Summer 1972

The Effect of a Learning Skills Course including Group Counseling on Low Achievers in the Community College

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THE EFFECT OF A LEARNING SKILLS COURSE INCLUDING GROUP COUNSELING ON LOW ACHIEVERS IN THE COMMUNITY COLLEGE

A Thesis

Presented to

the Graduate Faculty

Central Washington State College

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

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by

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August 1972

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ACKNOWLEDGMENTS

The writer wishes to acknowledge with much gratitude the generous guidance, assistance, and encouragement of the committee chairman, Dr. James Green, and the developer of the model for this study, Mr. Karl Rickabaugh, both of Central Washington State College, and Dr. William Russell, Vice-president, Dr. John Redmond, Director of Counseling, and the Registrar's Office of Yakima Valley College.

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A Learning Skills course consisting of study skills, goal direction, and self-understanding was tested among volunteer community college low achievers. Treatment integrated didactic, group discussion, and affective experiences in 18 hour-long sessions. Nineteen Ss received treatment; 25 Ss formed a matched control group; and 41 non-volunteers formed two additional control groups. An apparent trend toward GPA improvement was noted for all groups, but all measurements on GPA and a study survey were non-significant.

CHAPTER I

INTRODUCTION AND STATEMENT OF PROBLEM

The purpose of this study was to examine the effect of a learning skills course including structured group counseling on the academic performance of community college low achievers.

In recent years economic, educational, political, population, and technological factors encouraged the rise of the community college. It was the nation's response to the mandate that educational opportunities beyond high school be made available for all who desired continuing education. As a result, the community college was charged by law to carry out a philosophy of "open door" admittance with education open to all regardless of academic preparation, economic resources, or ability.

The "open door" of the community college often turned into a failure-perpetuating "revolving door" as unprepared students met the realities of an academically oriented institution.

The Yakima Valley College (YVC) has undergone a similar experience. The bulk of students at YVC came from small rural high schools and from the lower one-third of classes from larger high schools. Many were academically

unprepared, and encountered unsuccessful academic experiences at YVC. For this reason YVC has made attempts to develop new programs to meet the needs of academically unprepared students.

Review of the Literature

In 1970 Bednar and Weinberg published a review of the literature by means of which they attempted to answer the question, "What dimensions of counseling treatment programs are associated with improved academic performance?" This review began with a study published in 1927 and concluded with two studies published in 1968, a review covering 23 studies within a 41 year span. Acting on the premise that "professional counseling may be one of the 'preferred' methods for correcting academic underachievement," their inquiry sought rather to uncover the variables in counseling which seemed to produce the desired change in GPA.

Numerous researchers in the literature mentioned the sometimes contradictory results of academic improvement studies (Roth & Meyersburg, 1963; Chestnut, 1965; Dickenson & Truax, 1966; Thelen & Harris, 1968; etc.). Relatively little research has been published regarding academic improvement programs. Yet sufficient studies had been published for G. L. Paul to comment (Gilbreath, 1968) that since some treatments have been effective and some not effective, the more proper question might be, "What treatment,

by whom, is more effective for this individual with that specific problem, and under which set of circumstances?"

Molecular Approach. An experiment by Gilbreath (1968) tested the hypothesis that treatment must be appropriate for individual needs. Two groups of highly dependent male college underachievers were subjected to a high-authority, leader-structured method of group counseling and to a low-authority, nondirective method of group counseling. It was hypothesized that those in the leader-structured group counseling would show greater improvement in GPA than those in nondirective group counseling. Two groups of autonomous and independent male college underachievers were also subjected to leader-structured group counseling and to nondirective group counseling. It was hypothesized that the autonomous underachievers in the nondirective group counseling would improve in GPA over those in leader-structured group counseling.

Gilbreath's experiment demonstrated significance in support of the hypothesis that treatment must be appropriate to individual needs. However, lack of significance between E and C groups three months later led Gilbreath to suggest that his treatment was not long enough in duration to effect the desired change. His treatment lasted 12 hours with an average of eight hours in attendance per student. Gilbreath concluded that his study was not discrete and delineating enough, adding support to the questions raised by Paul.

Chestnut and Gilbreath (1969) published a three-year follow-up to their earlier studies (Chestnut, 1965; Gilbreath, 1967 a & b). They concluded that gross differences found immediately after the treatment period do not persist except for highly-dependent males who experienced the leader-structured, "appropriate" treatment.

Molar approach. Bednar and Weinberg (1970) suggested a global approach to the problem while acknowledging the contribution of Gilbreath and Chestnut. They concluded that the most potent variables for improvement of scholastic performance as measured by GPA were a high degree of leader structure and lengthy treatment. Treatment lasting ten hours or more tended to report a higher frequency of supportive findings (Dickenson & Truax, 1966; Gilbreath, 1967 a & b; Roth et al., 1967; Thelen & Harris, 1968). "Structured" included programs that were directive, academic, prescriptive, or cognitive as contrasted to "unstructured," meaning nondirective, client-centered, nonprescriptive, or affectively oriented. Bednar and Weinberg reported that structured treatment was found to be effective in ten out of 16 studies, and tended toward effectiveness in two studies. Conversely, unstructured programs were successful in only one study, tended toward success in three studies, and were ineffective in four studies. Of the eight treatment programs that were both structured and lengthy, seven

were effective in improving GPA; conversely, among the three unstructured and brief programs, only one study reported successful results.

A study by Dickenson and Truax (1966) reported that not only do group counseled underachievers improve over non-counseled underachievers; also, there was a greater improvement for those who received the highest levels of accurate empathy, non-possessive warmth, and genuineness than those subjects who received moderate therapeutic conditions. This study integrated didactic and experiential methods.

Additional variables pointed out by Bednar and Weinberg as having a tendency for improving academic performance were group counseling over individual counseling or study courses and voluntary participation over the forced participation of students. Lengthy and structured programs tended to have the most long-term effect.

" . . . counseling, either individual or group, aimed at the dynamics or (of) achievement and used in conjunction with an academic studies course seems the most potent of all treatment methods" (Bednar & Weinberg, 1970, p. 6).

Kaye (1972) conducted an experiment at the University of Connecticut in 1969-1970 which contained essentially the elements suggested by Bednar and Weinberg. An innovation consisted of the separation of the treatment into

three parts, each led by a different graduate student in guidance, counseling, and student personnel. Individual counseling dealt with personal dynamics underlying academic achievement. Group guidance consisted of counselor-led discussions of interpersonal relationships with focus on problems related to academic proficiency. Study skills included specific academic skills needed for academic success. Each procedure lasted one to one and a half hours each week for ten weeks. Eighteen matched pairs of failing first semester freshmen were allowed to continue in the university provided they participated in this experiment. A *t*-test for matched pairs demonstrated significance in favor of the experimental group on second semester GPA. Participation in the treatment was demonstrated to be significant in the student's continued enrollment in the university.

A program which integrated the variables suggested by Bednar and Weinberg was produced by the Counseling Center of the University of Utah (Rickabaugh & Pappas, 1969). This leader-structured program dealt with study habit development, educational and occupational goal development, and self-awareness in the form of didactic, discussive, and affective experiences. The treatment group consisted of 25 volunteer probation students. Control I consisted of 17 students who volunteered and began treatment, but did not follow through with the program. Control II consisted

of students who attended an orientation meeting, but chose not to participate. Control III consisted of those who failed to keep an appointment with a counselor suggested by the Scholastic Standards Committee. Results for the treatment group showed significantly higher GPA and significantly greater improvement in GPA than non-counseled probationary students (C I) who had expressed a desire for the treatment. There was no significant difference for the treatment group over Controls II and III, although there appeared to be a consistent trend by the E group toward higher and greater improvement over C II and C III.

A replication of the 1969 study at the University of Utah, employing a matched control group design, was conducted with essentially the same results as the pilot study (Rickabaugh, 1970). Statistical analysis showed significant differences in favor of the treatment groups.

Survey of Study Habits and Attitudes (SSHA)

Extensive preparation involving interviews, research of both literature and existing study inventories, field testing, item analysis, and cross-validation resulted in the first edition of the SSHA in 1953. James Deese stated that the survey is a "valuable contribution to the techniques for assessing student habits of work and motivation for study . . . more suited for uncovering attitudinal and motivational difficulties than any other published study inventory, and its use is particularly recommended where such

difficulties are the prime concern" (Buros, 1959, 4:782). He advised that it not be overlooked for research on counseling and remedial teaching.

