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Group Counseling The Underachieving New College Student

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GROUP COUNSELING
THE UNDERACHIEVING NEW COLLEGE STUDENT

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Kenneth F. Burda

July 1970

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CHAPTER I

INTRODUCTION AND BACKGROUND

The term "underachievement" in educational circles is one commonly used to designate a student who is not performing his tasks in accordance with his ability estimates or predicted level of competency. Ability is usually described in terms of the Intelligence Quotient (IQ) whereas level of competency is depicted in a variety of ways associated with performance in some given situation.

The following definitions of underachievers display this differentiation between natural or actual ability and expected or predicted level of performance :

For the purpose of this study a gifted underachiever was defined as an eighth grade pupil whose scores on the California Mental Maturity Test placed him in the top ten per cent of his class and whose grade point average (GPA) for the eighth grade fell at least one decile below his expected performance level. (Ohlsen and Proff, 1960 cited in Kornrich, 1968, p. 461)

Initially, 102 entering tenth grade underachievers were identified--students with IQ's of 120 or higher (on two intelligence tests--CTMM, Pintner or Henman - Nelson) and ninth year GPAs below 80 percent. Seventy students met the criteria. (Goldberg, 1959, p. 9)

"We may call gifted children (IQ's 150 or above) underachievers when they fall in the middle third in scholastic achievements in grades and severe underachievers when they fall in the lowest third." (Gowan, 1957, p. 100)

"A student was designated as an underachiever if his percentile ranked based on grades was twenty-five or more points below his percentile

rank on the Differential Aptitude Test." (Baymur and Patterson, 1960, p. 85)

Then there is Russell's definition which is vague but nevertheless interesting:

In a very general sense, the 'underachiever' is the person who performs markedly below his capacities to learn, to make applications of learning, and to complete tasks. Speaking figuratively, he is the person who sits on his potential resisting various motivational procedures to get him off his potential, and possibly needing an adroitly directed kick in the same potential. (Russell, 1958, p. 66)

Statement of Problem

The problem of underachievement is even more critical today, since it is becoming more clear daily that many worthwhile employment opportunities require a college education. This emphasis by prospective employers in turn has pressured many state universities and colleges (e.g., State University of Iowa) to admit any student regardless of his GPA, as long as he is a resident of the state and his parents pay taxes. Furthermore, the press for equality of rights for all individuals has increasingly complicated the admissions policies at many schools (e.g., City College of New York). The Educational Opportunities Programs at many schools including our own has further complicated this matter. Consequently, these schools are constantly searching for remedial programs that will enable them to ethically and morally admit students that have not done high school work

that is on a par with suggested norms for college entrance. Therefore, the continuing need for research in this area has become even more pressing.

Statement of Purpose

The present study will deal with underachievement on the college level. A critical examination of the progress and process of underachievers in a group setting will be attempted. The major difference will be this experiment will be geared to help underachievers before they become probationaries. A review of the literature has exposed to this researcher that this area has seemingly been overlooked. Why not find some equitable way of giving students the opportunity to explore their study habits and study attitudes early in their college careers before these factors have possible adverse effects on their future.

The measurement of underachievement for this study will be new college students who rank in the upper one third of their entering freshman class on the Verbal Composite (VC) section of the Washington Pre College Test (WPCT), but fall in the lower one third of that class where high school GPA is concerned.

The WPCT is the instrument administered to all incoming freshman at Central Washington State College (CWSC). The scores are used as one of the criteria for acceptance to CWSC. The scores are derived from standard scores based on norms compiled at the University of Washington. The VC

portion represents the student's measured ability in the areas of reading, spelling and vocabulary.

Hypotheses

The hypotheses to be tested are:

1. Differences will be found between the differences of the pre Group Counseling (GC) scores and the post GC scores of the Survey of Study Habits and Attitudes (SSHA) for experimental (ex) and control (co) groups.
2. Differences will be found between the differences of the pre GC scores and the post GC scores on a Q-sort test for ex and co groups.
3. Differences will be found between experimental and control groups actual GPAs for fall and winter quarters.
4. Differences will be found between pre GC and post GC test scores on the ex group's Q-sort test.
5. Differences will be found between the pre GC and post GC test scores for the ex group on the Study Orientation.
6. Differences will be found between the ex and co group's post GC scores of SSHA.
7. Differences will be found between the ex and co group's post GC scores on the Q-sort test.

CHAPTER II

RELEVANT RESEARCH AND REVIEW OF LITERATURE

Shaw and McCuen (1960, p. 104) conducted a study to discover where the onset of underachievement took place. The purpose of the study was to find out if underachievement begins at a specific level of academic study and to find the pattern, if any existed.

The population was derived from the same school district and divided according to sex. Underachievement was depicted as students whose scores were higher (upper 25%) on the Pintner General Ability Test and a GPA below the mean of the class during years 9, 10, and 11. The study was composed of four groups: male achievers; male underachievers; female achievers; and female underachievers. A further criterion was that all S's must have been in this same school district for grades one through eleven. Thus, the study had 162 S's.

Basing grades on a four-point scale and comparing male achievers with male underachievers, it was found that male underachievers receive lower GPAs in grade one, but it does not become significant until grade three (.01). From grades three to ten the significance increases. In grades ten and eleven the significance decreases to a .01 level. For the female group it was found that the underachievers in fact did have higher GPAs for the first five years, but not at a significant level. The drops

began in grade six and became significant at the .01 level at grade nine.

Bernard Steinzor (1944, p. 500) used the Rorschach method to investigate the problem of underachievement. He selected the Rorschach because it measures basic personality factors and their interrelationships. He also felt that a "diagnostic approach which permits personality description in terms of interrelationships might logically be concluded to reveal hitherto undisclosed differences between the achiever and the nonachiever." Furthermore, none of the factors produced by the Rorschach can be interpreted by itself, it must be looked at in relation with the others.

His population consisted of two groups of fifteen males each. All had ranked in the 85 percentile or better on the Ohio State Psychological Examination. One group had a B- average while the other had a C- average. The groups were matched on such variables as age, quarters in college, income of father, religion, and hours spent in study.

Steinzor wanted to see if there were any structural differences in personality between achievers and underachievers. On underachievers he reported they are employed fewer hours while attending school and seem to be more inefficient in study time use. They also had fewer signs of good adjustment. For achievers he found that:

1. They gave more responses to the cards. This may mean that they can produce more in a quantitative sense.

2. There are more large detail responses. They seem to be more in contact with and able to recognize the concrete, practical and everyday facts of life.

3. They gave many more small and unusual detailed responses. According to the Rorschach interpretation they would have a greater critical ability to discern the smaller and less obvious though important facts.

4. They gave more responses which utilize only the forms of the blots. They thus seem to show an ability to use their intellectual control more frequently than the nonachievers.

5. They presented more content categories and thus seem to show a much wider range of interests which probably make for a fuller and less monotonous kind of life.

6. They showed a smaller percentage of animal responses; seem to be less stereotyped in their thinking.

Borislow (1962, pp. 246-254) investigated self-evaluation as a factor in scholastic achievement. His population was a college arts and sciences entering freshman class. Borislow utilized the Fiedler 24 item adjective scale. The class of 197 students filled out a questionnaire containing this scale four times under different sets of instructions: general self; student self; ideal self; and ideal student. Also used was the Student Behavior Description. His findings were:

1. Based on general self-evaluation, underachieving students could not be distinguished from achieving students before their first semester of college.

2. Underachievers have a poorer concept of themselves as students than do achievers although both have as an initial goal that of scholastic achievement.

3. Where scholastic achievement is a prime goal, when the student has a good concept of himself as a student, and where he does achieve scholastically, his general self-evaluation becomes more favorable from a pre to post semester assessment.

Fink (1962, pp. 57-62) did further study on self concepts as it is related to academic achievement. He felt that "an adequate self concept is related to high achievement and an inadequate self concept is related to low achievement (underachievement).

Subjects were from a freshman class of a rural high school in the Central Valley of California. Academic achievement was determined by GPA for the purpose of this study. "The GPA, based on all marks in the ninth grade, was determined for all freshmen falling within the 90-110 IQ range on the California Test of Mental Maturity." A median was then computed and those students falling below this median GPA were considered to be underachievers, while those students above the median were considered achievers. Two groups were established with the controlled variables of sex and IQ.

Self concept was measured by instruments used by most school psychologists. Such as:

California Psychological Inventory

Bender Visual Motor Gestalt Test

Draw-a-Person Test

Gough Adjective Check List

Personal Data Sheet

Brief Essay describing "What I Will be in 20 Years"

Data was analyzed using the Chi Square Test. The results appeared to confirm the original hypothesis that there is a relationship between self concept and level of achievement. This was born out emphatically for boys, whereas, the lines were not as clear cut for girls.

As in Fink's study where no significant difference was found for a portion of the group studied (girls) the survey of literature has revealed a few studies that do not display positive results.

Klingelhofer (1954, pp. 125-131) working with academic advising of failing students in one to four sessions and on an individual basis. He used as control variables sex, membership in a fraternity or sorority, and previous college work. He worked with two groups of students who were on probation. Utilizing an analysis of variance on GPAs, he discovered that improved academic performance of scholastic probationaries is associated with an organized counseling program, but that quantitative differences did not produce different levels of achievement.

