclusion in this investigation. The author imposed the requirement that students included in this investigation be enrolled for a minimum number of 12 hours. This lower limit was set because 12 hours is the minimum number of hours a student can carry and still be classified as a full time student. Students who were re-instated at the beginning of the second semester of the 1971-1972 school year (the experimental group) were required to attend structured group counseling sessions as a condition of re-instatement. Students in the experimental group whose scores were utilized in the computations were students who had attended a minimum of ten group counseling sessions. Included in the investigation were male and female sophomores, juniors, and seniors. No student in either the control or experimental group earned a grade point average of 2.00 or above in the semester immediately preceding their being included in this investigation.

Beginning with the first week of the second semester of the 1971-1972 school year, group counseling sessions were conducted every week for thirteen weeks. Students who were re-instated for the second semester of the 1971-1972 school year were required to attend these group counseling sessions. Their meeting of this requirement was a

condition of their re-instatement and continued enrollment. The investigator served as leader of the group counseling sessions and attempted to develop the kind of relationship between himself and the students that would be conducive to effective group counseling. At the same time the investigator was responsible for the enforcement of the requirement that re-instated students attend the group counseling sessions. The investigator perceived these two roles as being contradictory.

There were 56 students who were involved in the experimental group at the beginning of the semester. There were ten of these students whose scores were not utilized in the computations. These ten students are accounted for as follows. Four students who were re-instated for the second semester, 1971-1972, enrolled for less than 12 hours. Dr. Dan Wesley, Head of Student Personnel Services of the College of Arts and Sciences, requested that these four students be included in the group counseling experience although they could not be included in the experimental group. Three students who were meeting the requirements for inclusion in the experimental group withdrew from the University during the semester. Two students who met the criteria for inclusion in the experimental group enrolled late in the semester and did not meet the attendance requirement of attending a minimum of ten group counseling sessions. One student met the criteria for re-instatement in the University and was enrolled at the beginning of the semester for more than 12 hours, but the investigator was unsuccessful in his attempts to secure this student's attendance at 10 group counseling sessions. This student's G.P.A. at the end of the semester was 0.00.



Some of the students included in this investigation did not complete all the assignments of some of the courses in which they were enrolled. Table V and Table VI provide information about the incomplete grades of students in both the control and experimental groups. Incomplete grades of students in both the control group and the experimental group were treated in exactly the same way, that way being the way that all incomplete grades in the College of Arts and Sciences at Oklahoma State University are treated. The G.P.A. for the semester in which a student receives a grade of incomplete is computed by dividing the grade points earned by the number of hours of credit earned during that semester. Since a student does not receive grade points nor earn credit hours in any course for which he receives a grade of incomplete, the number of credit hours that would have been earned if a passing letter grade had been received does not enter into the computation of the grade point average for that semester. Of course the student must, at some later date, complete all of the assignments which were uncompleted at the end of the semester, or the student will receive a grade of 'F' for the course, but whether he does in fact complete all of the assignments or not has no bearing on his G.P.A. for the semester in which he received a grade of 'I'.

Table VII provides a breakdown of the students used in this investigation by class and sex. The students included in Table VII in the experimental group met all the requirements for inclusion in this group. The *Fisher Exact Probability Test* was used to determine if there are significant differences in the numbers that appear in Table VII. The *Fisher Exact Probability Test* was used instead of a  $\chi^2$  because the 2 x 2 contingency table which would be constructed would have two of

TABLE V  
STUDENTS RECEIVING INCOMPLETE GRADES  
CONTROL GROUP

Student Number	Course Number and Course Title	Requirements to Remove Incomplete
2	GEOL 2363 Elementary Petrology	Make up two exams.
21	ED PSY 4223 Educational Psychology	(A) turn in the final paper by the official end of the <del>summer session</del> , 1971 or (B) enroll again in Ed Psy 4223 in the next 12 months.
22	HUMAN 3050 Humanities of Non-Western Culture	Turn in Paper I and Paper II.
24	HIST 3933 Medieval History	Must take final.
24	EDUC 2113 School In American Society	Research material with <del>minimum</del> of 10 books from class bibliography used as resource material.
40	HUMAN 2224 Humanities of Western Culture	Critique the play.
46	BOT 3114 Principles of Plant Identification	Must submit required collection of 50 plants.
47	POL SC 2013 American Government	Take Final Examination.
52	RADTV 3101 Station Participation	Student must complete all laboratory assignments.

TABLE VI

STUDENTS RECEIVING INCOMPLETE GRADES  
EXPERIMENTAL GROUP

Student Number	Course Number and Course Title	Requirements to Remove Incomplete
7	ENTO 3554 Insect Biology & Classification	The "I" grade will be removed when.....completes the exams missed due to illness.
8	PSYCH 3743 Social Psychology	Needs to complete project.
17	EDPSY 3113 Psychological Foundations of Childhood	Repeat entire course over at earliest convenience.
28	ZOOLOGY 2204 General Zoology	Must take Exam 2 and complete lab work.
33	ENGL 3493 Literary Aspects of the King James Bible	.....has yet to hand in his term paper.
35	CHEM 3015 Introductory Organic Chemistry	Remove I by taking last half of lab work.
42	ENGL 4023 Structure of the English Language	Do tests 3 and 4, Deep Structure Analysis and Report of Observations.
52	ENGL 1113 Freshman Composition	Must audit 1113 and do classwork for grade before taking 1323.
54	JB 3101 Radio-TV-Film Laboratory	Must complete project.
54	SOC 4433 Social Ecology and Life Processes	Take two exams.

four cells with expected frequencies of less than 5. Siegel (1956) recommends that the  $\chi^2$  not be used in situations similar to the above described situation. The use of this statistic indicated that the male-female composition of sophomores in the experimental group is not significantly different from the male-female composition of sophomores in the control group. The same is true for the male-female composition of both juniors and seniors of the experimental group when compared to the male-female composition of juniors and seniors of the control group.

TABLE VII  
CLASSIFICATION AND SEX OF STUDENTS IN STUDY

	Control		Experimental		<i>Fisher Exact Probability Test Values</i>
	Male	Female	Male	Female	
Sophomores	20	2	12	5	p = 0.186*
Juniors	16	3	11	1	p = 0.738*
Seniors	13	1	14	3	p = 0.604*

\*These values are far above the 0.05 level, therefore we conclude that the male-female composition of the three classes in the control group is not significantly different from the male-female composition of the three classes in the experimental group.

Table VIII is a  $\chi^2$  used to determine if there is a significant difference in the male-female composition of the total experimental group when compared with the male-female composition of the Total control group. Table VIII demonstrates that, in terms of total numbers of people involved, there are no significant differences between the control and experimental groups.

TABLE VIII

 $\chi^2$  COMPARISON OF MALE-FEMALE COMPOSITION OF TOTAL N

Control Group	M Expected Frequency	F Expected Frequency	55
	46.831	8.168	
	Observed Frequency	Observed Frequency	
	49	6	
Experimental Group	Expected Frequency	Expected Frequency	46
	39.168	6.831	
	Observed Frequency	Observed Frequency	
	37	9	
	86	15	101

$$df = (r-1) (K-1) = 1$$

$$\chi^2 = 1.694^*$$

\*With one degree of freedom, the  $\chi^2$  value must be equal to or greater than 3.84 for there to be a significant difference at the .05 level of significance.

Table IX is a  $\chi^2$  used to determine if there is a significant difference in the sophomore - junior - senior composition of the control group when compared with the sophomore - junior - senior composition of the experimental group. Table IX demonstrates that the two groups are not significantly different from each other in the proportion of any one class to the whole.

TABLE IX  
 $\chi^2$  COMPARISON OF SOPHOMORE-JUNIOR-SENIOR  
 COMPOSITION OF TOTAL N

	Sophomores	Juniors	Seniors	
Control Group	Expected Frequency 21.237	Expected Frequency 16.881	Expected Frequency 16.881	55
	Observed Frequency 22	Observed Frequency 19	Observed Frequency 14	
Experimental Group	Expected Frequency 17.762	Expected Frequency 14.118	Expected Frequency 14.118	46
	Observed Frequency 17	Observed Frequency 12	Observed Frequency 17	
	39	31	31	101

$$df = (r-1) (K-1) = 2$$

$$\chi^2 = 1.695^*$$

\*With two degrees of freedom, the  $\chi^2$  value must be equal to or greater than 5.99 for there to be a significant difference at the .05 level of significance.

Table X compares other variables of the control and experimental groups at the beginning of the study. The selection of these variables does not preclude the possibility that other factors might have an effect upon G.P.A. The variables selected for comparison are

TABLE X

COMPARISONS OF CONTROL AND EXPERIMENTAL GROUPS ON VARIABLES OF ACCUMULATIVE G.P.A.,  
ACCUMULATIVE HOURS ATTEMPTED, AND ACT SCORES

	Number of Students	Mean	Standard Deviation	Standard Error	'T' Value*
Accumulative G.P.A.					
Control Group	55	1.644	0.287	0.039	-0.69**
Experimental Group	46	1.684	0.297	0.044	
Accumulative Hours Attempted					
Control Group	55	77.236	27.692	3.734	-1.53**
Experimental Group	46	87.282	37.954	5.596	
ACT Scores					
Control Group	37	21.297	4.122	0.678	0.34**
Experimental Group	36	20.972	4.088	0.681	

\*'T' values reported derived from pooled variance estimate. Hetro check showed homogeneous variance not significant (.01) for all comparisons.

\*\*'T' values obtained not significant at the .05 level.

accumulative G.P.A., total number of hours attempted before the study, and ACT scores.