Wrenn and Lewis also recommended the survey, but reminded the user that "the test must assume both complete frankness of response and a fairly high degree of memory accuracy on the part of the student" (Buros, 1959, 4:783).

Holtzman, Brown and Farquhar (1954) reported higher correlations between SSHA score and grades at the end of the semester for University of Texas students motivated to receive an interpretation of their SSHA scores (.65 for the men and .71 for the women) over students failing to make inquiry (.43 for the men and .41 for the women).

Krumboltz and Farquhar (1957) used the SSHA in assessing motivational change in a How to Study course at Michigan State University. Results measured by the SSHA demonstrated that an instructor-led method employing a variety of techniques was most effective, an instructor-centered, content-oriented lecture method next most effective, and the student-centered, affect-oriented discussion method least effective.

Lum (1960) used the experimental form of the 1956 revision of the SSHA to identify significant variables among overachieving, normal achieving, and underachieving first semester sophomore women at the University of Hawaii. There was a significant difference on the SSHA total score

for overachievers when compared to both normal achievers and underachievers. The only other significant differences occurred between the overachievers and the underachievers on the subscales (1953 edition) Educational Philosophy, Achievement Drive, Procrastination Orientation, and Self-confidence. Subscales Study Habits and Teacher Valuation consistently failed to discriminate among the three groups.

Stinnett (1962) used systematic reinforcement to condition self-initiated, action-directed verbal responses focused around study habits among Central Washington State College students in an Introductory Psychology class. While he was successful in demonstrating the effect of his treatment, the SSHA failed to indicate a significant change in self-reported study habits and attitudes among the treatment groups and the control group or within the treatment groups on a pre- post measurement.

In an attempt to help underachievers before they develop academic problems at college Burda (1970) employed the SSHA to measure the effects of a group counseling approach at Central Washington State College in the fall of 1969. Significant differences between the experimental and the control matched pairs were measured by the SSHA on Delay Avoidance, Study Attitudes, and Study Orientation. With the exception of Study Orientation, there were no significant differences as measured by the SSHA on pre-post measurements within the treatment groups.

The YVC program, called Learning Skills and numbered Psychology 99, was essentially the program developed and implemented by Rickabaugh at the University of Utah (Rickabaugh & Pappas, 1969), and, more recently, by Rickabaugh at Central Washington State College (Rickabaugh & McInnelly, 1972).

In the present study "structured group counseling" was defined as leader-structured small group sessions which dealt with a priori assumptions regarding low achievement. The assumption was that didactic, group discussion, and affective experiences might help students develop better study skills and attitudes, define personal educational and occupational goals, and improve self-understanding.

Questions Investigated

1. Will a Learning Skills course based on study skills, occupational and educational goal development, and self-understanding improve the academic performance of community college low achievers as measured by the grade point average (GPA)?

2. Will study habits and attitudes as measured by the Survey of Study Habits and Attitudes (SSHA) be improved through a Learning Skills course based on study skills, occupational and educational goal development, and self-understanding among community college low achievers?

CHAPTER II

METHOD

Subjects

Subjects (Ss) were drawn from spring quarter YVC students who had accumulated a GPA below 2.00 and eight or more quarter credits through the winter quarter of 1972. YVC graded on a four point scale with the F grade receiving 0 grade points and the A grade receiving four grade points per credit.

Since the Withdrawal (W) grade was often granted in place of the F grade, students who received two or more W grades the preceding quarter were included in the population. In addition, students receiving two or more Incomplete (I) grades the preceding quarter, or a combination of two or more W and I grades, were included.

This population was designated as low achievers for the purpose of this study.

Selection and Assignment

After a list of students fitting the population description was obtained from the Registrar's Office, 632 letters from the vice-president of the college were mailed to these students between the winter and spring quarters.

The letter suggested that the student may be in academic difficulty, urged him to take definite steps to improve his academic performance, and offered to him an appointment time to meet with a counselor to hear about a study program to be offered. (See Appendix A.) Pre-experimental experience with offers of study help indicated the need for a strong direct approach in the letter.

Sixty-nine students attended the eleven orientation sessions. Three students chose to meet with the experimenter individually. Following the orientation session 18 students chose not to participate in the Learning Skills program. These students formed Control Group II. The remaining, including those receiving individual orientation who wanted to participate, were alternately selected from the sign-up sheet for the Experimental Group and Control Group I. Randomization was assumed for these two groups. Twenty-seven subjects were placed in the Experimental Group and 27 in the first control group. Using the Table of Random Numbers, 40 students were randomly selected from the students who had not responded to the letter offering study help.

Experimental group (EG). The initial EG consisted of 27 volunteers. Two Ss dropped out of the program before treatment began. Two more Ss dropped from the class after one or two sessions. These four Ss were placed in the second control group. One of the EG Ss dropped out of school and

was dropped from the study. One S could not adjust her personal schedule to include the class. It was determined that her volunteer status would qualify her for the matched control group without violation of the assumptions of randomness. Two male Ss attended five and seven sessions, respectively. Since ten out of 18 sessions was set as the criterion for receiving treatment, these two Ss were dropped from EG, and also dropped from the study due to possible treatment bias.

Both Chestnut (1965) and Gilbreath (1967 a & b) established five as the minimum number of sessions to be attended out of eight in order to be considered as having received treatment. This precedence, in addition to Bednar and Weinberg's conclusion (1970) that studies lasting ten or more hours tended toward effectiveness, influenced the decision to establish ten as the minimum number of sessions for inclusion in the treatment group. Nineteen Ss remained in the EG, 12 males and seven females.

Control group I (CG I). The initial CG I consisted of 27 Ss. One S, as mentioned above, was shifted from EG to CG I. Two Ss from CG I withdrew from school and were dropped from the study. One S was dropped from the study who didn't fit the population definition. Thus CG I contained 25 Ss, 16 males and nine females. All had volunteered to participate in the program, and all filled out the SSHA at the end of the spring quarter.

Control group II (CG II). The initial CG II consisted of 18 Ss. Two Ss didn't fit the population definition. Two other Ss withdrew from school. Four Ss could not be reached at the end of spring quarter, resulting in incomplete data. All eight of these Ss were dropped from the study. Four Ss, as mentioned above, were shifted into CG II from EG. Thus, CG II contained 14 Ss, ten males and four females. All had attended an orientation, had chosen not to participate, but did fill out the SSHA at the end of spring quarter.

Control group III (CG III). The initial CG III consisted of 40 Ss. One S refused to complete the SSHA, resulting in incomplete data. One S withdrew from school. Ten Ss could not be reached at the end of the quarter. All 12 of these Ss were dropped from the study. Twenty-eight Ss remained in CG III, 21 males and seven females. These students had not responded to the letter of invitation to attend an orientation, but did fill out the SSHA when asked to do so at the end of spring quarter.

The pre-treatment age and academic description of the four groups is presented in Table 1.

Although the random assignment of Ss to EG and CG I would assume homogeneity across previous cumulative GPA, the assumption was tested by use of the univariate F test. The results yielded an F value of 1.35 with 1 and 42 degrees of freedom, supporting the assumption of homogeneity.

Homogeneity among all four groups could not be assumed. The analysis of variance across previous cumulative GPA for all four groups resulted in an F value of .91 with 3 and 82 degrees of freedom, demonstrating homogeneity.

TABLE 1

Pre-treatment Data: Groups by Age and Academic Record

Group	Age		Quarters at YVC		Cumulative credits		Cumulative GPA		Credits spr. qtr.	
	M	SD	M	SD	M	SD	M	SD	M	SD
EG (N=19)	23.9	7.17	4.5	1.70	52.8	31.50	1.84	.39	10.1	4.89
CG I (N=25)	23.5	8.88	3.7	1.64	33.6	18.78	1.69	.57	11.3	5.71
CG II (N=14)	20.3	2.12	3.9	1.41	48.4	27.24	1.91	.59	10.2	5.17
CG III (N=28)	20.6	2.26	4.9	2.37	52.0	29.73	1.99	.68	12.0	4.26

Note.--Cumulative records extend through winter quarter, 1972. Entrance Examination data unavailable for all Ss.