Kaess and Long (1954, pp. 423-433) using a selected group of clients, namely war veterans who attended City College of New York,

attempted to control these variables: date of graduation from CCNY, type of engineering degree pursued, and high school grade average. The experimental group was composed of 92 veterans who had received vocational guidance, while the control group did not receive any form of guidance. Using the college grade point as an index, no significant difference at the .05 level was found between groups.

Goodstien and Critics (1961, pp. 318-321) experimented with high school seniors who were poor college risks (lower half of graduating class and scoring lower than 30 percent on a pre-college test). Nineteen students were placed in an experimental group and received two to five interviews consisting of routine educational-vocational counseling plus the administration of selected aptitude and interest tests. Utilizing statistical comparisons on the summer and fall GPAs, the researchers could find no significant results to support the contention that vocational-educational counseling, as it is commonly practiced, enhances the academic achievement of low ability college students.

Not all the research literature reflects these results. Clifford Froehlick (1958, pp. 681-699) shed new light on this area when he attacked the modus operandi of counseling on a one to one basis in his study, "Must Counseling Be Individual?" The criterion used was agreement between self-rating and test scores on the Differential Aptitude Tests. The subjects were senior high school students. Seventeen were counseled

individually and twenty-five in a group setting. The significant difference between the percentage of ratings in agreement with tests before individual counseling and the percentage after counseling was found to be at a .10 level. In contrast, the comparable difference for the group counseled was significant at the .008 level. After multiple counseling, the subjects in this study apparently brought their ratings into closer agreement with their scores than before counseling.

Winbor and Schmidt (1962, pp. 169-173) also experimented with group counseling on a short term basis. Their null hypothesis was, "There will be no difference in the academic achievement of a group of students receiving short-term group counseling and a group of students receiving no counseling." The underachievement definition for the sampling was all students who scored a total score of 80 percent or above on the American Council on Education Psychological Examination and a first semester GPA below 1.5 on a 3.00 basis. There were 152 potential subjects out of which 68 were randomly drawn and placed in the experimental group, the remainder composed the control group. Prior to the beginning of the experiment both groups were administered the California Psychological Inventory.

The counseling sessions were unstructured and only brief outlines were used to direct clients. At the end of the experiment then both groups were given the tests.

Differences in mean GPAs were found to be significant at the .05 level of significance. No significance was found in the differences between groups on the California Psychological Inventory.

Broedel, Ohlsen, Proff, and Southard (1960, pp. 163-170) did a study to explore the effects of group counseling on underachievement. They ran the study at a four year high school and conducted the counseling sessions in a classroom. The sample was derived from students who ranked in the top ten percent of their eighth grade class on the California Test of Mental Maturity, and at the ninth decile or below in terms of GPAs. Twenty-nine students participated and were divided into four groups. Two groups were counseled and all behavior was recorded. Growth was determined by grades earned, scores on an achievement test battery and observations made by clients, parents, and members of observing teams. After post testing the control groups were also counseled. Using a .05 level of significance, it was found that three of the four groups displayed a marked improvement. Positive changes were also noted in acceptance of self and others and improved ability to relate to peers, siblings, and parents.

Sheldon and Landsman (1950, pp. 210-215) attempted to use non-directive therapy in helping underachievers attain their level of expectations. They worked with 28 first semester freshmen who had not met a certain level of acceptance. The comparison group was the class in Academic Methods offered by the college for students who were on probation.

This class was conducted in the traditional way with lectures, tests and grades. The experimental class displayed a permissive atmosphere with no authoritarian figures.

Both groups were administered the Ohio State Psychological examination, the California Test of Personality, and the Iowa Silent Reading Test before and after the experiment. GPAs were also compared before and after. No differences were found in the California Test of Personality and the Iowa Silent Reading Test, but GPAs did display a significant difference at the .01 level in favor of the control group.

The traditional group was very satisfied with the conduct of the class, while the experimental class was very hostile to the technique used on them in the beginning sessions. Eventually all but one were extremely satisfied with the outcome.

Then in 1960, Baymur and Patterson experimented with 32 high school underachievers, using a group counseling technique. The subjects were divided into equal groups and matched on the basis of aptitude (Differential Aptitude Test, Verbal plus Abstract Reasoning subtests), GPA, difference in percentile ranks in aptitude and achievement, socioeconomic status, age, and sex. Three measurements were obtained before and after a twelve week period:

1. Q-sort of 45 items selected from Hilder's pool,
2. Brown and Holtzman's Survey of Study Habits and Attitudes
3. Grades

A two-way analysis of variance indicated that the counseled group difference was significantly greater in Q-sort adjustment and GPA.

Roth, Mausch, and Pieser (1967, pp. 393-398) at Illinois Institute of Technology randomly selected two groups from a list of probationary students (GPA of 1.85 on a 4.00 scale). They matched on a basis of age, major, and tenure. The experimental group was then subdivided into smaller groups of seven to twelve members and received group counseling. The counseling approach was based on a description of the dynamics of non-achievement as outlined by Roth and Meyersburg. (1963, p. 537)

The technique is designed to resolve the problem of the student's own choice to fail through therapeutic intervention dealing with poor study habits. The purpose is to eliminate the defense of poor study habits so that more significant issues can be handled. (Roth and Meyersburg, 1963, p. 536)

Measurement was derived from a comparison of GPAs. The experimental group's GPA increased .80 while the control group increased only .02. The increase was significant at the .01 level.

CHAPTER III

METHOD

Subjects

The population was derived from the entering freshman class in the fall quarter of 1969 at Central Washington State College.

The subject selection was based on the VCs of 54 or higher and a high school GPA of 2.25 to 2.75. The reasoning for this selection method was that a VCs of 54 and higher would place these new students in the upper 1/3 of the entering freshman class, while their high school GPAs would place them in the lower 1/3. Thus a gap suggesting unachievement exists and this author wished to explore this matter.

After the selection of subjects (S's) who fell into these ranges, the study had 54 S's. These S's were then matched into three groups: Experimental Sub I, Experimental Sub II, and a control group. The S's were matched on the basis of high school GPAs and VC scores from WPCT. Upon close examination of the VCs and GPAs, it was discovered that in order to match these groups successfully, a range had to be derived for both variables. Using the figures compiled for each S (VC and GPA) the maximum allowable deviation that could be permissible was 10 points on the VC and 3 tenths of a grade point on the GPA.

Experimental Sub I group became the counseled group (Exp. I), while Experimental Sub II was handled by another thesis candidate

using a behavior-modification approach. Eventually these two studies will be compared, but not in this paper.

Instruments

Two particular areas needed scrutiny: attitude change, and change in academic standings. In order for this to be accomplished a pre and post test exploring these possible changes was needed.

With this in mind the survey of study habits and attitudes was chosen. This test was developed by Brown and Holtzman to meet the challenge raised by the fact that some students with high scholastic aptitudes do poorly.

The SSHA measures: (DA) Delay Avoidance - your promptness in completing academic assignments, lack of procrastination, and freedom from wasteful delay and distraction; (WM) Work Methods - your use of effective study procedures, efficiency in doing academic assignments, and how-to-study skills; (TA) Teacher Approval - your opinions of teachers and their classroom behavior and methods; (EA) Education Acceptance - your approval of educational objectives, practices, and requirements; (SH) Study Habits - combines the scores on the DA and WM scales to provide a measure of academic behavior; (SA) Study Attitudes - combines the scores on the TA and EA scales to provide a measure of scholastic beliefs; (SO)

Study Orientation - combines the scores on the SH and SA scales to provide an overall measure of study habits and attitudes.

The other instrument selected was the modified California Q-sort. The California Q-sort consists of 50 items describing personality. Each item is to be assigned a weight from one to ten, one is least desirable while ten is most desirable. Each weight can only be used with five items to provide an equal distribution. Both tests were administered on a pre and post bases. Additionally, the Q-sort requires an ideal and real situation.

The student is first asked to record his responses to the first Q-sort in a manner that would depict him in a real sense, in other words, as he sees himself right now. The ideal section responses are to be registered as how the student would like to see himself.

Procedures

All the S's in the experimental groups were contacted by mail, August 20, 1969, four weeks before the opening of school. The letters were on a multilith, rather than a ditto, and first names were typed in to make them more personal. The content of this letter is in the Appendix. The letter was then signed by both experimenters. The form (see Appendix C) had a space for S's name and college address. Sixteen of the original eighteen in Exp. I responded affirmatively.

During the week of registration, since freshmen registered on the last day, each participant was contacted by phone. The phone conversations were used for introductions, answering any questions the S's had concerning the class, and obtaining assurance for the experimenter that these students were taking the class. One student did not arrive on campus.

On the day of registration, this experimenter, (E), who was to conduct the course of group counseling, went to the registration area to meet and sign up each of the fifteen S's to be in the Exp. I group.