A measure of academic performance from the beginning of the student's college career until the time of inclusion in the investigation was considered to be an appropriate variable. Accordingly the accumulative G.P.A. was utilized as a comparison variable. The mean accumulative G.P.A. of the control group was 1.644. The mean accumulative G.P.A. of the experimental group was 1.684. The mean accumulative G.P.A. of the experimental group was therefore found to be four one hundredths (0.04) of a letter grade higher than the mean accumulative G.P.A. of the control group. When a T test was used to determine if this difference between these two means was significant, it was found that this difference was not significant at the .05 level.

Another variable which was considered to be appropriate to the purpose of this investigation was the amount of experience these people had had as college students earning college credit. The number of college credit hours attempted was accepted as a measure of the amount of experience a person had had as a college student earning college credit. It was found that the mean number of hours attempted by students in the control group was 77.2364 and the mean number of hours attempted by students in the experimental group was 87.2826. If all students in both groups had received passing grades for all courses attempted, and if 120 hours of credit is required to earn a degree, students in the control group would be classified as second semester juniors, having 2.2364 hours of credit more than the minimum required for this classification and students in the experimental group would



also be classified as second semester juniors, being 2,7174 hours short of the minimum number of hours required to be classified as first semester seniors. The difference between the control group mean of the 77.2364 and the experimental group mean of 87.2826 is 10.0462 hours. When a T test was used to determine if this difference between these two means was significant it was found that this difference was not significant at the .05 level. Complete information was available on all students for making the accumulative G.P.A. and the total number of hours attempted comparisons.

The third variable selected was the capability of these people to do college work. ACT scores were accepted as a measure of their capability or capacity. Complete information was not available for making the comparison between ACT scores of the control and experimental groups. Students who enroll at Oklahoma State University as first semester freshmen are required to present ACT scores at the time of their enrollment. Students who transfer to Oklahoma State are allowed to transfer to Oklahoma State University without ACT scores if their college grades are satisfactory at the time of transfer. As a result of this policy, there were students in both the control group and the experimental group for whom ACT scores were not available. Using the ACT scores that were available, this third comparison was made. The mean ACT score of students in the control group was 21.2973. The mean ACT score of students in the experimental group was 20.9722. The difference between these two means is 0.3251. When a T test was used to determine if this difference between these two means was significant, it was found that this difference was not significant at the .05 level.

In terms of the quality of college work done, in terms of the

quantity of college work attempted, and in terms of capacity to do college work, these two groups, drawn from the same population, were not significantly different from each other. This information is summarized in Table X.

### Measurement

In order to obtain a comprehensive measure of the various aspects of personality two instruments were used. These two instruments were: *The California Psychological Inventory* and *The Tennessee Self Concept Scale*. These instruments measure personality traits of normal people. *The Survey of Study Habits and Attitudes* was also used.

*The California Psychological Inventory (CPI)* was developed by Harrison G. Gough (1957) to provide brief, accurate, and dependable subscales for the identification and measurement of personality characteristics important for normal people. Each scale is intended to cover one important facet of interpersonal psychology, and the total set of 18 is intended to provide a comprehensive survey of an individual from a social interaction point of view. A complete listing of the names of the scales and the abbreviation of each scale will be found in Appendix B.

One of the reasons for the selection of *The California Psychological Inventory* was its widespread use in studies which are somewhat related to this study. Studies which have attempted to correlate personality traits with academic achievement are representative of studies related to this one. The test-retest reliability and the validity of this instrument entered into the decision to select it. Another consideration was the availability of scales to measure traits

applicable to this study.

*The CPI Manual* reports two test-re-test reliability studies. One hundred twenty-five high school girls and 101 high school boys took the test as juniors and again one year later as seniors. Correlations were computed for both girls and boys for each of the 18 subscales. This yielded a total of 18 correlations. Of these, the highest was .77 (intellectual efficiency, girls) and the lowest .38 (communality, boys). In addition to these two correlations there were 10 that were .70 or above, 19 that were .60 or above, 2 that were .50 or above, and 3 that were .40 or above. The other study utilized 200 prison males who took the test twice with a lapse of from 7 to 21 days between testings. These 18 correlations ranged from .87 (tolerance) to .49 (flexibility) with 9 additional correlations that were .80 or above, 5 that were .70 or above, and 2 that were .50 or above.

The manual contains a more than adequate discussion of validity. Each of the 18 scales is considered separately. Frequently a CPI subscale mean of the scores of people independently judged to be high on a trait was compared to the subscale mean of the scores of people independently judged to be low on a trait and the difference between these means was found to be significant at the .01 level. Q sorting was also used, as were correlations of CPI scores with scores from other instruments. In a discussion which has been condensed, with every superfluous word eliminated, but which nevertheless continues for five pages, an abundance of material supports the validity of the CPI.

The scales considered by the author to be appropriate to this study were: Dominance (Do), Capacity for status (Cs), Sociability (Sy), Social presence (Sp), Self-acceptance (Sa), Responsibility (Re),

Socialization (So), Tolerance (To), Achievement via conformance (Ac), Achievement via independence (Ai), and Intellectual efficiency (Ie). These scales were chosen because they measure traits which are apparently connected with over and underachievement. Taylor (1964), after reviewing 39 studies, suggests seven traits which he believed to be associated with over and underachievement. Several of the above mentioned scales measure various aspects of these traits. Seven of the 11 scales listed were selected after studying Taylor's article. These seven scales selected in this manner were also found by Stasser (1970) to correlate with academic achievement. Stasser lists 14 CPI scales which correlate with academic achievement. Of the remaining seven scales listed by Stasser, four were selected because of the strength of the correlations shown. There were four correlations between capacity for status and academic achievement which were significant at the .01 level. Because of these correlations, capacity for status was included. Turning to other scales, there were two correlations each between three other scales and academic achievement which were significant at the .01 level. These scales were also added.

Without additional effort by the author, scores for the other scales of this instrument were available. Because of the minimal cost and time involved, the author computed correlations for all the scales of the instrument to see if any of them shed any light on the problem at hand.

Attention has been focused upon a possible relationship between self-concept and academic achievement. Investigations have been conducted to determine if such a relationship exists. At least six studies (Shaw, Edson, and Bell, 1960; Fink, 1962; Brookover, Thomas,

and Paterson, 1964; Combs, 1964; Gill, 1959; and Kubiniec, 1970) provide empirical data to support the idea that a relationship does exist between self concept and academic achievement. After reviewing this information, the decision was made to use an instrument that would measure self concept. The *Tennessee Self Concept Scale (TSCS)* was selected.

Many personality instruments are similar in nature and therefore measure the same characteristics. Vincent (1968) compared selected scales of the CPI and the TSCS and found these selected scales did not correlate at significant levels. The author therefore concludes that the TSCS will measure characteristics not measured by the CPI, and thus provide additional dimensions to the study.

The TSCS appears to have gained rather wide acceptance. In the reading of numerous articles, the author has felt keenly the limitations involved in summarizing the findings of a group of articles when many different instruments have been used. Comparisons of studies and integration of information from different studies is facilitated when recognized instruments are used.

The TSCS is a multidimensional description of the self concept. It consists of 100 self descriptive statements which the subject uses to portray his own picture of himself. This self administered scale can be used with subjects age 12 or above who are able to read at sixth grade level or above. It is applicable to the range of psychological adjustment from healthy, well adjusted people to psychotic patients.

The test-retest reliability coefficients for the counselor form range is from .75 (Self-criticism) to .92 (Total Positive Self). The highest correlation coefficient (Total Positive Self) was obtained on

the most important single score of the Counseling Form. The Identity correlation was .91, the Social Self correlation was .90, and all the others were in the eighties. Intercorrelation of Scale Scores show the major dimensions of self perception are relatively independent of each other.

Validation procedures are of four kinds: (I) content validity, (II) discrimination between groups, (III) correlation with the *Minnesota Multiphasic Personality Inventory* and the *Edwards Personal Preference Schedule*, and (IV) personality changes under particular conditions. These approaches to validation of the TSCS all suggest that this instrument does measure what it purports to measure.

There are two ways to score and profile the TSCS. The first method provides information useful in counseling. The second method provides information useful in clinical work and for research. This investigation will utilize the first method of scoring and profiling to secure the information useful in counseling. This method yields scores in the following areas:

Physical Self	Identity
Moral-Ethical Self	Self Satisfaction
Personal Self	Behavior
Family Self	Self-Criticism
Social Self	Total Positive Self.

Of these scores, the following were selected. The Total Positive Self score was used because it reflected the overall level of self esteem. It is comparable to the score of other single score instruments that measure self concept. All the studies that support the idea of a relationship between academic achievement and self concept

would support the use of this scale.

Caplin (1969) found a positive correlation between personal/social qualities and academic achievement of .45. This correlation was significant at the .001 level of significance. The Personal Self Scale was therefore chosen for this study.

Garvey (1970), using the TSCS found that student teachers who are rated high tend to score high on the Personal Self Scale and student teachers rated low tend to score low. Caplin's study (1969), mentioned above, provides information which is pertinent to this scale also. In view of these findings, the Social Self scale was also included.

Shaw and Alves (1963) discovered that male achievers and underachievers are significantly different on self acceptance. A careful reading of a discussion of self acceptance (Bills, Vance and McLean, 1959) and the descriptions of the scales of the TSCS lead the author to conclude that the TSCS scale that most closely approximates the self acceptance of the Shaw and Alves study is the Self Satisfaction Scale.

The Self-Criticism score is an indication of an individual's capacity for self-criticism. High scores generally indicate a normal, healthy openness and capacity for self-criticism, while low scores indicate defensiveness. If students who have not been doing acceptable work are to improve their work, it would appear that changes of some kind are going to be necessary. The author postulates that ability to recognize deficiencies will enhance the probability of change. If these suppositions are correct, the Self-Criticism scale becomes an appropriate scale for this study.