Instrument

The SSHA was a one hundred item multiple choice questionnaire with five possible choices ranging from "rarely" to "almost always." It was designed to measure non-academic variables affecting academic performance such as study methods and attitudes affecting school work. The purposes of the SSHA were described as "(a) to identify

students whose study habits and attitudes are different from those of students who earn high grades, (b) to aid in understanding students with academic difficulties, and (c) to provide a basis for helping such students . . . " (Brown & Holtzman, 1967, p. 5).

Two subscales on the SSHA, Delay Avoidance (DA), promptness in completing academic assignments, lack of procrastination, and freedom from wasteful delay and distraction, and Work Methods (WM), use of efficient study procedures, efficiency in doing academic assignments, and how-to-study skills, were summed to produce the Study Habits (SH) scale, a measure of academic behavior.

Two subscales, Teacher Approval (TA), opinions of teachers and their classroom behavior and methods, and Education Acceptance (EA), approval of educational objectives, practices, and requirements, were summed to produce the Study Attitudes (SA) scale, a measure of scholastic beliefs. The SH and the SA scales were summed to provide an overall measure of study habits and attitudes, Study Orientation (SO).

Brown and Holtzman (1967) reported data on 1,772 freshmen from six colleges using one semester grade point average as the current validity criterion. The correlations between the total score, SO, and GPA were statistically significant and positive varying from .25 to .45 with a weighted average of .36. GPAs correlated .31 for DA, .32 for WM, .25 for TA, and .35 for EA subscales.

A study by the Psychological Corporation (1969) of transfer and terminal junior college students reported coefficients ranging from .03 to .54 with a median of .35 when SO scores were correlated with first semester GPAs. Median correlations ranged from .20 to .38 on the six subscales.

Internal consistency was computed using the Kuder-Richardson Formula 8 for estimating test reliability from the variance of total scores and the sum of the item variances. For 465 freshmen tested at Southwest Texas State College in 1960 reliability coefficients for the four basic subscales ranged from .87 to .89. Test-retest coefficients for 144 other freshmen with a four week interval were .93 for DA, .91 for WM, .88 for TA, and .90 for EA. A sample of 51 freshmen with a 14 week interval resulted in coefficients of .88 for DA, .86 for WM, .83 for TA, and .85 for EA (Brown & Holtzman, 1967).

Procedure

The letter of invitation to the orientation asked the recipient to come at the designated time and date to meet with the writer in a small meeting room on the second floor of the college library. The name of each student was hand written in the greeting of the letter as was the time and date of the special orientation meeting. The rest of the letter was a mimeographed copy. (See Appendix A.)

Orientation. Four orientations were held the first Thursday of the spring quarter, March 30, at 9:00 a.m., 12:00 noon, 1:00 p.m., and 2:00 p.m. Three orientations were held on Friday, March 31, at 9:00 a.m., 10:00 a.m., and 11:00 a.m. Four orientations were held on Monday, April 3, at 10:00 a.m., 12:00 noon, 2:00 p.m., and 3:00 p.m.

Orientation dealt with student reactions to the letter; the content, length, and methods of the program; the necessity of the student's commitment to complete the program; the experimental nature of the program with indication that all would have an equal chance to be selected; and the completion of a form indicating when the students could attend a class (see Appendix B). Non-participants were asked to leave before the last item was considered.

Post-orientation follow-up. After random selection, EG Ss were placed in groups according to their time availability. EG Ss were notified by a letter dated Monday, April 3, that they would meet in groups, one on Thursday, April 6 at 9:00 a.m., and the other on Friday, April 7 at 12:00 noon. (See Appendix C.) Volunteers excluded were notified by mail that they could not be included in the program, but that it would be offered next fall. (See Appendix D.)

Treatment. The two EGs met for one hour sessions twice a week for a total of 18 sessions. Two credits were

given for participation. Grading was on a Pass/Withdraw arrangement. The sessions were led by the experimenter who determined the structure of each meeting.

Concepts, such as school as equivalent in importance and demand to a full-time job, attitudes toward time and personal freedom, forgetting, study skills, etc., were presented in a didactic manner. Affective experiences, for example, 1-way, 2-way Communication, Lifeline, Who Am I?, etc., were exercises designed to uncover attitudes and feelings which hinder positive academic behavior. Concentration, interpretation of the Kuder DD Occupational Interest Inventory, a consensus exercise, evaluation of attempts to change study habits, etc., were structured around group discussion. Individual comments and group interaction were encouraged at all times. (See Appendix E.)

Homework consisted of the application of class content with emphasis on group feed-back and evaluation. Content was related to assumptions regarding low academic performance, such as study methods, the necessity of goals, and implications of the student's self-concept for academic success. A detailed description of the structured group counseling content appears in Appendix F.

All sessions were held in a small seminar room on the second floor of the college library in which 12-14 armchairs could comfortably form a semi-circle. A chalkboard was fixed to an end wall. One side of the room looked out

through glass to a large study area of the library. An opaque material covered the glass sufficiently to obstruct vision from a seated position.

Post-treatment follow-up. The SSHA was administered to the EGs at their regular sessions on June 1 and June 2. A letter (see Appendix G) was mailed on May 30 to CG I, CG II, and CG III Ss asking their assistance in finding out how YVC students regarded their college experience and how they approached their studies. They were asked to come to a large lounge in the student union building at any of three suggested times on Friday, June 2, to complete the study survey. Fifteen of 85 students responded to this request. Addresses, phone numbers, and class schedules were obtained from the college registrar and the student locator. The following week was spent in tracking down control subjects who had not completed the SSHA. Nine Ss were allowed to take the SSHA home to complete. The remainder of those available filled out the survey in the testing room of the college Counseling Center as they came to the office of the experimenter.

College record data was gathered in the Registrar's Office one week after the official closing of the spring quarter.

Outcome Criteria

The primary comparison concerned the possible differences between EG and CG I since these were the two randomly selected groups which met the assumption of homogeneity.

1. Spring quarter GPA for EG and CG I served as the first dependent variable.

2. GPA change scores across all four groups served as the second dependent variable after homogeneity was demonstrated on cumulative GPA. The GPA change score was the difference between a subject's previous cumulative GPA and the post-treatment GPA, the spring quarter GPA.

3. EG and CG I scores on the seven scales of the SSHA--Delay Avoidance, Work Methods, Study Habits, Teacher Approval, Education Acceptance, Study Attitudes, Study Orientation--served as the third dependent variable.

No pre-test of the SSHA was administered due to the transparency of the Survey items. Lack of data by which to test for pre-experimental homogeneity in relation to study habits and attitudes across all four groups limited analysis of SSHA scores to EG and CG I.

Statistical Analysis

Since statistical analysis would involve more than two groups, a univariate F test was selected. The .05 level of confidence was chosen for significance.

CHAPTER III

RESULTS

Means and standard deviations for spring quarter GPA and change scores for the experimental and the three control groups are shown in Table 2.

Table 2

Spring Quarter GPA and Change Score

Group	Spring quarter GPA		GPA change score	
	M	SD	M	SD
Experimental (N=19)	2.56	.87	+0.72	.76
Control I (N=25)	2.19	.88	+0.50	1.06
Control II (N=14)	2.16	.68	+0.25	1.03
Control III (N=28)	2.22	.78	+0.22	.89

The first question investigated in this study asked whether a course based on study skill development, educational and occupational direction, and increased self-understanding could significantly improve the GPA of low achievers at YVC. Initial investigation of this question compared EG and CG I, the randomized groups.

As shown in Table 3, the apparent trend toward higher academic performance for EG was found to be statistically insignificant. The first experimental hypothesis could not be supported at the .05 level of confidence on post-treatment GPA for EG and CG I.

Table 3

Analysis of Variance: Spring Quarter GPA

Experimental and Control I Groups

Source	df	MS	F
Between groups	1	1.65	2.06
Within groups	42	.80	

An analysis of variance was conducted across all four groups using change scores between cumulative and spring quarter GPA. The result is shown in Table 4. The F value of .57 indicated no significant difference. The first experimental hypothesis could not be supported on the basis of GPA change score across all four groups.

Table 4

Analysis of Variance: GPA Change, Cumulative to

Spring Quarter Across All Four Groups

Source	df	MS	F
Between groups	3	.54	.57
Within groups	82	.95	

It was concluded that the treatment had no significant effect upon GPA.