The classroom choice was one that was not structured as a classroom, but as a lounge. It was located in the College's elementary school and had one couch, a coffee table, and six lounge chairs. The remaining chairs were hard backed. There were two floor lamps, which were used for lighting along with the ceiling light. The room also contained two 2 feet x 3 feet modern art paintings.

The S's, consisting of 5 males and 10 females, were asked to assemble in this room by 6:30 p.m. the first Wednesday of classes.

Since the instructor was also the experimenter, (E), the Director of Counseling and Testing, this experimenter's thesis chairman, was asked to be an observer.

The first meeting was used to test the subjects with the Brown and Holtzman's Survey of Study Habits and Attitudes, (SSHA), the Ideal,

California Q-Sort, and the Real, California Q-Sort. Since this process took up most of the time, little of the actual class procedure was discussed. The S's were advised to obtain a copy of Francis P. Robinson's Effective Reading, and to meet the following Wednesday, same place, same time. E then scored the tests and filed them for later use. At this time the CG was contacted by phone. They were asked to give two hours of their time to fill out the SSHA and the Q-Sorts. All agreed to do so.

The second meeting was used to allow the S's to familiarize themselves with one another and E. First technique was to divide the group into two halves and form two circles. Then one S in each group was asked to begin by saying my name is... this continued around the circle until it was completed. Then the group was asked to count off by two's to form two subgroups. The group then went through the name game again. With the group then feeling a little more comfortable, the next step was to have each S shake hands with each other S. After this had been completed, the group was requested to do this again, only this time not to speak and not to use their right hand. Then the S's were asked to write seven items about themselves on a sheet of paper, starting each item with the phrase "I am". The remainder of this meeting was used in pairing off and having one S describe his list to an S, who acted as a listener. In turn then the listener became the teller, after he reacted to the teller's statements.

Before the end of the class, the group was informed that the reason they were in this group is because they had chosen to underachieve. Their

high school grades were in the lower 1/3 while their verbal composites ranked them in the upper 1/3 of new entering freshmen. Then the approach was explained as a psychological approach using new group experimental methods, "We will be using different kinds of approaches and we will ask for your attendance in class. We will not try to embarrass you, but wish your involvement."

The group was then asked to read the first two chapters in Robinson's Effective Reading.

On the third meeting, the text of the two chapters was discussed. Some of the items that were looked at were the statistics offered by Robinson to validate his SQ3R method. Then a text from a general psychology course was used to demonstrate the utilization of SQ3R. (Actually, any book could have been used.) The S's were then given a dittoed half-sheet which had been duplicated from pages 31 and 32 from Robinson which condensed the SQ3R. The S's were requested to attempt this approach, and report back to the class on their perceptions.

A discussion followed on individual study habits, by E asking S's to describe themselves to the group as a studier. They were then asked to spend a few moments in contemplation, and then try to decide where they had made the decision to underachieve. The remainder of this meeting was used to discuss this question. At this point, E attempted to begin to detach or change his initial role as an instructor, to a group leader, to be

used as a resource rather than an authority. Certain group members tried to pick up the lead. E revealed some things about himself that caused the group to see him more visibly and accept him as a member and not as an instructor.

Then the S's were asked to keep a personal diary and record any reasons they may come to grips with that is adding, in their opinion, to the general problem of underachievement.

During the fourth meeting apparently more trust needed to be cultivated, so a stimulation game with E as a participant was conducted. The S's paired off, and without speaking, placed their hands, with fingers spread, opposite their partners. After a few minutes, a discussion pursuing the S's feelings occurred. This was tried again, with different partner's, since the need was evident and the group wished a repeat.

At this time, Herbert A. Otto's Life Goal Inquiry method to tap human potential was used. (Otto, 1968, p. 82) The group was given a sheet which was headed part I of life goals inquiry. The S's were asked to take the sheet home and provide for an hour of uninterrupted time. The statement was then made that "this is an experience which offers you an opportunity for exploring and clarifying your life goals." No mention was made of values. After completion of the sheet, the S's were requested to place the sheet in a sealed envelope until later that quarter.

An inquiry was then made about the use of SQ3R. A discussion followed. Then a discussion of the diary entries was initiated. A restatement of goals for the group was discussed.

From this point, meetings 5, 6, 7, and 8 were for group discussions concerning each individual's personal background, attitudes and feelings about situations that were causing them discomfort and possible interfering with their attempts to work up to their recorded abilities.

During the fifth meeting, the group was still evading the effective level of discussion, so E asked the group to participate with him in an experiment to uncover this area. A small ball was used and thrown easily from one S to another. When any S received the ball, he was asked to respond with a statement of feeling.

E attempted at all times to be aware of levels of communication and urged the group to be aware of their feelings, and what the group was doing. He did this by simply stating "What is the group doing now?"

In the seventh meeting, in order to complete preparations for the Life Goals Inquiry, the group was asked to take home part II, Life Goal Inquiry, and put their values on this sheet, then seal it and place it with the other envelope.

The ninth meeting was then used to do part III. It was a questionnaire which asked them to describe relationships between part I and part II. Then "How are your values related to your goals and vice versa?" The final question was "What is of importance and worth to you related to what you wish to accomplish in your course through life?" The last sheet was used for conclusions and changes.

A final discussion was then elicited by E asking, "What has this experience meant to you?" Also, "Does this experience have any implications for you in terms of action?" Before these two conclusions were used, S's shared the sheets of part I and part II with the group. This question was pursued: "What was the relationship of your life goals to your values?"

The tenth and last meeting was used to have the S's again fill out the Q-sorts and the SSHA. Also, the control group during the tenth week was retested to insure equal situations for co and ex groups.

CHAPTER IV

RESULTS

Level of significance was set at .05 utilizing a two tailed t-test. Since both groups in all measurements contained fourteen S's, a standard score of 2.16 to attain significance was derived.

All t values were computed with the t test for related measures. This was chosen primarily because of the matched variables of vcs and GPAs.

The formula recommended by Bruning and Kintz in their book, Computational Handbook of Statistics (Bruning and Kintz, 1968, p is:

$$t = \frac{X-Y}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

Where D = difference score between each Experimental and Control pair

N = number of pairs of scores

The following tables are arranged to show the results obtained by this statistical comparison on the six areas of measurement and an overall score of the SSHA. Also shown are the results of the Q-sort and grade point comparisons between the Experimental and Control groups.

The following tables report the number (N), means, ranges, and computed t values for experimental and control groups for the various comparisons. Each table is followed by an identifying sentence and a brief clarification on the significance of the findings.

TABLE I
DELAYED AVOIDANCE ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	8.10	-1 to 16	4.06
Control	14	2.12	-3 to 8	

This table refers to a student's promptness in completing academic assignments, lack of procrastination and freedom from wasteful delay and distraction. Computation was by comparison of the difference scores (D) between experimental (ex) and control (co) groups derived from scores on the pre and post tests.

With a t value of 4.06, it is clearly demonstrated that the possibility of this change occurring by chance is about one out of a hundred. In fact, a value of 4.2 at this degree of freedom would place the chance at one out of a thousand. By interpolation we can then say that the chance factor here is one out of nine hundred.

TABLE II
STUDY HABITS ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	13.30 .	-1 to 37	.86
Control	14	4.40	-8 to 12	

Study Habits (SH) is a measure of academic behavior which is derived from combining the scores of delayed avoidance and work methods. Analysis was obtained by comparison of the D score between the ex and co groups. D scores were derived originally by subtracting the pre test scores from the post test scores.

Using a level of significance based at 2.16, this table shows that no significance was found as evidenced by the t value of .86. Again, the range displayed by the ex group 38, as opposed to the co group 20, demonstrates that the ex group had a greater variability.

TABLE III
WORK METHODS ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	5.50	-5 to 16	1.66
Control	14	1.50	-6 to 9	

The Work Methods (WM) section composes the student's how-to-study skills, his efficiency in doing the academic assignments, and his use of effective study skills. Computation was based on D scores of ex and co groups which were taken from the pre and post tests.

The t value of 1.66 is not significant at the level of 2.16. The ranges of the D scores again show the ex group to be more deviant.

TABLE IV
TEACHER APPROVAL ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	3.40	-7 to 14	1.56
Control	14	.14	-12 to 10	

Teacher Approval (TA) is a score of how a student feels about the teaching methods and attitudes of teachers in the classroom. Analysis was on the bases of D scores derived from the pre and post testing of the ex and co groups.

This table displays a t value of 1.56 which is not significant at the .05 level. The ranges here are closer than in the previous tables.

TABLE V
EDUCATIONAL ACCEPTANCE ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	5.40	-10 to 19	1.15
Control	14	1.90	-9 to 12	

Educational Acceptance (EA) is the student's approval of educational objectives, the practices in education, and educational requirements. Computational assessment was computed by comparison of D scores of the pre and posting of the ex and co groups.

The t value in this table is 1.15 which, at the .05 level, was not significant.

TABLE VI
STUDY ATTITUDES ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	9.70	-12 to 30	2.16
Control	14	1.80	-12 to 12	

The Study Attitudes (SA) for the SSHA is found by combining the scores which provides a measure of scholastic beliefs held by the student. Analysis was by computing the D scores of ex and co groups on a pre and post test.