The scales mentioned in the preceding paragraphs are related to

the purpose of this investigation and the use of these scales is supported somewhat by the studies which have been cited. These factors were important considerations in the selection of this instrument. Without additional effort by the author, scores for the other scales of this instrument were available. Because of the minimal cost and time involved, the author computed correlations for all the scales of this instrument to see if any of them shed any light on the problem at hand.

These two instruments were used to provide an assessment of personality and self concept of the people who participated in group counseling.

The *Survey of Study Habits and Attitudes (SSHA)* was also used in this investigation. This 100 item self-rating inventory is designed to measure a student's scholastic motivation in terms of his behavior and attitudes. It helps to identify habits and attitudes which may prevent students from taking full advantage of their educational opportunities. The scales of the SSHA are:

Study Habits

DA - Delay Avoidance

WM - Work Methods

SH - Study Habits Skill

Study Attitudes

TA - Teacher Approval

EA - Education Acceptance

SA - Study Attitudes

Study Orientation

SO - Study Orientation

Three of these scores are obtained by adding together scores from the



other 4 scales.

The suggestions obtained from the SSHA about these habits and attitudes were utilized in planning content for the counseling sessions.

The SSHA scores are only moderately correlated with scholastic aptitude or mental ability, but they are significantly related to academic success. Validity studies correlated grade point averages and SSHA scores for 1,756 men and 1,118 women in ten colleges. The correlations for men varied from .27 to .66 and for women from .26 to .65. Across the ten colleges included in this study the average validity coefficient was .42 for men and .45 for women. The *American Council on Education Psychological Examination (ACE)*, a scholastic aptitude test, was correlated with the SSHA. This correlation was low, indicating the SSHA did not measure scholastic aptitude. The SSHA measures characteristics which are important to academic success but which are not measured by mental ability tests.

The reliability of the SSHA is supported by test-retest administration of the instrument to 144 freshmen with a four week interval between these administrations. Correlations obtained were: Delay Avoidance .93, Work Methods .91, Teacher Approval .88, and Education Acceptance .90. Another test-retest study of reliability involved 51 freshmen and a 14 week interval between administrations. After this 14 week interval the correlations were: Delay Avoidance .88, Work Methods .86, Teacher Approval .83, and Education Acceptance .85.

The SSHA was administered first, then the CPI and the TSCS. All three of these were given during the early part of the second semester of the 1971-1972 school year.

Post-treatment measures of those who participated in group

counseling were their Grade Point Averages.

### Procedure

The treatment for the experimental group consisted of structured group counseling. After studying the class schedules of students in the experimental group, students were assigned to a group that met at a time which did not conflict with their classes. Each group had approximately 10 students. Enough groups were formed to accommodate the students involved in the experimental aspect of the study.

The first group counseling sessions were held as soon after the beginning of the second semester as possible, and continued for 13 weeks, except that no sessions were held during the week of midterm examinations. Each group met once each week. In view of the research cited earlier, the author felt that an entire semester was required to achieve the desired results.

The length of each group counseling session was one and one half hours. The author selected this length of time because of the possibility of running out of time if only one hour were being used. This could happen if the first part of the hour were used in friendly conversation. To prolong the session for more than one hour increases the chances that the session will drag toward the end. The author had had limited experience with group counseling sessions of one and one half hours and had learned to be comfortable with this length of time.

During the group counseling sessions, a continuous effort was made to maintain a relaxed and open atmosphere.

The first activity involved a discussion of the *Brown-Holtzman Survey of Study Habits and Attitudes*. In the discussion of this

instrument, an attempt was made to help the students understand the meaning and significance of various scores and to pinpoint their strengths and weaknesses.

Group members spent a considerable amount of time criticizing numerous aspects of university life. They were saying, in effect, it is not our fault that we are in this group. After considerable discussion of these things, some of the group members were able to realize what was really being said, and they were able to confront the other members with this information.

The benefits of budgeting time were considered. Several of the group members told about their past experiences with time budgets. An effort was made to show that some of these previous attempts to budget time were unrealistic. Group members were not required to submit time budgets, but it was suggested that they begin to plan their activities instead of doing each moment what they wanted to do during that moment. At later sessions, several of the students reported some success in planning their study time.

The SQ3R study method was introduced and explained. The five things which a person does when using the SQ3R method are:

- (1) Survey the material by noting the chapter title, glancing over the main headings of the chapter, and by reading the final summary paragraph.
- (2) Change the first main heading into a Question.
- (3) Actively search for the answer to this question while Reading the first main division.
- (4) Having read the first division, look away from the book and briefly Recite the answer to your question and jot down key

words to serve as cues to this answer. Repeat steps 2, 3, and 4 with each successive main division.

- (5) When all the divisions have been read, Review the notes taken as a part of step 4, and, after covering them, Review the major subpoints of each main division.

A considerable amount of time was spent discussing student-professor conferences. It would appear that the first reaction of group members to a professor is that he is someone to be avoided. Before the group counseling sessions were concluded however, several group members had had positive experiences with student-professor conferences.

Specific information about tutoring services was provided.

Attention was given to studying for tests, test taking skills, and test anxiety. Material from Robinson's book (1970) was reviewed for this purpose. The group facilitator commented on strategies which had proven helpful to him. Group members also volunteered information.

The relationship that exists between vocational commitment and academic success was explored. Students who had not made a firm commitment to a specific career were told where they could obtain occupational and vocational information. The *Strong Vocational Interest Blank* was administered to all who requested it. The facilitator was continuously aware of the stated vocational choice or preference of each group member and reference was made to this vocation when it was relevant.

Personal problems were discussed at different times during the course of the group counseling sessions. The problem most frequently mentioned involved conflict between the student and his parents. Several group members were in the middle of an identity crisis. There

were other miscellaneous problems which the students mentioned from time to time.

### Research Methodology

The "t" test was used to determine whether or not there were significant differences between the control group and the experimental group before members of the experimental group participated in structured group counseling. The variables considered were the accumulative G.P.A., the accumulative number of credit hours attempted, and ACT scores. The "t" test was also used after members of the experimental group participated in structured group counseling to see if there were significant differences between the two groups in terms of G.P.A.

McNemar (1962) discusses the use of the F, t, and Z tests with the kind of data with which this statistic has been used in this investigation. His comment follows:

"The crucial question, however, is whether or not the F, t, or Z tests can, in view of their dependence on means and variances, be safely used when the scale of measurement is, as is the rule in psychology, somewhere between the ordinal and interval scales. The question boils down to this: Will Fs, ts, and Zs follow their respective theoretical sampling distributions when the underlying scores are not on an interval scale? The answer is a firm yes provided the score distributions do not markedly depart from the normal form. Nowhere in the derivations purporting to show that various ratios will have sampling distributions which follow either the F or t or the normal distribution does one find any reference to a requirement of equal units. The attaining of an interval scale of measurement, though desirable for some reasons, will not alter the risks of type I and type II errors when statistical inferences are made."

A second set of statistical computations utilized the grade point averages of students in the experimental group and the scores from the

previously administered personality instruments. This second computation was a correlation designed to reveal the personality traits that are associated with differential response to structured group counseling. Correlations between scores of the scales from the personality instruments and G.P.A. would indicate that there is a relationship between these scores and G.P.A. when students participate in structured group counseling. Guilford (1965), in his discussion of the use of the *Pearson Product-Moment Coefficient of Correlation*, says, "The most important requirement for the legitimate use of the *Pearson r* is that the trend of relationship between Y and X be rectilinear - in other words, a straight line regression." This condition was met in the use of this statistic in this investigation.

Because sex determined personality differences may be involved, one set of correlations was computed using only the men's scores. Another set of correlations was computed using all scores. Because there were only 9 women included in the experimental group, a set of correlations using only the women's scores did not appear to be appropriate.

## CHAPTER IV

### PRESENTATION OF RESULTS OBTAINED FROM THE DATA

#### Introduction

This investigation seeks to determine if there is a differential response in terms of grade point averages to structured group counseling that can be associated with differences in personality. A presupposition of this study is that structured group counseling can improve students' grade point averages. In order to determine if there is a relationship between academic success and selected personality traits when students participate in structured group counseling, a number of students who have achieved at least a modicum of success as a result of participation in structured group counseling is necessary. This chapter will therefore concern itself with whether or not students who have participated in structured group counseling did improve their academic performance, and if they did, is it possible at this time to identify personality traits which correlate with this improvement in academic performance, i.e., their G.P.A. Chapter IV will deal with the hypotheses presented in Chapter I. Each hypothesis will be treated separately.

#### Findings

The first hypothesis was concerned with comparing the control

group with the experimental group. The first hypothesis was stated as follows:

The mean Grade Point Average of students in the experimental group will not be significantly different for the semester during which they participated in structured group counseling from the mean Grade Point Average of students in the control group for the semester during which they served as the control group.

Comparisons were made of these two groups before and after members of the experimental group participated in structured group counseling. The comparisons that were made before members of the experimental group participated in structured group counseling were considered in Chapter III. This chapter will consider the comparisons that were made after both groups had completed an additional semester as students at Oklahoma State University, during which semester the members of the experimental group participated in structured group counseling. An examination of the grades students earned during this additional semester showed that 60% of the students in the experimental group earned a G.P.A. of 2.00 or above. To achieve this percentage, 28 of 46 students earned a G.P.A. of 2.00 or above. Forty percent of the students in the control group earned a G.P.A. of 2.00 or above. To achieve this percentage, 22 of 55 students earned a G.P.A. of 2.00 or above.