Means and standard deviations for the seven scales of the SSHA for EG and CG I are shown in Table 5.

Table 5

SSHA Scores: EG and CG I

Grp.	DA		WM		SH		TA		EA		SA		SO	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
EG	17	9.7	18	7.1	36	15.2	28	8.0	24	9.0	52	14.6	87	26.6
CG I	15	9.0	16	5.5	31	13.1	26	8.7	22	8.4	48	15.7	79	26.6

The second question investigated by this study asked whether a program designed to improve study skills, define educational and occupational goals, and increase self-understanding could significantly increase the scores of the seven scales of the SSHA for the EG. Results of the analysis of variance on the seven SSHA scales are shown in Table 6.

The $\underline{F}$ value for 1 and 42 degrees of freedom must equal or exceed 4.07 at the .05 level to indicate significance. No SSHA scale approached this value. It was concluded that the treatment had no significant effect upon EG scores of the SSHA scales.

Table 6

Analysis of Variance: Survey of Study Habits and Attitudes Experimental and Control Group I

SSHA Scale	Source	df	MS	F
Delay Avoidance	Between groups	1	78.89	.87
	Within groups	42	90.90	
Work Methods	Between groups	1	34.33	.84
	Within groups	42	40.76	
Study Habits	Between groups	1	217.28	1.05
	Within groups	42	205.99	
Teacher Approval	Between groups	1	44.93	.61
	Within groups	42	73.74	
Education Acceptance	Between groups	1	33.44	.42
	Within groups	42	78.92	
Study Attitudes	Between groups	1	155.89	.64
	Within groups	42	243.38	
Study Orientation	Between groups	1	656.80	.88
	Within groups	42	745.24	

CHAPTER IV

DISCUSSION

An F value of 6.14 with 1 and 42 degrees of freedom resulted when EG and CG I were compared across cumulative credit. This F value is closer to the .01 level (F = 7.27) than to the pre-selected .05 level (F = 4.07). When the F value was computed across all four groups for cumulative credit a non-significant value of 2.65 resulted for 3 and 82 degrees of freedom. This value approached significance at the .05 level (F = 2.72). Random selection did not result in homogeneity for EG and CG I as measured on cumulative credit which suggests the possibility that these two groups might have been samples from different populations.

The lack of significant differences between EG and CG I across post-treatment GPA could have been due to the inability to modify well established academic behavior among the EG which had a significantly greater number of cumulative credits than CG I. This suggested a greater number of credits might represent more habit-forming experiences. The difficulty of modifying well established unproductive academic behavior over a relatively short period of time has been cited by a number of experimenters (Roth & Meyersburg, 1963; Winborn & Schmidt, 1963; Chestnut, 1965).

Such an implication suggested the importance of extended time in treatment. Bednar & Weinberg (1970) emphasized the tendency of success for those treatments extending ten hours or more. Rickabaugh's study (1969), the model for this study, indicated a median of 12 hours over seven weeks as the treatment time at the University of Utah. Kaye's study (1970), which was congruent to Bednar & Weinberg's conclusions and to the model for this study, indicated treatment lasting 30-45 hours over ten weeks. Rickabaugh and Kaye reported successful treatment programs.

The research reported in this study was conducted at four year educational institutions. No studies from two year community colleges were found in the literature.

Perhaps low achievers in the community college are somehow unlike low or underachievers in four year institutions. Traditionally higher entrance requirements for the four year schools lend credence to this possibility. Sufficient time must be allowed for the low achiever to assimilate knowledge of his problem and to develop behavior conducive to significant academic improvement. It might have been too much to expect of community college low achievers to develop significantly better study habits, or significantly improved self-awareness, or significantly precise and realistic educational and occupational direction in a nine week two credit course.

The lack of significant differences on the SSHA scales also suggested no significant improvement in study habits and attitudes for the EG.

Ss may have cast themselves in a better light on the SSHA when they were personally identified through the letter and asked to complete the survey. There was the possibility that Ss may not have been frank and honest about their real study habits and attitudes because they did not know exactly how the results were going to be used, or because they did not trust the experimenter. The transparency of the survey items might demand that the survey be used only when a relationship of trust has been established between the S and the test administrator. Assurances that these scores would not be used to jeopardize any person may not have allayed fear or suspicion. However, there was greater opportunity for a relationship of trust to develop between the EG Ss and the leader which might suggest more accurate responses for this group.

A reluctance expressed by some Ss to fill out the survey might have existed among other Ss and adversely affected accuracy of the self-report type of answer.

Scores for all subjects on the SSHA could have been inflated by the Hawthorne effect. In explaining experimenter motives to enlist cooperation, all Ss were informed that the SSHA scores would be used in a study. EG Ss were told that the SSHA scores would be used in evaluating the Learning

Skills course. Prior to completing the survey at the end of the quarter, Ss in the control groups were informed that this was a way by which information would be gathered on how students regarded their college experience and how they approached their studies. They were further informed that the data from this study would be used to develop programs to help students. (See Appendix G.)

The lack of significant results on all measurements suggests the possibility that the treatment was ineffective. The experimenter, the structure, the content, and other variables could have combined to produce a program ineffective in the modification of academic behavior. Follow-up is needed to determine whether understanding of the dynamics of achievement and knowledge of study skills were gained which in time could improve subsequent academic performance.

While significance was not achieved, all groups in this study increased in mean GPA. Mean change score for EG was +0.72, for CG I, +0.50, for CG II, +0.25, and for CG III, +0.22. CG III did not know until the end of the quarter that they would be part of a study. Those who attended the orientation, EG, CG I, and CG II, were told that the course would be evaluated at the end of the quarter. But CG I and CG II were not told until the end of the quarter that they would be part of a study. This would not seem to explain the control groups' apparent increase in mean GPA.

The frank message contained in the letter of invitation to an orientation in the beginning of the quarter did not refer to "probation" or any academic discipline. A few students at the orientation alluded to being on probation, however. Other students evidenced a feeling that their academic record was under severe scrutiny by the college. All of this suggests the possibility that the letter itself may have provided extrinsic motivation for improved academic performance for all groups. This possibility is consistent with a similar suggestion offered by Smith and Walsh (1968).

Current community college educational philosophy and grading practices made it difficult to identify the true low achiever, and complicated the use of the GPA in measuring achievement. Subsequent research of low achievement in the community college should consider the prevalence of the Withdrawal (W) grade as an indicator of academic difficulty. Repeated withdrawals could result in a GPA indicating acceptable progress. Many of the students unavailable to complete the SSHA at the end of the quarter (about 10% of the total number of all original Ss in the study) simply were not attending classes. Many of these students received W grades which could have meant significant changes in the study's results, particularly in Controls II and III. This suggested that those who volunteered were affected by a motivation which kept them in school and attending classes. This also suggested that academic performance was a style

of behavior affected by variables in addition to study habits, and supported a study program which works with non-academic variables.

The addition of the high school GPA for all Ss in the study might have been helpful data to assess student potential as measured over time and in relation to the treatment program. Further studies might examine whether the Learning Skills program could assist those who once had achieved but who are not currently doing so, or whether it could effectively help those who have perennially persisted in non-achievement.

Twenty-six Ss were dropped from the study. Six Ss withdrew from school, 15 could not be reached to complete the SSHA, three did not fit the population definition, and two Ss failed to attend a minimal number of treatment sessions. Five Ss were removed from the original experimental group and placed in control groups. One of them had a schedule conflict and four decided not to participate after being selected for treatment. Individual human freedom does not always serve the best interest of rigorous experimentation! Such movement of Ss can affect results when the total number of Ss is small, a limitation of this study.

Removal of the one S from EG to CG I raised mean spring quarter GPA for CG I, but lowered the mean difference between cumulative GPA and spring GPA for CG I. Post-treatment GPA measurements showed that two Ss removed from

EG and placed in CG II lowered spring quarter mean GPA and the change score mean for CG II. However, these were offset by two Ss likewise removed from EG and placed in CG II who raised spring mean GPA and the change score for CG II. These changes appeared to have little effect upon total CG I or CG II measurements.