The t value obtained was right at the level of acceptance 2.16. Therefore, we can safely conclude that the study attitudes of the ex group were changed significantly from the co group by virtue of the group counseling technique described in the text.

TABLE VII
STUDY ORIENTATION ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	22.12	-5 to 53	2.32
Control	14	6.90	-18 to 22	

Study Orientation (SO) is the composite of all the other areas in the SSHA. It gives the testor an overall method of judging the study habits and attitudes of students. Analysis of difference was by pre and post testing of ex and co groups.

The Study Orientation t value provided to be significant beyond the .025 level. The t value was 2.32 while the .025 value was 2.16. The chance factor was then one out of forty and we can assume that the ex group had a significant change in their study habits and attitudes. The D ranges are almost comparable with a difference of 8.

TABLE VIII
Q-SORT ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	15.70	-35 to 46	.21
Control	14	13.20	-35 to 49	

This Q-sort was an adjective checklist used to provide for the demonstration of possible differences in personality of a student occurring during the experiment. Computation was performed by subtracting the real section from the ideal section and comparing the scores for significant differences on the pre and post test of the ex and co groups.

The t value computed for this test was one of the lowest of all areas. The value was .21 which is nearly two whole points from acceptable level of significance. The D ranges and the D means show little variance.

TABLE IX
FALL GRADE POINT ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	2.43	.85 to 3.51	.23
Control	14	2.47	1.85 to 3.38	

Fall grades were collected from both groups in an effort to observe any changes or differences between the groups. Analysis was based on actual grades.

The t value reports no significant change between groups. In fact, the mean for the ex group was .04 lower than the co group. The range for the ex group was 2.66 while the co group had a smaller deviation of 1.53.

TABLE X
WINTER GRADE POINT ASSESSMENT

GROUP	N	MEANS (D)	RANGES (D)	t VALUE
Experimental	14	2.27	.87 to 3.66	.36
Control	14	2.44	.35 to 3.40	

Winter Quarter grade points were also obtained and compared. The scores are actual grades and not a composite of the two quarters.

The t value for winter grades was not close to significance. The co group showed a greater diviance in ranges .

TABLE XI
EXPERIMENTAL Q-SORT ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Pre	14	128.40	82 to 194	.20
Post	14	112.60	68 to 180	

This Q-sort is computed by comparison of the pre test scores and the post test scores for the ex group only.

The t value is .20 which is far from the .05 level of significance. The means did drop for this group which could permit a speculation that there was some change but not enough to be acceptable. The post test range scores display less divergence.

TABLE XII
EXPERIMENTAL STUDY ORIENTATION ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Pre	14	95.20	51 to 149	12.22
Post	14	105.10	75 to 166	

The Study Orientation is, as stated in Table VII, a combination of all scores. This analysis is obtained by comparing the pre test scores with the post test scores from the SO.

The largest significance for all the areas surveyed was discovered in this section. The t value of 12.22 represents a change beyond the .001 level or a chance factor of over one out of a thousand.

The ranges show little deviation with a difference of only seven points between modal points of the two ranges shown above. It must be remembered that this is a change within the ex group from pre group counseling to post group counseling.

TABLE XIII
DELAYED AVOIDANCE ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	19.78	4 to 31	.003
Control	14	19.85	13 to 25	

Delayed Avoidance (DA) as referred to in Table I, is the measurement of a student's ability to begin and complete his work on time. Analysis of the differences is performed between the post tests of the DA between the ex and co groups.

There is no evidence to lead the experimenter to believe that there was a significant difference. The means are almost the same while the ex group displays the greatest divergence on the ranges.

TABLE XIV
WORK METHODS ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	29.07	15 to 41	.16
Control	14	28.57	13 to 44	

The Work Methods (WM) section of the SSHA as explained in Table II, is computed here by comparison of the post test of the ex and co groups level.

Using a level again of 2.16 the t value of .16 displays no significance.

TABLE XV
STUDY HABITS ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	48.79	20-71	.34
Control	14	47.14	28-67	

Study Habits (SH) in this table were compared between the ex group and the co group for only the post test scores of the SH.

A t value of .34 is below the level of significance used, .05, so no change was recorded for this section of the SSHA.

TABLE XVI
TEACHER APPROVAL ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	31.57	20-45	1.17
Control	14	25.07	15-38	

The Teacher Approval (TA) section has already been explained in Table IV. The difference here is that the analysis was obtained by post test scores of the ex and co group.

The t value does not represent a significant change. The ranges show a deviation of only 2 points between the two groups with the ex group having the larger.

TABLE XVII
EDUCATIONAL ACCEPTANCE ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	60.35	16-44	1.50
Control	14	55.07	12-45	

A definition of the term "Educational Acceptance" can be found in Table V. Again analysis was on the post test scores of the ex and co groups.

No significant change was observed in this category because the t value, 1.50, was below the 2.16 cut off.

TABLE XVIII
STUDY ATTITUDES ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	61.07	36-95	3.68
Control	14	55.07	40-85	

Table VI explains the meaning of Study Attitudes. In this table the computation was derived by comparison of the post test scores for the ex and co groups.

As in Table VI, the significance here is also beyond the .005 level. Where Table VI was right at 2.16, the t value in this table is 1.52 above the anticipated level of significance.

TABLE XIX
STUDY ORIENTATION ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	106.28	56-166	.07
Control	14	107.07	68-143	

Study Orientation, as previously mentioned, is a combined score of the six areas of the SSHA. The scores for this computation were taken from the post testing of the ex and co groups.

The co group had a higher mean score while the ex group displayed a greater divergence on the ranges. The t value was not significant.

TABLE XX
Q-SORT ASSESSMENT

GROUP	N	MEANS	RANGES	t VALUE
Experimental	14	112.42	68-180	.89
Control	14	102.64	70-129	

The Q-sort adjective checklist scores for this table were derived from the post scores of the Q-sort for both groups.

The derived t value of .89 is not significant at the .05 level of confidence, thus suggesting that there is no difference beyond that ascribed to chance.

TABLE XXI
STUDY ORIENTATION MEANS

	PRE MEANS	POST MEANS
Experimental	91.13	109.20
Control	96.30	102.11

Since the section of the SSHA is an overall score composed of all the other areas, a mean score reference was computed to act as a basis for the Tables I through XX.

The above table shows a marked difference between the experimental and control groups on the pre and post test. The experimental group difference was 18.07 as compared to the control group's 5.81.

Tables I through VII are in reference to Hypothesis One on page 4 which states, "Differences will be found between the differences of the pre Group Counseling (GC) scores and the post GC scores of the Survey of Study Habits and Attitudes (SSHA) for experimental (ex) and control (co) groups." Table I shows a significance beyond the .01 level on the DA, as does Table VI, which is right at the .05 level. Table VI is the SA assessment. This means that the ex group was able to complete their work on time and do their academic assignments without delay at the end of the eight period in a more efficient manner than the co group. Also, the significance of the t value on Table VI demonstrates that the ex group's attitudes concerning study after the experiment were changed significantly from the attitudes held by the co group. This was made apparent by the comparison of the differences of the pre and post test of the ex and co groups. Table VII, as has been previously mentioned, is an overall score for the six areas that compose the SSHA. Therefore, the t value here is most meaningful since it demonstrates that the ex group's change over the co group was beyond significance at the .025 level. In other words, there exists only one chance in forty that this change could be accounted for by chance. With this thought in mind, it can be further demonstrated that the ex group's study habits and attitudes were changed for the better by noting the great differences in means: ex 22.12, co 6.90. On this basis, Hypothesis One is accepted.

Table VIII is a mathematical interpretation of Hypothesis Two. This hypothesis states, "Differences will be found between the differences of the pre GC scores and the post GC scores on a Q-sort test for ex and co groups." With a t value of .21 there appears to be no significant change in congruency between the ideal and real self-following the experiment. Hypothesis Two is, therefore, rejected.

Tables IX and X deal with the GPAs of the S's. Here again the t values were below the acceptable level of 2.16, so Hypothesis Three which states, "Differences will be found between ex and co group's actual grade points for fall and winter quarter" cannot be accepted.

Table XI refers to the Q-sort scores of the ex group only, before and after GC. This analysis was computed to see if any changes had occurred within the ex group because of the process of GC. With the t value of .20, Hypothesis Four must be rejected.

Table XII then was computed to observe any significant change within the ex group on the SO score for the SSHA. The t value of 12.22 shows a very marked change in the study habits and attitudes of the ex group on the pre and posting. Hypothesis Five is accepted on this basis. This score represents the greatest change for all the areas analyzed.

Tables XIII through IX are the six measureable areas of the SSHA and their overall score, SO. These scores were computed for the ex group and the co group on the post scores of these areas. The only

measurement of Tables XIII through IX that displays significance is the SA of Table XVIII, which coincides with the previously tested SA on the ex and co group's pre and post test, Table VI. But, the SO, Table IX, for the post scores does not demonstrate significance. Therefore, Hypothesis Six is rejected.

The last table, Table XX, represents the Q-sort testing post scores of the ex and co groups. This table is in reference to the seventh hypothesis which states, "Differences will be found between ex and co groups post gc scores on a Q-sort." The t value is .89 which does not allow the acceptance of Hypothesis Seven.