Table XI summarizes the comparisons of the academic performance of the two groups. The mean G.P.A. of students in the experimental group for the semester during which they participated in structured group counseling was 1.9783. The median G.P.A. was 2.105. The mean G.P.A. of students in the control group for the semester during which they served as a control group was 1.6422. The median G.P.A. was 1.75. The



TABLE XI

COMPARISON OF G.P.A. EARNED BY STUDENTS DURING THE SEMESTER OF THE STUDY

	Number of Students	Mean G.P.A.	Standard Deviation	Standard Error	'T' Value*
Experimental Group	46	1.9783	0.893	0.132	
					2.03**
Control Group	55	1.6422	0.770	0.104	

\*'T' values reported derived from pooled variance estimate. Hetro check showed homogeneous variance 'F' test results not significant (.01).

\*\* Significant at the .05 level.

difference between these two means is in the desired direction. The mean G.P.A. of the experimental group is higher than the mean G.P.A. of the control group. The value obtained from the computation of a "t" test using the means of these two groups was 2.03. This value indicated that these two groups are significantly different from each other at the .05 level of confidence. The first hypothesis is therefore rejected. The first hypothesis says that the mean G.P.A. of the experimental group will not be significantly different from the mean G.P.A. of the control group. An examination of Table XI will show that the mean G.P.A. of the experimental group is higher than the mean G.P.A. of the control group and the "t" value obtained indicates that it is significantly higher.

The second hypothesis was concerned with whether or not there was a relationship between gain in G.P.A. and personality traits of students who participate in structured group counseling. The second hypothesis follows:

No significant correlations between the Grade Point Averages of students in the experimental group and their scores on any of the scales of the *California Psychological Inventory* or the *Tennessee Self Concept Scale* will be found.

Correlation coefficients were computed between the G.P.A. of students in the experimental group and their scores on the CPI and TSCS.

Table XII gives the correlation coefficients obtained when the scores of the CPI were correlated with the G.P.A. of students in the experimental group. The second hypothesis is accepted for the following scales:

TABLE XII

CORRELATION COEFFICIENTS OBTAINED WHEN CALIFORNIA PSYCHOLOGICAL  
INVENTORY SCORES AND G.P.A. OF STUDENTS IN THE  
EXPERIMENTAL GROUP ARE CORRELATED<sup>1</sup>  
(Pearson Product Moment)

Scale Name	Male & Female N = 46	Males Only N = 37
Dominance	0.091	0.041
Capacity for Status	0.094	-0.105
Sociability	0.138	0.278
Social Presence	-0.158	-0.139
Self-acceptance	0.183	0.058
Sense of Well-being	-0.174	-0.047
Responsibility	0.139	0.048
Socialization	-0.012	0.074
Self-control	0.124	0.094
Tolerance	-0.021	-0.008
Good Impression	0.012	0.011
Communality	0.295*	0.419**
Achievement Via Conformance	0.192	0.256
Achievement Via Independence	-0.207	-0.219
Intellectual Efficiency	-0.005	0.059
Psychological-Mindedness	-0.070	-0.017
Flexibility	-0.472**	-0.520**
Femininity	0.127	0.048

Total N of 46      df = 44

Males Only N of 37      df = 35

\* = Significant at the .05 level

\*\* = Significant at the .01 level

<sup>1</sup>Popham, Table D, page 396, (1967).

Dominance	Self-control
Capacity for Status	Tolerance
Sociability	Good Impression
Social Presence	Achievement Via Conformance
Self-acceptance	Achievement Via Independence
Sense of Well-being	Intellectual Efficiency
Responsibility	Psychological-mindedness
Socialization	Femininity.

The second hypothesis is rejected for two scales: Communality and Flexibility. The correlation between Communality and G.P.A. is significant at the .05 level of significance for the total group and at the .01 level of significance for males. The correlation between Flexibility and G.P.A. is a negative correlation significant at the .01 level of significance for both the total group and for males. This negative correlation is  $-0.52$  for males, the highest correlation obtained in this investigation,

In Chapter III, on page 68, personality traits which have been found to correlate with G.P.A. were identified. These traits were: Dominance (Do), Capacity for status (Cs), Sociability (Sy), Social presence (Sp), Self-acceptance (Sa), Responsibility (Re), Socialization (So), Tolerance (To), Achievement via conformance (Ac), Achievement via independence (Ai), and Intellectual efficiency (Ie). The author expected these same traits to correlate with G.P.A. in this investigation. Such was not the case. The uniqueness of the population may account for the fact that none of the above named traits correlated with G.P.A. at significant levels.

Table XIII gives the correlation coefficients obtained when scores

TABLE XIII  
 CORRELATION COEFFICIENTS OBTAINED WHEN TENNESSEE  
 SELF CONCEPT SCALE SCORES AND G.P.A. OF  
 STUDENTS IN THE EXPERIMENTAL GROUP  
 ARE CORRELATED<sup>1</sup>  
 (Pearson Product Moment)

Scale Name	Males & Females N = 46	Males Only N = 37
Distribution	0.158	0.166
Self Criticism	0.131	0.138
Identity	0.178	0.207
Self Satisfaction	0.209	0.325*
Behavior	0.357*	0.447**
Physical Self	0.405**	0.490**
Moral-Ethical Self	0.249	0.285
Personal Self	0.159	0.271
Family Self	0.292*	0.471**
Social Self	0.150	0.162
Row Variability	-0.204	-0.301
Column Variability	-0.003	-0.072
Total Variability	-0.111	-0.211
Total Self Concept	0.349*	0.451**

Total N of 46                      df = 44

Males Only N of 37                df = 35

\* = Significant at the .05 level

\*\* = Significant at the .01 level

<sup>1</sup>Popham, Table D, page 396, (1967).

of the TSCS were correlated with the G.P.A. of students in the experimental group. The second hypothesis is accepted for the following scales:

Distribution	Moral-Ethical Self	Row Variability
Self-Criticism	Personal Self	Column Variability
Identity	Social Self	Total Variability

The second hypothesis is rejected for the following scales:

Self Satisfaction	Family Self
Behavior	Total Self Concept.
Physical Self	

The correlation between Self Satisfaction and G.P.A. is not significant for the total group but is significant at the .05 level for males. The correlation between Behavior, Family Self, and Total Self Concept and G.P.A. is significant at the .05 level for the total group and at the .01 level for males only. The correlation between Physical Self and G.P.A. is significant at the .01 level of significance for both the total group and for the males only group.

It appears that there are certain personality traits that are associated with improvement in academic performance when students who have had academic difficulties participate in structured group counseling. If this conclusion is substantiated by further investigation, identification of students who can profit from structured group counseling can be facilitated.

It is interesting to note that in every instance where a significant correlation is found, the correlation for the males is higher than the correlation for the total group. It would appear that the strength of the relationship between these traits and G.P.A. is

greater for males than it is for females because the addition of the scores of 9 females lowers the correlation. A sex difference seems to be operating,

An attempt was made to determine whether or not there is a curvilinear relation between G.P.A. and CPI and TSCS scores of students in the experimental group. Because of the nature of the statistic involved and because of the relatively small N, etas that were spuriously high were found. This conclusion was reached after consideration was given to a statement by Guilford (1965).

"...as the number of classes is increased, the means of the classes become less stable, and as they fluctuate more, chance errors become more important in inflating eta. The limiting case would be classes so small that there was only one observation per class (assuming no duplicate measures on X), in which case the variance in the columns would be just as great as the overall variance in Y, and eta would equal 1.00 . . . Very small samples would be unsuitable for the computation of eta at all. With large samples (100 and above) it is . . ."

In view of the information contained in the above quotation, the attempt to discover whether or not a curvilinear relation exists was abandoned.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Review of the Study

The dropout phenomenon has been the subject of a great many articles and of several books. American educators at both the high school and college levels have been concerned with this problem. When college level educators have attempted to find out why so many students withdraw from college they have found that there are many reasons for withdrawing from college, and that these reasons are frequently interrelated. Some students withdraw from college because of unsatisfactory academic performance, others withdraw from college for reasons which are unrelated to academic performance.

This dissertation reports the results of an investigation designed to identify personality traits which are associated with improvement of academic performance of students when these students participate in structured group counseling. While group counseling has not been universally successful, enough success has been achieved to merit further efforts to improve the procedure for selecting the students who are to receive this help. This study is based upon the premise that different students will react differently to the same treatment, and that the difference in the way students react to treatment is a function of the differences in their personalities. The review of the



literature established the fact that there are personality traits which are associated with academic success. The purpose of this study was to identify personality traits which correlate with improvement in academic performance when students participate in structured group counseling.

One hundred and one students in the College of Arts and Sciences at Oklahoma State University who had been suspended for academic deficiency and who had requested re-instatement were used as subjects in this investigation. Fifty-five students who were re-instated for the second semester of the 1970-1971 school year were utilized as the control group. Forty-six students who were re-instated for the second semester of the 1971-1972 school year were used as the experimental group. All students in both the control and experimental groups met the same requirements for inclusion in the study. Comparisons were made between the control and experimental groups at the beginning of the study to determine if there were significant differences between these two groups. The first comparisons were made to see if there were differences in the composition of the groups. The *Fisher Exact Probability Test* was used to demonstrate that the male-female composition of sophomore students in the control group was not significantly different from the male-female composition of sophomore students in the experimental group, and that the same statement can be made of the male-female composition of juniors and seniors when the same comparison is made. The  $\chi^2$  test was used to demonstrate that the male-female composition of the total population of the control group was not significantly different from the male-female composition of the total population of the experimental group. The  $\chi^2$  test was also used to demonstrate that the sophomore-junior-senior composition of the

control group was not significantly different from the sophomore-junior-senior composition of the experimental group.