CHAPTER V

SUMMARY

A broadened concept of education and the program limitations of the traditional four year college institution resulted in a rise in the student population of the community college. The absence of academic requirements for entrance into the community college has contributed to a number of students lacking in academic skills but attending college.

A study skills course including structured group counseling and modeled after a program developed at the University of Utah was conducted at Yakima Valley College in the spring of 1972. This was done in an effort to assist YVC low achievers to improve their academic performance. Criteria for participation were sub-2.00 GPA or any combination of two or more Withdrawal and Incomplete grades the preceding quarter. Seventy-two students of 632 responded to a letter from the college vice-president to attend an orientation for the course. Ss were randomly selected from these volunteers for the treatment and the matched control group. Those who attended the orientation and decided not to participate formed a second control group. A third

control group was randomly selected from students who failed to respond to the letter.

Twenty-six Ss were dropped from the study due to withdrawal from school, lack of minimal attendance in treatment, unavailability, and inability to fit population criteria. Five Ss were dropped from the experimental group and placed in control groups due to individual choice and scheduling problems. Nineteen Ss formed EG, 25 Ss formed CG I, 14 Ss formed CG II, and 28 Ss formed CG III.

The experimenter-led treatment consisted of 18 one hour sessions extending over the quarter. Structure included didactic presentations, group discussion, and affective experiences. Content dealt with study skills, self-awareness, and educational and occupational direction.

Dependent variables were post-treatment GPA for EG and CG I, GPA change across all four groups, and post-treatment differences between EG and CG I on the seven scales of the Survey of Study Habits and Attitudes.

Results of the univariate F test demonstrated no significant statistical difference among the groups on any measurement.

Results suggested that a frank letter to the students concerning the need for remedial work may have provided motivation for improved academic performance. Mean change scores were +0.72 for EG, +0.50 for CG I, +0.25 for CG II, and +0.22 for CG III.

The following suggestions might be considered for further study.

1. Increase the number of Ss in treatment and control groups.

2. Compare Ss with greater cumulative credits and Ss with lesser cumulative credits.

3. Extend the number of treatment hours.

4. Since some Ss in EG greatly improved their GPA, investigation of individual behavior change could be included in the design.

5. Increase the number of counselor group leaders and the number of groups to test for counselor influence on the program.

6. W grades might be used as a dependent variable as well as a population definition criterion.

7. High school GPA might be used to predict treatment success.

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APPENDIX A

LETTER TO LOW ACHIEVERS

APPENDIX A

LETTER TO LOW ACHIEVERS

YAKIMA VALLEY COLLEGE
SIXTEENTH AND NOB HILL • YAKIMA, WASHINGTON 98902

March 23, 1972

Dear

While it is our task here at Yakima Valley College to provide a variety of educational experiences, not all people who come here are able to progress normally or rapidly through courses and programs. Academic difficulty and struggle are very real for many students.

While we cannot guarantee passing grades at Y.V.C. we are seeking ways by which to assist those who are in academic difficulty.

It has come to our attention that you may be in academic difficulty and in need of assistance. We strongly urge you to take definite steps to improve your academic performance!

Assuming that you have an interest in doing this we are offering a program to help you in your studies, and have arranged a time for you to meet with a counselor in a small group of students to talk over this program.

If it is not possible for you to meet at the time indicated below, please call the Counseling Center immediately (G1.3-0356, extension 203) and make a more convenient appointment. If you would prefer an individual meeting, please feel free to phone the above number and request a private appointment with the counselor before Tuesday, April 4.

Sincerely yours,

Dr. William Russell
Vice-President

Your Counselor:_____

Place: Seminar Room, second floor of the Library, north end

Date: _____ Time: _____

APPENDIX B

CLASS SCHEDULE FORM

APPENDIX B

CLASS SCHEDULE FORM

YAKIMA VALLEY COLLEGE
SIXTEENTH AND NOB HILL • YAKIMA, WASHINGTON 98902

NAME:_____ CLASS_____

ADDRESS: _____ PHONE:_____

LEARNING SKILLS: Small groups designed primarily to help students improve their college performance. The groups will assist students to develop good study habits, test-taking procedures and other skills directly related to learning and retention. Additional experiences will go beyond study skills problems to include activities and discussions with a leader, centered around such issues as developing realistic educational-vocational goals, adjustment to the college environment, motivation, self-understanding, etc.

If you would like to participate, fill out the schedule below, putting an X in those spaces where you are free and willing to participate.

TIME	MON.	TUES.	WED.	THURS	FRI.
9-10					
10-11					
11-12					
12-1					
1-2					
2-3					
3-4					
4-5					
6-7					
7-8					
8-9					
9-10					

APPENDIX C

LETTER OF NOTIFICATION TO EXPERIMENTAL GROUP

APPENDIX C

LETTER OF NOTIFICATION TO EXPERIMENTAL GROUP

YAKIMA VALLEY COLLEGE
SIXTEENTH AND NOB HILL • YAKIMA, WASHINGTON 98902

April 3, 1972

Our plans have now been set, and the arrangements have been made for our LEARNING SKILLS groups. I am pleased to be able to include you, and we trust you will find it profitable.

Below you will find the day of the first meeting at which time we will determine our permanent meeting days and time. The group will meet in the Seminar Room on the second floor of the library.

We'll see you there this week at the time and day indicated below. Please contact me immediately if you can't make it.

Sincerely,

Paul E. Borg
Group Leader

****

Your LEARNING SKILLS group will meet on:

Thursday	Friday
April 6	April 7
9:00 a.m.	12:00 Noon

****

APPENDIX D

LETTER OF NOTIFICATION TO CONTROL GROUP I

APPENDIX D

LETTER OF NOTIFICATION TO CONTROL GROUP I

YAKIMA VALLEY COLLEGE
SIXTEENTH AND NOB HILL • YAKIMA, WASHINGTON 98902

April 3, 1972

I have the rather unpleasant task of informing you that we will not be able to include you in our LEARNING SKILLS course this spring. Each person who wanted to participate in this program to improve their academic performance had an equal chance to do so; unfortunately, in such a circumstance, some could not be selected.

If you wish to talk over your situation further, I would be happy to do so, as would other counselors. Keep in mind that this course, should it be demonstrated to be effective in helping students improve their academic performance in college, will be offered next fall.

Good luck as you continue your college experience this spring!

Sincerely,

Paul E. Borg

APPENDIX E

STRUCTURAL AND OBJECTIVES DESCRIPTION OF TREATMENT PROGRAM

APPENDIX E

STRUCTURAL AND OBJECTIVES DESCRIPTION OF TREATMENT PROGRAM

Content	Structure				Objective (explicit)		
	Didactic	Group Disc.	Group Task	Assignment	Study Skill	Goal Dev.	Self-aware.
1-way, 2-way Communication		x	x		x		x
Log of Activities		x	x		x		x
School-job	x	x			x	x	
Time Scheduling	x	x	x	x	x		x
Concentration		x			x		
Predicting GPA		x	x		x	x	
Lifeline		x	x				x
Forgetting	x	x		x	x		
SQ4R, Self-testing, Text-marking	x	x		x	x		
Consensus--a good instructor?		x	x		x		x
Who Am I? (3 statements)		x	x				x
Kuder Inventory Grp. Interp.	x	x				x	x
Exploring Career Alternatives		x	x	x		x	x
Efficient Listening, Note-taking	x	x	x	x	x		
Exams	x	x	x		x		
Individual counseling						x	x

APPENDIX F

TREATMENT PROGRAM

APPENDIX F

TREATMENT PROGRAM

Session 1

I. Ss completed a registrar's form adding the class.

II. Groups had been formed at 9:00 a.m. and 12:00 noon. Each group had to decide which two days during the week would be set aside for its meetings. Experimental Group I (EG I) completed this task quickly, setting aside Tuesdays and Thursdays. Experimental Group II (EG II) delayed its final decision until its next meeting in three days.

III. A Log of Activities (see copy following Treatment Program) was handed out to each S on which he was to make a record of his activities for the next week. Ss were asked not to change their usual activities for this.

IV. Ss were asked to purchase the Kuder DD Occupational Interest Inventory at the college bookstore, and complete the Inventory at the college Counseling Center very soon.

V. EG I spent the remainder of the time memorizing group member names. EG II had no time for this since they had difficulty deciding upon permanent meeting days.