Since the scores for D were derived from the subtraction of the pre and post tests, Table XXI was computed to show the means of the pre ex, post ex, pre co and post co. There was a change of 18 points for the ex group as compared to a 5.81 change for the co group. The change responsible can be observed in the t values of the SA, DA, and SO measurements in Tables I, VI, VII, and XII.

CHAPTER V

DISCUSSION

The ex group was informed that this class was an experiment and that they would be part of a thesis project. Therefore, the Hawthorne Effect must be taken into consideration when reviewing this study's outcome. The areas of delayed avoidance, study attitudes, and a study orientation that demonstrated significant change could possibly have been effected by the researcher's attitude. The S's are students that possess the ability to perform up to the accepted level, but for some reason or another they have chosen to underachieve. One could speculate that just having someone caring about them and what happens to them might just be incentive enough for these students to try to attain their level of expectancy.

In a closer examination of the group dynamics, a number of situations should be noted here. None of these students had ever been associated with a college atmosphere in any shape or form. They had also not been in contact with, or had a relationship with, anyone in the group. Therefore, there were mixed feelings of what appeared to the researcher to be hostility, anxiousness, curiosity, and fear when they first came together. There was no problem with getting all of the S's to meet the first time. They all seemed to be concerned with just what was going to take place and exactly what was going to be expected from them. When the appropriate explanations

were made, most S's appeared to accept the circumstances. A few seemed to be reluctant and wanted to pursue a deeper discussion.

Group cohesiveness was hard to attain. One particular female S seemed to grasp the task at hand and attempted to become the leader. Most of the S's obliged, except for one male S. There ensued a battle between these two S's for supremacy. This situation brought out the feelings of the others to a point where eventually the group was leaderless. In explanation of this, they appeared not to need a dominant figure. In fact, they repressed this idea totally. When one S had a particular problem, ultimately another S in the group would notice it and direct the group's attention to this situation.

There was an establishment of loyalty and trust built within the group. This occurred in very little time and was evident in the third meeting. One S, the female in the leadership struggle, divulged a situation that was very close to her and had to do with her relationship with her father. A very concerned and interested atmosphere prevailed during her "opening up". The problem that followed was that during each session it took some time for the group to reach this point, but it always did appear. The concern for each other within the group seemed to be very evident throughout. The greatest concern was for one female S, who said very little, and when she did speak appeared to be very emotional. The concern for the group by the individual S's was evident by the punctuality and attendance that they demonstrated.

There were two incidents when one S was late, the same female S mentioned above. The group's comments were an expression of anger before she arrived. When she did finally come, the group's attitude mellowed and she seemed to be forgiven both times.

There were dynamics that occurred within the overall structure that were interesting. During the first session when the group participated in a touching exercise, using the palms and fingers, with eye-to-eye contact, one obvious male-female pair bonding did appear. This situation was observable during most of the latter sessions and was evident within the group by the comments of the male S when he constantly came to the defense of the female S, or tried to help clarify her problems to the group. Another bonding was visible, but unlike the above mentioned, it consisted of three female S's. The situation appeared that there was much collaboration outside of the group sessions with this threesome. One of the females was involved with drugs and was, in fact, about to "go off the deep end". When the S brought this to the group's attention, they dealt with it in a very personal and concerned manner. All S's seemed to be sincerely trying to help her. The other two S's were instrumental in this helping relationship and led the group discussions in this area. With all factors considered, it can be said that this group, at least in the sessions, seemed to attain interdependency and trust.

The group as a whole was completely unaware of study methods. They were very accepting and willing to try Robinson's method of SQ3R.

(Robinson, 1962) After a few attempts at SQ3R alone, they decided that they would like to find a quiet place to meet and study for a few hours each evening together. A room in the Student Union Building was provided and the S's met there and helped each other with the SQ3R study approach. As a point of clarification, during the initial discussion on study habits much attention was given to roommate intrusions, outside intrusions, and self discipline in attempting to study. To remedy this, the aforementioned room was made available. The room was used by most of the S's, but not all of them. This situation prevailed through the first six weeks of the quarter when less and less S's came, until midway through the seventh week when no one came.

As one can tell from the preceding discussion, group goals were formulated, although never openly discussed. The prevailing goal seemed to be the social adjustment of all S's. This is indicative of the attitudes the S's displayed. Their concern was centered through most of the class on the personal problems they had or were encountering. The secondary goal was to help each other in attaining a passing grade point. This was the reason why the SQ3R was accepted so readily by the group, and also the reason for the room request.

Another area that must be given close scrutiny is the validity of the WPCT, Kathleen Wall, a Masters candidate in 1967 at CWSC, did a detailed investigation into the accuracy of the WPCT. (Wall, 1967)

She suggested that the WPCT is less accurate in predicting student outcome near the 2.00 level than at the outer limits of 2.7 and above and 1.7 and below. This means that greater reliability is possible at the outer grade points than around the 2.00 level. This situation prevails because a 1.99 will fail a student. This then suggests to this researcher that the students with predicted grade points from 0 to 2.7 need special consideration in preparation of their course of study and course selection method. In other words, the WPCT should be a prediction guide into and out of certain areas. Ideally, the WPCT should be used as a counseling instrument for the student. The WPCT also becomes more accurate as the student progresses through college. This occurs because his early quarter scores coupled with the WPCT scores can accurately tell what he will do in all his areas disciplines as a junior and a senior.

In the incorporation of future designs in this sphere of research, it is strongly suggested that the sessions be more frequent. This can be accomplished by having the sessions last longer, which would be best, or having more sessions during the week. In this study the meeting times were arranged by necessity. When the course was arranged to be placed in the class catalogue, serious thought was not given to when the class should meet. Therefore, the times finally arrived at were derived by the S's in the group according to when they could fit this class into their working week. It appears now that more frequent or lengthier sessions

would have allowed the S's to be better atuned as contributors and to be more helpful to each other.

The inexperience of this author with group counseling, and as a group leader in this kind of situation, could very well have hampered a more positive outcome. It seemed that the group had just begun to touch on some of the critical areas, such as their relationships with their parents, relationships with the opposite sex, and dealing with their own feelings. This may have held up or rerouted the discussions in a path that circumvented the immediate problems of some of the S's rather than helping to draw out feelings. This is not intended as an apology, but rather as some helpful direction for further research.

CHAPTER VI

SUMMARY

All of the literature reviewed disclosed studies that were conducted with samplings that were derived from populations composed of high school students or college students that had had at least one quarter of college exposure. This study was mainly concerned with underachievers that existed between these two spheres. In other words, students that were enrolled in college, but had not started their academic training. This researcher's contention was that if colleges are going to admit students that are underachievers and possess the methods for searching out these students, then why not do something to help these students help themselves before they become probationaries.

Therefore, the sampling in this study was collected from the entering freshman class at CWSC in the fall of 1969. The criterion for selecting underachievers was any student who scored higher than 54 on the vc section on the WPCT but had a high school GPA of 2.75 or lower. Fifty-four S's fit these guidelines and were divided into three groups: one control and two experimentals. The S's were matched on the basis of vcs and GPAs.

This study's ex group, I, participated in a group counseling program and met once a week for three hours. The other ex group, II, was conducted by another Masters candidate, Don Price, who used a behavior

modification technique. His results can be found in the CWSC library on file.

All groups were administered the Survey of Study Habits and Attitudes (SSHA) and a modified California Q-Sort Adjustment Scale. These tests were given on a pre and post basis so as to have a statistical comparison. A test of t dealing with the D scores of the measurements was utilized to find significant differences. Also, since the hypotheses were nondirectional, a two tailed parameter was used. The significant level was predetermined at .05 or .025 with the two tails.

Significant differences were found in the DA, SA, and SO sections of the SSHA. These findings were encouraging since the SO combines the scores on the SH and SA scales to provide an overall measure of study habits and attitudes.