Perhaps more important comparisons than those involving numbers of students in the different classifications are comparisons which are more closely related to G.P.A. Accordingly the following variables were selected: accumulative G.P.A., total number of hours attempted before the study, and ACT scores. When these three variables were used to compare the control group with the experimental group, it was found that the control group was not significantly different from the experimental group at the .05 level of confidence. This statement is true of all three variables.

Summarizing then, it can be said that the control and experimental groups were not significantly different from each other in terms of male-female composition, in terms of college classification composition, in terms of the quality of college work done, in terms of the quantity of college work attempted, and in terms of capacity to do college work at the beginning of the investigation.

In order to obtain a comprehensive measure of the various aspects of personality two instruments were used. These two instruments were: *The California Psychological Inventory* and *The Tennessee Self Concept Scale*. These two instruments measure personality traits of normal people. These instruments were administered at the beginning of the study.

After testing, students in the experimental group were assigned to group counseling groups. This assignment was made solely on the basis of avoiding conflicts with the individual student's class schedule. Each group had approximately 10 students. Attendance at

group counseling sessions was compulsory. The first group counseling sessions were held as soon after the beginning of the second semester as possible. Each group met for 90 minutes once each week for 13 weeks.

During the group counseling sessions, a continuous effort was made to maintain a relaxed and open atmosphere. The first activity involved a discussion of *Brown-Holtzman Survey of Study Habits and Attitudes* scores. During this discussion students were given the opportunity to examine the strengths and weaknesses of their study habits and attitudes. During this same time period there was considerable criticism of various aspects of the University. Some of the group members were able to recognize the criticism of the University as a way of saying, It is not our fault that we are here, and confront the other members with this information. The benefits of budgeting time were considered. The SQ3R study method was introduced and explained. Attention was given to studying for tests, test anxiety, and test taking skills. The relationship that exists between vocational commitment and academic success was explored. Student-professor relationships were discussed. Personal problems of various kinds were considered. Some of the students were involved in a conflict with their parents, a few were in the middle of an identity crisis, and others had personal problems of other kinds.

The facilitator went to each group counseling session with a tentative outline of material to be considered but this outline was not followed if any of the students in the session had other problems which they wanted to discuss. A permissive non-threatening atmosphere was maintained during the sessions. Interaction was encouraged.

Candidness was commended. When conversation drifted the facilitator attempted to bring it back to problems with which the students were attempting to deal.

#### Findings of the Study

Two hypotheses were tested in this investigation. The first hypothesis was a null hypothesis used to establish the fact that students in the experimental group did in fact improve their academic performance while participating in structured group counseling. This hypothesis was stated in Chapter I, in Chapter IV, and for convenience sake, again here:

The mean Grade Point Average of students in the experimental group will not be significantly different for the semester during which they participated in structured group counseling from the mean Grade Point Average of students in the control group for the semester during which they served as the control group.

The performance of the two groups was compared at the beginning of the investigation. The conclusion drawn from the first comparison was that the groups were not significantly different at the beginning of the investigation. Then both groups continued their education for an additional semester. During this additional semester students in the experimental group participated in structured group counseling while students in the control group did not receive any help other than what they might have received from offices on the campus which provide assistance upon request to any student. A comparison was then made of the grades earned by students in the two groups during this one semester by comparing the mean G.P.A. of the control group with the mean G.P.A. of the experimental group. The mean G.P.A. of students in

the experimental group was 1.9783. Their median G.P.A. was 2.105. The mean G. P. A. of students in the control group was 1.6422. Their median G.P.A. was 1.75. The difference between these two means was found to be significant at the .05 level of confidence. The first hypothesis is therefore rejected.

The second hypothesis was concerned with whether or not there is a relationship between gain in G.P.A. and personality traits of students who participate in structured group counseling. The second hypothesis follows:

No significant correlations between the Grade Point Averages of students in the experimental group and their scores on any of the scales of the *California Psychological Inventory* or the *Tennessee Self Concept Scale* will be found.

The second hypothesis is rejected for two scales of the CPI: Communality and Flexibility. The correlation between Communality and G.P.A. is significant at the .05 level of significance for the total group and at the .01 level of significance for males. The correlation between Flexibility and G.P.A. is a negative correlation significant at the .01 level of significance for both the total group and for males. This negative correlation is  $-.52$  for males, the highest correlation obtained in this investigation.

The second hypothesis is rejected for the following scales of the TSCS: Self Satisfaction, Behavior, Physical Self, Family Self, and Total Self Concept. The correlation between Self Satisfaction and G.P.A. is not significant for the total group but is significant at the .05 level for males. The correlation between Behavior, Family Self, and Total Self Concept and G.P.A. is significant at the .05 level for the total group and at the .01 level for males only. The correlation

between Physical Self and G.P.A. is significant at the .01 level of significance for both the total group and for the males only group.

### Conclusions

The purpose of this study was to determine if there are personality traits which are associated with academic achievement when students who have had academic difficulties participate in structured group counseling.

In Chapter II, on page 68, personality traits which have been found to correlate with G.P.A. were identified. These traits were: Dominance (Do), Capacity for status (Cs), Sociability (Sy), Social presence (Sp), Self-acceptance (Sa), Responsibility (Re), Socialization (So), Tolerance (To), Achievement via conformance (Ac), Achievement via independence (Ai), and Intellectual efficiency (Ie). The author expected these same traits to correlate with G.P.A. in this investigation. Such was not the case. The uniqueness of the population may account for the fact that none of the above named traits correlated with G.P.A. at significant levels. However, there were certain personality traits that were associated with improvement in academic performance when students who have had academic difficulties participate in structured group counseling.

It is interesting to note that in every instance where a significant correlation is found, the correlation for the males is higher than the correlation for the total group. The addition of the scores of 9 females lowered the correlation. A sex difference appears to be operating.

It appears that the purpose of this study has been served.

Personality traits which correlate at the .05 and .01 level of significance have been identified.

#### Implications

This investigation supports the idea that there is a differential response to group counseling in terms of grade point averages which can be associated with personality traits. If this idea is substantiated by further investigation, it may become possible to use scores from the TSCS and the CPI as one of several considerations in the decision making process involved in the formation of group counseling groups of academic underachievers. The TSCS and the CPI would be used to identify from among the total number of academic underachievers those students possessing personality traits which have been shown to be related to academic achievement when the students possessing those traits participate in structured group counseling. While it is impossible to make predictions about the response of a single individual to group counseling, it is logical to assume that a group composed primarily of students having the personality traits identified by this investigation will improve their mean grade point average if placed in a structured group counseling group.

This investigation should not be used to establish criterion for selection of students to be included in academic improvement structured group counseling groups. Additional data must be accumulated before it will be possible to use personality instruments in the formation of academic improvement structured group counseling groups.

The author recommends that this study be replicated and that future replications involve a large enough N to make possible the

computation of curvilinear correlations.

In every instance where significant correlations were found, the correlation for males only scores were stronger than the correlations for the total group. The addition of the scores of nine female students weakened the correlations in every instance. This raises the question of a possible sex difference operating in this kind of situation. The author therefore recommends that this study be replicated with a female population and that the results of the replication be compared with this study to determine if there is a sex difference.

The G.P.A. and CPI and TSCS scores utilized in this investigation are included as Appendix E. These scores and information about the control group included in this dissertation may be used as additional data by anyone who desires to investigate further the phenomena discussed in this dissertation,



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APPENDIX A

ENROLLMENT AND GRADUATION RECORDS

AND PROJECTIONS

APPENDIX A

ENROLLMENT AND GRADUATION RECORDS AND PROJECTIONS<sup>1</sup>

Year	First Time Degree-Credit Enrollment	Number of Degrees Granted Four Years Later	Percentage of First Time Enrollment Receiving Degrees <sup>2</sup>
1959	821,520	443,502	53.9%
1960	923,069	494,174	53.5%
1961	1,018,361	530,054	52.0%
1962	1,030,554	551,040	53.4%
1963	1,046,417	590,548	56.4%
1964	1,224,840	666,710	54.4%
1965	1,441,822	764,185	53.0%
		<u>Projected</u>	
1966	1,378,000	784,000	56.8%
1967	1,439,000	816,000	56.7%
1968	1,629,751	844,000	51.7%
	<u>Projected</u>		
1969	1,699,000	881,000	51.8%
1970	1,798,000	917,000	51.0%
1971	1,894,000	959,000	50.6%
1972	1,982,000	998,000	50.3%
1973	2,064,000	1,038,000	50.2%
1974	2,147,000	1,074,000	50.0%
1975	2,223,000	1,112,000	50.0%
1976	2,282,000	1,133,000	49.6%

<sup>1</sup>This Table is a synthesis of Tables 14 and 21, pages 31 and 42 of *Projections of Educational Statistics to 1979-80*, U.S. Department of Health, Education, and Welfare. Kenneth A. Simon, Chief of Reference, Estimates and Projections Branch. Publication EHE33, P966, 1970.

<sup>2</sup>The percentages were computed from numbers obtained from the 2 tables.