Session 2

I. Discussion started by talking about the Log of Activities. No problems were encountered. A need was expressed for larger squares to write in! Ss were told to be specific, but not to be too detailed.

II. Ss were reminded to purchase and complete the Kuder DD Inventory. Some had already completed this task, but a few needed prodding.

III. The leader engaged Ss in a lively discussion: "Upon what does success in college depend?" Answers were written on the board.

IV. Ss were told we would spend the remainder of this session on getting to know one another better in diads (pairs), and then by introducing each other to the group. This task was also used to help a person become aware of the manner in which he functions in new settings and what implications this has for academic performance.

V. Ss were reminded to have their Logs completed by next meeting, and to bring them to class.

Session 3

I. Discussion began with the Log of Activities. Several Ss in each group forgot their Logs. Ss were asked to write on the back of the Log two or more things they would like to change in their life as noted on their Logs.

II. A concept was presented in which college was likened to a full-time job.

A. If a normal school load is 15 credits then that means 30 hours of study outside of class if we use the traditional 2-1 ratio of study time to class time. This amounts to 45 hours--equivalent to a full-time job.

B. Using this model, how much time could a person be employed in addition to carrying 12, 10, 7, 5, or 3 credits with the total number of work and school hours approximating 40?

C. A study was presented from which to consider a likely balanced amount of school and employment.

D. "Study is work" was strongly emphasized--if school is to be taken seriously!

III. A Time Schedule form, identical to the Log of Activities, was given to each S. Ss were asked to fill out the week in advance the way the Ss wanted to spend it. They were asked to set their priorities, and plan for them. Eight suggestions were given the Ss for filling out their weekly schedule: plan enough time for studies; study at the same time every day; make use of free hours during the school day; plan study periods to follow class periods; space study periods; plan for weekly reviews; leave some unscheduled time for flexibility; allot time for planned recreation,

campus, community, church activities.

Session 4

I. Ss were polled to see who had not completed the Kuder Inventory. Appointment times were set up with those who hadn't completed this task.

II. 1-way, 2-way Communication exercise

A. 1-way: a communicator, one of the Ss, described the image on his paper so the rest of the group could draw it on their paper. No questions were to be asked; no talking was permitted except for the communicator's directions. The group could not see the communicator, and vice versa.

B. 2-way: the communicator faced the group so both saw the other. The communicator described another image on his paper so others could draw it on their paper. Questions were allowed. Hand signals by the communicator were not allowed.

C. Discussion centered on implications for group participation, especially in classroom, listener and communicator responsibility, and observation of one's behavior in the communication setting.

III. Ss were reminded to have Time Schedule completed for next time, and to bring it to class.

Session 5

I. The group evaluated Time Schedules in diads, providing

feed-back for each other.

II. Discussion followed on "concentration" as the process of centering one's attention over a period of time. Appropriate study environment was discussed; study method, motivation, and personal adjustment would be dealt with during the quarter. Discussion was lively, personal, and extensive.

III. More Time Schedule blanks were handed out to those who needed more. Ss were strongly encouraged to continue to work with and revise their schedules as necessary.

Session 6

I. Ss filled out Predicting GPA form (see copy following Treatment Program) as a method of establishing goal-setting behavior. The task took longer than planned due to the necessity of explaining the form in detail. Ss were encouraged to set hourly goals per week for such things as study, work, classes, recreation, meetings, etc., and then to schedule in these hours in advance.

II. Three Greatest Strengths exercise in diads:
Ss were to converse with another person and identify strengths in the other person which were to be shared with the group. It was difficult for Ss to be this personal this soon, but it provided information about how others see one's self. This task is based on the

assumption that low achievers have a low self-image. Time was inadequate to deal with this. Each S was asked to share one strength, initially, so all would be included in the sharing.

Session 7

I. Initial discussion centered on progress with time scheduling. More forms were given out to those needing them.

II. Retention and Forgetting: the forgetting curve. This involved basic material in most Introductory Psychology textbooks dealing with Ebbinghaus' experiments.

The graph of the forgetting curve was drawn on the chalkboard and explained.

A. Forgetting begins immediately after learning.

B. Loss of learning is drastic immediately after learning.

C. Several experiments were used to demonstrate forgetting.

III. Ss were reminded to work with their time scheduling, revising it in light of an understanding of the forgetting phenomenon.

Session 8

I. The leader reviewed the forgetting curve.

II. What can be done to arrest the negatively accelerating forgetting curve?

A. Do something soon! Discussion followed.

B. A self-testing study procedure rather than a method of rereading was encouraged. Studies of experiments were used to explain the advantage of self-testing over rereading.

Self-testing:

1. demands active participation in learning;
2. forces the learner to define and select what he wishes to remember;
3. involves practicing in a form to be demanded later.

C. The SQ4R method of study was explained (Survey, Question, Read, Recite Write, Review) with particular emphasis on scanning to find the summary, developing questions, composing answers, writing down both questions and answers. Suggestions offered were:

1. translate headings and titles into questions;
2. develop questions which demand understanding of relationships,

   e.g., why and how, rather than questions which ask specifics,

   e.g., who, where, when;
3. answer the questions presented by the author.

D. Text-marking

1. Be selective.

2. Mark up the text to isolate and emphasize important points.

E. Several experiments were explained to test the Ss' understanding of the forgetting curve and study procedures.

F. A pamphlet, "How to Get the Most Out of Your Textbooks" by Robert Bear, was given to each S.

III. Ss were asked to come next time with an example of their use of self-testing and text-marking.

Session 9

I. Class began by reviewing forgetting curve, SQ4R, and text-marking.

II. Examples of text-marking were shared.

III. Ss were asked to imagine their life as a line between two points on a blank piece of paper. One point represented birth, and the other point represented death. Ss were asked to draw in that line however they wished to make it appear, and to place an "x" on that line where they considered themselves to be now. Following this, Ss were asked to turn over the paper and to write three answers to the question, Who am I? Perhaps self-conscious as well as confused about the symbolism, the Ss seemed puzzled at the task. Time

permitted only a few to trace their Lifeline on the board and describe its representation. Good discussion followed on how we view our lives. The point was also made that we grow and develop by sharing ourselves and listening to others. Time did not permit us to look at the Who am I? exercise.

Session 10

I. Examples of textbook marking were again viewed and evaluated.

II. A few more Ss shared their Lifeline on the chalkboard.

III. Each S was asked to share one of his answers to Who am I? All seemed to appreciate this experience as it opened up each to the others. Perhaps this should have been done earlier in the program. One group indicated they would like to continue this later. The leader collected the papers with the two exercises stating that we would continue this if we had the time. Unfortunately, we didn't.

Session 11

I. A 30 minute portion of a taped speech by Dr. Nichols of the University of Minnesota was played. Ss were asked to take notes on the "Efficient Listening" talk.

II. Discussion followed on the "ten bad listening habits" and the remedies suggested. Note-taking also provided Ss with a chance to reflect upon their listening and

note-taking behavior. This was a good discussion on a very immediate concern of the Ss.

Session 12

I. The taking of exams

A. The leader presented a 12-14 minute talk on Examinations--benefits of, preparation for, and the taking of essay and objective exams. Ss were asked to take notes on the talk. They were to be tested on the material.

B. Ss were then asked to take 15 minutes to use their best knowledge of study skills in reviewing for an exam.

C. A ten item exam on the talk was given as a means of providing a realistic learning experience.

II. There was no time for discussion. Late-comers presented the problem for the leader of whether or not to back up in the talk each time a tardy person entered. He went back over previous material for EG I, but decided not to do so with EG II. The latter decision was made to emphasize the result of tardiness, and to test the readiness of late-comers to procure missed notes.

III. The tests were collected and scored before the next session.

Session 13

I. Tests from previous session were handed back and briefly discussed.

II. Group interpretation of the Kuder DD Occupational Interest Inventory followed. In the absence of the leader, a fellow counselor led the interpretation for EG II.

III. Exploring Career Alternatives form (see copy following Treatment Program) was handed out and explained for homework.

Session 14

I. Brief review of the Kuder Inventory began the session.

II. EG I entered into a good discussion of factors in occupational selection. The factors were listed on the chalkboard. EG II centered most of its time on the discussion of the Kuder results, especially with one of its members who was puzzled at his results. The group was patient and helpful.