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APPENDIX A

TABLE I
DELAYED AVOIDANCE

SUBJECTS	EXPERIMENTAL	CONTROL
A	7	1
B	6	5
C	-1	-3
D	10	7
E	7	5
F	15	-1
G	12	6
H	9	0
I	5	3
J	7	8
K	16	1
L	6	2
M	12	3
N	2	3

TABLE II
WORK METHODS

SUBJECTS	EXPERIMENTAL	CONTROL
A	3	-1
B	12	7
C	3	-5
D	-5	5
E	7	5
F	16	-1
G	10	6
H	0	-4
I	-3	0
J	5	2
K	21	-6
L	-4	1
M	10	1
N	0	9

TABLE III
STUDY HABITS

SUBJECTS	EXPERIMENTAL	CONTROL
A	10	0
B	18	12
C	2	-8
D	5	12
E	14	10
F	31	2
G	22	9
H	9	-4
I	-1	3
J	12	10
K	37	-5
L	3	3
M	22	5
N	2	12

TABLE IV
TEACHER APPROVAL

SUBJECTS	EXPERIMENTAL	CONTROL
A	9	-4
B	2	2
C	2	-1
D	-2	2
E	6	1
F	2	2
G	14	-1
H	2	-12
I	7	-2
J	2	3
K	6	1
L	-7	1
M	-1	10
N	4	0

TABLE V
EDUCATION ACCEPTANCE

SUBJECTS	EXPERIMENTAL	CONTROL
A	4	8
B	16	2
C	2	-9
D	-10	6
E	8	3
F	2	-6
G	15	5
H	1	2
I	1	5
J	3	12
K	19	-1
L	-1	7
M	15	-3
N	-1	-8

TABLE VI
STUDY ATTITUDES

SUBJECTS	EXPERIMENTAL	CONTROL
A	13	4
B	18	4
C	4	-10
D	-12	8
E	14	4
F	4	-4
G	29	4
H	3	-10
I	16	3
J	5	2
K	30	12
L	-8	0
M	14	8
N	3	-8

TABLE VII
STUDY ORIENTATION

SUBJECTS	EXPERIMENTAL	CONTROL
A	22	14
B	36	16
C	6	-18
D	-7	20
E	28	14
F	35	-2
G	53	13
H	12	-14
I	17	6
J	17	22
K	65	-5
L	-5	11
M	36	11
N	5	5

TABLE VIII
Q-SORT TEST

SUBJECTS	EXPERIMENTAL	CONTROL
A	3	23
B	28	2
C	-42	28
D	44	22
E	14	20
F	25	15
G	50	-6
H	4	18
I	-2	14
J	-35	49
K	34	26
L	64	-8
M	21	-35
N	9	16

TABLE IX
FALL GRADE POINTS

SUBJECTS	EXPERIMENTAL	CONTROL
A	2.47	2.13
B	3.05	2.68
C	2.22	1.85
D	2.95	3.08
E	2.98	2.37
F	2.13	2.21
G	3.03	2.31
H	.85	2.09
I	3.51	3.06
J	2.93	2.33
K	2.71	3.38
L	2.00	1.94
M	2.15	2.53
N	1.15	2.66

TABLE X
WINTER GRADE POINTS

SUBJECTS	EXPERIMENTAL	CONTROL
A	2.41	2.22
B	3.05	2.74
C	1.90	.35
D	3.66	3.40
E	2.83	2.82
F	.87	3.05
G	2.72	2.54
H	2.14	1.41
I	3.27	2.87
J	2.38	2.29
K	2.16	2.77
L	2.09	2.06
M	1.87	3.28
N	.43	2.63

TABLE XI
EXPERIMENTAL Q-SORT

SUBJECT	PRE	POST
A	135	132
B	156	128
C	103	145
D	145	101
E	194	180
F	116	91
G	144	94
H	143	139
I	82	89
J	115	149
K	131	97
L	132	68
M	104	83
N	96	87

TABLE XII
EXPERIMENTAL STUDY ORIENTATION

SUBJECT	PRE	POST
A	99	76
B	80	116
C	84	90
D	114	107
E	47	75
F	95	130
G	62	113
H	129	141
I	149	166
J	95	112
K	117	50
L	101	106
M	109	145
N	51	56

TABLE XIII
POST DELAYED AVOIDANCE

SUBJECTS	EXPERIMENTAL	CONTROL
A	12	25
B	25	20
C	17	13
D	24	25
E	8	20
F	31	25
G	8	23
H	19	15
I	25	25
J	31	15
K	8	20
L	19	22
M	27	16
N	4	14

TABLE XIV
POST WORK METHODS

SUBJECTS	EXPERIMENTAL	CONTROL
A	27	23
B	30	32
C	23	40
D	29	35
E	15	25
F	30	28
G	28	44
H	38	13
I	41	39
J	32	27
K	31	19
L	28	28
M	39	20
N	16	27

TABLE XV
POST STUDY HABITS

SUBJECTS	EXPERIMENTAL	CONTROL
A	39	48
B	55	52
C	40	53
D	53	60
E	23	45
F	61	53
G	47	67
H	63	28
I	71	64
J	40	42
K	50	39
L	55	50
M	66	36
N	20	41

TABLE XVI
POST TEACHER APPROVAL

SUBJECTS	EXPERIMENTAL	CONTROL
A	20	40
B	26	22
C	25	30
D	28	20
E	30	31
F	38	20
G	34	20
H	45	15
I	45	28
J	38	23
K	36	38
L	22	21
M	35	20
N	20	23

TABLE XVII
POST EDUCATION ACCEPTANCE

SUBJECTS	EXPERIMENTAL	CONTROL
A	17	45
B	35	37
C	25	25
D	26	22
E	22	35
F	31	22
G	32	40
H	33	32
I	40	35
J	17	25
K	31	28
L	24	25
M	44	12
N	16	17

TABLE XVIII
POST STUDY ATTITUDES

SUBJECTS	EXPERIMENTAL	CONTROL
A	37	85
B	61	59
C	50	55
D	54	42
E	52	66
F	69	42
G	66	60
H	78	47
I	95	63
J	55	48
K	67	66
L	46	46
M	79	52
N	36	40

TABLE XIX
POST STUDY ORIENTATION

SUBJECTS	EXPERIMENTAL	CONTROL
A	76	143
B	116	111
C	90	168
D	35	102
E	130	111
F	113	95
G	141	127
H	166	75
I	95	127
J	117	90
K	101	105
L	145	96
M	56	68
N	107	81

TABLE XX
POST Q-SORT

SUBJECTS	EXPERIMENTAL	CONTROL
A	132	70
B	128	129
C	145	72
D	101	99
E	180	107
F	91	87
G	94	100
H	139	115
I	80	120
J	149	95
K	97	121
L	68	76
M	83	95
N	87	151

TABLE XXI
STUDY ORIENTATION MEANS

SUBJECTS	EXPERIMENTAL		CONTROL	
	Pre	Post	Pre	Post
A	99	76	129	143
B	80	116	95	111
C	84	90	126	108
D	114	107	82	102
E	47	75	97	111
F	95	130	97	95
G	62	113	114	127
H	129	141	89	75
I	149	166	121	127
J	112	95	68	90
K	50	117	110	105
L	106	101	85	96
M	109	145	57	68
N	51	56	77	81

APPENDIX B

A
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.68

Washington Pre-College Verbal Composite 65

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 135

Change 3

Difference 132

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>19</u>	<u>12</u>	<u>7</u>
Work Methods	<u>30</u>	<u>27</u>	<u>3</u>
Study Habits	<u>49</u>	<u>39</u>	<u>10</u>
Teacher Approval	<u>29</u>	<u>20</u>	<u>9</u>
Education Acceptance	<u>21</u>	<u>17</u>	<u>4</u>
Study Attitudes	<u>50</u>	<u>37</u>	<u>13</u>
Study Orientation	<u>99</u>	<u>76</u>	<u>23</u>

COLLEGE GRADES

Fall 2.47

Winter 2.41

Difference .06

A
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.75

Washington Pre-College Verbal Composite 62

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 93

Change 23

Difference 70

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>24</u>	<u>25</u>	<u>1</u>
Work Methods	<u>24</u>	<u>23</u>	<u>-1</u>
Study Habits	<u>48</u>	<u>48</u>	<u>0</u>
Teacher Approval	<u>44</u>	<u>40</u>	<u>-4</u>
Education Acceptance	<u>37</u>	<u>45</u>	<u>8</u>
Study Attitudes	<u>81</u>	<u>85</u>	<u>4</u>
Study Orientation	<u>129</u>	<u>143</u>	<u>14</u>

COLLEGE GRADES

Fall 2.13

Winter 2.22

Difference .09

B
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.75

Washington Pre-College Verbal Composite 57

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 156

Change 28

Difference 128

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>19</u>	<u>25</u>	<u>6</u>
Work Methods	<u>18</u>	<u>30</u>	<u>12</u>
Study Habits	<u>37</u>	<u>55</u>	<u>18</u>
Teacher Approval	<u>24</u>	<u>26</u>	<u>2</u>
Education Acceptance	<u>19</u>	<u>35</u>	<u>16</u>
Study Attitudes	<u>43</u>	<u>61</u>	<u>18</u>
Study Orientation	<u>80</u>	<u>116</u>	<u>36</u>

COLLEGE GRADES

Fall 3.05

Winter 3.05

Difference .00

B
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.75

Washington Pre-College Verbal Composite 57

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 131

Change 2

Difference 129

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>15</u>	<u>20</u>	<u>5</u>
Work Methods	<u>25</u>	<u>32</u>	<u>7</u>
Study Habits	<u>40</u>	<u>52</u>	<u>12</u>
Teacher Approval	<u>20</u>	<u>22</u>	<u>2</u>
Education Acceptance	<u>35</u>	<u>37</u>	<u>2</u>
Study Attitudes	<u>55</u>	<u>59</u>	<u>4</u>
Study Orientation	<u>95</u>	<u>111</u>	<u>16</u>