APPENDIX B

DESCRIPTIONS OF THE SCALES OF THE  
*CALIFORNIA PSYCHOLOGICAL INVENTORY*

APPENDIX B

DESCRIPTIONS OF THE SCALES OF THE CALIFORNIA PSYCHOLOGICAL INVENTORY

High Scores Tend to be Seen:	Scale and Purpose	Low Scores Tend to be Seen:
Class I. Measures of Poise, Ascendancy, Self-Assurance and Interpersonal Adequacy		
Agressive, confident, persistent, and planful; as being persuasive and verbally fluent; as self-reliant and independent; and as having leadership potential and initiative.	1. <i>Do (dominance)</i> to assess factors of leadership ability, dominance, persistence, and social initiative.	Retiring, inhibited, commonplace, indifferent, silent and unassuming; as being slow in thought and action; as avoiding of situations of tension and decision; and as lacking in self-confidence.
Ambitious, active, forceful, insightful, resourceful, and versatile; as being ascendant and self-seeking; effective in communication; and as having personal scope and breadth of interests.	2. <i>Cs (capacity for status)</i> To serve as an index of an individual's capacity for status (not his actual or achieved status). The scale attempts to measure the personal qualities and attributes which underlie and lead to status.	Apathetic, shy, conventional, dull, mild, simple, and slow; as being stereotyped in thinking; restricted in outlook and interests; and as being uneasy and awkward in new or unfamiliar social situations.
Outgoing, enterprising, and	3. <i>Sy (sociability)</i> To identify	Awkward, conventional, quiet,

APPENDIX B (Continued)

ingenious; as being competitive and forward; and as original and fluent in thought.

persons of outgoing, sociable, participative temperament.

submissive, and unassuming; as being detached and passive in attitude; and as being suggestible and overly influenced by others' reactions and opinions.

Clever, enthusiastic, imaginative, quick, informal, spontaneous, and talkative; as being active and vigorous; and as having an expressive, ebullient nature.

4. *Sp (social presence)* To assess factors such as poise, spontaneity, and self-confidence in personal and social interaction.

Deliberate, moderate, patient, self-restrained, and simple; as vacillating and uncertain in decision; and as being literal and unoriginal in thinking and judging.

Intelligent, outspoken, sharp-witted, demanding, aggressive, and self-centered; as being persuasive and verbally fluent; and as possessing self-confidence and self-assurance.

5. *Sa (self-acceptance)* To assess factors such as sense of personal worth, self-acceptance, and capacity for independent thinking and action.

Methodical, conservative, dependable, conventional, easygoing, and quiet; as self-abasing and given to feelings of guilt and self-blame; and as being passive in action and narrow in interests.

APPENDIX B (Continued)

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Energetic, enterprising, alert ambitious, and versatile; as being productive and active; and as valuing work and effort for its own sake.

6. *Wb (sense of well-being)* To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.

Unambitious, leisurely, awkward, cautious, apathetic, and conventional; as being self-defensive and apologetic; and as constricted in thought and action.

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Class II. Measures of Socialization, Maturity, Responsibility, and Intrapersonal Structuring of Values

Planful, responsible, thorough, progressive, capable, dignified, and independent; as being conscientious and dependable; resourceful and efficient; and as being alert to ethical and moral issues.

7. *Re (responsibility)* To identify persons of conscientious, responsible, and dependable disposition and temperament.

Immature, moody, lazy, awkward, changeable, and disbelieving; as being influenced by personal bias, spite, and dogmatism; and as under-controlled and impulsive in behavior.

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Serious, honest, industrious, modest, obliging, sincere, and steady; as being conscientious and responsible; and as being self-denying and conforming.

8. *So (socialization)* To indicate the degree of social maturity, integrity, and rectitude which the individual has attained.

Defensive, demanding, opinionated, resentful, stubborn, headstrong, rebellious, and undependable; as being guileful and deceitful in dealing with others; and as given

APPENDIX B (Continued)

to excess, exhibition, and ostentation in their behavior.

Calm, patient, practical, slow, self-denying, inhibited, thoughtful, and deliberate; as being strict and thorough in their own work and in their expectations for others; and as being honest and conscientious.

9. *Sc (self-control)* To assess the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.

Impulsive, shrewd, excitable, irritable, self-centered, and uninhibited; as being aggressive and assertive; and as over emphasizing personal pleasure and self-gain.

Enterprising, informal, quick, tolerant, clearthinking, and resourceful; as being intellectually able and verbally fluent; and as having broad and varied interests.

10. *To (tolerance)* To identify persons with permissive, accepting, and non-judgmental social beliefs and attitudes.

Suspicious, narrow, aloof, wary, and retiring; as being passive and overly judgmental in attitude; and as disbelieving and distrustful in in personal and social outlook.

Co-operative, enterprising, outgoing, sociable, warm, and helpful; as being concerned with

11. *Gi (good impression)* To identify persons capable of creating a favorable impression,

Inhibited, cautious, shrewd, wary, aloof, and resentful; as being cool and distant in their

APPENDIX B (Continued)

making a good impression; and as being diligent and persistent.

and who are concerned about how others react to them.

relationships with others; and as being self-centered and too little concerned with the needs and wants of others.

Dependable, moderate, tactful, reliable, sincere, patient, steady, and realistic; as being honest and conscientious; and as having common sense and good judgment.

12. *Cm (communality)* To indicate the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.

Impatient, changeable, complicated, imaginative, disorderly, nervous, restless, and confused; as being guileful and deceitful; inattentive and forgetful; and as having internal conflicts and problems.

Class III. Measures of Achievement Potential and Intellectual Efficiency

Capable, co-operative, efficient, organized, responsible, stable, and sincere; as being persistent and industrious; and as valuing intellectual activity and intellectual achievement.

13. *Ac (achievement via conformance)* To identify those factors of interest and motivation which facilitate achievement in any setting where conformance is a positive behavior.

Coarse, stubborn, aloof, awkward, insecure, and opinionated; as easily disorganized under stress or pressures to conform; and as pessimistic about their occupational futures.

APPENDIX B (Continued)

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Mature, forceful, strong, dominant, demanding, and foresighted; as being independent and self-reliant; and as having superior intellectual ability and judgment.

14. *Ai (achievement via independence)* To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.

Inhibited, anxious, cautious, dissatisfied, dull, and wary; as being submissive and compliant before authority; and as lacking in self-insight and self-understanding.

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Efficient, clear-thinking, capable, intelligent, progressive, planful, thorough, and resourceful; as being alert and well-informed; and as placing a high value on cognitive and intellectual matters.

15. *Ie (intellectual efficiency)* To indicate the degree of personal and intellectual efficiency which the individual has attained.

Cautious, confused, easygoing, defensive, shallow, and unambitious; as being conventional and stereotyped in thinking; and as lacking in self-direction and in self-discipline.

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Class IV. Measures of Intellectual and Interest Modes

Observant, spontaneous, quick, perceptive, talkative, resourceful, and changeable; as being verbally fluent and

16. *Py (psychological-mindedness)* To measure the degree to which the individual is interested in, and responsive to, the inner

Apathetic, peaceable, serious, cautious, and unassuming; as being slow and deliberate in tempo; and as being overly conforming and

APPENDIX B (Continued)

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socially ascendant; and as being rebellious toward rules, restrictions, and constraints.

needs, motives, and experiences of others.

conventional.

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Insightful, informal, adventurous, confident, humorous, rebellious, idealistic, assertive, and egoistic; as being sarcastic and cynical; and as highly concerned with personal pleasure and diversion.

17. *Fx (flexibility)* To indicate the degree of flexibility and adaptability of a person's thinking and social behavior.

Deliberate, cautious, worrying, industrious, guarded, mannerly, methodical, and rigid; as being formal and pedantic in thought; and as being overly deferential to authority, custom and tradition.

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Appreciative, patient, helpful, gentle, moderate, persevering, and sincere; as being respectful and accepting of others; and as behaving in a conscientious and sympathetic way.

18. *Fe (femininity)* To assess the masculinity or femininity of interests. (High scores indicate more feminine interests. low scores more masculine.)

Outgoing, hard-headed, ambitious, masculine, active, robust, and restless; as being manipulative and opportunistic in dealing with others; blunt and direct in thinking and action; and impatient with delay, indecision, and reflection.



APPENDIX C

DESCRIPTIONS OF THE SCALES OF THE

*TENNESSEE SELF CONCEPT SCALE*

COUNSELING FORM

## APPENDIX C

### DESCRIPTIONS OF THE SCALES OF THE

#### *TENNESSEE SELF CONCEPT SCALE*

#### COUNSELING FORM

- A. The Self Criticism Score (SC) This scale is composed of 10 items. These are all mildly derogatory statements that most people admit as being true for them. Individuals who deny most of these statements most often are being defensive and making a deliberate effort to present a favorable picture of themselves. High scores generally indicate a normal, healthy openness and capacity for self-criticism. Extremely high scores (above the 99th percentile) indicate that the individual may be lacking in defenses and may in fact be pathologically undefended. Low scores indicate defensiveness, and suggest that the Positive Scores are probably artificially elevated by this defensiveness.
- B. The Positive Scores (P) These scores derive directly from the phenomenological classification scheme already mentioned. In the original analysis of the item pool the statements seemed to be conveying three primary messages: (1) This is what I am, (2) This is how I feel about myself, and (3) This is what I do. On the basis of these three types of statements the three horizontal categories were formed. They appear on the Score Sheet as Row 1, Row 2, and Row 3, and are hereafter referred to by those labels.

The Row Scores thus comprise three sub-scores which, when added, constitute the Total Positive or Total P Score. These scores represent an internal frame of reference within which the individual is describing himself.

Further study of the original items indicated that they also varied considerably in terms of a more external frame of reference. Even within the same row category the statements might vary widely in content. For example, with Row 1 (the What I am category) the statements refer to what I am physically, morally, socially, etc. Therefore, the pool of items was sorted again according to these new vertical categories, which are the five Column Scores of the Score Sheet. Thus the whole set of items is divided two ways, vertically into columns (external frame of reference) and horizontally into rows (internal frame of reference) with each item and each cell contributing to two different scores.

1. Total P. Score. This is the most important single score on the Counseling Form. It reflects the overall level of self esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly. People with low scores are doubtful about their own worth; see themselves as undesirable; often feel anxious, depressed, and unhappy; and have little faith or confidence in themselves.