III. Ss were asked to continue with Exploring Career Alternatives and to complete the individual ranking of items on What is a good instructor?, a consensus exercise. (See copy following Treatment Program.)

Session 15

Both groups went through the process of establishing group consensus ranking of the items on What is a good

instructor? In the absence of the leader, a fellow counselor introduced the task for EG I. The fellow counselor reported a very exciting, interesting session. The consensus experience is conducted without the usual leadership from the regular leader. The group is left totally to its own resources in completing the group ranking.

Session 16

I. EG I reflected on the consensus experience. They seemed to catch the significance of the decision-making process as well as benefit from the discussion of the characteristics of a good instructor. Discussion focused on:
   A. the feelings of the participants regarding the exercise;
   B. identification of leadership and group responsibility;
   C. roles of group members;
   D. implications for self-awareness, group participation, and classroom behavior.

II. Due to the Memorial Day holiday, EG II went a whole week without a session. This was unfortunate. Session 16 consisted of the completion of the SSHA for EG II.

Session 17

I. EG I completed the SSHA.

II. EG II engaged in a similar type of reflection on the consensus task as did EG I--feelings, leadership, roles, content, process, etc.

Session 18

I. Exploring Career Alternatives was shared. Some members of each group had either forgotten or had not completed their sheet.

II. The leader led a discussion on the advantage of well-defined goals over vague, general wishes.

III. With little time remaining the leader reviewed specific personal information from our sessions available to each S which could be used in making decisions about his future--priorities through time scheduling, predicting GPA goals, Lifeline, Who am I?, Three Greatest Strengths, Exploring Career Alternatives, and the Kuder Occupational Inventory.

IV. Questions remaining for the Ss to answer:

Why am I here in college?

Where am I going?

What should I start doing?

What should I stop doing?

APPENDIX F
TREATMENT PROGRAM

LEARNING SKILLS

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
6-7							
7-8							
8-9							
9-10							
10-11							
11-12							
12-1							
1-2							
2-3							
3-4							
4-5							
5-6							
6-7							
7-8							
8-9							
9-10							
10-11							
11-12							
12							

APPENDIX F

TREATMENT PROGRAM

PREDICTED GPA FOR THIS QUARTER

Name_____ Date _____

*Cumulative grade-point average _____ Last quarter grade-point average___

Major_____

Predicted grades for this quarter

Subject	Grade	Credits	Grade points
	TOTAL		

* PREDICTED GPA _____

* NEW CUMULATIVE GPA _____

How difficult will it be for you to get the grades you have indicated? On the following index circle the line that most nearly describes the degree of difficulty for you.

/ / / / / / / / /

easiest possible to do	fairly easy to accomplish	not too hard, nor too easy	fairly difficult to accomplish	hardly possible to do

* To compute grade point average (G.P.A.) divide number of grade points by number of credits.

LEARNING SKILLS

EXPLORING CAREER ALTERNATIVES

1. List the advantages and disadvantages of several career choices.

	CAREERS		
	First	Second	Third
Advantages:			
Short-range			
Long-range			
Disadvantages:			
Short-range			
Long-range			

2. Take each career choice and rearrange its advantages and disadvantages in order of importance to you.
3. Compare and summarize the influence of the advantages and the disadvantages for all careers you are considering to determine which career you are going to select as a tentative decision.

APPENDIX F

TREATMENT PROGRAM

YAKIMA VALLEY COLLEGE LEARNING SKILLS

"What is a good instructor?"
--a consensus task--

Ranking by group consensus	Your own individual ranking		
_____	_____	1.	He admits his own errors to students openly and easily.
_____	_____	2.	He makes an effort to keep in touch with how students feel about the course and his teaching.
_____	_____	3.	He sets high standards of achievement and does not allow sloppy, careless or inaccurate work to get by.
_____	_____	4.	He allows students (individually and as a group) to make many decisions about the course content, type of exams, etc.
_____	_____	5.	He keeps up to date on the subject matter of any course he teaches.
_____	_____	6.	His students feel free to discuss almost anything with him without fear or hesitation.
_____	_____	7.	The text(s) and resources which he selects usually contribute significantly to the course.
_____	_____	8.	His evaluation procedures (e.g., exams, grading of projects, etc.) adequately discriminate between students on the basis of their ability and knowledge of the subject matter.

Ranking by group consensus	Your own individual ranking		
_____	_____	9.	His lectures are usually very well prepared.
_____	_____	10.	His explanations of the subject matter are clear and easily understood.

Your first task is to rank the items above as you would rank them in order of importance from 1 to 10, one being the most important characteristic for the teacher to possess and ten being the least important characteristic--as far as you are concerned.

Your second task will be to go thru this process as a group, using the column to the left for your group ranking.

Try to avoid "conflict-reducing" techniques such as majority vote, averaging or trading in reaching decisions. Avoid changing your mind only in order to reach agreement and avoid conflict. Support only solutions with which you are able to agree, somewhat at least.

APPENDIX G

LETTER TO CONTROL SUBJECTS REGARDING SSHA

APPENDIX G
LETTER TO CONTROL SUBJECTS REGARDING SSHA

YAKIMA VALLEY COLLEGE
SIXTEENTH AND NOB HILL • YAKIMA, WASHINGTON 98902

May 30, 1972

Dear

A good deal of attention this year at Yakima Valley College has been focused on the development of ways to help students improve their grades in college.

Some of the information needed to help us continue this concern deals with the way students regard their college experience and how they approach their studies.

A number of students have been selected at random to assist us. Would you please come to the Town and Gown Room in the TUB on the day and time indicated below to fill in a survey of student study habits and attitudes? The survey will take 30 - 45 minutes. Bring a pencil, but all other materials will be provided.

Please contact us for a more convenient time should that time not be possible for you.(Call Gl. 3-0356, Ext. 203)

This is an attempt to find out something about Yakima Valley College students, and in no way will this put you in any unfavorable light with anybody. (In fact, you may wish to talk over your answers with an advisor or counselor.)

If there are any questions you would like to ask before you come to fill out the survey, call me at the above number. We greatly appreciate your help!

Yours truly.

Paul E. Borg, Counselor

Friday, June 2 _____ _____ _____
Town and Gown Room

P.S. If none of these times will work, let's set some time aside next week.

APPENDIX H

RAW DATA: AGE AND ACADEMIC RECORD

APPENDIX H

Table 7

Raw Data: Age and Academic Record--Experimental Group

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
1	19	4	25	7	1.48	3.00	+1.52
2	27	8	76	5	2.46	3.00	+0.54
3	37	4	37	6	1.94	3.50	+1.56
4	19	3	22	6	1.31	1.00	-0.31
5	18	3	31	12	2.00	2.66	+0.66
6	21	3	39	15	2.66	3.26	+0.60
7	26	7	143	19	1.92	2.68	+0.76
8	19	3	30	10	2.46	2.90	+0.44
9	30	4	56	5	1.44	1.00	-0.44
10	46	5	73	8	1.17	1.37	+0.20
11	19	7	62	6	1.70	4.00	+2.30
12	20	6	64	17	1.92	2.23	+0.31
13	19	3	17	7	1.64	2.00	+0.36
14	20	6	71	10	1.84	2.00	+0.16
15	21	3	27	19	1.40	1.94	+0.54
16	25	3	28	15	1.67	3.33	+1.66
17	25	4	25	3	1.84	4.00	+2.16
18	21	3	98	14	1.99	2.85	+0.86
19	22	7	79	8	2.15	2.00	-0.15

APPENDIX H

Table 8

Raw Data: Age and Academic Record--Control Group I

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
1	48	3	13	5	1.84	3.00	+1.16
2	50	3	67	15	1.88	1.80	-0.08
3	19	3	20	10	2.35	2.10	-0.25
4	19	3	23	1	0.34	3.00	+2.66
5	26	8	56	15	1.21	2.86	+1.65
6	20	6	62	8	2.07	2.00	-0.07
7	20	2	3	0	0.00	0.00	--
8	19	3	28	10	1.07	2.60	+1.53
9	19	3	30	6	1.80	0.66	-1.14
10	21	3	23	3	1.34	4.00	+2.66
11	19	3	24	10	1.66	3.30	+1.64
12	19	3	38	13	1.84	2.53	+0.69
13	19	3	33	22	1.90	2.04	+0.14
14	23	6	54	17	1.98	3.00	+1.02
15	18	3	31	15	1.61	1.86	+0.25
16	40	6	54	21	1.94	2.81	+0.87
17	26	3	21	14	1.95	2.00	+0.05
18	21	7	77	7	1.98	1.85	-0.13
19	19	2	14	7	1.85	1.42	-0.43
20	19	3	21	17	1.85	2.11	+0.26

Table 8 (Cont'd.)