COLLEGE GRADES

Fall 2.68

Winter 2.74

Difference .06

C
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.73

Washington Pre-College Verbal Composite 54

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 103

Change -45

Difference 145

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>18</u>	<u>17</u>	<u>-1</u>
Work Methods	<u>20</u>	<u>23</u>	<u>3</u>
Study Habits	<u>38</u>	<u>40</u>	<u>2</u>
Teacher Approval	<u>23</u>	<u>25</u>	<u>2</u>
Education Acceptance	<u>23</u>	<u>25</u>	<u>2</u>
Study Attitudes	<u>46</u>	<u>50</u>	<u>4</u>
Study Orientation	<u>84</u>	<u>90</u>	<u>6</u>

COLLEGE GRADES

Fall 2.22

Winter 1.90

Difference -.32

C
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.74

Washington Pre-College Verbal Composite 54

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 100

Change 28

Difference 72

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>16</u>	<u>13</u>	<u>-3</u>
Work Methods	<u>45</u>	<u>40</u>	<u>-5</u>
Study Habits	<u>61</u>	<u>53</u>	<u>-8</u>
Teacher Approval	<u>31</u>	<u>30</u>	<u>-1</u>
Education Acceptance	<u>34</u>	<u>25</u>	<u>-9</u>
Study Attitudes	<u>65</u>	<u>55</u>	<u>-10</u>
Study Orientation	<u>126</u>	<u>108</u>	<u>-18</u>

COLLEGE GRADES

Fall 1.85

Winter .35

Difference -1.50

D
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.73

Washington Pre-College Verbal Composite 59

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 145

Change 44

Difference 101

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>14</u>	<u>24</u>	<u>10</u>
Work Methods	<u>34</u>	<u>29</u>	<u>-5</u>
Study Habits	<u>48</u>	<u>53</u>	<u>5</u>
Teacher Approval	<u>30</u>	<u>28</u>	<u>-2</u>
Education Acceptance	<u>36</u>	<u>26</u>	<u>-10</u>
Study Attitudes	<u>66</u>	<u>54</u>	<u>-12</u>
Study Orientation	<u>114</u>	<u>107</u>	<u>-7</u>

COLLEGE GRADES

Fall 3.66

Winter 2.95

Difference .71

D
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.69

Washington Pre-College Verbal Composite 64

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 121

Change 22

Difference 99

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>18</u>	<u>25</u>	<u>7</u>
Work Methods	<u>30</u>	<u>35</u>	<u>5</u>
Study Habits	<u>48</u>	<u>60</u>	<u>12</u>
Teacher Approval	<u>18</u>	<u>20</u>	<u>2</u>
Education Acceptance	<u>16</u>	<u>22</u>	<u>6</u>
Study Attitudes	<u>34</u>	<u>42</u>	<u>8</u>
Study Orientation	<u>82</u>	<u>102</u>	<u>20</u>

COLLEGE GRADES

Fall 3.08

Winter 3.40

Difference .32

E
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.62

Washington Pre-College Verbal Composite 59

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 194

Change 14

Difference 180

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>1</u>	<u>8</u>	<u>7</u>
Work Methods	<u>8</u>	<u>15</u>	<u>7</u>
Study Habits	<u>9</u>	<u>23</u>	<u>14</u>
Teacher Approval	<u>24</u>	<u>30</u>	<u>6</u>
Education Acceptance	<u>14</u>	<u>22</u>	<u>8</u>
Study Attitudes	<u>38</u>	<u>52</u>	<u>14</u>
Study Orientation	<u>47</u>	<u>75</u>	<u>28</u>

COLLEGE GRADES

Fall 2.98

Winter 2.83

Difference -.15

E
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.66

Washington Pre-College Verbal Composite 73

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 127

Change 20

Difference 107

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>15</u>	<u>20</u>	<u>5</u>
Work Methods	<u>20</u>	<u>25</u>	<u>5</u>
Study Habits	<u>35</u>	<u>45</u>	<u>10</u>
Teacher Approval	<u>30</u>	<u>31</u>	<u>1</u>
Education Acceptance	<u>32</u>	<u>35</u>	<u>3</u>
Study Attitudes	<u>62</u>	<u>66</u>	<u>4</u>
Study Orientation	<u>97</u>	<u>111</u>	<u>14</u>

COLLEGE GRADES

Fall 2.37

Winter 2.82

Difference .45

F
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.47

Washington Pre-College Verbal Composite 54

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 116

Change 25

Difference 91

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>16</u>	<u>31</u>	<u>15</u>
Work Methods	<u>14</u>	<u>30</u>	<u>16</u>
Study Habits	<u>30</u>	<u>61</u>	<u>31</u>
Teacher Approval	<u>36</u>	<u>38</u>	<u>2</u>
Education Acceptance	<u>29</u>	<u>31</u>	<u>2</u>
Study Attitudes	<u>65</u>	<u>69</u>	<u>4</u>
Study Orientation	<u>95</u>	<u>130</u>	<u>35</u>

COLLEGE GRADES

Fall 2.13

Winter .87

Difference -.66

F
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.66

Washington Pre-College Verbal Composite 54

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 102

Change 15

Difference 87

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>22</u>	<u>25</u>	<u>3</u>
Work Methods	<u>29</u>	<u>28</u>	<u>-1</u>
Study Habits	<u>51</u>	<u>53</u>	<u>2</u>
Teacher Approval	<u>18</u>	<u>20</u>	<u>2</u>
Education Acceptance	<u>28</u>	<u>22</u>	<u>-6</u>
Study Attitudes	<u>46</u>	<u>42</u>	<u>-4</u>
Study Orientation	<u>97</u>	<u>95</u>	<u>-2</u>

COLLEGE GRADES

Fall 3.21

Winter 3.05

Difference .16

G
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.66

Washington Pre-College Verbal Composite 54

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 144

Change 50

Difference 94

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>7</u>	<u>19</u>	<u>12</u>
Work Methods	<u>18</u>	<u>28</u>	<u>10</u>
Study Habits	<u>25</u>	<u>47</u>	<u>22</u>
Teacher Approval	<u>20</u>	<u>34</u>	<u>14</u>
Education Acceptance	<u>17</u>	<u>32</u>	<u>15</u>
Study Attitudes	<u>37</u>	<u>66</u>	<u>29</u>
Study Orientation	<u>62</u>	<u>113</u>	<u>53</u>

COLLEGE GRADES

Fall 3.03

Winter 2.74

Difference .29

G
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.63

Washington Pre-College Verbal Composite 55

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 94

Change -6

Difference 100

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>20</u>	<u>23</u>	<u>3</u>
Work Methods	<u>38</u>	<u>44</u>	<u>6</u>
Study Habits	<u>58</u>	<u>67</u>	<u>9</u>
Teacher Approval	<u>21</u>	<u>20</u>	<u>-1</u>
Education Acceptance	<u>35</u>	<u>40</u>	<u>5</u>
Study Attitudes	<u>56</u>	<u>60</u>	<u>4</u>
Study Orientation	<u>114</u>	<u>127</u>	<u>13</u>

COLLEGE GRADES

Fall 2.31

Winter 2.54

Difference .23

H
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.66

Washington Pre-College Verbal Composite 61

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 143

Change 4

Difference 139

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>16</u>	<u>25</u>	<u>9</u>
Work Methods	<u>38</u>	<u>38</u>	<u>0</u>
Study Habits	<u>54</u>	<u>63</u>	<u>9</u>
Teacher Approval	<u>43</u>	<u>45</u>	<u>2</u>
Education Acceptance	<u>32</u>	<u>33</u>	<u>1</u>
Study Attitudes	<u>75</u>	<u>78</u>	<u>3</u>
Study Orientation	<u>129</u>	<u>141</u>	<u>12</u>

COLLEGE GRADES

Fall .85

Winter 2.14

Difference 1.29

H
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.56

Washington Pre-College Verbal Composite 56

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 97

Change 18

Difference 115

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>15</u>	<u>15</u>	<u>0</u>
Work Methods	<u>17</u>	<u>13</u>	<u>-4</u>
Study Habits	<u>32</u>	<u>28</u>	<u>-4</u>
Teacher Approval	<u>27</u>	<u>15</u>	<u>-12</u>
Education Acceptance	<u>30</u>	<u>32</u>	<u>2</u>
Study Attitudes	<u>57</u>	<u>47</u>	<u>-10</u>
Study Orientation	<u>89</u>	<u>75</u>	<u>-14</u>

COLLEGE GRADES

Fall 2.09

Winter 1.41

Difference .68

I
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.56

Washington Pre-College Verbal Composite 61

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 82

Change 2

Difference 80

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>26</u>	<u>31</u>	<u>5</u>
Work Methods	<u>44</u>	<u>41</u>	<u>-3</u>
Study Habits	<u>70</u>	<u>71</u>	<u>-1</u>
Teacher Approval	<u>38</u>	<u>45</u>	<u>7</u>
Education Acceptance	<u>41</u>	<u>40</u>	<u>1</u>
Study Attitudes	<u>79</u>	<u>95</u>	<u>16</u>
Study Orientation	<u>149</u>	<u>166</u>	<u>17</u>