If the Self Criticism (SC) Score is low, high P Scores become suspect and are probably the result of defensive distortion. Extremely high scores (generally

above the 99th percentile) are deviant and are usually found only in such disturbed people as paranoid schizophrenics who as a group show many extreme scores, both high and low.

On the Counseling Form the Positive Scores are simply designated as P Scores, while on the Score Sheet of the C and R Form they are referred to as P + N Scores in order to clarify the computation involved.

2. Row 1 P Score - Identity. These are the "what I am" items. Here the individual is describing his basic identity - what he is as he sees himself.
3. Row 2 P Score - Self Satisfaction. This score comes from those items where the individual describes how he feels about the self he perceives. In general this score reflects the level of self satisfaction or self acceptance. An individual may have very high scores on Row 1 and Row 3 yet still score low on Row 2 because of very high standards and expectations for himself. Or vice versa, he may have a low opinion of himself as indicated by the Row 1 and Row 3 Scores yet still have a high Self Satisfaction Score on Row 2. The sub-scores are therefore best interpreted in comparison with each other and with the Total P Score.
4. Row 3 P Score - Behavior. This score comes from those items that say "this is what I do, or this is the way I act." Thus this score measures the individual's perception of his own behavior or the way he functions.
5. Column A - Physical Self. Here the individual is

presenting his view of his body, his state of health, his physical appearance, skills, and sexuality.

6. Column B - Moral - Ethical Self. This score describes the self from a moral-ethical frame of reference, i.e., moral worth, relationship to God, feelings of being a "good" or "bad" person, and satisfaction with one's religion or lack of it.
7. Column C - Personal Self. This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality apart from his body or his relationship to others.
8. Column D - Family Self. This score reflects one's feelings of adequacy, worth, and value as a family member. It refers to the individual's perception of self in reference to his closest and most immediate circle of associates.
9. Column E - Social Self. This is another "self as perceived in relation to others" category but pertains to "others" in a more general way. It reflects the person's sense of adequacy and worth in his social interaction with other people in general.

C. The Variability Scores V. The V scores provide a simple measure of the amount of variability, or inconsistency, from one area of self perception to another. High scores mean that the subject is quite variable in this respect while low scores indicate low variability which may even approach rigidity if extremely low (below the first percentile).

1. Total V. This represents the total amount of variability for the entire record. High scores mean that the person's self concept is so variable from one area to another as to reflect little unity or integration. High scoring persons tend to compartmentalize certain areas of self and view these areas quite apart from the remainder of self. Well integrated people generally score below the mean on these scores but above the first percentile.
2. Column Total V. This score measures and summarizes the variations within the columns.
3. Row Total V. This score is the sum of the variations across the rows.

D. The Distribution Score (D). This score is a summary score of the way one distributes his answers across the five available choices in responding to the items of the Scale. It is also interpreted as a measure of still another aspect of self perception: certainty about the way one sees himself. High scores indicate that the subject is very definite and certain in what he says about himself while low scores mean just the opposite. Low scores are found also at times with people who are being defensive and guarded. They hedge and avoid really committing themselves by employing "3" responses on the Answer Sheet.

Extreme scores on this variable are undesirable in either direction and are most often obtained from disturbed people. For example, schizophrenic patients often use "5" and "1" answers almost exclusively, thus creating very high D Scores. Other disturbed patients are extremely uncertain and noncommittal in

their self descriptions with a predominance of "2", "3", and "4" responses and very low D scores.

- E. The Time Score. This score is simply a measure of the time, to the nearest minute, that the subject requires to complete the Scale. The author has only recently made any study of this variable, and at this point little is known as to its meaning or significance. It correlates significantly with only one of the many other scores of the Scale (Net Conflict sub-score for Column C where  $r = .32$ , significant at the .05 level). Therefore, any validity it may prove to have with other criteria should add to the total validity of the Scale.

The data indicate that, provided the individual has sufficient education, intelligence, and reading ability to handle this task, the majority of subjects complete the Scale in less than 20 minutes. These qualifications are quite important; if they are not met, the Time Score obviously has little meaning. It has been found that psychiatric patients in general take longer than non-patients. This is particularly true of those who are overly compulsive, paranoid or depressed,

APPENDIX D

DESCRIPTIONS OF THE SCALES OF THE *EDWARDS*

*PERSONAL PREFERENCE SCHEDULE*



## APPENDIX D

### DESCRIPTIONS OF THE SCALES OF THE EDWARDS

#### *PERSONAL PREFERENCE SCHEDULE*

1. *ach Achievement*: To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others, to write a great novel or play.

2. *def Deference*: To get suggestions from others, to find out what others think, to follow instructions and do what is expected, to praise others, to tell others that they have done a good job, to accept the leadership of others, to read about great men, to conform to custom and avoid the unconventional, to let others make decisions.

3. *ord Order*: To have written work neat and organized, to make plans before starting on a difficult task, to have things organized, to keep things neat and orderly, to make advance plans when taking a trip, to organize details of work, to have meals organized and a definite time for eating, to have things arranged so that they run smoothly without change.

4. *exh Exhibition*: To say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk

about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer.

5. *aut Autonomy*: To be able to come and go as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations.

6. *aff Affiliation*: To be loyal to friends, to participate in friendly groups, to do things for friends, to form new friendships, to make as many friends as possible, to share things with friends, to do things with friends rather than alone, to form strong attachments, to write letters to friends.

7. *int Intraception*: To analyze one's motives and feelings, to observe others, to understand how others feel about problems, to put one's self in another's place, to judge people by why they do things rather than by what they do, to analyze the behavior of others, to analyze the motives of others, to predict how others will act.

8. *sue Succorance*: To have others provide help when in trouble, to seek encouragement from others, to have others be kindly, to have others be sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have others do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick, to have a fuss made over one when hurt.

9. *dom Dominance*: To argue for one's point of view, to be a leader in groups to which one belongs, to be regarded by others as a leader, to be elected or appointed chairman of committees, to make group decisions, to settle arguments and disputes between others, to persuade and influence others to do what one wants, to supervise and direct the actions of others, to tell others how to do their jobs.

10. *aba Abasement*: To feel guilty when one does something wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's own way, to feel the need for confession of errors, to feel depressed by inability to handle situations, to feel timid in the presence of superiors, to feel inferior to others in most respects.

11. *nur Nurturance*: To help friends when they are in trouble, to assist others less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems.

12. *chg Change*: To do new and different things, to travel, to meet new people, to experience novelty and change in daily routine, to experiment and try new things, to eat in new and different places, to try new and different jobs, to move about the country and live in different places, to participate in new fads and fashions.

13. *end Endurance*: To keep at a job until it is finished, to complete any job undertaken, to work hard at a task, to keep at a

puzzle or problem until it is solved, to work at a single job before taking on others, to stay up late working in order to get a job done, to put in long hours of work without distraction, to stick at a problem even though it may seem as if no progress is being made, to avoid being interrupted while at work.

14. *het Heterosexuality*; To go out with members of the opposite sex, to engage in social activities with the opposite sex, to be in love with someone of the opposite sex, to kiss those of the opposite sex, to be regarded as physically attractive by those of the opposite sex, to participate in discussions about sex, to read books and plays involving sex, to listen to or to tell jokes involving sex, to become sexually excited.

15. *agg Aggression*: To attack contrary points of view, to tell others what one thinks about them, to criticize others publicly, to make fun of others, to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong, to read newspaper accounts of violence.

APPENDIX E

GRADE POINT AVERAGES AND *CALIFORNIA*

*PSYCHOLOGICAL INVENTORY* SCORES

APPENDIX E

GRADE POINT AVERAGES AND CALIFORNIA PSYCHOLOGICAL INVENTORY SCORES

No.	GPA	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
1	3.75	30	20	31	32	23	31	24	34	20	15	20	27	28	10	29	7	4	14
2	3.21	31	20	29	40	23	38	30	34	32	24	20	26	31	23	44	16	13	20
3*	3.15	27	18	23	34	24	24	27	23	17	12	11	26	17	15	33	9	13	26
4	3.00	26	21	28	37	28	38	37	39	35	23	22	27	29	20	41	12	9	25
5	3.00	34	20	30	40	26	37	26	33	24	25	12	27	29	19	43	8	15	15
6*	2.92	32	21	22	37	26	26	29	32	26	23	12	24	24	19	34	10	11	23
7	2.86	20	17	20	34	18	43	33	40	35	21	19	26	28	20	34	10	11	15
8*	2.84	31	22	23	37	21	40	34	39	31	28	14	24	25	23	45	8	14	20
9*	2.83	30	21	24	39	25	36	29	34	32	26	22	24	27	22	38	13	13	18
10	2.80	18	13	20	34	14	30	20	31	25	18	12	27	22	15	34	12	8	21
11	2.73	30	21	26	39	25	38	27	35	23	17	11	26	30	15	32	9	4	18
12	2.69	35	19	30	38	26	35	26	31	20	23	14	26	21	18	35	5	8	16
13	2.53	36	24	25	39	21	34	33	40	18	17	15	27	26	20	44	12	14	11
14	2.42	28	21	29	43	22	37	27	31	20	25	9	25	22	22	40	11	10	16
15	2.42	24	17	22	38	25	36	24	29	25	20	12	27	25	23	40	9	10	12
16	2.37	31	24	27	42	20	41	34	33	37	25	23	23	31	20	43	12	10	15
17	2.31	26	10	16	24	17	37	29	36	34	14	23	26	27	14	37	8	3	15
18	2.30	28	21	31	39	23	35	22	37	24	19	17	26	26	18	40	12	9	11
19	2.25	26	21	29	38	24	36	24	35	30	24	19	28	31	21	40	10	6	12

APPENDIX E (Continued)