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
21	19	3	20	10	1.25	3.00	+1.75
22	18	3	17	15	1.94	2.46	+0.52
23	19	2	38	17	1.90	1.11	-0.79
24*	30	6	46	15	2.17	2.33	+0.16
25	19	3	26	9	2.61	0.88	-1.73

* Transferred from EG to CG I due to scheduling complication.

APPENDIX H

Table 9

Raw Data: Age and Academic Record--Control Group II

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
1	19	3	23	5	1.60	2.80	+1.20
2	19	3	26	16	1.96	1.62	-0.34
3*	19	3	23	5	1.39	1.00	-0.39
4	25	6	69	15	1.47	3.00	+1.53
5	20	5	99	15	1.93	1.66	-0.23
6*	20	7	73	16	1.91	2.18	+0.27
7	19	3	18	3	0.61	3.00	+2.39
8	20	6	66	10	3.03	1.50	-1.53
9*	20	3	83	12	1.88	2.58	+0.70
10	20	3	24	10	3.00	2.50	-0.50
11	25	3	45	2	2.35	2.00	-0.35
12*	18	3	25	4	2.08	1.25	-0.83
13	19	3	25	15	1.76	3.20	+1.44
14	21	3	78	15	1.77	2.00	+0.23

* Subject decided to drop program after randomly assigned to EG. Placed in CG II.

APPENDIX H

Table 10

Raw Data: Age and Academic Record--Control Group III

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
1	20	6	72	9	2.87	2.44	-0.43
2	22	7	64	13	2.00	3.00	+1.00
3	19	2	20	13	1.75	2.15	+0.40
4	25	9	87	10	1.72	1.50	-0.22
5	19	3	27	14	2.70	2.42	-0.28
6	24	3	12	1	0.83	2.00	+1.17
7	19	3	21	9	2.42	3.00	+0.58
8	21	8	57	4	1.84	4.00	+2.16
9	22	7	83	18	1.98	2.22	+0.24
10	20	7	81	14	2.17	3.28	+1.11
11	20	3	5	6	0.00	0.50	+0.50
12	27	4	83	10	3.27	2.50	-0.77
13	21	2	86	9	1.22	2.00	+0.78
14	19	3	28	15	2.85	2.40	-0.45
15	19	3	23	14	2.65	2.64	-0.01
16	18	3	26	14	2.30	2.71	+0.41
17	19	3	22	9	2.63	1.88	-0.75
18	25	9	111	13	1.73	1.23	-0.50
19	19	6	50	20	2.40	1.60	-0.80
20	20	6	57	12	2.47	1.50	-0.97

Table 10 (Cont'd.)

Subject	Age	Qtrs.	Cum. credits	Credits Spring Qtr.	Cum. GPA	Spring GPA	Change
21	19	3	28	11	1.71	2.18	+0.47
22	22	9	82	14	1.12	3.85	+2.73
23	18	3	30	20	1.80	2.05	+0.25
24	19	3	18	13	2.33	1.23	-1.10
25	20	6	75	13	1.82	2.61	+0.79
26	21	8	96	8	1.53	1.00	-0.53
27	20	7	57	17	2.19	2.23	+0.04
28	19	2	75	14	1.54	2.00	+0.46

APPENDIX I

RAW SCORES: SSHA

APPENDIX I

Table 11

Raw Scores: SSHA--Experimental Group

Subject	DA	WM	SH	TA	EA	SA	SO
1	8	11	19	33	14	47	66
2	35	31	66	15	32	47	113
3	21	13	34	30	29	59	93
4	12	16	28	11	15	26	54
5	9	19	28	29	24	53	81
6	5	26	31	28	24	52	83
7	39	27	66	36	42	78	144
8	15	5	20	28	18	46	66
9	16	17	33	33	21	54	87
10	26	29	55	46	45	91	146
11	6	8	14	25	12	37	51
12	15	17	32	16	22	38	70
13	5	8	13	30	18	48	61
14	26	25	51	27	20	47	98
15	25	19	44	36	27	63	107
16	26	20	46	35	31	66	112
17	17	15	32	22	29	51	83
18	13	22	35	27	22	49	84
19	9	19	28	25	11	36	64

APPENDIX I

Table 12

Raw Scores: SSHA--Control Group I

Subject	DA	WM	SH	TA	EA	SA	SO
1	37	22	59	41	40	81	140
2	36	28	64	41	40	81	145
3	7	15	22	37	28	65	87
4	7	7	14	8	3	11	25
5	19	14	33	19	16	35	68
6	8	16	24	20	23	43	67
7	3	13	16	18	12	30	46
8	17	18	35	25	20	45	80
9	8	17	25	26	18	44	69
10	14	12	26	34	17	51	77
11	16	20	36	29	23	52	88
12	21	20	41	29	21	50	91
13	14	15	29	36	34	70	99
14	15	23	38	27	26	53	91
15	10	16	26	26	16	42	68
16	29	13	42	18	34	52	94
17	6	10	16	21	19	40	56
18	14	16	30	24	14	38	68
19	10	14	24	36	24	60	84
20	3	6	9	10	12	22	31

Table 12 (Cont'd.)

Subject	DA	WM	SH	TA	EA	SA	SO
21	4	16	20	28	20	48	68
22	16	16	32	24	27	51	83
23	10	17	27	25	22	47	74
24*	19	17	36	14	23	37	73
25	21	31	52	33	24	57	109

*Transferred from EG to CG I due to scheduling complication.

APPENDIX I

Table 13

Raw Scores: SSHA--Control Group II

Subject	DA	WM	SH	TA	EA	SA	SO
1	17	23	40	35	25	60	100
2	8	17	25	26	21	47	72
3*	15	20	35	36	30	66	101
4	32	21	53	33	34	67	120
5	17	22	39	29	23	52	91
6*	6	3	9	29	14	43	52
7	8	4	12	24	13	37	49
8	9	37	46	44	27	71	117
9*	22	24	46	32	24	56	102
10	12	24	36	21	18	39	75
11	3	21	24	36	25	61	85
12*	1	3	4	6	4	10	14
13	8	23	31	30	24	54	85
14	5	26	31	30	9	39	70
M	11.64	19.14	30.79	29.36	20.78	50.14	80.92
SD	8.02	9.31	14.09	8.50	7.99	15.43	27.70

* Subject decided to drop program after randomly assigned to EG. Placed in CG II.

APPENDIX I

Table 14

Raw Scores: SSHA--Control Group III

Subject	DA	WM	SH	TA	EA	SA	SO
1	18	27	45	17	26	43	88
2	18	40	58	44	33	77	135
3	34	33	67	29	37	66	133
4	6	11	17	37	24	61	78
5	17	41	58	34	31	65	123
6	13	14	27	18	18	36	63
7	9	16	25	25	22	47	72
8	15	28	43	40	25	65	108
9	8	16	24	32	24	56	80
10	21	19	40	36	29	65	105
11	17	25	42	27	23	50	92
12	29	39	68	35	39	74	142
13	12	15	27	24	22	46	73
14	6	20	26	35	20	55	81
15	8	28	36	26	24	50	86
16	11	27	38	17	19	36	74
17	18	26	44	12	23	35	79
18	23	16	39	15	19	34	73
19	14	21	35	15	23	38	73
20	14	19	33	28	21	49	82

Table 14 (Cont'd.)

Subject	DA	WM	SH	TA	EA	SA	SO
21	15	24	39	43	21	64	103
22	15	30	45	36	24	60	105
23	19	32	51	30	25	55	106
24	7	13	20	25	18	43	63
25	13	26	39	31	20	51	90
26	11	20	31	38	22	60	91
27	2	4	6	8	7	15	21
28	13	22	35	40	19	59	91
M	14.50	23.28	37.78	28.46	23.50	51.96	89.75
SD	6.77	8.77	14.05	9.66	6.12	13.60	24.70