COLLEGE GRADES

Fall 3.51

Winter 3.27

Difference -.24

I
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.39

Washington Pre-College Verbal Composite 54

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 134

Change 14

Difference 120

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>22</u>	<u>25</u>	<u>3</u>
Work Methods	<u>39</u>	<u>39</u>	<u>0</u>
Study Habits	<u>61</u>	<u>64</u>	<u>3</u>
Teacher Approval	<u>30</u>	<u>28</u>	<u>-2</u>
Education Acceptance	<u>30</u>	<u>35</u>	<u>5</u>
Study Attitudes	<u>60</u>	<u>63</u>	<u>3</u>
Study Orientation	<u>121</u>	<u>127</u>	<u>6</u>

COLLEGE GRADES

Fall 3.06

Winter 2.87

Difference -.19

J
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.44

Washington Pre-College Verbal Composite 57

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 115

Change -35

Difference 149

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>15</u>	<u>8</u>	<u>7</u>
Work Methods	<u>37</u>	<u>32</u>	<u>5</u>
Study Habits	<u>52</u>	<u>40</u>	<u>12</u>
Teacher Approval	<u>40</u>	<u>38</u>	<u>2</u>
Education Acceptance	<u>20</u>	<u>17</u>	<u>3</u>
Study Attitudes	<u>60</u>	<u>55</u>	<u>5</u>
Study Orientation	<u>112</u>	<u>95</u>	<u>17</u>

COLLEGE GRADES

Fall 2.93

Winter 2.38

Difference .55

J
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.29

Washington Pre-College Verbal Composite 61

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 144

Change 49

Difference 95

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>7</u>	<u>15</u>	<u>8</u>
Work Methods	<u>25</u>	<u>27</u>	<u>2</u>
Study Habits	<u>32</u>	<u>42</u>	<u>10</u>
Teacher Approval	<u>20</u>	<u>23</u>	<u>3</u>
Education Acceptance	<u>16</u>	<u>25</u>	<u>9</u>
Study Attitudes	<u>36</u>	<u>48</u>	<u>12</u>
Study Orientation	<u>68</u>	<u>90</u>	<u>22</u>

COLLEGE GRADES

Fall 2.33

Winter 2.29

Difference -.04

K
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.39

Washington Pre-College Verbal Composite 56

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 131

Change 34

Difference 97

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>3</u>	<u>19</u>	<u>16</u>
Work Methds	<u>10</u>	<u>31</u>	<u>21</u>
Study Habits	<u>13</u>	<u>50</u>	<u>37</u>
Teacher Approval	<u>25</u>	<u>36</u>	<u>6</u>
Education Acceptance	<u>12</u>	<u>31</u>	<u>19</u>
Study Attitudes	<u>37</u>	<u>67</u>	<u>30</u>
Study Orientation	<u>50</u>	<u>117</u>	<u>65</u>

COLLEGE GRADES

Fall 2.71

Winter 2.16

Difference -.55

K
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.37

Washington Pre-College Verbal Composite 58

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 147

Change 26

Difference 121

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>19</u>	<u>20</u>	<u>1</u>
Work Methods	<u>25</u>	<u>19</u>	<u>-6</u>
Study Habits	<u>44</u>	<u>39</u>	<u>-5</u>
Teacher Approval	<u>37</u>	<u>38</u>	<u>1</u>
Education Acceptance	<u>29</u>	<u>28</u>	<u>-1</u>
Study Attitudes	<u>66</u>	<u>66</u>	<u>0</u>
Study Orientation	<u>110</u>	<u>105</u>	<u>-5</u>

COLLEGE GRADES

Fall 2.77

Winter 3.38

Difference .61

L
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.28

Washington Pre-College Verbal Composite 57

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 132

Change 64

Difference 68

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>21</u>	<u>27</u>	<u>6</u>
Work Methods	<u>31</u>	<u>28</u>	<u>-4</u>
Study Habits	<u>52</u>	<u>55</u>	<u>3</u>
Teacher Approval	<u>29</u>	<u>22</u>	<u>-7</u>
Education Acceptance	<u>25</u>	<u>24</u>	<u>-1</u>
Study Attitudes	<u>54</u>	<u>46</u>	<u>-8</u>
Study Orientation	<u>106</u>	<u>101</u>	<u>-5</u>

COLLEGE GRADES

Fall 2.00

Winter 2.09

Difference .09

L
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.36

Washington Pre-College Verbal Composite 55

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 87

Change -8

Difference 95

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>20</u>	<u>22</u>	<u>2</u>
Work Methods	<u>27</u>	<u>28</u>	<u>1</u>
Study Habits	<u>47</u>	<u>50</u>	<u>3</u>
Teacher Approval	<u>20</u>	<u>21</u>	<u>1</u>
Education Acceptance	<u>18</u>	<u>25</u>	<u>7</u>
Study Attitudes	<u>38</u>	<u>46</u>	<u>8</u>
Study Orientation	<u>85</u>	<u>96</u>	<u>11</u>

COLLEGE GRADES

Fall 1.94

Winter 2.06

Difference .12

M
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.33

Washington Pre-College Verbal Composite 54

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 104

Change 21

Difference 83

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>13</u>	<u>16</u>	<u>12</u>
Work Methods	<u>19</u>	<u>20</u>	<u>10</u>
Study Habits	<u>32</u>	<u>36</u>	<u>22</u>
Teacher Approval	<u>10</u>	<u>20</u>	<u>-1</u>
Education Acceptance	<u>15</u>	<u>12</u>	<u>15</u>
Study Attitudes	<u>25</u>	<u>32</u>	<u>14</u>
Study Orientation	<u>57</u>	<u>68</u>	<u>36</u>

COLLEGE GRADES

Fall 2.15

Winter 1.87

Difference -.28

M
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.31

Washington Pre-College Verbal Composite 58

Group Assigned To Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 116

Change -35

Difference 151

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>13</u>	<u>16</u>	<u>3</u>
Work Methods	<u>19</u>	<u>20</u>	<u>1</u>
Study Habits	<u>32</u>	<u>36</u>	<u>4</u>
Teacher Approval	<u>10</u>	<u>20</u>	<u>10</u>
Education Acceptance	<u>15</u>	<u>12</u>	<u>-3</u>
Study Attitudes	<u>25</u>	<u>32</u>	<u>7</u>
Study Orientation	<u>57</u>	<u>68</u>	<u>11</u>

COLLEGE GRADES

Fall 2.53

Winter 3.28

Difference .75

N
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.43

Washington Pre-College Verbal Composite 56

Group Assigned To Experimental I

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 96

Change 9

Difference 87

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>2</u>	<u>4</u>	<u>2</u>
Work Methods	<u>16</u>	<u>16</u>	<u>0</u>
Study Habits	<u>18</u>	<u>20</u>	<u>2</u>
Teacher Approval	<u>16</u>	<u>20</u>	<u>4</u>
Education Acceptance	<u>17</u>	<u>16</u>	<u>-1</u>
Study Attitudes	<u>33</u>	<u>36</u>	<u>3</u>
Study Orientation	<u>51</u>	<u>56</u>	<u>5</u>

COLLEGE GRADES

Fall 1.15

Winter .43

Difference .72

N
SUBJECT

BACKGROUND INFORMATION

High School GPA 2.43

Washington Pre-College Verbal Composite 62

Group Assigned to Control

Q-SORT ADJUSTMENT SCALE

CHECK LIST

Pre Test

Post Test

Difference 92

Change 16

Difference 76

SURVEY OF STUDY HABITS AND ATTITUDES

<u>Scale</u>	<u>Pre</u>	<u>Post</u>	<u>Difference</u>
Delayed Avoidance	<u>11</u>	<u>14</u>	<u>3</u>
Work Methods	<u>18</u>	<u>27</u>	<u>9</u>
Study Habits	<u>29</u>	<u>41</u>	<u>12</u>
Teacher Approval	<u>23</u>	<u>23</u>	<u>0</u>
Education Acceptance	<u>25</u>	<u>17</u>	<u>-8</u>
Study Attitudes	<u>48</u>	<u>40</u>	<u>-8</u>
Study Orientation	<u>77</u>	<u>81</u>	<u>4</u>

COLLEGE GRADES

Fall 2.62

Winter 2.63

Difference .01

APPENDIX C

September 12, 1969

Special skills are needed to meet the challenges of college studies. For this reason, a new program which emphasizes study skills is being offered to a select group of freshmen in the Fall quarter. You have been chosen to participate in this program. The program is called Psychology 299, Studies in Psychology: Study Skills. There will be two sections offered eighth period, Tuesday and Thursday, on a pass-fail basis.

We will contact you when you arrive on campus to answer any questions you may have about the program. If for some reason we are unable to get in touch with you, come to the table labeled Psychology 299 in the fieldhouse during registration.

In order to make arrangements for ordering supplies and equipment, and to reach you on campus, please complete the attached form and mail it immediately. An addressed, stamped envelope is enclosed for your convenience.

Sincerely yours,

Please note:

The signatures have been redacted due to security reasons.

Kenneth F. Burda

Donald E. Price
Co-Trainers for Psychology 299

CENTRAL WASHINGTON STATE COLLEGE

Fall Quarter 1969

Psychology 299

Studies in Psychology: Study Skills

NAME _____

COLLEGE ADDRESS _____

Return to: Kenneth F. Burda, 116 Student Union Building, CWSC