No.	GPA	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
20	2.21	22	18	24	26	14	40	32	40	30	26	21	25	26	20	41	11	8	20
21	2.17	30	18	26	48	24	37	23	29	14	25	13	24	20	19	37	5	17	14
22	2.15	30	20	31	39	27	36	24	28	20	27	7	27	25	19	39	9	10	15
23*	2.14	19	17	23	39	22	30	26	33	24	22	10	28	21	22	36	9	14	22
24	2.07	30	12	21	28	25	31	25	41	18	15	18	26	23	16	30	7	6	20
25	2.06	34	18	30	43	20	40	30	32	28	25	18	28	27	22	37	10	10	17
26	2.00	27	16	26	41	27	41	27	36	23	22	19	27	22	18	43	15	6	14
27*	2.00	29	21	30	42	30	35	28	31	20	22	8	27	24	20	41	9	9	26
28	2.00	31	20	25	38	18	34	26	33	31	21	21	23	26	26	39	10	14	16
29	1.91	34	23	29	48	26	41	29	34	25	27	22	24	32	26	41	13	10	19
30	1.77	31	20	33	47	28	36	20	31	18	15	13	25	20	19	34	14	14	7
31	1.76	33	17	29	41	20	36	30	44	26	22	12	28	28	13	29	11	4	18
32	1.70	17	17	20	31	19	39	26	27	25	17	13	25	20	15	37	7	10	17
33	1.68	24	16	17	25	15	37	32	39	37	24	25	27	29	22	41	10	7	19
34	1.66	31	18	26	37	23	28	32	30	20	12	17	28	18	12	32	8	8	11
35*	1.61	28	24	24	42	22	29	24	30	18	19	12	21	20	20	34	10	15	20
36*	1.50	37	23	31	50	25	39	26	22	16	24	17	25	26	17	43	12	11	15
37	1.47	17	20	21	25	15	27	31	33	31	14	18	26	23	13	30	8	6	20
38	1.21	26	15	26	39	23	36	18	32	17	18	9	22	16	14	37	7	15	14
39	1.00	23	22	28	43	26	42	27	35	28	22	24	27	26	21	43	11	15	19
40	0.86	38	24	28	37	22	37	32	34	37	31	26	25	32	28	46	12	13	16

APPENDIX E (Continued)

No.	GPA	Do	Cs	Sy	Sp	Sa	Wb	Re	So	Sc	To	Gi	Cm	Ac	Ai	Ie	Py	Fx	Fe
41	0.78	32	24	32	49	23	43	28	36	25	26	24	23	29	21	42	9	16	9
42	0.50	24	22	23	37	17	33	31	31	19	19	15	22	20	23	36	13	19	18
43	0.41	30	15	25	40	28	34	20	32	15	13	8	24	18	16	32	8	12	18
44*	0.00	22	20	28	37	13	39	24	38	23	23	12	26	22	22	41	12	18	20
45	0.00	37	24	23	44	28	36	30	31	17	21	14	28	26	21	42	8	15	19
46	0.00	18	17	12	34	14	40	26	39	35	23	16	21	27	22	27	13	20	14

GRADE POINT AVERAGES AND *TENNESSEE SELF CONCEPT SCALE* SCORES

No.	GPA	SC	TP	R-1	R-2	R-3	CA	CB	CC	CD	CE	VT	VCT	VRT	D
1	3.75	28	342	131	104	107	69	68	63	75	67	44	30	14	91
2	3.21	35	393	140	123	130	80	77	80	78	78	47	28	19	149
3*	3.15	38	304	119	90	95	67	62	57	52	66	48	30	18	78
4	3.00	33	373	135	111	127	73	82	61	76	81	55	29	26	140
5	3.00	30	383	144	114	125	79	74	74	76	80	41	31	10	137
6*	2.92	36	347	129	104	114	66	71	66	73	71	38	26	12	103
7	2.86	30	347	128	108	111	67	79	67	75	59	47	25	22	105
8*	2.84	41	371	135	115	121	75	75	62	86	73	59	34	25	160
9*	2.83	33	348	131	97	120	73	71	63	65	76	53	36	17	131
10	2.80	38	320	118	94	108	65	59	65	70	61	35	24	11	80



APPENDIX E (Continued)

No.	GPA	SC	TP	R-1	R-2	R-3	CA	CB	CC	CD	CE	VT	VCT	VRT	D
11	2.73	33	372	76	119	120	76	69	73	82	72	45	26	19	117
12	2.69	28	368	131	119	118	79	65	71	73	80	32	15	16	108
13	2.53	35	350	127	110	113	70	63	69	76	72	37	23	14	101
14	2.42	37	319	122	89	108	70	57	67	67	58	51	34	17	92
15	2.42	40	372	123	123	126	71	77	69	81	74	59	34	25	136
16	2.37	30	408	140	127	141	79	83	74	89	83	32	17	15	164
17	2.31	30	301	103	94	104	58	67	62	59	55	43	23	20	79
18	2.30	35	396	146	126	124	79	75	76	83	83	43	29	14	153
19	2.25	41	342	129	99	114	68	64	63	79	68	52	31	21	111
20	2.21	25	359	140	98	121	70	74	75	69	71	56	42	12	116
21	2.17	36	380	138	118	124	83	70	70	79	78	45	25	20	140
22	2.15	35	308	121	87	100	68	56	66	58	60	54	35	19	68
23*	2.14	39	317	121	100	96	59	62	57	70	69	45	27	18	102
24	2.07	30	351	137	99	115	74	67	66	73	71	53	38	15	101
25	2.06	33	352	133	108	111	70	66	71	73	72	34	26	8	97
26	2.00	30	357	124	113	120	80	65	67	72	73	34	17	17	113
27*	2.00	39	351	138	101	112	71	64	71	60	85	68	39	29	134
28	2.00	30	308	121	93	94	69	60	51	65	63	62	37	25	97
29	1.91	33	380	137	120	123	79	72	71	81	77	31	19	12	145
30	1.77	42	365	121	125	119	72	74	66	76	77	49	26	23	159

APPENDIX E (Continued)

No.	GPA.	SC	TP	R-1	R-2	R-3	CA	CB	CC	CD	CE	VT	VCT	VRT	D
31	1.76	38	359	134	114	111	72	69	66	80	72	45	27	18	95
32	1.70	41	331	127	94	110	72	66	51	71	71	58	34	24	110
33	1.68	25	335	117	114	104	70	72	66	60	67	37	20	17	76
34	1.66	41	337	127	98	112	68	71	64	61	73	54	36	18	96
35*	1.61	38	336	121	118	97	65	62	58	80	71	53	28	25	124
36*	1.50	38	326	120	105	101	59	55	68	72	72	52	30	22	89
37	1.47	35	310	120	93	97	50	75	65	61	59	57	31	25	85
38	1.21	34	305	110	97	98	60	60	56	71	58	30	13	17	59
39	1.00	32	335	132	98	105	71	65	67	63	69	53	38	15	113
40	0.86	30	351	121	118	112	64	67	70	72	78	42	20	22	109
41	0.78	26	323	118	98	107	67	66	63	66	61	30	20	10	67
42	0.50	34	338	120	110	108	51	80	76	58	73	61	29	32	150
43	0.41	45	315	126	90	99	64	49	65	61	76	64	36	28	138
44*	0.00	41	350	131	107	112	72	71	65	73	69	38	26	12	107
45	0.00	40	326	122	90	114	64	59	61	74	68	56	37	21	94
46	0.00	27	318	117	101	100	65	69	60	62	62	45	26	19	89

\*Indicates female student.

VITA

Theodore Davis

Candidate for the Degree of

Doctor of Education

Thesis: DIFFERENTIAL GAIN IN GRADE POINT AVERAGE IN RESPONSE TO  
STRUCTURED GROUP COUNSELING AS A FUNCTION OF PERSONALITY  
TRAITS

Major Field: Student Personnel and Guidance

Biographical:

Personal Data: Born in Springfield, Missouri, December 17, 1925,  
the son of Roy M. and Ina L. Davis.

Education: Attended elementary schools in Springfield and Lebanon,  
Missouri and graduated from Lebanon Senior High School in  
1946. Received an Associate in Arts degree from Southwest  
Baptist College at Bolivar, Missouri July 16, 1948. Received  
the Bachelor of Arts Degree from William Jewell College at  
Liberty, Missouri May 22, 1950 with a major in Bible and a  
cognate minor in Economics and Sociology. Completed the  
requirements for Teacher Certification at Southwest Missouri  
State University at Springfield, Missouri by taking  
professional education and social science courses, during the  
summers of 1963, 1964, and 1965. Received the Master of  
Education degree from the University of Missouri on August 10,  
1966 with a major in Guidance and Counseling. Completed  
requirements for the Doctor of Education Degree at Oklahoma  
State University in May, 1973.

Professional Experience: Teacher of social science and science  
courses at Buffalo High School, Buffalo, Missouri and Conway  
High School, Conway, Missouri from 1962 to 1965. Teacher of  
social science courses and counselor at Ash Grove High School,  
Ash Grove, Missouri during the 1965-1966 school year.  
Counselor at Carthage Senior High School, Carthage, Missouri  
during the 1966-1967 school year. Teacher of Special  
Education at the C. E. Donart High School in Stillwater,  
Oklahoma during the 1967-1968 school year. Counselor for  
Head Start Program in Jasper County, Missouri during the  
summer of 1967 and Counselor for Head Start Program in Payne

County, Oklahoma during the summer of 1969. Graduate Assistant teaching Educational Psychology at Oklahoma State University, 1968 to 1970.

Professional Organizations: American Personnel and Guidance Association; American College Personnel Association; National Vocational Guidance Association; Student Personnel Association for Teacher Education; Oklahoma Personnel and Guidance Association; Phi Delta Kappa.